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It incorporates sections on general knowledge, current affairs, sports, events of the past year and latest ones too. A rich source of authentic and definitive data makes it a compulsory read for students as well as researchers and academics.



PUBLICATIONS DIVISION
MINISTRY OF INFORMATION & BROADCASTING
GOVERNMENT OF INDIA

Price | Rs. 345.00

ISBN 978-81-238-1817-7
PREF. 4 INSD CP 009 2009-10

India 2010



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INDIA 2010

A REFERENCE ANNUAL

Compiled by

RESEARCH, REFERENCE AND TRAINING DIVISION



**PUBLICATIONS DIVISION
MINISTRY OF INFORMATION AND BROADCASTING
GOVERNMENT OF INDIA**

2010 (*Saka 1931*)

54th Edition

© Research, Reference and Training Division



ISBN : 978-81-230-1617-7

REF-ENG-OP-069-2009-10

Price : Rs. 345.00

Published by the Additional Director General (Incharge),
Publications Division,
Ministry of Information and Broadcasting,
Government of India, Sochna Bhawan, CGO Complex
Lodhi Road, New Delhi-110 003

Website : www.publicationsdivision.nic.in

E-mail : dpd@mail.nic.in

Publications Division

Editing :

Dayawanti Srivastava

Nitima Shiv Charan

S. Manjula

R. Anuradha

Cover Design : Asha Saxena

Production : J. K. Chandra

Research, Reference and Training Division

Compilation and Coordination

S. M. Khan

Surendra Kumar

Romi Sharma

Simmi Kumar

Sales Centres : • Sochna Bhavan, C.G.O. Complex, Lodhi Road, **New Delhi-110003** • Hall No. 196, Old Secretariat, **Delhi-110054** • 701, B-Wing, Kendriya Sadan, Belapur, **Navi Mumbai-400614** • 8, Esplanade East, **Kolkata-700069** • 'A' Wing, Rajaji Bhawan, Besant Nagar, **Chennai-600090** • Press Road, Near Govt. Press, **Thiruvananthapuram-695001** • Block 4, 1st Floor, Gruhakalpa Complex, M.G. Road, Nampally **Hyderabad-500001** • 1st Floor, 'F' Wing, Kendriya Sadan, Koramangala, **Bangaluru-560034** • Bihar State Co-operative Bank Building, Ashoka Rajpath, **Patna-800004** • Hall No. 1, 2nd Floor, Kendriya Bhawan, Sector H, Aliganj, **Lucknow-226024** • Ambica Complex, 1st Floor, Paldi, **Ahmedabad-380007** • House No. 7, New Colony, Cheni Kuthi, KKB Road **Guwahati-781003**.

Typesetter : Quick Prints, Naraina, New Delhi-110 028.

Printed at : TAN Prints India Pvt. Ltd. (HR)

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1 Land and the People

"INDIA is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legend and the great grandmother of tradition. Our most valuable and most instructive materials in the history of man are treasured up in India only."—Mark Twain

India has a unique culture and is one of the oldest and greatest civilizations of the world. It stretches from the snow-capped Himalayas in the North to sun drenched coastal villages of the South, the humid tropical forests on the south-west coast, the fertile Brahmaputra valley on its East to the Thar desert in the West. It covers an area of 32,87,263 sq. km. It has achieved all-round socio-economic progress during the last 62 years of its Independence. India has become self-sufficient in agricultural production and is now the tenth industrialised country in the world and the sixth nation to have gone into outer space to conquer nature for the benefit of the people. As the 7th largest country in the world, India stands apart from the rest of Asia, marked off as it is by mountains and the sea, which give the country a distinct geographical entity. Bounded by the Great Himalayas in the north, it stretches southwards and at the Tropic of Cancer, tapers off into the Indian Ocean between the Bay of Bengal on the east and the Arabian Sea on the west.

Lying entirely in the northern hemisphere, the mainland extends between latitudes 8°4' and 37°6' north, longitudes 68°7' and 97°25' east and measures about 3,214 km from north to south between the extreme latitudes and about 2,933 km from east to west between the extreme longitudes. It has a land frontier of about 15,200 km. The total length of the coastline of the mainland, Lakshadweep Islands and Andaman & Nicobar Islands is 7,516.6 km.

PHYSICAL BACKGROUND

Countries having a common border with India are Afghanistan and Pakistan to the north-west, China, Bhutan and Nepal to the north, Myanmar to the east and Bangladesh to the east of West Bengal. Sri Lanka is separated from India by a narrow channel of sea formed by the Palk Strait and the Gulf of Mannar.

PHYSICAL FEATURES

The mainland comprises four regions, namely, the great mountain zone, plains of the Ganga and the Indus, the desert region and the southern peninsula.

The Himalayas comprise three almost parallel ranges interspersed with large plateaus and valleys, some of which, like the Kashmir and Kullu valleys, are fertile, extensive and of great scenic beauty. Some of the highest peaks in the world are found in these ranges. The high altitudes admit travel only to a few passes, notably the Jelep La and Nathu La on the main Indo-Tibet trade route through the Chumbi Valley, north-east of Darjeeling and Shipki La in the Satluj valley, north-east of Kalpa (Kinnaur). The mountain wall extends over a distance of about 2,400 km with a varying depth of 240 to 320 km. In the east, between India and Myanmar and India and Bangladesh, hill ranges are much lower. Garo, Khasi, Jaintia and Naga Hills,

¹ Provisional as on 31 March 1982

running almost east-west, join the chain to Mizo and Rkhine Hills running north-south.

The plains of the Ganga and the Indus, about 2,400 km long and 240 to 320 km broad, are formed by basins of three distinct river systems - the Indus, the Ganga and the Brahmaputra. They are one of the world's greatest stretches of flat alluvium and also one of the most densely populated areas on the earth. Between the Yamuna at Delhi and the Bay of Bengal, nearly 1,600 km away, there is a drop of only 200 metres in elevation.

The desert region can be divided into two parts - the great desert and the little desert. The great desert extends from the edge of the Rann of Kuchch beyond the Luni river northward. The whole of the Rajasthan-Sind frontier runs through this. The little desert extends from the Luni between Jaisalmer and Jodhpur up to the northern wastes. Between the great and the little deserts lies a zone of absolutely sterile country, consisting of rocky land, cut up by limestone ridges.

The Peninsular Plateau is marked off from the plains of the Ganga and the Indus by a mass of mountain and hill ranges varying from 460 to 1,220 metres in height. Prominent among these are the Aravalli, Vindhya, Satpura, Maikala and Ajanta. The Peninsula is flanked on the one side by the Eastern Ghats where average elevation is about 610 metres and on the other by the Western Ghats where it is generally from 915 to 1,220 metres, rising in places to over 2,440 metres. Between the Western Ghats and the Arabian Sea lies a narrow coastal strip, while between Eastern Ghats and the Bay of Bengal there is a broader coastal area. The southern point of plateau is formed by the Nilgiri Hills where the Eastern and the Western Ghats meet. The Cardamom Hills lying beyond may be regarded as a continuation of the Western Ghats.

GEOLOGICAL STRUCTURE

The geological regions broadly follow the physical features and may be grouped into three regions: the Himalayas and their associated group of mountains, the Indo-Ganga Plain and the Peninsular Shield.

The Himalayan mountain belt to the north and the Naga-Lushai mountain in the east, are the regions of mountain-building movement. Most of this area, now presenting some of the most magnificent mountain scenery in the world, was under marine conditions about 60 crore years ago. In a series of mountain-building movements commencing about seven crore years ago, the sediments and the basement rocks rose to great heights. The weathering and erosive agencies worked on these to produce the relief seen today. The Indo-Ganga plains are a great alluvial tract that separate the Himalayas in the north from the Peninsula in the south.

The Peninsula is a region of relative stability and occasional seismic disturbances. Highly metamorphosed rocks of the earliest periods, dating back as far as 380 crore years, occur in the area; the rest being covered by the coastal-bearing Gondwana formations, lava flows belonging to the Deccan Trap formation and younger sediments.

RIVER SYSTEMS

The river systems of India can be classified into four groups viz., (i) Himalayan rivers, (ii) Deccan rivers, (iii) Coastal rivers, and (iv) Rivers of the inland drainage basin. The Himalayan rivers are formed by melting snow and glaciers and therefore, continuously flow throughout the year. During the monsoon months, Himalayas

receive very heavy rainfall and rivers swell, causing frequent floods. The Deccan rivers on the other hand are rainfed and therefore fluctuate in volume. Many of these are non-perennial. The Coastal streams, especially on the west coast are short in length and have limited catchment areas. Most of them are non-perennial. The streams of inland drainage basin of western Rajasthan are few and far apart. Most of them are of an ephemeral character.

The main Himalayan river systems are those of the Indus and the Ganga-Brahmaputra-Meghna system. The Indus, which is one of the great rivers of the world, rises near Mansarovar in Tibet and flows through India and thereafter through Pakistan and finally falls in the Arabian sea near Karachi. Its important tributaries flowing in Indian territory are the Sutlej (originating in Tibet), the Beas, the Ravi, the Chenab and the Jhelum. The Ganga-Brahmaputra-Meghna is another important system of which the principal sub-basins are those of Bhagirathi and the Alaknanda, which join at Dev Prayag to form the Ganga. It traverses through Uttarakhand, Uttar Pradesh, Bihar and West Bengal states. Below Rajmahal hills, the Bhagirathi, which used to be the main course in the past, takes off, while the Padma continues eastward and enters Bangladesh. The Yamuna, the Ramganga, the Ghaghra, the Gandak, the Kosi, the Mahananda and the Sone are the important tributaries of the Ganga. Rivers Chambal and Betwa are the important sub-tributaries, which join Yamuna before it meets the Ganga. The Padma and the Brahmaputra join at Bangladesh and continue to flow as the Padma or Ganga. The Brahmaputra rises in Tibet, where it is known as Tsangpo and runs a long distance till it crosses over into India in Arunachal Pradesh under the name of Dihang. Near Passighat, the Debang and Lohit join the river Brahmaputra and the combined river runs all along the Assam in a narrow valley. It crosses into Bangladesh downstream of Dhubri.

The principal tributaries of Brahmaputra in India are the Subansiri, Jia Bhareli, Dhansiri, Puthimari, Pagladiya and the Manas. The Brahmaputra in Bangladesh fed by Tista etc., finally falls into Ganga. The Barak river, the Head stream of Meghna, rises in the hills in Manipur. The important tributaries of the river are Makku, Trang, Tuivai, Jiri, Sonai, Rukni, Katakhal, Dhaleswari, Langachini, Maduva and Jatinga. Barak continues in Bangladesh till the combined Ganga—Brahmaputra join it near Bhairab Bazar.

In the Deccan region, most of the major river systems flowing generally in east direction fall into Bay of Bengal. The major east flowing rivers are Godavari, Krishna, Cauvery, Mahanadi, etc. Narmada and Tapi are major West flowing rivers.

The Godavari in the southern Peninsula has the second largest river basin covering 10 per cent of the area of India. Next to it is the Krishna basin in the region, while the Mahanadi has the third largest basin. The basin of the Narmada in the uplands of the Deccan, flowing to the Arabian Sea and of the Kaveri in the south, falling into the Bay of Bengal are about the same size, though with different character and shape.

There are numerous coastal rivers, which are comparatively small. While only handful of such rivers drain into the sea near the delta of east coast, there are as many as 600 such rivers on the west coast.

A few rivers in Rajasthan do not drain into the sea. They drain into salt lakes and get lost in sand with no outlet to sea. Besides these, there are the desert rivers which flow for some distance and are lost in the desert. These are Luni, Machhu, Rupen, Saraswati, Banas, Ghaggar and others.

CLIMATE

The climate of India may be broadly described as tropical monsoon type. There are four seasons: (i) winter (January-February), (ii) hot weather summer (March-May); (iii) rainy south-western monsoon (June-September) and (iv) post-monsoon, also known as north-east monsoon in the southern Peninsula (October-December). India's climate is affected by two seasonal winds - the north-east monsoon and the south-west monsoon. The north-east monsoon commonly known as winter monsoon blows from land to sea whereas south-west monsoon known as summer monsoon blows from sea to land after crossing the Indian Ocean, the Arabian Sea and the Bay of Bengal. The south-west monsoon brings most of the rainfall during the year in the country.

FLORA

With a wide range of climatic conditions from the torrid to the arctic, India has a rich and varied vegetation, which only a few countries of comparable size possess. India can be divided into eight distinct floristic regions, namely, the western Himalayas, the eastern Himalayas, Assam, the Indus plain, the Ganga plain, the Deccan, Malabar and the Andamans.

The Western Himalayan region extends from Kashmir to Kumaon. Its temperate zone is rich in forests of *chir*, pine, other conifers and broad-leaved temperate trees. Higher up, forests of *deodar*, blue pine, spruce and silver fir occur. The alpine zone extends from the upper limit of the temperate zone of about 4,750 metres or even higher. The characteristic trees of this zone are high-level silver fir, silver birch and junipers. The eastern Himalayan region extends from Sikkim eastwards and embraces Darjeeling, Kurseong and the adjacent tract. The temperate zone has forests of oaks, laurels, maples, rhododendrons, alder and birch. Many conifers, junipers and dwarf willows also grow here. The Assam region comprises the Brahmaputra and the Surma valleys with evergreen forests, occasional thick clumps of bamboos and tall grasses. The Indus plain region comprises the plains of Punjab, western Rajasthan and northern Gujarat. It is dry, hot and supports natural vegetation. The Ganga plain region covers the area which is alluvial plain and is under cultivation for wheat, sugarcane and rice. Only small areas support forests of widely differing types. The Deccan region comprises the entire table land of the Indian Peninsula and supports vegetation of various kinds from scrub jungles to mixed deciduous forests. The Malabar region covers the excessively humid belt of mountain country parallel to the west coast of the Peninsula. Besides being rich in forest vegetation, this region produces important commercial crops, such as coconut, betelnut, pepper, coffee, tea, rubber and cashewnut. The Andaman region abounds in evergreen, mangrove, beach and diluvial forests. The Himalayan region extending from Kashmir to Arunachal Pradesh through Nepal, Sikkim, Bhutan, Meghalaya and Nagaland and the Deccan Peninsula is rich in endemic flora, with a large number of plants which are not found elsewhere.

India is rich in flora. Available data place India in the tenth position in the world and fourth in Asia in plant diversity. From about 70 per cent geographical area surveyed so far, over 46,000 species of plants have been described by the Botanical Survey of India (BSI), Kolkata. The vascular flora, which forms the conspicuous vegetation cover, comprises 15,000 species. The flora of the country is being studied by BSI and its nine circle/field offices located throughout the country along with certain universities and research institutions.

Ethno-botanical study deals with the utilisation of plants and plant products by ethnic races. A scientific study of such plants has been made by BSI. A number of detailed ethno-botanical explorations have been conducted in different tribal areas of the country. More than 800 plant species of ethno-botanical interest have been collected and identified at different centres.

Owing to destruction of forests for agricultural, industrial and urban development, several Indian plants are facing extinction. About 1,336 plant species are considered vulnerable and endangered. About 20 species of higher plants are categorised as possibly extinct as these have not been sighted during the last 6-10 decades. BSI brings out an inventory of endangered plants in the form of a publication titled *Red Data Book*.

FAUNA

The Zoological Survey of India (ZSI), with its headquarters in Kolkata and 16 regional stations is responsible for surveying the faunal resources of India. Possessing a tremendous diversity of climate and physical conditions, India has great variety of fauna numbering over 89,000 species. Of these, protista number 2,577, mollusca 5,070, anthropoda 68,389, amphibia 209, mammalia 390, reptilia 456, members of protochordata 119, pisces 2,546, aves 1,232 and other invertebrates 8,329.

The mammals include the majestic elephant, the *gaur* or Indian bison—the largest of existing bovines, the great Indian rhinoceros, the gigantic wild sheep of the Himalayas, the swamp deer, the thamin spotted deer, *nilgai*, the four-horned antelope, the Indian antelope or black-buck – the only representatives of these genera. Among the cats, the tiger and lion are the most magnificent of all; other splendid creatures such as the clouded leopard, the snow leopard, the marbled cat, etc., are also found. Many other species of mammals are remarkable for their beauty, colouring, grace and uniqueness. Several birds, like pheasants, geese, ducks, *myanahs*, parakeets, pigeons, cranes, hornbills and sunbirds inhabit forests and wetlands.

Rivers and lakes harbour crocodiles and *gharials*, the latter being the only representative of crocodylian order in the world. The salt water crocodile is found along the eastern coast and in the Andaman and Nicobar Islands. A project for breeding crocodiles which started in 1974, has been instrumental in saving the crocodile from extinction.

The great Himalayan range has a very interesting variety of fauna that includes the wild sheep and goats, markhor, ibex, shrew and tapir. The panda and the snow leopard are found in the upper reaches of the mountains.

Depletion of vegetative cover due to expansion of agriculture, habitat destruction, over-exploitation, pollution, introduction of toxic imbalance in community structure, epidemics, floods, droughts and cyclones, contribute to the loss of flora and fauna. More than 39 species of mammals, 72 species of birds, 17 species of reptiles, three species of amphibians, two species of fish and a large number of butterflies, moth and beetles are considered vulnerable and endangered.

DEMOGRAPHIC BACKGROUND

CENSUS

The Census of India 2001, is historic and epoch making, being the first census of the twenty-first century and the third millennium. It reveals benchmark data on the state of abundant human resources available in the country, their demography, culture

and economic structure at a juncture, which marks a centennial and millennial transition.

The population enumeration of 2001 census was undertaken during 9-28 February 2001 with a revisional round from 1-5 March 2001. The census moment, the referral time at which the snapshot of the population is taken was 00.00 hours of 1 March 2001. Until the 1991 Census, the sunrise of 1 March was taken to be the census moment. The houseless population, as has been the usual practice, was enumerated on the night of 28 February 2001.

POPULATION

India's population as on 1 March 2001 stood at 1,028 million (532.1 million males and 496.4 million females). India accounts for a meagre 2.4 per cent of the world surface area of 135.79 million sq km. Yet, it supports and sustains a whopping 16.7 per cent of the world population.

The population of India, which at the turn of the twentieth century was around 238.4 million, increased to reach 1,028 million at the dawn of the twenty-first century. The population of India as recorded at each decennial census from 1901 has grown steadily except for a decrease during 1911-21. Decadal growth of population from 1901 is shown in table 1.1.

Table 1.2 gives the selected indicators of population growth in different States and Union Territories. The per cent decadal growth of population in the inter-censal period 1991-2001 varies from a low of 9.43 in Kerala to a very high 64.53 in Nagaland. Delhi with 47.02 per cent, Chandigarh with 40.28 per cent and Sikkim with 33.06 per cent registered very high growth rates. In addition to Kerala, Tamilnadu and Andhra Pradesh registered low growth rates during 1991-2001.

POPULATION DENSITY

One of the important indices of population concentration is the density of population. It is defined as the number of persons per sq km. The population density of India in 2001 was 324 per sq km.

The density of population was increased in all States and Union Territories between 1991 and 2001. Among major states, West Bengal is still the most thickly populated state with a population density of 903 in 2001. Bihar is now the second highest densely populated state pushing Kerala to the third place. Ranking of the States and Union Territories by density is shown in table 1.3.

SEX RATIO

Sex ratio, defined as the number of females per thousand males is an important social indicator to measure the extent of prevailing equality between males and females in a society at a given point of time. The sex ratio in the country had always remained unfavourable to females. It was 972 at the beginning of the 20th century and thereafter showed continuous decline until 1941. The sex ratio from 1901-2001 is given in table 1.4.

LITERACY

For the purpose of census 2001, a person aged seven and above, who can both read and write with understanding in any language, is treated as literate. A person, who can only read but cannot write, is not literate. In the censuses prior to 1991, children below five years of age were necessarily treated as illiterates.

TABLE 1.1: POPULATION 1901-2001

Census years	Population	Decadal Growth		Change in decadal growth		Per cent	Average annual exponential growth rate (per cent)	Progressive growth rate over 1901 (per cent)
		Absolute	Per cent	Absolute	Per cent			
1	2	3	4	5	6	7	8	
1901	23,83,96,327	-	-	-	-	-	-	-
1911	25,20,93,390	1,36,97,063	5.75	-	-	0.56	5.75	
1921	25,13,21,213	-7,72,177	-0.31	-1,44,69,240	-6.05	-0.03	5.42	
1931	27,89,77,238	2,76,56,025	11.00	2,84,28,202	11.31	1.04	17.02	
1941	31,86,60,580	3,96,83,342	14.22	1,20,27,317	3.22	1.33	33.67	
1951 ¹	36,10,88,090	4,24,27,510	13.31	27,44,168	-0.91	1.25	51.47	
1961 ¹	43,92,34,771	7,81,46,681	21.64	3,57,19,171	8.33	1.96	84.25	
1971	54,81,59,652	10,89,24,881	24.80	3,07,78,200	3.16	2.22	129.94	
1981 ²	68,33,29,097	13,51,69,445	24.66	2,62,44,564	-0.14	2.20	186.64	
1991 ³	84,64,21,039	16,30,91,942	23.87	2,79,22,497	-0.79	2.14	255.05	
2001 ⁴	1,02,87,37,436	18,23,16,397	21.54	1,92,24,455	-2.33	1.95	331.47	

Notes :

1. In working out 'Decadal Growth' and 'Percentage Decadal Growth' for India 1941-51 and 1951-61 the population of Tuensang district for 1951 (7,025) and the population of Tuensang (83,501) and Mon (5,774) districts for 1961 Census of Nagaland state have not been taken into account as the areas went in for census for the first time in 1951 and the same are not comparable.
2. The 1981 Census could not be held owing to disturbances in Assam. Hence the population figures for 1981 of Assam have been worked out by 'interpolation'.
3. The 1991 Census could not be held owing to disturbances in Jammu and Kashmir. Hence the population figures for 1991 of Jammu and Kashmir have been worked out by 'interpolation'.
4. The population figures of 2001 includes estimated figures for those of the three sub-divisions, viz., Mao Maram, Paomata and Pural of Senapati district of Manipur as census result of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

TABLE 1.2.: TOTAL POPULATION AND POPULATION GROWTH DURING 1991-2001,
INDIA/STATE/UNION TERRITORY

Sl. No.	India State/Union territory	Total Population					1991-2001				Population growth
		1991		2001		1991-2001		8	9		
		Person	Males	Females	Person	Males	Females				
1	2	3	4	5	6	7	8	9			
	India**	846,421,039	439,358,440	407,062,599	1,028,737,436	532,223,090	496,514,346	21.54			
1.	Jammu and Kashmir*	7,837,051	4,142,082	3,694,969	10,143,700	5,360,926	4,782,774	29.43			
2.	Himachal Pradesh	5,170,877	2,617,467	2,553,410	6,077,900	3,087,940	2,989,960	17.54			
3.	Punjab	20,281,969	10,778,034	9,503,935	24,358,999	12,985,045	11,373,954	20.10			
4.	Chandigarh	642,015	358,614	283,401	900,635	506,938	393,697	40.28			
5.	Uttarakhand	7,050,634	3,640,895	3,409,739	8,489,349	4,325,924	4,163,425	20.41			
6.	Haryana	16,463,648	8,827,474	7,636,174	21,144,564	11,363,953	9,780,611	28.43			
7.	Delhi	9,420,644	5,155,512	4,265,132	13,850,507	7,607,234	6,243,273	47.02			
8.	Rajasthan	44,005,990	23,042,780	20,963,210	56,507,188	29,420,011	27,087,177	28.41			
9.	Uttar Pradesh	132,061,653	70,396,062	61,665,591	166,197,921	87,565,369	78,632,552	25.85			
10.	Bihar	64,530,554	33,838,238	30,692,316	82,998,509	43,243,795	39,754,714	28.62			
11.	Sikkim	406,457	216,427	190,030	540,851	288,484	252,367	33.06			
12.	Arunachal Pradesh	864,558	465,004	399,554	1,097,968	579,941	518,027	27.00			
13.	Nagaland	1,209,546	641,282	568,264	1,990,036	1,047,141	942,895	64.53			
14.	Manipur**	1,837,149	938,359	898,790	2,293,896	1,161,952	1,131,944	24.86			
15.	Mizoram	689,756	358,978	330,778	888,573	459,109	429,464	28.82			
16.	Tripura	2,757,205	1,417,950	1,339,275	3,199,203	1,642,225	1,556,978	16.03			
17.	Meghalaya	1,774,778	907,687	867,091	2,318,822	1,176,087	1,142,735	30.65			
18.	Assam	22,414,322	11,657,989	10,756,333	26,655,528	13,777,037	12,878,491	18.92			
19.	West Bengal	68,077,965	35,510,633	32,567,332	80,176,197	41,465,985	38,710,212	17.77			

1	2	3	4	5	6	7	8	9
20.	Jharkhand	21,843,911	11,363,853	10,480,058	26,945,829	13,885,037	13,060,792	23,336
21.	Orissa	31,659,736	16,064,146	15,595,590	36,804,660	18,660,570	18,144,090	16,25
22.	Chhattisgarh	17,614,928	8,872,620	8,742,308	20,833,803	10,474,218	10,369,585	18,27
23.	Madhya Pradesh	48,566,242	25,394,673	23,171,569	60,348,023	31,443,652	28,904,371	24,26
24.	Gujarat	41,309,582	21,355,209	19,954,373	50,671,017	26,385,577	24,285,440	22,66
25.	Daman and Diu	101,586	51,595	49,991	158,204	92,512	65,692	55,73
26.	Dadra and Nagar Haveli	138,477	70,953	67,524	220,490	121,666	98,824	59,22
27.	Maharashtra	78,937,187	40,825,618	38,111,569	96,878,627	50,400,596	46,478,031	22,73
28.	Andhra Pradesh	66,508,008	33,724,581	32,783,427	76,210,007	38,527,413	37,682,594	14,59
29.	Karnataka	44,977,201	22,951,917	22,025,284	52,850,562	26,898,918	25,951,644	17,51
30.	Goa	1,169,793	594,790	575,003	1,347,668	687,248	660,420	15,21
31.	Lakshadweep	51,707	26,618	25,089	60,650	31,131	29,519	17,30
32.	Kerala	29,098,518	14,288,995	14,809,523	31,841,374	15,468,614	16,372,760	9,43
33.	Tamilnadu	55,858,946	28,298,975	27,559,971	62,405,679	31,400,909	31,004,770	11,72
34.	Puducherry	807,785	408,081	399,704	974,345	486,961	487,384	20,62
35.	Andaman and Nicobar Islands	280,661	154,369	126,292	356,152	192,972	163,180	26,90

Note : * The 1991 census figures of Jammu & Kashmir are interpolated as no census was conducted there due to disturbances.

** India and Manipur figures include estimated figures for those of the three sub-divisions viz., Mao Maram, Paomata and Puru of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

Source : Office of the Registrar General, India

The results of 2001 census reveal that there has been an increase in literacy in the country. The literacy rate in the country is 64.84 per cent, 75.26 for males and 53.67 for females. The steady improvement in literacy is apparent from the table 1.5.

Kerala retained its position by being on top with a 90.86 per cent literacy rate, closely followed by Mizoram (88.80 per cent) and Lakshadweep (86.66 per cent). Bihar with a literacy rate of 47.00 per cent ranks last in the country preceded by Jharkhand (53.56 per cent) and Jammu and Kashmir (55.52 per cent). Kerala also occupies the top spot in the country both in male literacy with 94.24 per cent and female literacy with 87.72 per cent. On the contrary, Bihar has recorded the lowest literacy rates both in case of males (59.68 per cent) and females (33.12 per cent). Table 1.6 shows the literacy rate among persons, male and female in States and UTs, and their ranking.

TABLE 1.3 : STATES AND UNION TERRITORIES BY DENSITY

Rank in 2001	State / Union territories	Density		Rank in 1991
		2001	1991	
1	2	3	4	5
1.	Delhi	9,340	6,352	1
2.	Chandigarh	7,900	5,632	2
3.	Puducherry	2,034	1,683	5
4.	Lakshadweep	1,895	1,616	3
5.	Daman and Diu	1,413	907	4
6.	West Bengal	903	767	6
7.	Bihar	881	685	7
8.	Kerala	819	749	9
9.	Uttar Pradesh	690	548	8
10.	Punjab	484	403	10
11.	Tamilnadu	480	429	11
12.	Haryana	478	372	12
13.	Dadra and Nagar Haveli	449	282	14
14.	Goa	364	316	13
15.	Assam	340	286	15
16.	Jharkhand	338	274	17
17.	Maharashtra	315	257	16
18.	Tripura	305	263	18
19.	Andhra Pradesh	277	242	19
20.	Karnataka	276	235	20
21.	Gujarat	258	211	21
22.	Orissa	236	203	22
23.	Madhya Pradesh	196	158	23
24.	Rajasthan	165	129	24
25.	Uttarakhand	159	133	25
26.	Chhattisgarh	154	130	26
27.	Nagaland	120	73	27
28.	Himachal Pradesh	109	93	28
29.	Manipur*	111	82	30
30.	Meghalaya	103	79	29
31.	Jammu and Kashmir	100	77	31
32.	Sikkim	76	57	32
33.	Andaman and Nicobar Islands	43	34	33

34.	Mizoram	42	33	34
35.	Arunachal Pradesh	13	10	35

Notes :

- * Manipur figures include estimated figures for those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapti district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

TABLE 1.4 : SEX RATIO : 1901-2001

Census Year	Sex Ratio (females per 1,000 males)
1901	97.2
1911	96.4
1921	95.5
1931	95.0
1941	94.5
1951	94.6
1961	94.1
1971	93.0
1981	93.4
1991	92.6
2001	93.3

Notes :

1. For 1981, interpolated figures for Assam have been used.
2. For 1991, interpolated figures based on final population of 2001 census for Jammu and Kashmir have been used.
3. India figures for 2001 census exclude those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as population Census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

TABLE 1.5 : LITERACY RATE : 1951-2001

Census Year	Persons	Males	Females
1951	18.33	27.16	8.86
1961	28.3	40.40	15.35
1971	34.45	45.96	21.97
1981	43.57	56.38	29.76
1991	52.21	64.13	39.29
2001	64.84	75.26	53.67

Notes :

1. Literacy rates for 1951, 1961 and 1971 Censuses relates to population aged five years and above. The rates for the 1981, 1991 and 2001 Censuses relate to the population aged seven years and above.
2. The 1981 Literacy rates exclude Assam where the 1981 Census could not be conducted.
3. The 1991 Literacy rates exclude Jammu and Kashmir where the 1991 Census could not be conducted due to disturbed conditions.

TABLE 1.6: RANKING OF STATES/UTS BY LITERACY RATE AMONG PERSONS, MALES AND FEMALES, 2001 CENSUS

Rank	State/ Union Territories	Persons		Males		Females	
		Literacy Rate	State/ Union Territories	Literacy Rate	State/ Union Territories	Literacy Rate	State/ Union Territories
1	2	3	4	5	6	7	
1.	Kerala	90.86	Kerala	94.24	Kerala	87.72	
2.	Mizoram	88.80	Lakshadweep	92.53	Mizoram	86.75	
3.	Lakshadweep	86.66	Mizoram	90.72	Lakshadweep	80.47	
4.	Goa	82.01	Puducherry	88.62	Chandigarh	76.47	
5.	Chandigarh	81.94	Goa	88.42	Goa	75.37	
6.	Delhi	81.67	Delhi	87.33	Andaman & Nicobar Islands	75.24	
7.	Andaman and Nicobar Islands	81.30	Daman and Diu	86.76	Delhi	74.71	
8.	Puducherry	81.24	Andaman and Nicobar Islands	86.33	Puducherry	73.90	
9.	Daman and Diu	78.18	Chandigarh	86.14	Himachal Pradesh	67.42	
10.	Maharashtra	76.88	Maharashtra	85.97	Maharashtra	67.03	
11.	Himachal Pradesh	76.48	Himachal Pradesh	85.35	Daman and Diu	65.61	
12.	Tamilnadu	73.45	Uttarakhand	83.28	Tripura	64.91	
13.	Tripura	73.19	Tamilnadu	82.42	Tamilnadu	64.33	
14.	Uttarakhand	71.62	Tripura	81.02	Punjab	63.36	
15.	Manipur ¹	70.53	Manipur ¹	80.33	Nagaland	61.46	
16.	Punjab	69.65	Gujarat	79.66	Manipur ¹	60.53	
17.	Gujarat	69.14	Haryana	78.49	Sikkim	60.40	
18.	Sikkim	68.81	Chhattisgarh	77.38	Uttarakhand	59.63	
19.	West Bengal	68.64	West Bengal	77.02	West Bengal	59.61	
20.	Haryana	67.91	Karnataka	76.10	Meghalaya	59.61	

1	2	3	4	5	6	7
21.	Karnataka	66.64	Madhya Pradesh	76.06	Gujarat	57.80
22.	Nagaland	66.59	Sikkim	76.04	Karnataka	56.87
23.	Chhattisgarh	64.66	Rajasthan	75.70	Haryana	55.73
24.	Madhya Pradesh	63.74	Orissa	75.35	Assam	54.61
25.	Assam	63.25	Punjab	75.23	Chhattisgarh	51.85
26.	Orissa	63.08	Assam	71.28	Orissa	50.51
27.	Meghalaya	62.56	Dadra and Nagar Haveli	71.18	Andhra Pradesh	50.43
28.	Andhra Pradesh	60.47	Nagaland	71.16	Madhya Pradesh	50.29
29.	Rajasthan	60.41	Andhra Pradesh	70.32	Rajasthan	43.85
30.	Dadra and Nagar Haveli	57.63	Uttar Pradesh	68.82	Arunachal Pradesh	43.53
31.	Uttar Pradesh	56.27	Jharkhand	67.30	Jammu and Kashmir	43.00
32.	Jammu and Kashmir	55.52	Jammu and Kashmir	66.60	Uttar Pradesh	42.22
33.	Arunachal Pradesh	54.34	Meghalaya	65.43	Dadra and Nagar Haveli	40.23
34.	Jharkhand	53.56	Arunachal Pradesh	63.83	Jharkhand	38.87
35.	Bihar	47.00	Bihar	59.68	Bihar	33.12

Notes :

- 1 Manipur figures exclude those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.
Literacy rates relate to the population aged seven years and above.

TABLE 1.7 : TOTAL POPULATION AND PERCENTAGE OF
SCHEDULED CASTES AND SCHEDULED TRIBES: 2001 CENSUS

Sl. No.	India/State/ Union Territory	Total Population (‘000)	Scheduled Population (‘000)	Caste Percentage of total population	Scheduled Population (‘000)	Tribe Percentage of total population
1	2	3	4	5	6	7
	INDIA¹	1,028,610	166,636	16.20	84,326	8.20
1.	Jammu and Kashmir	10,144	770	7.59	1,106	10.90
2.	Himachal Pradesh	6,078	1,502	24.72	245	4.02
3.	Punjab	24,359	7,029	28.85	0	0.00
4.	Chandigarh	901	158	17.50	0	0.00
5.	Uttarakhand	8,489	1,517	17.87	256	3.02
6.	Haryana	21,145	4,091	19.35	0	0.00
7.	Delhi	13,851	2,343	16.92	0	0.00
8.	Rajasthan	56,507	9,694	17.16	7,098	12.56
9.	Uttar Pradesh	166,198	35,148	21.15	108	0.06
10.	Bihar	82,999	13,049	15.72	758	0.91
11.	Sikkim	541	27	5.02	111	20.60
12.	Arunachal Pradesh	1,098	6	0.56	705	64.22
13.	Nagaland	1,990	0	0.00	1,774	89.15
14.	Manipur ¹	2,167	60	2.77	741	34.20
15.	Mizoram	889	0	0.03	839	94.46
16.	Tripura	3,199	556	17.37	993	31.05
17.	Meghalaya	2,319	11	0.48	1,993	85.94
18.	Assam	26,656	1,826	6.85	3,309	12.41
19.	West Bengal	80,176	18,453	23.02	4,407	5.50
20.	Jharkhand	26,946	3,189	11.84	7,087	26.30
21.	Orissa	36,805	6,082	16.53	8,145	22.13
22.	Chhattisgarh	20,834	2,419	11.61	6,617	31.76
23.	Madhya Pradesh	60,348	9,155	15.17	12,233	20.27
24.	Gujarat	50,671	3,593	7.09	7,481	14.76
25.	Daman and Diu	158	5	3.06	14	8.85
26.	Dadra and Nagar Haveli	220	4	1.86	137	62.24
27.	Maharashtra	96,879	9,882	10.20	8,577	8.85
28.	Andhra Pradesh	76,210	12,339	16.19	5,024	6.59
29.	Karnataka	52,851	8,564	16.20	3,464	6.55
30.	Goa	1,348	24	1.77	1	0.04
31.	Lakshadweep	61	0	0.00	57	94.51
32.	Kerala	31,841	3,124	9.81	364	1.14
33.	Tamilnadu	62,406	11,858	19.00	651	1.04
34.	Puducherry	974	158	16.19	0	0.00
35.	Andaman & Nicobar Islands	356	0	0.00	29	8.27

Note :

1. India and Manipur figures exclude those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

TABLE 1.8: RURAL AND URBAN POPULATION

Census Year	Population (Million)		Percentage of total population	
	Rural	Urban	Rural	Urban
1	2	3	4	5
1901	213	26	89.2	10.8
1911	226	26	89.7	10.3
1921	223	28	88.8	11.2
1931	246	33	88.0	12.0
1941	275	44	86.1	13.9
1951	299	62	82.7	17.3
1961	360	79	82.0	18.0
1971	439	109	80.1	19.9
1981	524	159	76.7	23.3
1991	629	218	74.3	25.7
2001	743	286	72.2	27.8

Note :

1. India and Manipur figures are final and include estimated figures for those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.
2. The 1991 Census could not be held owing to disturbed conditions prevailing in Jammu and Kashmir. Hence the population figures for 1991 of Jammu and Kashmir have been worked out by 'interpolation' on the basis of 2001 final population.
3. The 1981 census could not be held in Assam. The figures for 1981 for Assam have been worked out by interpolation.

TABLE 1.9: POPULATION BY CLASS OF TOWN, INDIA-2001 CENSUS

(in 000's)

Class of Town		2001
I	1,00,000 and above	178,224
II	50,000-99,999	34,452
III	20,000-49,999	42,119
IV	10,000-19,999	22,614
V	5,000-9,999	7,890
VI	Less than 5,000	821
All Classes		286,120
Urban population as percentage to total population		27.82

TABLE 1.10 : DISTRIBUTION OF VILLAGES ACCORDING TO POPULATION 2001 CENSUS AND TOTAL NUMBER OF INHABITED VILLAGES

Sl. No.	States/UTs	10000 and above	5,000 9,999	2,000-4,999	1,000-1,999	500-999	200-499	Less than 200	Total No. of inhabited villages.
1	2	3	4	5	6	7	8	9	10
1.	Jammu and Kashmir*	10	135	886	1,546	1,664	1,499	677	6,417
2.	Himachal Pradesh	1	8	174	660	2,094	5,645	8,913	17,495
3.	Punjab	26	273	1,987	3,405	3,378	2,130	1,079	12,278
4.	Chandigarh	2	6	7	2	2	1	3	23
5.	Uttarakhand	13	69	350	752	1,890	4,912	7,775	15,761
6.	Haryana	97	504	2,015	2,091	1,205	582	270	6,764
7.	Delhi	24	26	60	29	9	4	6	158
8.	Rajasthan	100	661	4,660	8,777	11,058	9,151	5,346	39,753
9.	Uttar Pradesh	296	2,266	16,573	27,218	25,614	16,879	9,096	97,942
10.	Bihar	630	2,306	8,571	10,113	8,498	5,662	3,235	39,015
11.	Sikkim	0	9	40	120	157	82	42	450
12.	Arunachal Pradesh	0	3	26	126	266	682	2,760	3,863
13.	Nagaland	5	50	171	253	372	323	104	1,278
14.	Manipur	6	28	157	202	326	731	749	2,199
15.	Mizoram	1	1	31	76	198	258	142	707
16.	Tripura	28	106	370	188	99	55	12	858
17.	Meghalaya	0	4	60	185	690	2,090	2,753	5,782
18.	Assam	19	185	2,495	5,439	6,233	6,018	4,735	25,124
19.	West Bengal	354	1,526	6,819	8,490	8,930	7,553	4,273	37,945
20.	Jharkhand	28	174	1,642	4,173	7,442	9,234	6,661	29,354
21.	Orissa	5	180	2,404	6,814	11,428	14,054	12,644	47,529

1	2	3	4	5	6	7	8	9	10
22.	Chhattisgarh	6	80	1,264	4,185	6,465	5,498	2,246	19,744
23.	Madhya Pradesh	19	362	3,551	10,434	16,277	14,330	7,144	52,117
24.	Gujarat	153	807	4,154	5,615	4,262	2,297	778	18,066
25.	Daman and Diu	2	5	5	4	5	2	0	23
26.	Dadra and Nagar Haveli	0	7	28	15	12	7	1	70
27.	Maharashtra	262	1,018	5,862	11,570	12,074	7,367	2,942	41,095
28.	Andhra Pradesh	498	1,788	6,915	6,475	4,467	3,402	3,068	26,613
29.	Karnataka	131	703	4,024	6,378	7,367	5,563	3,315	27,481
30.	Goa	3	23	96	77	56	60	32	347
31.	Lakshadweep	1	2	3	0	0	1	1	8
32.	Kerala	1,072	207	69	10	0	4	2	1,364
33.	Tamilnadu	168	1,254	4,870	4,484	2,801	1,344	479	15,400
34.	Puducherry	2	20	45	18	7	0	0	92
35.	Andaman and Nicobar Islands	0	2	23	52	62	90	272	501
ALL INDIA		3,962	14,798	80,407	129,976	145,408	127,510	91,555	593,616

Note :

@ India and Jammu & Kashmir State excludes the villages of the areas under unlawful occupation of Pakistan and China where Census could not be taken.

* India and Manipur excludes villages for those of the three sub-divisions viz. Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

Source : Office of the Registrar General India.

TABLE 1.11: POPULATION OF MILLION PLUS CITIES/TOWNS

Sl.No.	City/Town	Population						0-6 Population						Literates	
		Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9	10	11					
1.	Greater Mumbai (M Corp.)	11,978,450	6,619,966	5,358,484	1,364,423	709,777	654,646	9,207,877	5,388,552	3,819,325					
2.	DMC (U) (M Corp.)	9,879,172	5,412,497	4,466,675	1,352,656	724,171	628,485	7,075,280	4,110,213	2,965,067					
3.	Kolkata (M Corp.)	4,572,876	2,500,040	2,072,836	390,282	202,527	187,755	3,382,103	1,925,008	1,457,095					
4.	Chennai (M Corp.)	4,343,645	2,219,539	2,124,106	433,340	219,720	213,620	3,336,695	1,799,981	1,536,714					
5.	Bangalore (M Corp.)	4,301,326	2,242,835	2,058,491	484,982	249,652	235,330	3,265,702	1,787,677	1,478,025					
6.	Hyderabad (M Corp.)	3,637,483	1,883,064	1,754,419	463,150	238,386	224,764	2,498,234	1,374,955	1,123,279					
7.	Ahmedabad (M Corp.)	3,520,085	1,867,249	1,652,836	441,022	240,797	200,225	2,552,731	1,447,380	1,105,351					
8.	Kanpur (M Corp.)	2,551,337	1,374,121	1,177,216	317,756	171,263	146,493	1,758,807	997,001	761,806					
9.	Pune (M Corp.)	2,538,473	1,321,338	1,217,135	302,960	158,672	144,288	1,930,063	1,064,508	865,555					
10.	Surat (M Corp.)	2,433,835	1,372,415	1,061,420	340,582	186,746	153,836	1,736,939	1,043,703	693,236					
11.	Lucknow (M Corp.)	2,185,927	1,156,151	1,029,776	273,401	143,232	130,169	1,474,733	827,793	646,940					
12.	Nagpur (M Corp.)	2,052,066	1,059,765	992,301	249,827	129,283	120,544	1,609,126	873,739	735,387					
13.	Jaipur (M Corp.)	2,322,575	1,237,765	1,084,810	352,661	187,351	165,310	1,537,850	908,969	628,881					
14.	Indore (M Corp.)	1,474,968	774,540	700,428	200,081	105,478	94,603	1,064,912	598,339	466,573					
15.	Bhopal (M Corp.)	1,437,354	757,408	679,946	208,587	108,172	100,415	979,770	555,051	424,719					
16.	Ludhiana (M Corp.)	1,398,467	793,142	605,325	169,273	93,050	76,223	981,383	573,886	407,497					

Sl.No.	City/Town	Population						0-6 Population						Literates	
		Person	Male		Female		Person	Male		Female		Person	Male		Female
			3	4	5	6		7	8	9	10		11		
17.	Patna (M Corp.)	1,366,444	746,344	620,100	182,037	96,034	86,003	961,681	564,625	397,056					
18.	Vadodara (M Corp.)	1,306,227	684,013	622,214	148,034	80,610	67,424	1,014,014	557,051	456,963					
19.	Agra (M Corp.)	1,275,134	690,599	584,535	179,411	96,850	82,561	766,860	452,770	314,090					
20.	Thane (M Corp.)	1,262,551	675,147	587,404	161,698	84,334	77,364	973,195	551,086	422,109					
21.	Kalyan-Dombivli (M Corp.)	1,193,512	633,508	560,004	144,097	75,256	68,841	944,745	525,907	418,838					
22.	Varanasi (M Corp.)	1,091,918	582,096	509,822	161,172	84,256	76,916	670,367	392,103	278,264					
23.	Nashik (M Corp.)	1,077,236	575,737	501,499	147,919	78,579	69,340	802,695	458,005	344,690					
24.	Meerut (M Corp.)	1,068,772	568,081	500,691	163,570	87,893	75,677	610,636	355,282	255,354					
25.	Faridabad (M Corp.)	1,055,938	581,069	474,869	158,603	85,805	72,798	714,578	430,274	284,304					
26.	Pimpri Chinchwad (M Corp.)	1,012,472	547,050	465,422	143,034	75,688	67,346	745,317	431,785	313,532					
27.	Howrah (M Corp.)	1,007,532	547,068	460,464	94,330	48,678	45,652	768,655	438,450	330,205					

TABLE 1.12 : STATES AND UNION TERRITORIES BY POPULATION IN DESCENDING ORDER AND RANK IN 1991 AND 2001 CENSUS

Rank in 2001	State / Union territories	Population 2001	Per cent to total Population of India		Rank in 1991
1	2	3	2001	1991	6
1.	Uttar Pradesh	166,197,921	16.16	15.59	1
2.	Maharashtra	96,878,627	9.42	9.33	2
3.	Bihar	82,998,509	8.07	7.62	5
4.	West Bengal	80,176,197	7.79	8.04	3
5.	Andhra Pradesh	76,210,007	7.41	7.86	4
6.	Tamilnadu	62,405,679	6.07	6.60	6
7.	Madhya Pradesh	60,348,023	5.87	5.74	7
8.	Rajasthan	56,507,188	5.49	5.20	9
9.	Karnataka	52,850,562	5.14	5.31	8
10.	Gujarat	50,671,017	4.93	4.88	10
11.	Orissa	36,804,660	3.58	3.74	11
12.	Kerala	31,841,374	3.10	3.44	12
13.	Jharkhand	26,945,829	2.62	2.58	14
14.	Assam	26,655,528	2.59	2.65	13
15.	Punjab	24,358,999	2.37	2.40	15
16.	Haryana	21,144,564	2.06	1.95	17
17.	Chhattisgarh	20,833,803	2.03	2.08	16
18.	Delhi	13,850,507	1.35	1.11	18
19.	Jammu and Kashmir ²	10,143,700	0.99	0.93	19
20.	Uttarakhand	8,489,349	0.83	0.84	20
21.	Himachal Pradesh	6,077,900	0.59	0.61	21
22.	Tripura	3,199,203	0.31	0.33	22
23.	Meghalaya	2,318,822	0.23	0.21	24
24.	Manipur ¹	2,293,896	0.22	0.22	23
25.	Nagaland	1,990,036	0.19	0.14	25
26.	Goa	1,347,668	0.13	0.14	26
27.	Arunachal Pradesh	1,097,968	0.11	0.10	27
28.	Puducherry	974,345	0.09	0.10	28
29.	Chandigarh	900,635	0.09	0.08	29

30.	Mizoram	888,573	0.09	0.08	30
31.	Sikkim	540,851	0.05	0.05	31
32.	Andaman and Nicobar Islands	356,152	0.03	0.03	32
33.	Dadra and Nagar Haveli	220,490	0.02	0.02	33
34.	Daman and Diu	158,204	0.02	0.01	34
35.	Lakshadweep	60,650	0.01	0.01	35

Notes :

1. India and Manipur figures include estimated figures for those of the three sub-divisions viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.
2. The 1991 Census could not be held owing to disturbed conditions prevailing in Jammu and Kashmir. Hence the population figures for 1991 of Jammu and Kashmir have been worked out by 'interpolation'.

2 National Symbols

NATIONAL FLAG

THE National flag is a horizontal tricolour of deep saffron (*kesaria*) at the top, white in the middle and dark green at the bottom in equal proportion. The ratio of width of the flag to its length is two to three. In the centre of the white band is a navy-blue wheel which represents the *chakra*. Its design is that of the wheel which appears on the abacus of the Sarnath Lion Capital of Ashoka. Its diameter approximates to the width of the white band and it has 24 spokes. The design of the National Flag was adopted by the Constituent Assembly of India on 22 July 1947.

Apart from non-statutory instructions issued by the Government from time to time, display of the National Flag is governed by the provisions of the Emblems and Names (Prevention of Improper Use) Act, 1950 (No. 12 of 1950) and the Prevention of Insults to National Honour Act, 1971 (No. 69 of 1971). The Flag Code of India, 2002 is an attempt to bring together all such laws, conventions, practices and instructions for the guidance and benefit of all concerned.

The Flag Code of India, 2002, has taken effect from 26 January 2002 and supercedes the 'Flag Code—Indias' as it existed. As per the provisions of the Flag Code of India, 2002, there shall be no restriction on the display of the National Flag by members of general public, private organisations, educational institutions, etc., except to the extent provided in the Emblems and Names (Prevention of Improper Use) Act, 1950 and the Prevention of Insults to National Honour Act, 1971 and any other law enacted on the subject.

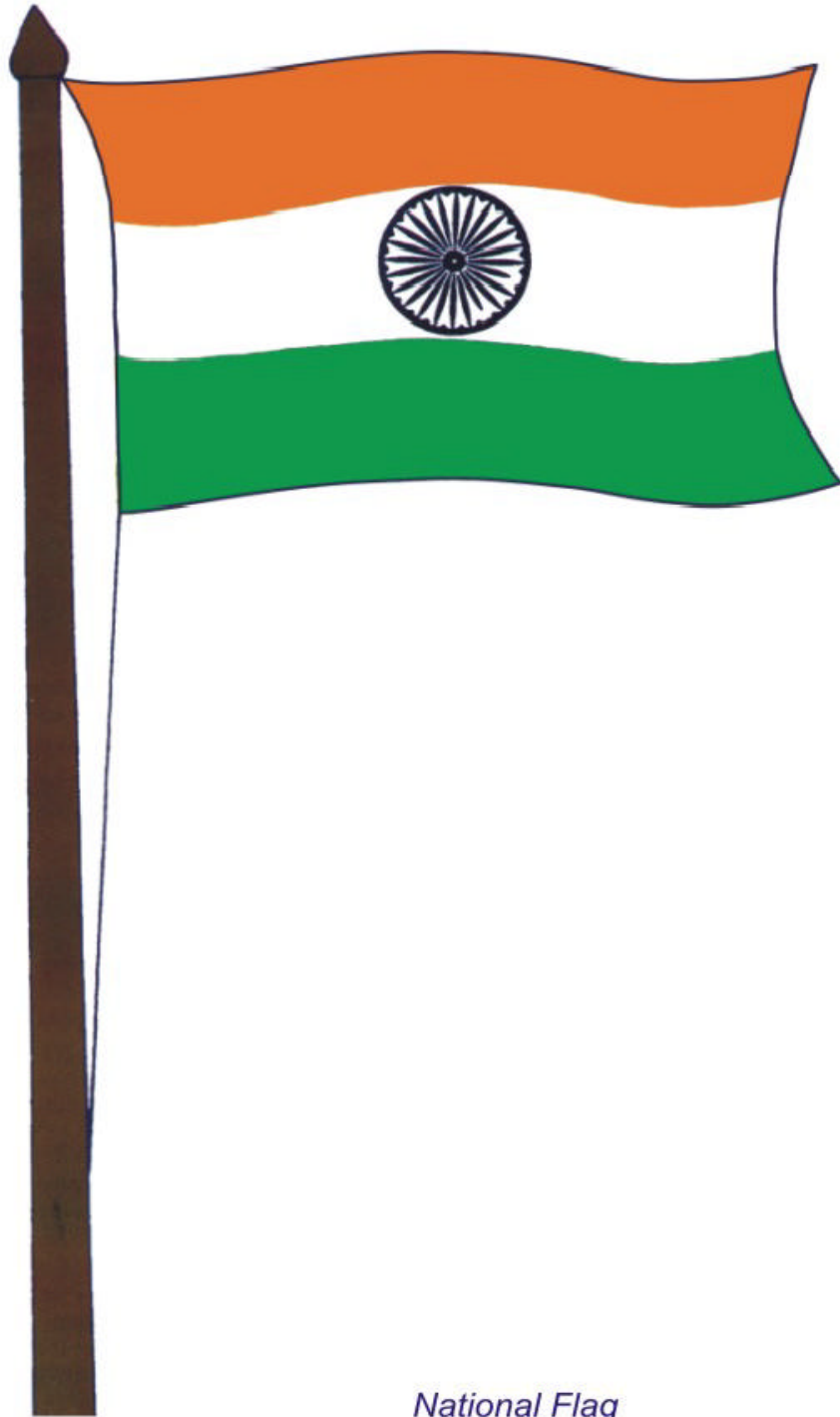
STATE EMBLEM

The state emblem is an adaptation from the Sarnath Lion Capital of Ashoka. In the original, there are four lions, standing back to back, mounted on an abacus with a frieze carrying sculptures in high relief of an elephant, a galloping horse, a bull and a lion separated by intervening wheels over a bell-shaped lotus. Carved out of a single block of polished sandstone, the Capital is crowned by the Wheel of the Law (*Dharma Chakra*).

In the state emblem, adopted by the Government of India on 26 January 1950, only three lions are visible, the fourth being hidden from view. The wheel appears in relief in the centre of the abacus with a bull on right and a horse on left and the outlines of other wheels on extreme right and left. The bell-shaped lotus has been omitted. The words *Satyameva Jayate* from *Mundaka Upanishad*, meaning 'Truth Alone Triumphs', are inscribed below the abacus in *Devanagari* script.

NATIONAL ANTHEM

The song *Jana-gana-mana*, composed originally in Bengali by Rabindranath Tagore, was adopted in its Hindi version by the Constituent Assembly as the National Anthem of India on 24 January 1950. It was first sung on 27 December 1911 at the Kolkata Session of the Indian National Congress. The complete song consists of five stanzas. The first stanza contains the full version of the National Anthem :



National Flag



सत्यमेव जयते

National Emblem

*Jana-gana-mana-adhinayaka, jaya he
 Bharata-bhagya-vidhata.
 Punjab-Sindh-Gujarat-Maratha
 Dravida-Utkala-Banga
 Vindhya-Himachala-Yamuna-Ganga
 Uchchala-Jaladhi-taranga.
 Tava shubha name jage,
 Tava shubha asisa mange,
 Gahe tava jaya gatha,
 Jana-gana-mangala-dayaka jaya he
 Bharata-bhagya-vidhata.
 Jaya he, jaya he, jaya he,
 Jaya jaya jaya, jaya he!*

Playing time of the full version of the national anthem is approximately 52 seconds. A short version consisting of the first and last lines of the stanza (playing time approximately 20 seconds) is also played on certain occasions. The following is Tagore's English rendering of the anthem :

Thou art the ruler of the minds of all people,
 Dispenser of India's destiny.

Thy name rouses the hearts of Punjab, Sind,
 Gujarat and Maratha,

Of the Dravida and Orissa and Bengal;

It echoes in the hills of the Vindhyas and Himalayas,
 mingles in the music of Jamuna and Ganges and is
 chanted by the waves of the Indian Sea.

They pray for thy blessings and sing thy praise.

The saving of all people waits in thy hand,
 Thou dispenser of India's destiny.

Victory, victory, victory to thee.

NATIONAL SONG

The song *Vande Mataram*, composed in sanskrit by Bankimchandra Chatterji, was a source of inspiration to the people in their struggle for freedom. It has an equal status with *Jana-gana-mana*. The first political occasion when it was sung was the 1896 session of the Indian National Congress. The following is the text of its first stanza :

Vande Mataram!

*Sujalam, suphalam, malayaja shitalam,
 Shasyashyamalam, Mataram!
 Shubhrajyotsna pulakitayaminim,
 Phullakusumita drumadala shobhinim,
 Suhasinim sumadhura bhashinim,
 Sukhadam varadam, Mataram!*

1 As published in Volume Eight of Sri Aurobindo Birth Centenary Library, Popular Edition
 1972

The English translation of the stanza rendered by Sri Aurobindo in prose¹ is :

I bow to thee, Mother,
richly-watered, richly-fruited,
cool with the winds of the south,
dark with the crops of the harvests,
The Mother!
Her nights rejoicing in the glory of the moonlight,
her lands clothed beautifully with her trees in flowering bloom,
sweet of laughter, sweet of speech,
The Mother, giver of boons, giver of bliss.

NATIONAL CALENDAR

The national calendar based on the *Saka Era*, with *Chaitra* as its first month and a normal year of 365 days was adopted from 22 March 1957 along with the Gregorian calendar for the following official purposes: (i) Gazette of India, (ii) news broadcast by All India Radio, (iii) calendars issued by the Government of India and (iv) Government communications addressed to the members of the public.

Dates of the national calendar have a permanent correspondence with dates of the Gregorian calendar, 1 *Chaitra* falling on 22 March normally and on 21 March in leap year.

NATIONAL ANIMAL

The magnificent tiger, *Panthera tigris*, a striped animal is the national animal of India, it has a thick yellow coat of fur with dark stripes. The combination of grace, strength, ability and enormous power has earned the tiger its pride of place as the national animal of India. Out of eight races of the species known, the Indian race, the Royal Bengal Tiger, is found throughout the country except in the north-western region and also in the neighbouring countries, Nepal, Bhutan and Bangladesh.

NATIONAL BIRD

The Indian peacock, *Pavo cristatus*, the national bird of India, is a colourful, swan-sized bird, with a fan-shaped crest of feathers, a white patch under the eye and a long, slender neck. The male of the species is more colourful than the female, with a glistening blue breast and neck and a spectacular bronze-green trail of around 200 elongated feathers. The female is brownish, slightly smaller than the male and lacks the trail. The elaborate courtship dance of the male, fanning out the tail and preening its feathers is a gorgeous sight.

NATIONAL FLOWER

Lotus (*Nelumbo Nucifera Gaertn*) is the National Flower of India. It is a sacred flower and occupies a unique position in the art and mythology of ancient India and has been an auspicious symbol of Indian culture since time immemorial.

NATIONAL TREE

The Banyan Tree (*Ficus benghalensis*) is the National Tree of India. This huge tree towers over its neighbours and has the widest reaching roots of all known trees, easily covering several acres. It sends off new shoots from its roots, so that one tree is really a tangle of branches, roots, and trunks.

NATIONAL FRUIT

Mango (*Manigifera indica*) is the National fruit of India. Mango is one of the most widely grown fruits of the tropical countries. In India, mango is cultivated almost in all parts, with the exception of hilly areas. Mango is a rich source of Vitamins A, C and D. In India, we have hundreds of varieties of mangoes. They are of different sizes, shapes and colours. Mangoes have been cultivated in India since time immemorial.

3 The Polity

INDIA, a Union of States, is a Sovereign Socialist Secular Democratic Republic with a parliamentary system of government. The Republic is governed in terms of the Constitution, which was adopted by Constituent Assembly on 26 November 1949 and came into force on 26 January 1950.

The Constitution which envisages parliamentary form of government is federal in structure with unitary features. The President of India is constitutional head of executive of the Union. Article 74(1) of the Constitution provides that there shall be a Council of Ministers with the Prime Minister as head to aid and advise President who shall in exercise of his functions, act in accordance with such advice. Real executive power thus vests in Council of Ministers with Prime Minister as head. Council of Ministers is collectively responsible to the House of the People (Lok Sabha). Similarly, in states, Governor is head of executive, but it is the Council of Ministers with Chief Minister as head in whom real executive power vests. Council of Ministers of a state is collectively responsible to the Legislative Assembly.

The Constitution distributes legislative power between Parliament and state legislatures and provides for vesting of residual powers in Parliament. Power to amend the Constitution also vests in Parliament. The Constitution has provision for independence of judiciary, Comptroller and Auditor-General, Public Service Commissions and Chief Election Commissioner.

THE UNION AND ITS TERRITORY

India comprises 28 States and seven Union Territories. They are: Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. Union Territories are : Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, National Capital Territory of Delhi, Lakshadweep and Pondicherry.

CITIZENSHIP

The Constitution of India provides for a single citizenship for the whole of India. Every person who was at the commencement of the Constitution (26 January 1950) domiciled in the territory of India and: (a) who was born in India; or (b) either of whose parents was born in India; or (c) who has been ordinarily resident in India for not less than five years became a citizen of India. The Citizenship Act, 1955, deals with matters relating to acquisition, determination and termination of Indian citizenship after the commencement of the Constitution.

FUNDAMENTAL RIGHTS

The Constitution offers all citizens, individually and collectively, some basic freedoms. These are guaranteed in the Constitution in the form of six broad categories of Fundamental Rights which are justiciable. Article 12 to 35 contained in Part III of the Constitution deal with Fundamental Rights. These are : (i) right to equality including equality before law, prohibition of discrimination on grounds

of religion, race, caste, sex or place of birth and equality of opportunity in matters of employment; (ii) right to freedom of speech and expression; assembly; association or union; movement; residence; and right to practice any profession or occupation (some of these rights are subject to security of the State, friendly relations with foreign countries, public order, decency or morality); (iii) right against exploitation, prohibiting all forms of forced labour, child labour and traffic in human beings; (iv) right to freedom of conscience and free profession, practice and propagation of religion; (v) right of any section of citizens to conserve their culture, language or script and right of minorities to establish and administer educational institutions of their choice; and (vi) right to constitutional remedies for enforcement of Fundamental Rights.

FUNDAMENTAL DUTIES

By the 42nd Amendment of the Constitution, adopted in 1976, Fundamental Duties of the citizens have also been enumerated. Article 51 'A' contained in Part IV A of the Constitution deals with Fundamental Duties. These enjoin upon a citizen among other things, to abide by the Constitution, to cherish and follow noble ideals, which inspired India's struggle for freedom, to defend the country and render national service when called upon to do so and to promote harmony and spirit of common brotherhood transcending religious, linguistic and regional or sectional diversities.

DIRECTIVE PRINCIPLES OF STATE POLICY

The Constitution lays down certain Directive Principles of State Policy, which though not justiciable, are 'fundamental in governance of the country' and it is the duty of the State to apply these principles in making laws. These lay down that the State shall strive to promote the welfare of people by securing and protecting as effectively as it may a social order in which justice—social, economic and political—shall form in all institutions of national life. The State shall direct its policy in such a manner as to secure the right of all men and women to an adequate means of livelihood, equal pay for equal work and within limits of its economic capacity and development, to make effective provision for securing the right to work, education and to public assistance in the event of unemployment, old age, sickness and disablement or other cases of undeserved want. The State shall also endeavour to secure to workers a living wage, humane conditions of work, a decent standard of life and full involvement of workers in management of industries.

In the economic sphere, the State is to direct its policy in such a manner as to secure distribution of ownership and control of material resources of community to subserve the common good and to ensure that operation of economic system does not result in concentration of wealth and means of production to common detriment.

Some of the other important directives relate to provision of opportunities and facilities for children to develop in a healthy manner, free and compulsory education for all children up to the age of 14; promotion of education and economic interests of scheduled castes, scheduled tribes and other weaker sections; organisation of village *panchayats*; separation of judiciary from executive, promulgation of a uniform civil code for whole country; protection of national monuments; promotion of justice on a basis of equal opportunity; provision of free legal aid; protection and improvement of environment and safeguarding of forests and wildlife of the country and promotion of international peace and security, just and honourable relations between nations, respect for international law, treaty obligations and settlement of international disputes by arbitration.

THE UNION

EXECUTIVE

The Union executive consists of the President, the Vice-President and the Council of Ministers with the Prime Minister as the head to aid and advise the President.

PRESIDENT

The President is elected by members of an electoral college consisting of elected members of both Houses of Parliament and Legislative Assemblies of the states in accordance with the system of proportional representation by means of single transferable vote. To secure uniformity among state *inter se* as well as parity between the states, as a whole, and the Union, suitable weightage is given to each vote. The President must be a citizen of India, not less than 35 years of age and qualified for election as member of the Lok Sabha. His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with procedure prescribed in Article 61 of the Constitution. He may, by writing under his hand addressed to the Vice-President, resign his office.

Executive power of the Union is vested in the President and is exercised by him either directly or through officers subordinate to him in accordance with the Constitution. Supreme command of defence forces of the Union also vests in him. The President summons, prorogues, addresses, sends messages to Parliament and dissolves the Lok Sabha; promulgates Ordinances at any time, except when both Houses of Parliament are in session; makes recommendations for introducing financial and money bills and gives assent to bills; grants pardons, reprieves, respites or remission of punishment or suspends, remits or commutes sentences in certain cases. When there is a failure of the constitutional machinery in a state, he can assume to himself all or any of the functions of the government of that state. The President can proclaim emergency in the country if he is satisfied that a grave emergency exists whereby security of India or any part of its territory is threatened whether by war or external aggression or armed rebellion.

VICE-PRESIDENT

The Vice-President is elected by members of an electoral college consisting of members of both Houses of Parliament in accordance with the system of proportional representation by means of single transferable vote. He must be a citizen of India, not less than 35 years of age and eligible for election as a member of the Rajya Sabha. His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with procedure prescribed in Article 67 b.

The Vice-President is *ex-officio* Chairman of the Rajya Sabha and acts as President when the latter is unable to discharge his functions due to absence, illness or any other cause or till the election of a new President (to be held within six months when a vacancy is caused by death, resignation or removal or otherwise of President). While so acting, he ceases to perform the function of the Chairman of the Rajya Sabha.

COUNCIL OF MINISTERS

There is a Council of Ministers, headed by the Prime Minister, to aid and advise the President in exercise of his functions. The Prime Minister is appointed by the President who also appoints other ministers on the advice of Prime Minister. The Council is

collectively responsible to the Lok Sabha. It is the duty of the Prime Minister to communicate to the President all decisions of Council of Ministers relating to administration of affairs of the Union and proposals for legislation and information relating to them.

The Council of Ministers comprises Ministers who are members of Cabinet, Ministers of State (independent charge), Ministers of State and Deputy Ministers.

LEGISLATURE

Legislature of the Union which is called Parliament, consists of President and two Houses, known as Council of States (Rajya Sabha) and House of the People (Lok Sabha). Each House has to meet within six months of its previous sitting. A joint sitting of two Houses can be held in certain cases.

RAJYA SABHA

The Constitution provides that the Rajya Sabha shall consist of 12 members to be nominated by the President from amongst persons having special knowledge or practical experience in respect of such matters as literature, science, art and social service; and not more than 238 representatives of the States and of the Union Territories.

Elections to the Rajya Sabha are indirect; members representing States are elected by elected members of legislative assemblies of the States in accordance with the system of proportional representation by means of the single transferable vote, and those representing Union Territories are chosen in such manner as Parliament may by law prescribe. The Rajya Sabha is not subject to dissolution; one-third of its members retire every second year.

Rajya Sabha, at present, has 245 seats. Of these, 233 members represent the States and the Union Territories and 12 members are nominated by the President. The names of members of Rajya Sabha and party affiliation are given in Appendices.

LOK SABHA

The Lok Sabha is composed of representatives of people chosen by direct election on the basis of adult suffrage. The maximum strength of the House envisaged by the Constitution is now 552 (530 members to represent the States, 20 members to represent the Union Territories and not more than two members of the Anglo-Indian community to be nominated by the President, if, in his opinion, that community is not adequately represented in the House). The total elective membership of the Lok Sabha is distributed among the States in such a way that the ratio between the number of seats allotted to each State and the population of the State is, as far as practicable, the same for all States. The Lok Sabha at present consists of 545 members. Of these, 530 members are directly elected from the States and 13 from Union Territories while two are nominated by the President to represent the Anglo-Indian community. Following the Constitution 84th Amendment Act, 2001 the total number of existing seats as allocated to various States in the Lok Sabha on the basis of the 1971 census shall remain unaltered till the first census to be taken after the year 2026.

The term of the Lok Sabha, unless dissolved earlier is five years from the date appointed for its first meeting. However, while a Proclamation of Emergency is in operation, this period may be extended by Parliament by law for a period not exceeding one year at a time and not extending in any case, beyond a period of six months after

the Proclamation has ceased to operate. Fourteen Lok Sabhas have been constituted so far. The term of each Lok Sabha and its Speaker(s) is given in table 3.1.

The State-wise allocation of seats in the two Houses and the party position in the Lok Sabha is given in table 3.2. The names of members of the Fourteenth Lok Sabha, their constituencies and party affiliations are given in Appendices.

QUALIFICATION FOR MEMBERSHIP OF PARLIAMENT

In order to be chosen a member of Parliament, a person must be a citizen of India and not less than 30 years of age in the case of Rajya Sabha and not less than 25 years of age in the case of Lok Sabha. Additional qualifications may be prescribed by Parliament by law.

FUNCTIONS AND POWERS OF PARLIAMENT

As in other parliamentary democracies, the Parliament in India has the cardinal functions of legislation, overseeing of administration, passing of the Budget, ventilation of public grievances and discussing various subjects like development plans, national policies and international relations. The distribution of powers between the Union and the States, followed in the Constitution, emphasises in many ways the general predominance of Parliament in the legislative field. Apart from a wide-range of subjects, even in normal times, the Parliament can, under certain circumstances, assume legislative power with respect to a subject falling within the sphere exclusively reserved for the States. The Parliament is also vested with powers to impeach the President and to remove the Judges of Supreme Court and High Courts, the Chief Election Commissioner and the Comptroller and Auditor General in accordance with the procedure laid down in the Constitution.

All legislation require consent of both the Houses of Parliament. In the case of money bills, however, the will of the Lok Sabha prevails. Delegated legislation is also subject to review and control by Parliament. Besides the power to legislate, the Constitution vests in Parliament the power to initiate amendment of the Constitution.

PARLIAMENTARY COMMITTEES

The functions of Parliament are not only varied in nature, but considerable in volume. The time at its disposal is limited. It cannot make very detailed scrutiny of all legislative and other matters that come up before it. A good deal of Parliamentary business is, therefore, transacted in the committees.

Both Houses of Parliament have a similar committee structure, with a few exceptions. Their appointment, terms of office, functions and procedure of conducting business are also more or less similar and are regulated as per rules made by the two Houses under Article 118(1) of the Constitution.

Broadly, Parliamentary Committees are of two kinds—Standing Committees and *ad hoc* Committees. The former are elected or appointed every year or periodically and their work goes on, more or less, on a continuous basis. The latter are appointed on an *ad hoc* basis as need arises and they cease to exist as soon as they complete the task assigned to them.

Standing Committees : Among the Standing Committees, the three Financial Committees—*Committees on Estimates*, *Public Accounts* and *Public Undertakings*—constitute a distinct group as they keep an unremitting vigil over Government expenditure and performance. While members of the Rajya Sabha are associated

with Committees on Public Accounts and Public Undertakings, the members of the Committee on Estimates are drawn entirely from the Lok Sabha.

The *Estimates Committee* reports on 'what economies, improvements in organisation, efficiency or administrative reform consistent with policy underlying the estimates' may be effected. It also examines whether the money is well laid out within limits of the policy implied in the estimates and suggests the form in which estimates shall be presented to Parliament. The *Public Accounts Committee* scrutinises appropriation and finance accounts of Government and reports of the Comptroller and Auditor-General. It ensures that public money is spent in accordance with Parliament's decision and calls attention to cases of waste, extravagance, loss or nugatory expenditure. The *Committee on Public Undertakings* examines reports of the Comptroller and Auditor-General, if any. It also examines whether public undertakings are being run efficiently and managed in accordance with sound business principles and prudent commercial practices.

Besides these three Financial Committees, the Rules Committee of the Lok Sabha recommended setting-up of 17 *Department Related Standing Committees* (DRSCs). Accordingly, 17 Department Related Standing Committees were set up on 8 April 1993. In July 2004, rules were amended to provide for the constitution of seven more such committees, thus raising the number of DRSCs from 17 to 24. The functions of these Committees are : (a) to consider the Demands for Grants of various Ministries/ Departments of Government of India and make reports to the Houses; (b) to examine such Bills as are referred to the Committee by the Chairman, Rajya Sabha or the Speaker, Lok Sabha, as the case may be, and make reports thereon; (c) to consider Annual Reports of ministries/departments and make reports thereon; and (d) to consider policy documents presented to the Houses, if referred to the Committee by the Chairman, Rajya Sabha or the Speaker, Lok Sabha, as the case may be, and make reports thereon.

Other Standing Committees in each House, divided in terms of their functions, are (i) Committees to Inquire: (a) *Committee on Petitions* examines petitions on bills and on matters of general public interest and also entertains representations on matters concerning subjects in the Union List; and (b) *Committee of Privileges* examines any question of privilege referred to it by the House or Speaker/Chairman; (ii) Committees to Scrutinise : (a) *Committee on Government Assurances* keeps track of all the assurances, promises, undertakings, etc., given by Ministers in the House and pursues them till they are implemented; (b) *Committee on Subordinate Legislation* scrutinises and reports to the House whether the power to make regulations, rules, sub-rules, bye-laws, etc., conferred by the Constitution or Statutes is being properly exercised by the delegated authorities; and (c) *Committee on Papers Laid on the Table* examines all papers laid on the table of the House by Ministers, other than statutory notifications and orders which come within the purview of the Committee on Subordinate Legislation, to see whether there has been compliance with the provisions of the Constitution, Act, rule or regulation under which the paper has been laid; (iii) Committees relating to the day-to-day business of the House: (a) *Business Advisory Committee* recommends allocation of time for items of Government and other business to be brought before the Houses; (b) *Committee on Private Members' Bills and Resolutions of the Lok Sabha* classifies and allocates time to Bills introduced by private members, recommends allocation of time for discussion on private members' resolutions and examines Constitution amendment bills before their introduction by private members

in the Lok Sabha. The Rajya Sabha does not have such a committee. It is the Business Advisory Committee of that House which recommends allocation of time for discussion on stage or stages of private members' bills and resolutions; (c) *Rules Committee* considers matters of procedure and conduct of business in the House and recommends amendments or additions to the Rules; and (d) *Committee on Absence of Members from the Sittings of the House of the Lok Sabha* considers all applications from members for leave or absence from sittings of the House. There is no such Committee in the Rajya Sabha. Applications from members for leave or absence are considered by the House itself; (iv) *Committee on the Welfare of Scheduled Castes and Scheduled Tribes*, on which members from both Houses serve, considers all matters relating to the welfare of Scheduled Castes and Scheduled Tribes which come within the purview of the Union Government and keeps a watch whether constitutional safeguards in respect of these classes are properly implemented; (v) Committees concerned with the provision of facilities to members : (a) *General Purposes Committee* considers and advises Speaker/Chairman on matters concerning affairs of the House, which do not appropriately fall within the purview of any other Parliamentary Committee; and (b) *House Committee* deals with residential accommodation and other amenities for members; (vi) *Joint Committee on Salaries and Allowances of Members of Parliament*, constituted under the Salary, Allowances and Pension of Members of Parliament Act, 1954, apart from framing rules for regulating payment of salary, allowances and pension to Members of Parliament, also frames rules in respect of amenities like medical, housing, telephone, postal, constituency and secretarial facility; (vii) *Joint Committee on Offices of Profit* examines the composition and character of committees and other bodies appointed by the Central and State governments and Union Territories Administrations and recommends what offices ought to or ought not to disqualify a person from being chosen as a member of either House of Parliament; (viii) *The Library Committee* consisting of members from both Houses, considers matters concerning the Library of Parliament; (ix) On 29 April 1997, a *Committee on Empowerment of Women* with members from both the Houses was constituted with a view to securing, among other things, status, dignity and equality for women in all fields; (x) On 4 March 1997, the *Ethics Committee* of the Rajya Sabha was constituted. The Ethics Committee of the Lok Sabha was constituted on 16 May 2000.

Ad hoc Committees : Such Committees may be broadly classified under two heads : (a) committees which are constituted from time to time, either by the two Houses on a motion adopted in that behalf or by Speaker/Chairman to inquire into and report on specific subjects, (e.g., *Committees on the Conduct of certain Members during President's Address, Committees on Draft Five-Year Plans, Railway Convention Committee, Committee on Members of Parliament Local Area Development Scheme, Joint Committee on Bofors Contracts, Joint Committee on Fertilizer Pricing, Joint Committee to enquire into irregularities in securities and banking transactions, Joint Committee on Stock Market Scam, Joint Committees on Security in Parliament Complex, Committee on Provision of Computers for Members of Parliament, Offices of Political Parties and Officers of the Lok Sabha Secretariat; Committee on Food Management in Parliament House Complex; Committee on Installation of Portraits/ Statues of National Leaders and Parliamentarians in Parliament House Complex, etc.*), and (b) *Select or Joint Committees on Bills* which are appointed to consider and report on a particular Bill. These Committees are distinguishable from the other *ad hoc* committees inasmuch as they are concerned with Bills and the procedure to be followed by them as laid down in the Rules of Procedure and Directions by the Speaker/Chairman.

LEADERS OF OPPOSITION IN PARLIAMENT

In keeping with their important role, the Leaders of Opposition in the Rajya Sabha and the Lok Sabha are accorded statutory recognition. Salary and other suitable facilities are extended to them through a separate legislation brought into force on 1 November 1977.

GOVERNMENT BUSINESS IN PARLIAMENT

The Minister of Parliamentary Affairs is entrusted with the responsibility of coordinating, planning and arranging Government Business in both Houses of Parliament. In the discharge of this function, he is assisted by his Ministers of State. The Minister also keeps close and constant contact with the presiding officers, the leaders as well as chief whips and whips of various parties and groups in both the Houses of Parliament. During the period for 1 August 2008 to 30 June 2009, both Houses of Parliament passed 44 Bills.

CONSULTATIVE COMMITTEES

Functioning of Consultative Committees of Members of Parliament for various Ministries is one of the functions allocated to the Ministry of Parliamentary affairs under the Government of India (Allocation of Business) Rules, 1961. In discharge of this function, the Ministry of Parliamentary Affairs constitute these committees and arranges their meetings. The main objective of these committees is to provide a forum for informal discussion between Members of Parliament, on the one hand, and Ministers and senior officers of the Government, on the other hand, on the policies, principles and programmes of the Government and the manner of their implementation. The Minister/Minister of State in-charge of the Ministry concerned acts as the Chairman of the Consultative Committee attached to that Ministry.

The minimum membership of a Consultative Committee is 10 and the maximum membership is 30. The Consultative Committee stand dissolved upon dissolution of every Lok Sabha and re-constituted upon constitution of each Lok Sabha. Before dissolution of 14th Lok Sabha, there were 32 Consultative Committees attached to various Ministries. Besides this, 16 Informal Consultative Committees of the sixteen Railway Zones had also been constituted. Unlike the Consultative Committees attached to the Ministries, meetings of these Informal Consultative Committees are to be arranged during session periods only. 34 meetings of the Consultative Committees were held during the period from 1st August 2008 to 18th May 2009 (the date of dissolution of 14th Lok Sabha.)

The action for constituting the Consultative Committees of the 15th Lok Sabha, which has recently been constituted has since been initiated. Total 41 Consultative Committees have been proposed to be constituted for which preferences of the Members of Parliament have been invited for their nomination on the Consultative Committees. After receiving the preferences of the Members of Parliament, the Consultative Committees for various Ministries would be constituted and their meetings would be arranged.

NOMINATION OF MEMBERS OF PARLIAMENT ON GOVERNMENT COMMITTEES/BODIES

The Minister of Parliamentary Affairs nominates Members of Parliament on Committees, Councils, Boards and Commissions, etc., set-up by the Government of

India in various Ministries (except in case of statutory or other bodies where the statute or the bye-laws framed thereunder provides that the Member of Parliament to be appointed thereon will be nominated by the Presiding Officers of the respective Houses or will be elected by the Lok Sabha or the Rajya Sabha, as the case may be). The Members are nominated on such Bodies keeping in view their aptitude and special interest in the subject.

YOUTH PARLIAMENT COMPETITION

In order to develop democratic ethos in the younger generation the Ministry conducts Youth Parliament Competition in various categories of schools and colleges/universities. The Youth Parliament Scheme was first introduced in the Schools in Delhi in 1966-67. Kendriya Vidyalayas located in and around Delhi were incorporated into the ongoing Scheme for Delhi Schools in 1978. Subsequently, as separate scheme of Youth Parliament for Kendriya Vidyalayas at the National Level was launched in 1988. Similarly, in 1997-98, two new Youth Parliament Schemes at the national level, one for Jawahar Navodaya Vidyalayas and the other for Universities/Colleges were launched.

During 2008-09, the 43rd Youth Parliament Competition for Delhi Schools was completed and 33 schools had participated. The 21st National Youth Parliament Competition for Kendriya Vidyalayas was held and 90 Kendriya Vidyalayas participated. The 12th National Youth Parliament Competition for Jawahar Navodaya Vidyalayas was completed. The Ninth National Youth Parliament Competition for Universities/Colleges is in progress.

OTHER PARLIAMENTARY MATTERS

ALL INDIA WHIPS CONFERENCE

The Ministry of Parliamentary Affairs, Government of India has been organising All India Whips' Conference from time to time, with the purpose of establishing suitable links among the whips of various political parties at the Centre and the States who are concerned with the practical working of the legislatures to discuss matters of common interest and to evolve high standards to strengthen the institution of Parliamentary Democracy. Fourteen All India Whips' Conferences have been organized so far since 1952. The Fourteenth All India Whips Conference was held on 4-5 February, 2008 in Mumbai. The inaugural function of the 14th All India Whips Conference was presided over by Hon'ble Vice President of India and the Valedictory function by the Hon'ble Speaker of Lok Sabha.

MATTERS UNDER RULE 377 AND SPECIAL MENTIONS

The Ministry of Parliamentary Affairs takes follow-up action on matters raised under Rule 377 of the Rules of Procedure and Conduct of Business in Lok Sabha and by way of Special Mentions in Rajya Sabha. Also after 'Question Hour' in both the Houses of Parliament, Members raise matters of urgent public importance. Though it is not mandatory, Ministers sometimes react to the points made by the Members. In the absence of concerned Minister the Minister of Parliamentary Affairs assures the House or the individual Members that their sentiments would be conveyed to the concerned Ministers.

IMPLEMENTATION OF ASSURANCES

The Ministry culls out assurances, promises, undertakings, etc., given by Ministers

in both the Houses of Parliament, from the daily proceedings and forwards them to the concerned Ministries/Departments for implementation, Statements showing action taken by the Government in implementation of the assurances, after due scrutiny of the implementation of the assurances, after due scrutiny of the implementation reports received from the various Ministries/Departments concerned, are laid periodically on the table of the Houses by Minister/Minister of State for Parliamentary Affairs.

ADMINISTRATIVE SET-UP

The Government of India (Allocation of Business) Rules, 1961 are made by the President of India under Article 77 of the Constitution for the allocation of business of the Government of India. The Ministries/Departments of the Government are created by the President on the advice of the Prime Minister under these Rules. The business of the Government are transacted in the Ministries/Departments, Secretariats and offices (referred to as 'Department') as per the distribution of subjects specified in these Rules. Each of the Ministry(ies) is assigned to a Minister by the President on the advice of the Prime Minister. Each department is generally under the charge of a Secretary to assist the Minister on policy matters and general administration.

CABINET SECRETARIAT

The Cabinet Secretariat in terms of provisions of the Government of India (Allocation of Business) Rules, 1961 functions directly under the Prime Minister. The administrative head of the Secretariat is the Cabinet Secretary who is also the ex-officio Chairman of the Civil Services Board.

The business allotted to cabinet secretariat is (i) Secretarial assistance to Cabinet and Cabinet Committees; and (ii) Rules of Business.

The Cabinet Secretariat is responsible for the administration of the Government of India (Transaction of Business) Rules, 1961 and the Government of India (Allocation of Business) Rules 1961, facilitating smooth transaction of business in Ministries/Departments of the Government by ensuring adherence to these rules. The Secretariat assists in decision-making in Government by ensuring Inter-Ministerial coordination, ironing out differences amongst Ministries/Departments and evolving consensus through the instrumentality of the standing and *ad hoc* Committees of Secretaries.

The Cabinet Secretariat ensures that the President, the Vice-President and Ministers are kept informed of the major activities of all Ministries/Departments by means of monthly summary of their activities. Management of major crisis situations in the country and coordinating activities of various Ministries in such a situation is also one of the functions of the Cabinet Secretariat.

The Cabinet Secretariat is seen as a useful mechanism by the departments for promoting inter-Ministerial coordination since the Cabinet Secretary is also the head of the civil services. The Secretaries felt it necessary to keep the Cabinet Secretary informed of developments from time to time. The Transaction of Business Rules also require them to keep the Cabinet Secretary informed specially if there are any departures from these rules.

NATIONAL AUTHORITY, CHEMICAL WEAPONS CONVENTION

National Authority, Chemical Weapons Convention (CWC) was set up by a resolution of Cabinet Secretariat dated 5 May 1997 to fulfil the obligations enunciated in the

Chemical Weapons Convention initially signed by 130 countries in a conference which concluded on 14 January 1993 for the purpose prohibiting of the development, production, execution, transfer, use and stockpiling of all chemical weapons by Member-States is a non-discriminatory process. To fulfil its obligations, each State Party has to designate or establish a National Authority to serve as the national focal point for effective liaison with Organisation for Prohibition of the Chemical Weapons (OPCW) and other State Parties and hence the NA, CWC under the administrative control of the Cabinet Secretariat was set-up.

A high-level steering committee under the Chairmanship of the Cabinet Secretary with Secretary (Chemical and Petrochemicals), Foreign Secretary, Secretary, Defence Research and Development, Defence Secretary and Chairman, National Authority as its other members would oversee the functions of the National Authority. The NA, CWC is responsible for implementation of CWC Act, liaison with CWC and other State Parties, Collection of data fulfilling of declaration obligations, negotiating facility agreements, coordinating OPCW inspections, providing appropriate facilities for training national inspectors and industry personnel, ensuring protection of confidential business information, checking declarations for consistency, accuracy and completeness, registration of entitles engaged in activities related to CWC, etc.

MINISTRIES/DEPARTMENTS OF THE GOVERNMENT

The Government consists of a number of Ministries/Departments, number and character varying from time to time on factors such as volume of work importance attached to certain items, changes of orientation, political expediency, etc.

LIST OF THE MINISTRIES/DEPARTMENTS

1. Ministry of Agriculture (*Krishi Mantralaya*)

- (i) Department of Agriculture and Co-operation
(*Krishi aur Sahkarita Vibhag*)
- (ii) Department of Agricultural Research and Education
(*Krishi Anusandhan aur Shiksha Vibhag*)
- (iii) Department of Animal Husbandry and Dairying
(*Pashupalan aur Dairy Vibhag*)

2. Ministry of Chemicals and Fertilizers (*Rasayan aur Urvarak Mantralaya*)

- (i) Department of Chemicals and Petro-Chemicals
(*Rasayan aur Petro-Rasayan Vibhag*)
- (ii) Department of Fertilizers (*Urvarak Vibhag*)
- (iii) Department of Pharmaceutical.

3. Ministry of Civil Aviation (*Nagar Vimanan Mantralaya*)

4. Ministry of Coal (*Koyala Mantralaya*)

5. Ministry of Commerce and Industry (*Vanijya aur Udyog Mantralaya*)

- (i) Department of Commerce (*Vanijya Vibhag*)
- (ii) Department of Industrial Policy and Promotion
(*Audyogik Niti aur Samvardhan Vibhag*)

6. Ministry of Communications and Information Technology (*Sanchar aur Soochana Praudyogiki Mantralaya*)

- (i) Department of Telecommunications (*Doorsanchar Vibhag*)
- (ii) Department of Post (*Dak Vibhag*)

- (iii) Department of Information Technology
(*Soochana Praudyogiki Vibhag*)

**7. Ministry of Consumer Affairs, Food and Public Distribution
(*Upbhokta Mamle, Khadya aur Sarvajanic Vitaran Mantralaya*)**

- (i) Department of Consumer Affairs
(*Upbhokta Mamle Vibhag*)
- (ii) Department of Food and Public Distribution
(*Khadya aur Sarvajanic Vitaran Vibhag*)

8. Ministry of Corporate Affairs (*Korporate Karya Mantralya*)

9. Ministry of Culture (*Sanskriti Mantralya*)

10. Ministry of Defence (*Raksha Mantralaya*)

- (i) Department of Defence (*Raksha Vibhag*)
- (ii) Department of Defence Production
(*Raksha Utpadan aur Aapoorti Vibhag*)
- (iii) Department of Defence Research and Development
(*Raksha Anusandhan aur Vikas Vibhag*)
- (iv) Department of Ex-servicemen Welfare

11. Ministry of Development of North-Eastern Region (*Uttar Poorvi Kshetra Vikas Mantralaya*)

12. Ministry of Earth Sciences (*Bhoo Vigyan Mantralaya*)

13. Ministry of Environment and Forests (*Paryavaran aur Van Mantralaya*)

14. Ministry of External Affairs (*Videsh Mantralaya*)

15. Ministry of Finance (*Vitta Mantralaya*)

- (i) Department of Economic Affairs (*Arthik Karya Vibhag*)
- (ii) Department of Expenditure (*Vyaya Vibhag*)
- (iii) Department of Revenue (*Rajaswa Vibhag*)
- (iv) Department of Financial Services (*Vittiya Sewayen Vibhag*)

**16. Ministry of Food Processing Industries
(*Khadya Prasanskaran Udyog Mantralaya*)**

**17. Ministry of Health and Family Welfare
(*Swasthya aur Parivar Kalyan Mantralaya*)**

- (i) Department of Health and family welfare (*Swasthya aur Parivar Kalyan Mantralaya*)
- (ii) Department of Ayurveda, Yoga-Naturopathy, Unani, Siddha and Homoeopathy (AYUSH)
(*Ayurveda, Yoga-Prakritik Chikitsa Paddhati, Unani, Siddha aur Homoeopathy Vibhag*)
- (iii) Department of AIDS Control
- (iv) Department of Health Research

**18. Ministry of Heavy Industries and Public Enterprises
(*Bhari Udyog aur Lok Udyam Mantralaya*)**

- (i) Department of Heavy Industries (*Bhari Udyog Vibhag*)
- (ii) Department of Public Enterprises (*Lok Udyam Vibhag*)

- 19. Ministry of Home Affairs (*Grih Mantralaya*)**
- (i) Department of Internal Security (*Antarik Suraksha Vibhag*)
 - (ii) Department of States (*Rajya Vibhag*)
 - (iii) Department of Official Language (*Raj Bhasha Vibhag*)
 - (iv) Department of Home (*Grih Vibhag*)
 - (v) Department of Jammu and Kashmir Affairs
(*Jammu tatha Kashmir Vibhag*)
 - (vi) Department of Border Management
(*Seema Prabandhan Vibhag*)
- 20. Ministry of Housing and Urban Poverty Alleviation
(*Aawas aur Shahari Garibi Upshaman Mantralaya*)**
- 21. Ministry of Human Resource Development
(*Manav Sansadhan Vikas Mantralaya*)**
- (i) Department of School Education and Literacy
(*School Shiksha aur Saksharta Vibhag*)
 - (ii) Department of Higher Education
(*Uchchatar Shiksha Vibhag*)
- 22. Ministry of Information and Broadcasting
(*Soochana aur Prasaran Mantralaya*)**
- 23. Ministry of Labour and Employment (*Shram aur Rozgar Mantralaya*)**
- 24. Ministry of Law and Justice
(*Vidhi aur Nyaya Mantralaya*)**
- (i) Department of Legal Affairs (*Vidhi Karya Vibhag*)
 - (ii) Department of Justice (*Nyaya Vibhag*)
- 25. Ministry of Mines (*Khan Mantralaya*)**
- 26. Ministry of Minority Affairs
(*Alpasankhyak Karya Mantralya*)**
- 27. Ministry of New and Renewable Energy
(*Naveen Aur Navikarniya Oorja Mantralaya*)**
- 28. Ministry of Overseas Indian Affairs (*Apravasi Bharatiyon Ke
Mamalon Ka Mantralya*)**
- 29. Ministry of Panchayati Raj (*Panchayati Raj Mantralaya*)**
- 30. Ministry of Parliamentary Affairs (*Sansadiya Karya Mantralaya*)**
- 31. Ministry of Personnel, Public Grievances and Pensions
(*Karmik Lok Shikayat tatha Pension Mantralaya*)**
- (i) Department of Personnel and Training
(*Karmik aur Prashikshan Vibhag*)
 - (ii) Department of Pensions and Pensioners' Welfare
(*Pension aur Pension Bhogi Kalyan Vibhag*)
- 32. Ministry of Petroleum and Natural Gas
(*Petroleum aur Prakritik Gas Mantralaya*)**
- 33. Ministry of Power (*Oorja Mantralaya*)**
- 34. Ministry of Railways (*Rail Mantralaya*)**

- 35. Ministry of Road Transport and Highways**
Sarak Parivahan aur Raj Marg Mantralaya
- 36. Ministry of Rural Development (Gramin Vikas Mantralaya)**
- (i) Department of Rural Development
(Gramin Vikas Vibhag)
 - (ii) Department of Land Resources
(Bhumi Sansadhan Vibhag)
 - (iii) Department of Drinking Water Supply
(Peya Jal Poorti Vibhag)
- 37. Ministry of Science and Technology (Vigyan aur Praudyogiki Mantralaya)**
- (i) Department of Science and Technology
(Vigyan aur Praudyogiki Vibhag)
 - (ii) Department of Scientific and Industrial Research
(Vigyan aur Audyogik Anusandhan Vibhag)
 - (iii) Department of Bio-Technology *(Biotechnology Vibhag)*
- 38. Ministry of Micro, Small and Medium Enterprises**
(Sukshma Laghu Aur Madhyam Udyam Mantralya)
- 39. Ministry of Social Justice and Empowerment**
(Samajik Nyaya aur Adhikarita Mantralaya)
- 40. Ministry of Statistics and Programme Implementation**
(Sankhyiki aur Karyakram Kiryanvayan Mantralaya)
- 41. Ministry of Steel (Ispat Mantralaya)**
- 42. Ministry of Shipping**
- 43. Ministry of Textiles (Vastra Mantralaya)**
- 44. Ministry of Tourism (Paryatan Mantralaya)**
- 45. Ministry of Tribal Affairs (Janjatiya Karya Mantralaya)**
- 46. Ministry of Urban Development (Shahari Vikas Mantralaya)**
- 47. Ministry of Water Resources (Jal Sansadhan Mantralaya)**
- 48. Ministry of Woman and Child Development**
(Mahila Aur Bal Vikas Mantralaya)
- 49. Ministry of Youth Affairs and Sports (Yuva Karyakram aur Khel Mantralaya)**
- (i) Department of Youth Affairs.
 - (ii) Departments of Sports

CENTRAL GOVERNMENT (INDEPENDENT DEPARTMENTS)

- 50. Department of Atomic Energy (Parmanu Oorja Vibhag)**
- 51. Department of Space (Antariksh Vibhag)**

APEX/INDEPENDENT OFFICE

- 52. Planning Commission (Yojana Ayog)**
- 53. Cabinet Secretariat (Mantrimandal Sachivalaya)**
- 54. President's Secretariat (Rashtrapati Sachivalaya)**
- 55. Prime Minister's Office (Pradhan Mantri Karyalaya)**

PUBLIC SERVICES

ALL INDIA SERVICES

Prior to Independence, the Indian Civil Service (ICS) was the senior most amongst the Services of the Crown in India. Besides the ICS, there was also the Indian Police Service. After Independence, it was felt that though the ICS was a legacy of the imperial period there was need for the All India Services for maintaining the unity, integrity and stability of the nation. Accordingly, a provision was made in Article 312 of the Constitution for creation of one or more All India Services common to the Union and State. The Indian Administrative Service and the Indian Police Service are deemed to be constituted by the Parliament in terms of Article 312 of the Constitution. After the promulgation of the Constitution, a new All India Service, namely, the Indian Forest Service, was created in 1966. A common unique feature of the All India Services is that the members of these services are recruited by the Centre but their services are placed under various State cadres and they have the liability to serve both under the State and under the Centre. This aspect of the All India Services strengthens the unitary character of the Indian federation.

Of the three All India Services, namely, the Indian Administrative Service (IAS), the Indian Police Service (IPS) and the Indian Forest Service (IFS), the Ministry of Personnel, Public Grievances and Pension is the cadre controlling authority for the IAS. The recruitment to all the three services is made by the UPSC. These officers are recruited and trained by the Central Government and then allotted to different State cadres.

CENTRAL SECRETARIAT SERVICES

The Central Secretariat has three services, namely, (i) Central Secretariat Service (CSS), (ii) Central Secretariat Stenographers' Service (CSSS) and (iii) the Central Secretariat Clerical Service (CSCS). The grades of Selection Grade and Grade I of CSS and as well as the Senior Principal Private Secretary and Principal Private Secretary of CSSS are centralised. The Section Officers Grade and Assistants Grade of the CSS, Steno Grade 'D', 'C', 'A' and 'B' (merged) of CSS and LDS & UDC are decentralised.

Appointments and promotions in the Centralised Grades are made on all secretariat basis by Department of Personnel and Training (DOP&T). In respect of the decentralised grades, DOP&T monitors and assesses the overall requirements of different cadres for fixing zones of promotion against the vacancies in seniority quota and arranges centralised requirement against direct recruitment and departments examinations quota vacancies through open competitive and departmental examinations.

UNION PUBLIC SERVICE COMMISSION

The Constitution provides for an independent body known as Union Public Service Commission (UPSC) for recruitment to Group 'A' and Group 'B' Gazetted posts under Central Government and for advice in various service matters. The Chairman and members of the Commission are appointed by the President for a tenure of six years or till they attain the age of 65 years, whichever is earlier. To ensure independence, members who were at the service of Government at the time of appointment are deemed to have retired from Government service on their appointment in the Commission. The Chairman and members are also not eligible for further employment under the Government. They cannot be removed except for the reasons and in the manner provided for in the Constitution.

STAFF SELECTION COMMISSION

Staff Selection Commission (SSC) initially known as Subordinate Service Commission was set up on 1 July 1976. It has been entrusted with the work of making recruitment to (i) all non-gezzetted Group 'B' posts in the various Ministries/Departments of the Government and their Attached and Subordinate Offices which are in the pay scales of Rs 6,500-10,500 and (ii) all non-technical Group 'C' posts in the various Ministries/Departments of the Government and their attached and subordinate offices, except those posts which are specifically exempted from the purview of the Staff Selection Commission. The Commission is an attached office of the Department of Personnel and Training and comprises of a Chairman, two Members and Secretary-cum-Controller of Examinations. The tenure of Chairman/Members is for five years or till they attain the age of 62 years, whichever is earlier. The Commission's headquarters and the office of its Northern Region are in New Delhi. The offices of Central, Western, Eastern, North-Eastern, Southern and Karnataka-Kerala region are at Allahabad, Mumbai, Kolkata, Guwahati, Chennai and Bangalore respectively. Its sub-regional offices of Madhya Pradesh-Chhattisgarh region and North-Western region are at Raipur and Chandigarh respectively.

OFFICIAL LANGUAGE—CONSTITUTIONAL/STATUTORY PROVISIONS

With a view to ensuring compliance of the constitutional provisions regarding official language and to promote the use of Hindi for the official purposes of the Union, the Department of Official Language was set up in June 1975 as an independent Department.

This Department has been carrying out different activities in the Central Government offices in order to augment the usage of Hindi language, shorthand, typing and translation. Regular inspections are carried out to keep a check on the progress of Hindi language in the organisations with the help of quarterly report.

The Department has implemented many schemes in the Government offices to increase the usage of Hindi Language and it also coordinates the meetings of different samitis, and organises conferences on official language at All India and regional level. It provides for and distributes the supplementary literature to popularize the official language Hindi.

Besides organising a five-day training programme on use of Hindi language in computers for the employees of Central Government offices, the Department also gets the Hindi language related softwares developed by C-Dac, Pune (Lila, Mantra, Shrutlekhan etc.)

The Department of official language primarily aims to replace the usage of English language with Hindi in all the Central Government offices through its different activities and programmes.

In order to attain this objective, the Rule 12 of official languages Act 1976 has a provision that an administrative head of every Central Government Department would ascertain that Official Languages Act is being followed in proper manner and appropriate methods of investigation are carried out for this purpose. The Department of Official Languages has set annual targets for the Central Government employees to carry out Hindi typing, Hindi shorthand training, translation of Government material and publicity & promotion of official language Hindi. To fulfil its objectives,

the Central Hindi Training Institute, Central Translation Bureau and 8 Regional Official Languages offices are working under the Department of Languages.

COMMITTEES/SAMITIS

A Committee of **Parliament on Official Language** was constituted in 1976 under section 4 of the Official Languages Act, 1963 to periodically review the progress in the use of Hindi as the Official Language of the Union and to submit a report to the President. The Committee consists of 20 members of the Lok Sabha and 10 of the Rajya Sabha. The Committee, so far has submitted eight parts of its report to the President on which the Presidential Orders have been issued.

The Kendriya Hindi Samiti was constituted in the year 1967. It is chaired by the Prime Minister. It is the apex policy making body which lays down the guidelines for the propagation and progressive use of Hindi as Official Language of the Union.

Under the directions of the Kendriya Hindi Samiti, **Hindi Salahakar Samitis** have been constituted in 57 Ministries/Departments under the chairmanship of the Ministers concerned. These Samitis periodically review the progress in the use of Hindi in their respective Ministries/Departments and the offices/undertakings and suggest measures to promote the use of Hindi.

Besides, the **Central Official Language Implementation Committee** [headed by Secretary, Department of Official Language and consisting of Joint Secretaries (In-charge Official Language) of all the Ministries/Departments as ex-officio members] reviews the status of use of Hindi for official purposes of the Union, training of its employees in Hindi and implementation of instructions issued from time to time by the Department of Official Language and suggests measure for removing the shortcomings and difficulties noticed in implementing these instructions.

The Central Secretariat Official Language Service (CSOL) was constituted in 1981, consequent upon the decision of the Kendriya Hindi Samiti in 1976, with a view to bring all the Hindi posts created in different Ministries/Departments and their attached offices in an integrated cadre and to provide uniform service conditions, pay scales and promotional avenues to the incumbents. The Department of Official Language is its Cadre Controlling Authority. The service includes all Hindi Posts of Ministries/Departments of the Government of India and their attached offices except a few scientific and technical Departments viz Department of Information Technology and Atomic Energy etc.

Town Official Language Implementation Committees are constituted in different towns having ten or more Central Government offices, etc., to review the progress made in the use of Hindi in their member offices and exchange experiences. So far 257 Town Official Language Implementation Committees have been constituted all over the country.

Article 343 (1) of the Constitution provides that Hindi in Devanagari script shall be the Official Language of the Union. Article 343(2) also provided for continuing the use of English in official work of the Union for a period of 15 years (i.e., up to 25 January 1965) from the date of commencement of the Constitution. Article 343(3) empowered the Parliament to provide by law for continued use of English for official purposes even after 25 January 1965. Accordingly, section 3(2) of the Official Languages Act, 1963 (amended in 1967) provides for continuing the use of English in official work even after 25 January 1965. The Act also lays down that both Hindi and

English shall compulsorily be used for certain specified purposes such as Resolutions, General Orders, Rules, Notifications, Administrative and other Reports, Press Communiqués; Administrative and other Reports and Official Papers to be laid before a House or the Houses of Parliament; Contracts, Agreements, Licences, Permits, Tender Notices and Forms of Tender, etc.

In 1976, Official Language Rules were framed under the provisions of section 3(4) of the Official Languages Act, 1963. Its salient features are as under: (i) These Rules apply to all Central Government Offices, including any office of a Commission, Committee or Tribunal appointed by the Central Government and Corporation or Company owned or controlled by it. (ii) Communications from a Central Government Office to State/Union Territories or to any person in Region "A" comprising the States of Uttar Pradesh, Uttaranchal, Himachal Pradesh, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Rajasthan, Haryana and Union Territories of Andaman and Nicobar Islands and Delhi, shall be in Hindi. (iii) Communications from a Central Government Office to States/Union Territories in Region "B" comprising the States of Punjab, Gujarat, Maharashtra and the Union Territory of Chandigarh, shall ordinarily be in Hindi. However if any communication to any person in Region "B" is issued in English it shall be accompanied by a Hindi Translation thereof. (iv) Communications from a Central Government Office to a State Government Office in region 'C', comprising all other States and Union Territories not included in region 'A' and 'B', or to any office (not being a Central Government Office) or person shall be in English. (v) Communications between Central Government offices and from Central Government Offices to the Offices of the State Governments/ Union Territories and individuals, etc., will be in Hindi in such proportions as may be determined from time to time. (vi) All Manuals, Codes and other Procedural literature relating to Central Government Offices are required to be prepared both in Hindi and English. All Forms, Headings of Registers, Name Plates, Notice Boards and various items of stationery, etc., are also required to be in Hindi and English. (vii) It shall be the responsibility of the officer signing the documents specified in section 3(3) of the Act to ensure that these are issued both in Hindi and English. (viii) Shall be the responsibility of the administrative head of each Central Government Office to ensure that the provisions of the Act, the Rules and directions issued under Sub-Rule-(2) are properly complied with and to devise suitable and effective check points for this purpose.

POLICY

In compliance with the Official Language Resolution, 1968, an Annual Programme is prepared by the Department of Official Language in which targets are set for the offices of the Central Government with regard to originating correspondence, telegrams, telex, etc., in Hindi. A Quarterly Progress Report is called for from the offices of the Central Government regarding achievements vis-à-vis the said targets. An Annual Assessment Report is prepared on the basis of the Quarterly Progress Reports, which is laid on the Tables of both Houses of the Parliament and copies endorsed to State Governments and the Ministries/Departments of the Central Government.

Eight Regional Implementation Offices have been established at Bangalore, Cochin, Mumbai, Kolkata, Guwahati, Bhopal, Delhi and Ghaziabad to monitor the implementation of Official Language Policy of the Union.

AWARD SCHEMES

The Indira Gandhi Rajbhasha Awards Scheme has been in operation since 1986-87. Shields are given every year to Ministries/ Departments, Banks and Financial Institutions, Public Sector Undertakings and Town Official Language Implementation Committees for outstanding achievements in the implementation of the Official Language Implementation Committees for outstanding achievements in the implementation of the Official Language Policy of the Union. Cash awards are given to the working/retired employees of the Central Government, Banks, Financial Institutions, Universities, Training Institutions and Autonomous Bodies of the Central Government for writing original books in Hindi.

The National Awards Scheme for Original Book writing on Gyan-Vigyan has been renamed as Rajiv Gandhi National Awards Scheme for Original Book Writing in Hindi for promoting writing of books in Hindi on all branches of modern Science/ Technology and contemporary subjects. This Scheme is open to all citizens of India.

At Regional level, Regional Official Language Awards are given each year to the Regional/Subordinate Offices, Public Sector Undertakings, Town Official Language Implementation Committees, Banks and Financial Institutions of the Central Government for outstanding achievements in implementing the Official Language Policy of the Union and accelerating the progressive use of Hindi.

TRAINING

Under the Hindi Teaching Scheme, administered by the Department of Official Language, training in Hindi language is being imparted through 119 full-time and 49 part-time centres throughout the country. Likewise, training in Hindi Stenography and Hindi Typing is being provided through 23 full-time and 38 part-time centres. Thus, training in Hindi is being provided in 229 centres located in different parts of the country. Five Regional Offices of Hindi Teaching Scheme at Kolkata, Mumbai, Delhi, Chennai and Guwahati are providing academic and administrative support to the Hindi Teaching Scheme in the East, West, North-Central, South and North-East Regions. To fulfill the increasing demand of Hindi training of North Eastern region a new Regional Headquarter has been established at Guwahati and new Hindi training centres have been established at Imphal, Aizwal and Agartala.

The Kendriya Hindi Prashikshan Sansthan was established on 31 August 1985, as a subordinate office of the Department of Official Language, with the objective of providing Hindi Training through condensed courses in Hindi language/typing and stenography as also training through correspondence in Hindi language and Hindi Typewriting. Its sub-institutes were opened in Mumbai, Kolkata and Bangalore in 1988 and in Chennai and Hyderabad in 1990. Training of Hindi typing on computers is being imparted at almost all the typing/stenography centres in the country.

The Central Translation Bureau was set up in March 1971 for translation of different types of non-statutory literature, manuals/codes, forms, etc., of various Ministries/Departments, Offices of the Central Government and Public Sector Undertakings, Banks, etc. The Bureau has also been entrusted with the responsibility of conducting translation training courses for the officers/employees associated with the translation work. Initially, translation training courses of 3 months were being conducted at the Headquarters in New Delhi. In order to strengthen training facilities and meet regional requirements, Translation Training Centres have been established

in Mumbai, Bangalore and Kolkata. Besides, Central Translation Bureau also conducts short-term translation courses for Central Government employees.

TECHNICAL

In order to facilitate the use of Official Language with the help of mechanical and electronic equipment, especially computers, a Technical Cell was set up in the Department of Official Language in October 1983. The main activities of the Cell are as under:

- (i) Development of "Language application tools" - Under this programme LILA Rajbhasha, a self-learning package through the medium of Bangla, English, Kannada, Malayalam, Tamil and Telugu has been developed. MANTRA Rajbhasha, an aid tool for English to Hindi translation has also been developed.
- (ii) Organising computer training programmes in Hindi - Every year around 100 training programmes are conducted to impart training for the use of Hindi on computers.
- (iii) Organising exhibitions and seminars on bilingual computing - Technical seminars are held to help the users and manufacturers come face to face to discuss the use of Hindi software, etc.

The Department of Official Language has now set up its portal www.rajbhasha.gov.in

PUBLICATIONS

The Department of Official Language brings out 'Rajbhasha Bharati', a quarterly magazine, dedicated for encouraging writings in the field of Official Language, literature, technology, information technology, etc., in Hindi and also to give wide publicity to the efforts being made in different Central Government Offices for the use and propagation of Official Language Hindi. So far 112 issues of Rajbhasha Bharati have been published. Likewise, Annual Programme for implementation of the Official Language policy is brought out every year. Annual Assessment Report regarding the use of Official Language in different Ministries/Departments and offices of the Central Government/Public Sector Undertakings, etc., is also brought out every year and laid on the tables of both the houses of Parliament. Official Language Manual, Calendars, Films, Posters, etc., are also brought out to give information regarding the activities relating to propagation and progressive use of Hindi as the Official Language.

COMPTROLLER AND AUDITOR-GENERAL

Comptroller and Auditor-General is appointed by the President. Procedure and grounds for his removal from office are the same as for a Supreme Court Judge. He is not eligible for further office under the Union or a State Government after he ceases to hold his office. The President on advice of Comptroller and Auditor-General prescribes the form in which accounts of the Union and states are to be kept. His reports on accounts of the Union and states are submitted to the President and respective governors which are placed before Parliament and state legislatures.

INTER-STATE COUNCIL

Inter-State Council Secretariat was established in 1991 to service the Inter-State Council. The Secretariat has also been entrusted with servicing of the Commission on Centre-State Relations set up in 2007.

In a federal polity, in view of large areas of common interest and shared action between the constituent units, coordination of policies and their implementation become extremely important. Article 263 of the Constitution envisages establishment of an institutional mechanism to facilitate coordination of policies and their implementation.

In pursuance of the recommendation made by the Sarkaria Commission on Centre-State Relations, the Inter-State Council was set up in 1990 through a Presidential Order dated May 28, 1990.

The ISC is a recommendatory body and has been assigned the duties of investigating and discussing such subjects, in which some or all of the States or the Union and one or more of the States have a common interest, for better coordination of policy and action with respect to that subject. It also deliberates upon such other matters of general interest to the States as may be referred by the Chairman to the Council.

Hon'ble Prime Minister is the Chairman of the Council. Chief Ministers of all the States and Union Territories having Legislative Assemblies, Administrators of Union Territories not having Legislative Assemblies, Governors of States under President's rule and six Ministers of Cabinet rank in the Union Council of Ministers, nominated by the Chairman of the Council, are members of the Council. Five Ministers of Cabinet rank nominated by the Chairman of the Council are permanent invites to the Council. The Inter-State Council has recently been reconstituted.

The meetings of the Council are held in-Camera, and all questions, which come up for consideration of the Council are decided by consensus, and the decision of the Chairman as to the consensus is final. The Council has not been assigned the duty envisaged in clause (a) of Article 263 of the Constitution namely, *inquiring into and advising upon disputes, which may have arisen between States.*

The Standing Committee of the Inter-State Council was constituted in the year 1996 for continuous consultation and processing of matters for the consideration of the Council. Hon'ble Home Minister is the Chairman of the Standing Committee, and has five Union Cabinet Ministers and nine Chief Ministers as members. The Standing Committee has since been reconstituted.

The Inter-State Council has held so far 10 meetings. In its first 8 meetings, the Council had focused its attention on the 247 recommendations made by the Sarkaria Commission on Centre-State relations, and had taken a view on all these recommendations. Out of 247 recommendations, 179 have been implemented, 65 have not been accepted by the Inter-State Council/Administrative Ministries/Departments concerned, and only 03 recommendations are still at different stages of implementation.

The Council has also considered other public policy and governance issues; these are :

- (a) Contract Labour and Contract Appointments;
- (b) Blue Print of an Action Plan on Good Governance;
- (c) Disaster Management - Preparedness of States to cope with disasters;
- (d) Atrocities on Scheduled Castes and Scheduled Tribes and Status of Implementation of the Scheduled Castes/Scheduled Tribes (Prevention of Atrocities) Act, 1989.

ROLE & FUNCTIONS OF INTER-STATE COUNCIL SECRETARIAT

The Council Secretariat closely monitors the implementation of the recommendations made by the Inter-State Council, and places the Action Taken Report before the Standing Committee/Council for Consideration.

The Council Secretariat has commissioned a number of studies on public policy and governance issues;

- (i) Compensation to resource bearing States in respect of minerals including coal, hydropower and petroleum and natural gas;
- (ii) Sub National Governance;
- (iii) Creation of a common India market on agricultural goods and commodities;
- (iv) National Policy for Urban Street Vendors.

The Council Secretariat has also taken steps in consultation with the Union Ministries/Departments and the State Governments to generate new issues for consideration of the Council.

Inter-State Council Secretariat had entered into a Framework Agreement with the Forum of Federations, Canada for an international partnership with the Forum in improving governance and enhancing democracy by promoting dialogue on the practices, principles and possibilities of federalism. This agreement has been renewed for the next three years - 2008 to 2011.

The proceedings of the Fourth International Conference on Federalism, which was co-hosted by the Inter-State Council Secretariat with the Forum of Federations, Canada, in Delhi in November, 2007 have been published in five volumes, namely Building on and accommodating diversities, Emerging issues in fiscal federalism, Interaction in federal systems, Local government in federal systems and Policy issues in federalism - international perspectives.

An interaction on inter-governmental relations and role and activities of the Inter-State Council was held with a Nepalese delegation comprising of four members of the Constituent Assembly of Nepal in September, 2008.

Inter-State Council Secretariat has also organized in collaboration with the Forum of Federations a country round table on inter-governmental relationship Delhi on January 16, 2009.

ISCS is providing Secretarial support to the Commission on Centre-State Relations. The Commission was constituted in pursuance of the commitment made by the Government of India under its Common Minimum Programme (CMP) considering the vast changes that have taken place in the society and economy of the country in the two decades intervening between the submission of the Report by the Sarkaria Commission till date. The Chairman and Members were appointed on April 27, 2007. Justice (retd.) Madan Mohan Punchhi, former Chief Justice of Supreme Court of India was appointed as Chairperson, and Shri Dhirendra Singh, former Secretary to the Govt. of India, Shri Vinod Kumar Duggal, former Secretary to the Govt. of India and Dr. N.R. Madhava Menon, former Director, National Judicial Academy, Bhopal and National Law School of India, Bangalore were appointed as Members. Shri Vijay Shanker, IPS (retd.) has been appointed as a Member of the Commission on 17.10.2008. The term of the Commission has been extended upon 31.03.2010

ADMINISTRATIVE REFORMS AND PUBLIC GRIEVANCES

Department of Administrative Reforms and Public Grievances is the nodal agency of the Government for Administrative Reforms as well as redressal of public grievances relating to the States in general and grievances pertaining to Central Government agencies in particular. The Department disseminates information on important activities of the Government relating to administrative reforms best practices and public grievance redressal through publications and documentation. The Department also undertakes activities in the field of international exchange and cooperation to promote public service reforms.

The mission of the Department is to act as a facilitator, in consultation with Central Ministries/Departments, States/UT Administrations, Organisations and Civil Society Representatives, to improve Government functioning through process re-engineering, systemic changes. Organisation and Methods, efficient Grievance handling promoting modernisation, Citizens Charters, award schemes, e-governance and best practices in government.

A Commission on Review of Administrative Laws was set up by the Department of Administrative Reforms and Public Grievances on 8 May 1998 with a view to identify proposals for amendment of the existing laws, regulations and procedures having inter-sectoral impact and also for repeal of all dysfunctional laws. The various Ministries/Departments have decided to retain 822 Acts (which include 700 Appropriation Acts and 27 Reorganisation Acts). The remaining Acts are at various stages of processing.

The Second Administrative Reforms Commission (ARC) was setup in 2005 under the Chairmanship of Shri Veerappa Moily to prepare a detailed blueprint for revamping the public administrative system. The Commission set up to suggest measures to achieve a proactive, responsive, accountable, sustainable and efficient administration for the country at all levels of the government has finished its term on April 30, 2009.

In all, the Commission has presented the following 15 Reports to the Government :-

- (i) Right to Information-Master Key to Good Governance (09.06.2006)
- (ii) Unlocking Human Capital - Entitlements and Governance-a Case Study (31.07.2006)
- (iii) Crisis Management-From Despair to Hope (31.10.2006)
- (iv) Ethics in Governance (12.02.2007)
- (v) Public Order-Justice for each. . . peace for all. (25.06.2007)
- (vi) Local Governance (27.11.2007)
- (vii) Capacity Building for Conflict Resolution - Friction to Fusion (17.3.2008)
- (viii) Combating Terrorism (17.9.2008)
- (ix) Social Capital - A Shared Destiny (8.10.2008)
- (x) Refurbishing of Personnel Administration - Scaling New Heights (27.11.2008)
- (xi) Promoting e-Governance - The Smart Way Forward (20.01.2009)
- (xii) Citizen Centric Administration - The Heart of Governance (30.3.2009)

- (xiii) Organisational Structure of Government of India (19.5.2009)
- (xiv) Strengthening Financial Management Systems (26.5.2009)
- (xv) State & District Administration (29.5.2009)

A group of Ministers has been constituted to review the pace of implementation of the recommendations of ARC as well as to provide guidance to the concerned Ministries/Department in implementing the decisions.

The Department also instituted in 2005, "Prime Minister's Awards for Excellence in Public administration" to recognise the extraordinary and innovative work done by the officers of the Central and State Governments. The Award comprise - i) A Medal, ii) A scroll, and, iii) Cash Award of Rs. 1,00,000. In case of a group of officials total award money for the group is Rs 5 lakh subject to a maximum of Rs One lakh per person. The amount for an organisation is upto a limit of Rs 5 lakh. All officers of the Central and State Governments individually or as a group or as organisations are eligible to be considered for the awards. The Awards are given away on the occasion of Civil Service Day being celebrated every year on April 21.

Under e-Governance, the Department is in process of implementing e-office, one of the Mission projects, under the National e-Governance Plan (NeGP). The initiative, e-Office aims at significantly improving the operational efficiency of Central government ministries/departments through improvement in workflow mechanisms and associated office procedure manuals. This initiative would be crucial in pushing GPR, especially in G2G processes which eventually affects quality of services delivered to the citizens. This Department is the nodal agency for implementing the project.

The Department also organizes an annual conference on e-Governance, in one of the state capitals, which is attended by senior officials from the Central/state governments, experts from industry and academia, etc. National awards for-e-Governance are also given away during such conferences. These awards are in recognition of the best-in-class e-Governance initiatives that involve analysis and redesign of workflow and aim at improving the outcomes, related to efficiency, effectiveness of process, cost, quality, service delivery or a combination of these.

The Department has developed a Model-(SEVOTTAM) for benchmarking service delivery standards by the Government departments. The main objective of the project is to set standards in consultation with user group and include these standards in the citizen's charter. It also provides a framework to assess the performance against the standards and to measure improvement and achievements of these standards. The model is aimed to bring about excellence in service delivery standards in government organizations and is to be implemented in all Central ministries departments.

The Sevottam model was studied by the Second Administrative Reforms Commission and was of the view that this model is a step in the right direction. The Commission also recommended that the Union and state government should make the seven-step model mandatory for all organizations having public interface. The DARPG has introduced this model through pilots in ten Central ministries and departments. Out of the ten departments the pilot in the Department of Posts has been completed and Gol Dakhana, New Delhi was awarded the first Sevottam certification in March 2008. The pilot in the remaining 9 Departments are at various stages of implementation.

The Department has also introduced the Sevottam pilot projects in four states namely Himachal Pradesh, Karnataka, Madhya Pradesh and Orissa. In the states, the project has two components; i) introducing the model in one select department and ii) building capacity of the State Training Institute for the purpose of taking the model forward in all other departments. The pilot in Municipal Corporation of Shimla is completed.

The Department has developed and implemented a web based Centralized Public Grievances Redress and Monitoring System (CPGRAMS), Initiated in June 2007, the system was established in June 2008. The system covers all ministries/departments of Government of India. In this system, ministries/departments that actually redress the grievances can access the grievances and take action. The system aims to cover all subordinate and attached offices/field offices within ministries/departments. Many ministries/departments have already covered their attached/field offices and efforts are being made to extend it to others also. The system has led to reduction/elimination of correspondence time. The citizens have a facility to lodge their grievance on the portal and the grievance can directly reach the Ministry concerned. A unique registration number is generated through which citizen can track the status of his/her governance. The Department is now developing a customized CPGRAMS software for the states as well. The Department would be providing support for implementation in two pilot states of Haryana and Rajasthan which is proposed to be extended in other states after providing local language interface.

The Department of Administrative Reforms and Public Grievances has the mandate of promoting good governance practices in the country. Documentation, incubation and dissemination of best practices is one of the tasks enumerated in its Vision and Mission Statement. In pursuance of this and in order to promote good governance practices in the country, the Department has adopted multipronged strategies like bringing out publications, organizing seminars, regional conferences, arranging presentations, organizing lecture series and producing documentary films.

Through its regular publications, "Management in Government-a Quarterly Journal" and "Civil Service News-a Monthly News letter", the Department is creating awareness about best practices, Besides, it has brought out five books namely, 'Ideas That Have Worked', Learn From Them, 'Splendour in the Grass', Roofless Towers and 'BYOB - Bringing Your Bytes', These books share experiences of success or failure of innovators.

A portal of best practices called 'Governance knowledge Centre' has been launched to effectively pursue the objective of dissemination of best practices facilitating their replication. The Department has also produced a DVD containing 73 select reports of commissions/committee on administrative reforms since 1812 till date.

ADMINISTRATIVE TRIBUNALS

The enactment of Administrative Tribunals Act in 1985 opened a new chapter in the sphere of administering justice to the aggrieved government servants. Administrative Tribunals Act owes its origin to Article 323-A of the Constitution which empowers Central Government to set-up by an Act of Parliament, Administrative Tribunals for adjudication of disputes and complaints with respect to recruitment and conditions

of service of persons appointed to the public service and posts in connection with the affairs of the Union and the States. In pursuance of the provisions contained in the Administrative Tribunals Act, 1985, the Administrative Tribunals set-up under it exercise original jurisdiction in respect of service matters of employees covered by it. As a result of the judgement dated 18 March 1997 of the Supreme Court, the appeals against the orders of an Administrative Tribunal shall lie before the Division Bench of the concerned High Court.

The Administrative Tribunals exercise jurisdiction only in relation to the service matters of the litigants covered by the Act. The procedural simplicity of the Act can be appreciated from the fact that the aggrieved person can also appear before it personally. The Government can present its case through its departmental officers or legal practitioners. Thus, the objective of the Tribunal is to provide for speedy and inexpensive justice to the litigants.

The Act provides for establishment of Central Administrative Tribunal (CAT) and the State Administrative Tribunals. The CAT was set-up on 1 November 1985. Today, it has 17 regular benches, 15 of which operate at the principal seats of High Courts and the remaining two at Jaipur and Lucknow. These Benches also hold circuit sittings at other seats of High Courts. In brief, the tribunal consists of a Chairman, Vice-Chairman and Members. The Members are drawn, both from judicial as well as administrative streams so as to give the Tribunal the benefit of expertise both in legal and administrative spheres.

THE STATES

The system of government in States closely resembles that of the Union.

EXECUTIVE

GOVERNOR

State executive consists of Governor and Council of Ministers with Chief Minister as its head. The Governor of a State is appointed by the President for a term of five years and holds office during his pleasure. Only Indian citizens above 35 years of age are eligible for appointment to this office. Executive power of the State is vested in Governor.

Council of Ministers with Chief Minister as head, aids and advises Governor in exercise of his functions except in so far as he is by or under the Constitution required to exercise his functions or any of them in his discretion. In respect of Nagaland, Governor has special responsibility under Article 371 A of the Constitution with respect to law and order and even though it is necessary for him to consult Council of Ministers in matters relating to law and order, he can exercise his individual judgement as to the action to be taken.

Similarly, in respect of Arunachal Pradesh, Governor has special responsibility under Article 371H of the Constitution with respect to law and order and in discharge of his functions in relation thereto. Governor shall, after consulting Council of Ministers, exercise his individual judgement as to the action to be taken. These are, however, temporary provisions if President, on receipt of a report from Governor or otherwise is satisfied that it is no longer necessary for Governor to have special responsibility with respect to law and order, he may so direct by an order.

Likewise, in the Sixth Schedule which applies to tribal areas of Assam, Meghalaya, Tripura and Mizoram as specified in para 20 of that Schedule,

discretionary powers are given to Governor in matters relating to sharing of royalties between district council and state government. Sixth Schedule vests additional discretionary powers in Governors of Mizoram and Tripura in almost all their functions (except approving regulations for levy of taxes and money lending by non-tribals by district councils) since December 1998. In Sikkim, Governor has been given special responsibility for peace and social and economic advancement of different sections of population.

All Governors while discharging such constitutional functions as appointment of Chief Minister of a State or sending a report to President about failure of constitutional machinery in a State or in respect of matters relating to assent to a Bill passed by legislature, exercise their own judgement.

COUNCIL OF MINISTERS

The Chief Minister is appointed by the Governor who also appoints other ministers on the advice of the Chief Minister. The Council of Ministers is collectively responsible to legislative assembly of the State.

LEGISLATURE

For every state, there is a legislature which consists of Governor and one House or, two Houses as the case may be. In Bihar, Jammu and Kashmir, Karnataka, Maharashtra and Uttar Pradesh, there are two Houses known as legislative council and legislative assembly. In the remaining states, there is only one House known as legislative assembly. Parliament may, by law, provide for abolition of an existing legislative council or for creation of one where it does not exist, if proposal is supported by a resolution of the legislative assembly concerned.

LEGISLATIVE COUNCIL

Legislative Council (*Vidhan Parishad*) of a state comprises not more than one-third of total number of members in legislative assembly of the state and in no case less than 40 members (Legislative Council of Jammu and Kashmir has 36 members vide Section 50 of the Constitution of Jammu and Kashmir). About one-third of members of the council are elected by members of legislative assembly from amongst persons who are not its members, one-third by electorates consisting of members of municipalities, district boards and other local authorities in the state, one-twelfth by electorate consisting of persons who have been, for at least three years, engaged in teaching in educational institutions within the state not lower in standard than secondary school and a further one-twelfth by registered graduates of more than three years standing. Remaining members are nominated by Governor from among those who have distinguished themselves in literature, science, art, cooperative movement and social service. Legislative councils are not subject to dissolution but one-third of their members retire every second year.

LEGISLATIVE ASSEMBLY

Legislative Assembly (*Vidhan Sabha*) of a state consists of not more than 500 and not less than 60 members (Legislative Assembly of Sikkim has 32 members vide Article 371F of the Constitution) chosen by direct election from territorial constituencies in the state. Demarcation of territorial constituencies is to be done in such a manner that the ratio between population of each constituency and number of seats allotted to it, as far as practicable, is the same throughout the state. Term of an assembly is five years unless it is dissolved earlier.

POWERS AND FUNCTIONS

State legislature has exclusive powers over subjects enumerated in List II of the Seventh Schedule of the Constitution and concurrent powers over those enumerated in List III. Financial powers of legislature include authorisation of all expenditure, taxation and borrowing by the state government. Legislative assembly alone has power to originate money bills. Legislative council can make only recommendations in respect of changes it considers necessary within a period of fourteen days of the receipt of money bills from Assembly. Assembly can accept or reject these recommendations.

RESERVATION OF BILLS

The Governor of a state may reserve any Bill for the consideration of the President. Bills relating to subjects like compulsory acquisition of property, measures affecting powers and position of High Courts and imposition of taxes on storage, distribution and sale of water or electricity in inter-state river or river valley development projects should necessarily be so reserved. No Bills seeking to impose restrictions on inter-state trade can be introduced in a state legislature without previous sanction of the President.

CONTROL OVER EXECUTIVE

State legislatures, apart from exercising the usual power of financial control, use all normal parliamentary devices like questions, discussions, debates, adjournments and no-confidence motions and resolutions to keep a watch over day-to-day work of the executive. They also have their committees on estimates and public accounts to ensure that grants sanctioned by legislature are properly utilised.

UNION TERRITORIES

Union Territories are administrated by the President acting to such extent, as he thinks fit, through an Administrator appointed by him. Administrators of Andaman and Nicobar Islands, Delhi and Pondicherry are designated as Lieutenant Governors. The Governor of Punjab is concurrently the Administrator of Chandigarh. The Administrator of Dadra and Nagar Haveli is concurrently the Administrator of Daman and Diu. Lakshadweep has a separate Administrator.

The National Capital Territory of Delhi and Union Territory of Pondicherry each has a legislative assembly and council of ministers. Legislative assembly of Union Territory of Pondicherry may make laws with respect to matters enumerated in List II or List III in the Seventh Schedule of the Constitution in so far as these matters are applicable in relation to the Union Territory. The legislative assembly of National Capital Territory of Delhi has also these powers with the exceptions that Entries 1, 2 and 18 of the List II are not within the legislative competence of the legislative assembly. Certain categories of Bills, however, require the prior approval of the Central Government for introduction in the legislative assembly. Some Bills, passed by the legislative assembly of the Union Territory of Pondicherry and National Capital Territory of Delhi are required to be reserved for consideration and assent of the President.

LOCAL GOVERNMENT**MUNICIPALITIES**

Municipal bodies have a long history in India. The first such Municipal Corporation was set-up in the former Presidency Town of Madras in 1688; and was followed by

similar corporations in the then Bombay and Calcutta in 1726. The Constitution of India has made detailed provisions for ensuring protection of democracy in Parliament and in the state legislatures. However, Constitution did not make the local self-government in urban areas a clear-cut constitutional obligation. While the Directive Principles of State Policy refer to village *Panchayats*, there is no specific reference to Municipalities except the implicity in Entry 5 of the State List, which places the subject of local self-governments as a responsibility of the states.

In order to provide for a common framework for urban local bodies and help to strengthen the functioning of the bodies as effective democratic units of self-government, Parliament enacted the Constitution (74th Amendment) Act, 1992 (known as Nagarpalika Act) relating to municipalities in 1992. The Act received the assent of the President on 20 April 1993. The Government of India notified 1 June 1993 as the date from which the said Act came into force. A new part IX-A relating to the Municipalities has been incorporated in the Constitution to provide for among other things, constitution of three types of Municipalities, i.e., *Nagar Panchayats* for areas in transition from a rural area to urban area, Municipal Councils for smaller urban areas and Municipal Corporation for large urban areas, fixed duration of municipalities, appointment of state election commission, appointment of state finance commission and constitution of metropolitan and district planning committees. All State/UT Administrations have set-up their state election commissions and Finance Commissions.

PANCHAYATS

Article 40 of the Constitution which enshrines one of the Directive Principles of State Policy lays down that the State shall take steps to organise village *panchayats* and endow them with such powers and, authority as may be necessary to enable them to function as units of self-government.

In the light of the above a new Part IX relating to the Panchayats has been inserted in the Constitution to provide for among other things, *Gram Sabha* in a village or group of villages; constitution of Panchayats at village and other level or levels; direct elections to all seats in Panchayats at the village and intermediate level, if any, and to the offices of Chairpersons of Panchayats at such levels; reservation of seats for the Scheduled Castes and Scheduled Tribes in proportion to their population for membership of Panchayats and office of Chairpersons in Panchayats at each level; reservation of not less than one-third of the seats for women; fixing tenure of five years for Panchayats and holding elections within a period of six months in the event of supersession of any Panchayat.

ELECTION COMMISSION

The superintendence, direction and control of preparation of electoral rolls for, and the conduct of, elections to Parliament and State Legislatures and elections to the offices of the President and the Vice-President of India are vested in the Election Commission of India. It is an independent constitutional authority. Since its inception in 1950 and till October 1989, the Commission functioned as a single member body consisting of the Chief Election Commissioner. On 16 October 1989, the President appointed two more Election Commissioners on the eve of the General Election to the House of the People held in November-December 1989. However, the said two Commissioners ceased to hold office on 1 January 1990 when those two posts of

Election Commissioners were abolished. Again on 1 October 1993, the President appointed two more Election Commissioners. Simultaneously, the Chief Election Commissioner and other Election Commissioners (Conditions of Service) Act, 1991 was amended to provide that the Chief Election Commissioner and other Election Commissioners will enjoy equal powers and will receive equal salary, allowances and other perquisites as payable to a judge of the Supreme Court of India. The Act further provided that in case of difference of opinion amongst the Chief Election Commissioner and/or two other Election Commissioners, the matter will be decided by the Commission by majority. The validity of that Act (renamed in 1993 as the Election Commission) (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991 was challenged before the Supreme Court. The Constitution Bench of the Supreme Court consisting of five judges, however, dismissed the petitions and upheld the provisions of the above law by a unanimous judgement on 14 July 1995.

Independence of the Election Commission and its insulation from executive interference is ensured by a specific provision under Article 324(5) of the Constitution that the Chief Election Commissioner shall not be removed from his office except in like manner and on like grounds as a Judge of the Supreme Court and conditions of his service shall not be varied to his disadvantage after his appointment. The other Election Commissioners cannot be removed from office except on recommendation of the Chief Election Commissioner. The term of office of the Chief Election Commissioner and other Election Commissioners is six years from the date he/she assumes office or till the day he/she attains the age of 65 years, whichever is earlier.

AMENDMENTS

The Parliament on 22 March 2003 enacted the Election Laws (Amendment) Act, 2003 and Conduct of Elections (Amendment) Rules, 2003 which came into force with effect from 22 September 2003. By these amendments in the Act and Rules, those service voters belonging to the Armed Forces and members belonging to a Force to which provisions of the Army Act applies, have been provided the facility to opt to vote through proxy. Such service voter who opt to vote through proxy have to appoint a proxy in a prescribed format and intimate the Returning Officer of the constituency.

The Election and Other Related Laws (Amendment) Act, 2003 (46 of 2003) was enacted in 11 September 2003. By this amendment, new Section 29B and 29C were inserted in the Principal Act providing for contribution by any person or company other than a Government company to political parties, subject to the condition that any contribution in excess of Rs 20,000 shall be reported to the Election Commission for any claim for Tax relief under the Income Tax Act, 1961. The Act also inserted Part A (Section 78A and 78B) regarding supply of copies of electoral rolls and certain other items to candidates of recognised political parties. This Act also amended Section 77(1) regarding maintenance of election expenses by candidates whereby expenditure incurred by specified number of 'leaders' of a political party on account of travel by air or by any other means of transport for propagating programme of the political party alone shall be exempted from being included in the account of election expenses incurred by the candidate in connection with the election.

The Parliament on 1 January 2004 enacted the Delimitation (Amendment) Act, 2003 whereby Section 4 of the Principal Act was amended to provide that the Delimitation will be held on the basis of the 2001 Census figures.

The Parliament on 28 August 2003 enacted the Representation of the People (Amendment) Act, 2003 whereby open ballot system was introduced at elections to the Council of States. In this system an elector who belongs to a political party is required to show the ballot paper after marking his vote to an authorised agent of that political party. The requirement that a candidate contesting an election to the Council of States from a particular State should be an elector in that particular State was also dispensed with.

ELECTORAL REFORMS

In C.W.P. No. 4912 of 1998 (*Kushra Bharat Vs. Union of India and Others*), the Delhi High Court directed that information relating to government dues owed by candidates to the departments dealing with Government accommodation, electricity, water, telephone and transport (including aircrafts and helicopters) and any other dues should be furnished by the candidates and this information should be published by the election authorities under the Commission in at least two newspapers having local circulation, for information of electors. Accordingly, the Commission modified items 3(a)(iii) of the format of the affidavit prescribed vide its order dated 27 March 2003 relating to right to information of electors regarding the background of candidates and also issued necessary directions to the District Election Officers regarding publication of the information furnished by the candidates in the newspapers as directed by the Delhi High Court.

TABLE 3.1: LOK SABHA AND ITS SPEAKER(S) FROM TIME TO TIME

LOK SABHA	Date of first meeting after its constitution	Date of dissolution	SPEAKER ¹ Name	From	To
First Lok Sabha	13 May 1952	4 April 1957 ²	Ganesh Vasudev Mavalankar	15 May 1952	27 February 1956 ³
Second Lok Sabha	10 May 1957	31 March 1962 ⁴	M. Ananthasayanam Ayyangar	8 March 1956	10 May 1957
Third Lok Sabha	16 April 1962	3 March 1967 ⁵	M. Ananthasayanam Ayyangar	11 May 1957	16 April 1962
Fourth Lok Sabha	16 March 1967	27 December 1970 ⁶	Hukam Singh	17 April 1962	16 March 1967
Fifth Lok Sabha	19 March 1971	18 January 1977 ⁸	Neelam Sanjiva Reddy	17 March 1967	19 July 1969 ⁷
Sixth Lok Sabha	25 March 1977	22 August 1979 ¹⁰	Gurdial Singh Dhillon	8 August 1969	19 March 1971
Seventh Lok Sabha	21 January 1980	31 December 1984 ¹²	Bali Ram Bhagat	22 March 1971	1 December 1975 ⁹
Eighth Lok Sabha	15 January 1985	27 November 1989 ¹³	Neelam Sanjiva Reddy	5 January 1976	25 March 1977
Ninth Lok Sabha	18 December 1989	13 March 1991 ¹⁴	K.S. Hegde	26 March 1977	13 July 1977 ¹¹
Tenth Lok Sabha	9 July 1991	10 May 1996	Bal Ram Jakhar	21 July 1977	21 January 1980
Eleventh Lok Sabha	22 May 1996	4 December 1997 ¹⁵	Bal Ram Jakhar	22 January 1980	15 January 1985
Twelfth Lok Sabha	23 March 1998	26 April 1999 ¹⁶	Bal Ram Jakhar	16 January 1985	18 December 1989
Thirteenth Lok Sabha	20 October 1999	6 February 2004 ¹⁸	Rabi Ray	19 December 1989	9 July 1991
Fourteenth Lok Sabha	2 June 2004	18 May 2009	Shivraj V. Patil	10 July 1991	22 May 1996
Fifteenth Lok Sabha	1 June 2009	--	P.A. Sangma	23 May 1996	23 March 1998 (FN)
			G.M.C. Balayogi	24 March 1998	20 October 1999 (FN)
			G.M.C. Balayogi	22 October 1999	3 March 2002 ¹⁷
			Manohar Gajanan Joshi	10 May 2002	2 June 2004
			Somnath Chatterjee	4 June 2004	1 June 2009
			Meira Kumar	1st June 2009	till date

¹ Under Article 94 of the Constitution, in case of dissolution of the Lok Sabha, the Speaker does not vacate his office until immediately before the first meeting of the House after dissolution.

² Dissolved 38 days before expiry of its term.

TABLE 3.1 (Contd.)

- 3 Died.
- 4 Dissolved 40 days before expiry of its term.
- 5 Dissolved 44 days before expiry of its term.
- 6 Dissolved one year and 79 days before expiry of its term.
- 7 Resigned.
- 8 Term of the Lok Sabha which was to expire on 18 March 1976 was extended by one year upto 18 March 1977 by the House of the People (Extension of Duration) Act, 1976. It was extended for a further period of one year upto 18 March 1978 by the House of the People (Extension of Duration) Amendment Act, 1976. However, the House was dissolved after having been in existence for a period of five years, 10 months and six days.
- 9 Resigned.
- 10 House was dissolved after having been in existence for a period of two years, four months and 28 days.
- 11 Resigned.
- 12 Dissolved 20 days before expiry of its term.
- 13 Dissolved 48 days before expiry of its term.
- 14 Dissolved after having been in existence for a period of one year, two months and 25 days.
- 15 House was dissolved after having been in existence for a period of one year, six months and 13 days.
- 16 House was dissolved after having been in existence for a period of one year, one month and four days .
- 17 Died.
- 18 Dissolved 253 days before expiry of its term.

TABLE 3.2 : STATE-WISE ALLOCATION OF SEATS IN THE TWO HOUSES OF PARLIAMENT AND PARTY POSITION
IN LOK SABHA (AS ON 31.7.2008)

State/UTs	No. of		Party																Others	Vacancies
	Seats in Rajya Sabha	Seats in Lok Sabha	INC	BIP	CPI(M)	SP	RJD	BSP	DMK	SS	BJD	CPI	NCP	JD(U)	SAD	IND.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
STATES																				
ANDHRA PRADESH	18	42	29	-	1	-	-	-	-	-	-	1	-	-	-	-	11(A)	-	-	
ARUNACHAL PRADESH	1	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ASSAM	7	14	9	2	-	-	-	-	-	-	-	-	-	-	-	1	2(B)	-	-	
BIHAR	16	40	3	4	-	-	22	-	-	-	-	-	-	5	-	-	4(C)	2	-	
CHHATTISGARH	5	11	1	9	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
GOA	1	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
GUJARAT	11	26	12	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HARYANA	5	10	9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HIMACHAL PRADESH	3	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	
JAMMU AND KASHMIR	4	6	2	-	-	-	-	-	-	-	-	-	-	-	-	1	3(D)	-	-	
JHARKHAND	6	14	6	-	-	-	1	-	-	-	-	1	-	-	-	-	4(E)	2	-	
KARNATAKA	12	28	9	16	-	1	-	-	-	-	-	-	-	-	-	-	2(F)	-	-	
KERALA	9	20	-	12	-	-	-	-	-	-	-	3	-	-	-	1	4(G)	-	-	
MADHYA PRADESH	11	29	3	23	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	
MAHARASHTRA	19	48	13	11	-	-	-	-	-	12	-	-	9	-	-	-	1(H)	2	-	
MANIPUR	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MEGHALAYA	1	2	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	
MIZORAM	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1(I)	-	-	
NAGALAND	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1(J)	-	-	
ORISSA	10	21	2	7	-	-	-	-	-	-	11	-	-	-	-	-	1(K)	-	-	
PUNJAB	7	13	2	3	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	
RAJASTHAN	10	25	4	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SIKKIM	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1(L)	-	
TAMILNADU	18	39	10	-	2	-	-	-	16	-	-	2	-	-	-	-	9(M)	-	-	

TABLE 3.2 (Contd.)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
TRIPURA	1	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
UTTARANCHAL	3	5	1	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
UTTARAKHAND	31	80	9	10	-	36	-	15	-	-	-	-	-	-	1	-	1	5(N)	3
WEST BENGAL	16	42	5	-	25	-	-	-	-	-	-	3	-	-	-	-	-	6(O)	3
NOMINATED	12	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UNION TERRITORIES																			
A & N ISLANDS	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHANDIGARH	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DADRA & NAGAR HAVELI	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1(P)	-
DAMAN & DIU	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
THE NCT OF DELHI	3	7	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LAKSHADWEEP	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
PUDUCHERRY	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1(q)	-
TOTAL	245	543	146	128	42	38	23	15	16	12	11	10	10	10	7	8	5	57	17

a. Telangana Rashtra Samiti-5; Telugu Desam-5; All India Majlis-e-Ittehadul Muslimeen-1

b. Ason Gana Parishad-2

c. Lok Jan Shakti Party-4

d. Jammu and Kashmir National Conference-2; Jammu and Kashmir Peoples Democratic Party-1

e. Jharkhand Mukti Morcha-4

f. Janata Dal (Secular)-2

g. Janata Dal (Secular)-1; Muslim League Kerala State Committee-1; Kerala Congress-2

h. Republican Party of India (A)-1

i. Mizo National Front-1

j. Nagaland Peoples Front-1

k. Jharkhand Mukti Morcha-1

l. Sikkim Democratic Front-1

m. Pattali Makkal Katchi-5; Marumalachi Dravida Munnetra Kzhiyam-4

n. Rashtriya Lok Dal-3; National Loktantrik Party-1; Samajwadi Janata Party (Rashtriya)-1

o. Revolutionary Socialist Party-3; All India Trinamool Congress-1; All India Forward Bloc-3

p. Bharatiya Navshakti Party-1

q. Pattali Makkal Katchi-1

4 Agriculture

AGRICULTURE is the mainstay of the Indian economy. Agriculture and allied sectors contribute nearly 17.8 and 17.1 per cent of Gross Domestic Product (GDP of India) during 2007-08 and 2008-09 respectively. The agricultural output, however, depends on monsoon as nearly 55.7 per cent of area sown is dependent on rainfall.

An all time record in production of foodgrains of 233.88 million tonnes is estimated in 2008-09 as per 4th Advance Estimates. This is about 13.10 million tonnes more than last year's production of foodgrains. The production of rice is estimated at 99.15 million tonnes which is about 2.46 million tonnes more, production of wheat is estimated at 80.58 million tonnes which is 2.01 million tonnes more, production of coarse cereals is estimated at 39.48 million tonnes which is 1.27 million tonnes more and production of pulses is estimated at 14.66 million tonnes which is about 0.99 lakh tonnes more than the production during 2007-08. The sugarcane production is estimated at 2712.54 lakh tonnes which is about 769.34 lakh tonnes less than the production during 2007-08. Cotton production is estimated at 231.56 lakh bales (of 170 kg. each) which is 27.28 lakh bales more than the production during 2007-08. Jute and mesta production during 2008-09 is estimated at 104.07 lakh bales (of 180 kg each) which is about 8.04 lakh bales less than the production during 2007-08.

The total area coverage under foodgrains in 2008-09 has been reported as 123.22 million hectares against 124.07 million hectares in 2007-08. The area under rice is estimated at 453.52 lakh hectares which is significantly higher about 1437 lakh hectares. However, the area coverage under wheat during 2008-09 estimated at 278.77 lakh hectares is slightly lower by around 1.62 lakh hectares. The total area coverage under coarse cereals during 2008-09 is estimated at 276.17 lakh hectares which is slightly lower by 8.64 lakh hectares as compared to 2007-08. The increase in Minimum Support Price (MSP) in 2008-09 over 2007-08 amongst cereals has ranged between 8.0 per cent wheat to 52.6 per cent (ragi). The per centage increase in case of paddy (common) is 31.8 per cent. In case of pulses, the increase has ranged between 8.1 per cent (gram) and 48.2 per cent (urad and moong).

NATURAL RESOURCE MANAGEMENT

PROGRAMME/SCHEMES OF NATURAL RESOURCE MANAGEMENT AND RAINFED FARMING SYSTEMS

The land serves as storage for water and nutrients required for plants and other living micro-macro-organisms. The demand for food, energy and other human requirements depends upon the preservation and improvement of the productivity of land. But land resources are limited. India has about 18% of world's population and 15% of livestock population to be supported from only 2% geographical area and 1.5% of forest and pasture lands. The increasing human and animal population has reduced the availability of land over the decades. The per capita availability of land has declined from 0.89 hectare in 1951 to 0.37 hectare in 1991 and is projected to slide down to 0.20 hectare in 2035. As far as agricultural land is concerned the per capita availability of land has declined from 0.48 hectare in 1951 to 0.16 hectare in 1991 and is likely to decline further to 0.08 hectare in 2035. This decline in per capita land availability in the country is mostly on account of rising population.

Out of 328.7 million hectare of geographical area of India, about 141 million hectares as Net Cultivated Area. Of this, about 57 million hectare (40%) is irrigated and the remaining 85 million ha. (60%) is rainfed. This area is generally subject to wind and water erosion and is in different stages of degradation for subjecting to intensive agricultural production. Therefore, it needs improvement in terms of its productivity per unit of land and per unit of water for optimum production. Rainfed agriculture is characterized by low levels of productivity and low input usage. Crop production is subjected to considerable instability from year to year due to its dependence on rainfall, which is slightly erratic and variant in space and time. More than 200 million of the rural poor live in the rainfed regions. These risk prone areas exhibit a wide variation and instability in yields.

The information on the extent of soil degradation in the country has been assessed by various agencies. The estimates of these agencies vary widely i.e. 63.9 m.ha. to 187.0 m.ha., due to different approaches in defining degraded soils and adopting various criteria for delineation. The main agencies that have estimated soil degradation are, National Commission on Agriculture (NCA, 1976), Society for promotion of Wasteland Developments (SPWD, 1984), National Remove Sensing Agency (NRSA, 1985), Ministry of Agriculture (1985), and National Bureau of Soil Survey and Land Use Planning (NBSSLUP, 1984 & 2005).

The problems of land degradation are prevalent in many forms throughout the country. In most cases, a combination of such problem exists. In absence of comprehensive and periodic scientific surveys, estimates have been made on the basis of localized surveys and studies. Recently, (2005) National Bureau of Soil Survey and Land Use Planning (NBSS&LUP), Nagpur of ICAR has published that 146.82 million hectare area is reported to be suffering from various kinds of land degradation. It includes water erosion 93.68 million ha., wind erosion 9.48 million ha., water logging/flooding 14.30 million ha., salinity/alkalinity 5.94 million ha., soil acidity 16.04 million ha. and complex problem 7.38 million ha.

WATERSHED PROGRAMME FOR DEVELOPMENT OF DEGRADED LAND

Various Watershed Development Programmes namely : (i) National Watershed Development Project for Rainfed Areas (NWDPA), (ii) Soil Conservation in the Catchments of River Valley Project & Flood Prone River (RVP & FPR), (iii) Reclamation & Development of Alkali & Acid Soil (RADAS), (iv) Watershed Development Project in Shifting Cultivation Areas (WDPSA) are being implemented.

Schemes/Programmes for Watershed Development : The Division wise and programme wise details are as under :-

SCHEMES/PROGRAMMES OF NRM

The Natural Resource Management is implementing mainly three Centrally Sponsored Programmes and three Central Sector Schemes with major objectives of prevention of land degradation and restoration of productive potential of the degraded lands in the country. The Scheme-wise highlights of the programme/scheme are :

(A) Central Sector Scheme (Plan & Non Plan)

SLUSI : The Central Sector Scheme of Soil & Land Use Survey of India (SLUSI)' facilitates various types of soil surveys of catchments/watersheds. The organization is also engaged in preparation of district-wise map of land degradation. The proposed targets for 2009-10 for SLUSI are as under :

- | | | |
|--|---|--------|
| (a) Rapid Reconnaissance Survey (RRS) lakh ha. | - | 156.00 |
|--|---|--------|

(b) Detailed Soil Survey (DSS) lakh ha.	-	1.60
(c) Land Degradation Mapping (LDM) lakh ha.	-	0.10
(d) Soil Resource Mapping (SRM) lakh ha.	-	161.00

An amount is Rs. 14.00 crore under Plan & Rs. 2.32 crore for Non-Plan is allocated for completing the targets.

SCTC-DVC (Non-Plan) : The 'Soil Conservation Training Centre at Damodar Valley Corporation, Hazaribagh' is being financed and implemented as non-plan scheme for imparting training/capacity building of the officials working for soil & water conservation programme in the State Governments. During 2009-10 an amount of Rs. 0.45 crore is allocated for conducting various short & medium training courses.

WDPSCA (Plan) : A special Central Assistance to State Plan Scheme on 'Watershed Development Project in Shifting Cultivation Areas (WDPSCA)' is being implemented in North Eastern States with 100% Special Assistance to State Plan. Under this scheme, an area of 3.93 lakh ha. have been treated since inception upto X Plan. During 2009-10, about 0.40 lakh ha. area to be treated at an estimated cost of Rs. 40.00 crore.

(B) Centrally Sponsored Programme (Plan-Subsumed under MMA) :

RVP & FPR : Under 'Soil Conservation in the Catchments of River Valley & Flood Prone River (RVP & FPR)', since inception upto X Plan, an area of 65.27 lakh ha, have been treated. During 2009-10, about 2.80 lakh ha. area is targeted for treatment with estimated cost of Rs. 290.00 crore.

RADAS : The Programme for Reclamation of Alkali Soil (RAS) now named as 'Reclamation and Development of Alkali & Acid Soil (RADAS)' is being implemented in the States, where alkalinity exists. Since inception upto X Plan as area of 6.59 lakh ha. has been reclaimed. During 2009-10, about 0.25 lakh ha. area has been targeted for reclamation with the estimated cost of Rs. 14.00 crore.

SCHEMES/PROGRAMMES OF RFS DIVISION FOR DEVELOPMENT OF DEGRADED LANDS

The RFS Division is also implementing few programmes for development of degraded lands including rainfed areas. The main schemes and programmes of RFS Division are :

(a) National Watershed Development Project for Rainfed Areas (NWDPR) : The National Watershed Development Project for Rainfed Areas (NWDPR) was launched in 1990-91 in 28 States and two Union Territories based on twin concepts of integrated watershed management and sustainable farming systems. Since inception upto the end of X Plan an area of 94.02 lakh ha. have been developed under the programme. During the XI Plan, it is proposed to develop about 30.00 lakh ha. covering about 5350 micro watersheds. For the year 2009-10, it has been targeted to cover about 2.80 lakh ha. with an estimated cost of Rs. 300.00 crore.

(b) National Rainfed Area Authority (NRAA) : The Union Government have constituted a National Rainfed Area Authority (NRAA) on 03-11-2006 to give focused attention to the problem of the rainfed areas of the country. The Authority is an advisory, policy making and monitoring body charged with the role of examining guidelines in various existing schemes and in the formulation of new schemes including all externally aided projects in this area. Its mandate is wider than mere water conservation and will cover all aspects of sustainable and holistic development

of rainfed areas, including appropriate farming and livelihood system approaches. It would also focus on issues pertaining to landless and marginal farmers, since they constitute the large majority of inhabitants of rainfed areas.

NRAA has a two tier structure. The first tier is the Governing Board that will provide necessary leadership and appropriate coordination in implementation of programmes. The Governing Board is chaired by the Union Agriculture Minister and co-chaired by the Union Rural Development Minister. The second tier is the Executive Committee Consisting of technical experts and representatives from stakeholder Ministries. The Executive Committee is headed by the Chief Executive Officer and have five other full time technical experts. The Authority has been operationalised with the joining of Chief Executive Officer on 14-05-2007. Four out of the Technical Experts in the rank of Additional Secretary have been appointed in the NRAA. The recruitment of the remaining Technical Experts in the field of agriculture/horticulture is under process.

The NRAA has formulated common guidelines for Watershed Development Project and after approval of governing body of NRAA, the same has been circulated to all the States on 12th March 2008 for implementation of Watershed Development Programme as per instructions contained in the guidelines.

(c) Rainfed Area Development Programme (RADP) : In the Budget speech of Union Finance Minister for the year 2007-08, a new scheme namely, Rainfed Area Development Programme (RADP) was announced. The Planning Commission has communicated the *in-principle* approval to the implementation of Centrally Sponsored Scheme of RADP at a cost of Rs. 3500.00 crore during the XI Five Year Plan including a component of Rs. 170.00 crore for NRAA on 20th March 2008. Based on the revised outlay of Rs. 3330.00 crore as communicated by the Planning Commission and the comments received from various Ministries/Departments/Divisions of the DAC, the EFC Note has been revised and sent to the Ministry of Finance and Planning Commission. The EFC Note is revised and being sent to the Planning Commission for approval before it is placed to Expenditure Finance Committee. Under this programme, it is expected to cover 30 lakh ha. of rainfed area during the XI Plan period. This Scheme is under formulation and approval.

FORMULATION AND CIRCULATION OF OPERATIONAL GUIDELINES

The National Rainfed Area Authority (NRAA) has circulated Common Guidelines for Watershed Development Projects (CGDWP) for implementation of all Watershed Development Programmes in the country. According to the instructions contained in the CGWDP, the operational guidelines for the programmes, namely, NWDPR, RVP & FPR & RADAS have been circulated to the States for adoption. The Operational Guidelines for Watershed Development Programme in Shifting Cultivation Areas (WDPSCA) have been also formulated and circulated to the State Governments for adoption.

MICRO MANAGEMENT OF AGRICULTURE (MMA) SCHEME

Agriculture is a state subject. Hence, the primary role for increasing productivity and production of food grains is that of the State Governments. However, in order to supplement the efforts of the State Governments, a number of Centrally Sponsored and Central Sector Schemes are being implemented for enhancement of agricultural productivity and production leads into prosperity of the farming community in the country.

The Macro Management of Agriculture (MMA) Scheme is one of the Centrally Sponsored Schemes formulated in 2000-01 with the objective to ensure that the central assistance is spent through focused and specific interventions for development of agriculture in the States so begin with the scheme initially consisted of 27 Centrally Sponsored Schemes relating to Cooperative, Crop Production Programmes (for rice, wheat, coarse cereals, jute, sugarcane), Watershed Development Programme (NWDPPRA, RVP/FPR), Horticulture, Fertilizer, Mechanization and Seeds Production Programmes. With the launching of National Horticulture Mission. (NHM) in 2005-06, 10 schemes pertaining to horticulture development were taken out of the purview of this Scheme.

In the year 2008-09, Macro Management of Agriculture Scheme was revised to improve its efficacy in supplementing/complementing the efforts of the States towards enhancement of agricultural production and productivity. The Revised MMA scheme comprises 11 sub-schemes relating to crop production and natural resource management.

Some of the salient features of the Revised Macro Management of Agriculture Scheme are the following.

- (i) The practice of allocating funds to States/UTs on historical basis has been replaced by a new allocation criteria based on gross cropped area and area under small and marginal holdings. The assistance would be provided to the States/UTs as 100% grant.
- (ii) The subsidy structure has been rationalized to make the pattern of subsidy uniform under all the schemes implemented by the Department of Agriculture & Cooperation. The revised subsidy norms indicate the maximum permissible limit of assistance. States may either retain the existing norms, or increase them to a reasonable level provided that the norms do not exceed the revised upper limits specified.
- (iii) Two new components have been added namely: (a) Pulses and oilseeds crop production programmes for the areas not covered under the integrated schemes of oilseeds, Pulses, Oil palm and Maize (ISOPOM) and (b) "Reclamation of Acidic Soil" along with the existing component of "Reclamation of Alkali Soil".
- (iv) The permissible ceiling for new initiatives has been increased from existing 10% to 20% of the allocation.
- (v) Atleast 33% of the funds has to be earmarked for small, marginal and women farmers.
- (vi) Active participation of the Panchayati Raj Institutions (PRIs) of all tiers would have to be ensured in the implementation of the Revised MMA scheme including review, monitoring and evaluation of district/subdistrict level.

The position regarding Budget Estimates, Revised Estimates as also the funds released under the Scheme during 11th Plan, year-wise, is indicated below :

Rs. in crore

11 th Plan			
2007-08	1100.00	1047.55	1001.26
2008-09	950.00	981.00	922.78

During 2009-10, a sum of Rs. 950.00 crore has been provided at the Budget Estimates stage for implementation of the revised Macro Management of Agriculture Scheme. An amount of Rs. 254.67 crore has been released so far to States/UTs during current year.

AGRICULTURAL MECHANISATION

Strategies and programmes have been directed towards replacement of traditional and inefficient implements by improved ones, enabling the farmers to own tractors, power tillers, harvesters and other machines, availability of custom hire services, support services of human resource development, testing, evaluation and research & development. A huge industrial base for manufacturing of the agricultural machines has also been developed. Introduction of technologically advanced equipments through extension and demonstration besides institutional credit has also been taken up. Equipments for resource conservation have also been adopted by the farmers.

Under various Government sponsored Schemes like Macro Management of Agriculture, Technology Mission for Oilseeds, Pulses and Maize, Technology Mission on Horticulture, Technology Mission on Cotton and National Food Security Mission, financial assistance is provided to the farmers for the purchase of identified agricultural implements and machines.

Farm Machinery Training & Testing Institutes : Farm Machinery Training & Testing Institutes (FMT&TIs) have been established at Budni (Madhya Pradesh), Hissar (Haryana), Garladinne (Andhra Pradesh) and at Biswanath Chariali (Assam). The institutes have been capacity to train 5600 personnel annually on various aspects of agricultural mechanization. These institutes also undertake testing and performance evaluation of agricultural machines including tractors in accordance with National and International Standards. Since inception 1,10,712 personnel have been trained and about 2584 machines tested by these institutes till 31 March 2009. During 2008-09 these institutes have trained 5894 personnel and tested 163 machines.

Demonstration of newly developed agricultural/horticultural equipments : With the objective of induction of improved/new technology in the agricultural production system, demonstration of newly developed agricultural equipment including horticultural equipment has been undertaken. The component envisages conduct of demonstrations of improved/newly developed agricultural/horticultural equipment at farmers' field to acquaint them about their use and utility for production of different types of crops. 100% grant in aid is given to the implementing agencies for procurement and demonstration of identified equipment. For implementation of schemes, funds are released to States and two organizations (viz. ICAR & SFCI) on the basis of proposals received for assistance under the scheme. During the year 2008-09, 11214 demonstrations of new equipments were conducted benefitting 1,52,364 farmers.

Outsourcing of Training : This is a new component approved from the Tenth Plan in order to train large number of farmers at nearby places and implemented w.e.f. 2004-05. The training programme have been arranged through the identified institutions by each state namely State Agricultural Universities (SAU's), Agricultural Engineering Colleges/Polytechnics etc. During the year 2008-09, funds amounting to Rs. 27.20 lakh have been provided for conducting training programmes at the identified institutions.

Post Harvest Technology and Management : "Reforming Agricultural Markets & Promoting Post Harvest Technology" has been identified as one of the thrust areas for

the Ministry of Agriculture by the Prime Minister's Office. Accordingly the Department is implementing a new scheme on 'Post Harvest Technology and Management during XI Plan period w.e.f. March 2008 with an approved outlay of Rs. 40.00 Crores. Under the scheme the technologies developed by ICAR, CSIR and those identified from within the country and abroad for primary processing, value addition, low cost scientific storage/transport of cereals, pulses, oilseeds, sugarcane, vegetables and fruits and the crop by-product management is being given thrust. Under this scheme during the year Rs. 478.00 lakh have been released for distribution of post harvest equipments through subsidy, organizing demonstration and training on post harvest technologies.

State Agro Industries Corporations : The Government of India had advised the State Governments in the year 1964, to set up State Agro Industries Corporations (SAICs) in the public sector to act as catalysts in providing access to industrial inputs for farmers, for their use in agriculture. Thus, 17 SAICs were set up in the joint sector with equity participation of the Government of India and respective State Governments, namely Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh, Tamil Nadu and West Bengal during 1965 to 1970. Many of the State Governments have increased their equity participation as a result of which the Government of India, at present, is a minority shareholder. So far, the Government of India's shares in SAICs of Gujarat, Karnataka, Uttar Pradesh, Tamil Nadu, Rajasthan and West Bengal have been transferred to the State Governments concerned.

Legislativ Framework : The Dangerous Machines (Regulation) Act 1983, came into force with effect from 14 December 1983. The Act provides for the regulation of trade and commerce and production, supply and use of products of any industry producing dangerous machines with a view to securing the welfare of persons operating any machine and for payment of compensation for death or bodily injury suffered while operating any such machine. Power threshers used for threshing of the agricultural crops have been under the ambit of this Act. The power operated chaff cutter and power operated sugarcane crusher have also been brought under the purview of the Dangerous Machines (Regulation) Act 1983 by way of Notification No. G.S.R. 505(E) and also the Dangerous Machines (Regulation) Rules 1984 have been amended vide Notification No. G.S.R. 506(E) dated 24th July 2007.

PLANT PRODUCTION

Plant Protection continues to play a significant role in achieving targets of crop production. The major thrust areas of plant protection are promotion of integrated Pest Management, ensuring availability of safe and quality pesticides for sustaining crop production from the ravages of pests and diseases, streamlining the quarantine measures for accelerating the introduction of new high yielding crop varieties, besides eliminating the chances of entry of exotic pests and for human resource development including empowerment of women in plant protection skills.

HORTICULTURE

Technology Mission for Integrated Development of Horticulture in North Eastern States, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttarakhand

The Centrally Sponsored Scheme on Technology Mission for Integrated Development of Horticulture in the North Eastern region including Sikkim (TMNE) was initiated

during 2001-02 and was extended to the States of J&K, Himachal Pradesh and Uttarakhand during 2003-04. The Scheme aims at established convergence and synergy among numerous ongoing governmental programmes in the field of horticulture development to achieve horizontal and vertical integration of these programmes to ensure adequate, appropriate, timely and concurrent attention to all the links in the production, post-harvest management and consumption chain. The Small Farmer's Agri-business Consortium (SFAC) is involved in coordinating the scheme.

The Technology Mission through its four Mini Missions addresses all the aspects of Horticulture development with an end-to-end approach. Mini Mission-I involving research is coordinated and implemented by the Indian Council of Agricultural Research (ICAR). Mini Mission-II covering production and productivity improvement is coordinated by the Department of Agriculture & Cooperation and implemented by the Agriculture/Horticulture Departments of the States. Mini Mission-III involving post harvest management, marketing and export is coordinated by National Horticulture Board and Mini Mission-IV involving procession is coordinated and implemented by the Ministry of Food Processing Industries. State Level SFACs have also been constituted in most of the implementing States for monitoring and implementing the programme at the grass root level.

SALIENT PHYSICAL ACHIEVEMENTS

A significant achievement has been made for overall development of horticulture since inception till 2008-09. An additional area of about (494343 ha) has been brought under cultivation of various horticulture crops in North Eastern and Himalayan States, of which fruits (303667 ha), vegetables (77882 ha), spices (61985 ha), plantation crops (10443 ha), medicinal plants (6079), aromatic plants (8640 ha), roots and tubers (1540) flowers (24042 ha). Apart from above, 47 no. Wholesale markets, 262 no. Rural Primary Markets, 64 no. Apni Mandies, 18 no. State grading laboratories, 31 no. Rope ways and 49 no. Processing units have been established and also created infrastructure facilities i.e. model nurseries (935 no.), community tanks (10032 no.), tube wells (11106 no.), tissue culture units (26), greenhouses (2496025 sqm.), model floriculture centres (25 no.), mushroom units (25), vermicompost units (15785), training of farmers/trainers (164960), training of women (67329) etc. Besides, introduction of improved production technology in traditional crops, a significant contribution of the mission was in promotion of commercial cultivation of potential crops, viz. citrus, banana, pineapple, strawberry, kiwi, apple, passion fruits; anthurium, rose, ilium, orchids and other cut flowers; and high value vegetable crops e.g. cherry tomato, bird eye chilli, king chilli and coloured capsicum etc.

The Budget allocation during 2007-08 at RE stage under TMNE scheme was Rs. 323.40 crores out of which Rs. 321.76 crores was utilized. For the year 2007-08, an additional area of 127850 ha was brought under different horticultural crops (fruit-82494, vegetables—16306, spices-11692, plantation crops-2125, medicinal & aromatic plants-3760 ha. etc.). Also created infrastructure facilities for improving the production and productivity of crops such as model nurseries (165 no.), community tanks (1877 no.), tube wells (3068 no.), greenhouses (350953 sqm.), vermi-compost units (1766), training of farmers/trainers no (37524), training of women (18325) and Market infrastructure and Processing units, which are project based.

During last financial year (2008-09), an additional area of 148071 ha has been brought under different horticultural crops (fruits-104064, vegetables-20333, spices-

12787, plantation crops-1902, medicinal & aromatic plants-3429 ha. etc.). Also created infrastructure facilities for improving the production and productivity of crops such as model nurseries (59 no.), community tanks (838 no.), tube wells (2088 No.), greenhouses (317049 sqm.), model floriculture centres (12 no.), mushroom units (1), vermicompost units (2851), training of farmers/trainers no (27752), training of women (14083) and Market infrastructure and Processing units, which are project based.

FINANCIAL STATUS

During the years 2001-02 to 2008-09, an amount of Rs. 1538.60 crores has been released under the Mission of which Rs. 1122.97 crores for NE States and Rs. 415.63 crores for Himalayan states.

In the current financial year 2009-10, an allocation of Rs. 349.00 crores has been earmarked, out of which Rs. 280.00 crores for North Eastern and Rs. 69.00 crores for Himalayan States. Funds earmarked for XIth plan is Rs. 1500.00 crores which needs to be enhanced to the tune of Rs. 2500.00 crores to meet the requirement of North Eastern & Himalayan states.

One of the aims of the Mission is to make women self reliant by providing them equal opportunities, so that they are able to avail the benefits and opportunities of the existing agricultural systems by providing adequate organizational and financial support along with technical training to the women groups to make their "self-help groups."

Under the mission 51262 nos. women entrepreneurs were trained, during the year 2008-09 is 4037 so far.

CENTRAL INSTITUTE OF HORTICULTURE, MEDZIPHEMA, NAGALAND

Recognizing the importance for institutional support for development of horticulture in NE Region, Government of India has sanctioned a Central Institute of Horticulture in Nagaland during January, 2006, with a financial outlay of a Rs. 20.00 crores spread over a period of 5 years. The outlay for X Plan is Rs. 8.35 crores and for the remaining three years of XI Plan is Rs. 11.65 crores. The Institute is being set up at Medziphema in an area of 43.50 ha.

NATIONAL BAMBOO MISSION

With a view to harness the potential of bamboo crop in the country the Department of Agriculture & Cooperation (DAC), Ministry of Agriculture have been implementing a Centrally Sponsored Scheme called National Bamboo Mission (NBM) in 27 States in the country. This scheme is approved for the period 2006-07 to 2010-11 with a total outlay of Rs. 568.23 crores.

OBJECTIVES OF THE MISSION

- To promote the growth of the bamboo sector through as an area based regionally differentiated strategy;
- To increase the coverage of area under bamboo in potential areas, with improved varieties to enhance yields.
- To promote marketing of bamboo and bamboo based handicrafts;
- To establish convergence and synergy among stakeholders for the development of bamboo;

- To promote, develop and disseminate technologies through a seamless blend of traditional wisdom and modern scientific knowledge.
- To generate employment opportunities for skilled and unskilled persons, especially unemployed youths.

FINANCIAL REVIEW

During 2006-07, Rs. 7570.86 lakhs were released to 15 States. During 2007-08, an amount of Rs. 11439.62 lakhs were released including Rs. 359.80 lakhs for R&D. During the financial year 2008-09, a sum of Rs. 8466.60 lakhs has been released to different States/implementing institutions including Rs. 123.74 lakh to R&D institutions.

During the current financial year, a budgetary provision of Rs. 7000.00 lakhs is given, out of which Rs. 775.30 lakhs has been released to Chhattisgarh, Jharkhand, Kerala Mizoram and Nagaland so far.

PHYSICAL ACHIEVEMENT

An area of 1,00,456 hectares has been brought under bamboo plantation in forest and non-forest areas. An area of 28043 hectares of the existing plantations has been treated to improve bamboo productivity. To supply quality planting material, 996 bamboo nurseries have been established under public and private sectors. For scientific management of bamboo plantations, 29290 farmers and 3653 field functionaries have been imparted training during 2006-07 to 2008-09. For extension and creations of general awareness, 28 State Level and 332 District Level Workshops have been held in different States. Three bamboo bazaars and 4 bamboo wholesale/retail markets were established for promotion of marketing of bamboo and its products.

SEEDS

Seeds is a critical and basic input for enhancing agricultural production and productivity in different agro-climatic regions. Indian seed programme largely adheres to the limited generation system for seed multiplication. The system recognizes three generations, namely, foundation and certified seeds and provides adequate safeguards for quality assurance in the seed multiplication chain to maintain the purity of variety as it flows from the breeders to the farmers.

Indian seed programme includes the participation of Central and State governments, Indian Council of Agricultural (ICAR), State Agricultural Universities (SAU) system, Public sector, cooperative sector and private sector institutions. Seed sector in India consists of two national level corporations i.e. National Seeds Corporation (NSC) and State Farms Corporation of India (SFCI), 15 State Seed Corporations (SSCs) and about 100 major seed companies. For quality control and certification, there are 22 State Seed Certification Agencies (SSCAs) and 104 state Seed Testing Laboratories (SSTLs). The private sector has started to play a significant role in the production and distribution of seeds. However, the organized seed sector particularly for food crops cereals continues to be dominated by the public sector.

Legislative Framework and Policy : The Seeds Act, 1966 provides for the legislative framework for regulation of quality control of seeds sold in the country. The Central Seed Committee (CSC) and the Central Seed Certification Board (CSCB) are apex agencies set up under the Act to deal with all matters relating to administration of the Act and quality control of seeds. The proposed Seeds Bill 2004 has been approved by the Cabinet for moving official amendment.

In order to encourage export of seeds in the interest of farmers, the procedure for export of seeds has been simplified. Seeds of various crops have been placed under the Open General License (OGL) except the seeds of wild varieties, germplasms, breeder seeds, and open seeds which are on restricted list under the new Export and Import Policy 2002-07.

Schemes of the Seed Division : (i) This Department have launched a Central Sector Scheme namely, "Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds" from the year 2005-06. The main components are quality control arrangements on seeds, transport subsidy on movement of seeds to North-East and other hilly areas, establishment and maintenance of Seed Bank, Seed Village Scheme, assistance for creation of infrastructure facilities, assistance for boosting seed production in private sector, Human Resources Development, assistance for seed export, propagation of application of biotechnology in agriculture, promotion of use of hybrid seeds of rice and evaluation/review.

(ii) Implementation of Protection of Plant Varieties and Farmers' Rights Legislation : In order to fulfill the obligations under Article 27(3)b of Trade Related Aspects of the Intellectual Property Rights (TRIPS) Agreement of the World Trade Organizations (WTO), to which India has ratified, the Legislation for Protection of Plant Varieties and Farmers' Rights (PPV&FR) was enacted in year 2001. The Legislation provides for the establishment of an effective system for protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants. With a view to provide necessary backup support for implementation of the Legislation i.e. PPV & FR Act, 2001, a Central Sector Scheme is under implementation. The scheme is now implemented by the Protection of Plant Varieties and Farmers' Rights (PPV&FR) authority established on 11th November, 2005, under the provision of the Act. The Authority is in process of registration of plant varieties in respect of 14 selected crops. The National draft guidelines for the conduct of tests for Distinctiveness, Uniformity and Stability (DUS) for selected 35 crops have been finalized. The main objective of the scheme is to provide financial support for functioning of PPV&FR Authority and financial assistance for developing DUS test guidelines for crops and strengthening and equipping the DUS centers and identified institutions.

In the 11th Plan, the scheme is proposed to have 12 components with an outlay of Rs. 120.00 crore for implementation of PPV&FR Act. Accordingly, there is a target of setting up of two branch office of the Authority and establishment of Plant Variety Protection (PVP) Appellate Tribunal besides other projections in 11th plan period.

REVAMPING OF COOPERATIVE CREDIT STRUCTURE

Government of India constituted a Task Force under the Chairmanship of Prof. A. Vaidyanathan in 2004 to suggest an implementable plan of action to revive the rural cooperative credit institutions. Based on the recommendations of the Task Force, Government of India has formulated a Revival Package for Short Term Cooperative Credit Structure (STCCS) envisaging a financial outlay of Rs. 13596 crore and circulated to all State Governments. This Revival Package aims at improving the functioning of Primary Agriculture Credit Societies (PACS), District Central Cooperative Banks (DCCBs) and State and necessary capital infusion. So far twenty five states viz. Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jammu

& Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Sikkim, Tamilnadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal have executed the MoUs with the Government of India and NABARD. This covers 96% of the PACS and 96% of the Central Cooperative Banks in the country. An amount of Rs. 6170.26 crore has been released by NABARD a Government of India's share for recapitalization of 37821 PACS in 10 States, while the State Government has released Rs. 614.75 crore as their share.

The package for revival of Long Term Cooperative Credit Societies (LTCCs) involving Rs. 3070 crore has been approved by Union Cabinet.

COOPERATION

COOPERATIVE REFORMS

The cooperative movement in India traces its origin to the agriculture and allied sector and was evolved as a mechanism for pooling meagre resources of the people with a view to providing them the advantages of economies of scale. After independence, the cooperatives were considered as part of the strategy of planned economic development. The cooperatives are today at the crossroads of existence particularly in view of the fast emerging scenario of economic liberalisation and globalisation. These institutions in general suffer from resource constraint, poor governance and management, inefficiency and inviability. The cooperative reforms are, therefore, absolutely vital to the future of the cooperatives.

NATIONAL POLICY ON COOPERATIVES

The Union Government has formulated a National Policy on Cooperatives in consultation with States. The objective of the National Policy is to facilitate all round development of the cooperatives in the country and to work as guiding for action of the State towards in cooperatives. The policy, envisages that cooperatives be provided necessary support, encouragement and assistance and to ensure that they work as autonomous self-reliant and democratically managed institutions accountable to their member.

MULTI-STATE COOPERATIVE SOCIETIES (MSCS) ACT, 2002

The Central Government has taken a lead in providing required autonomy to the cooperatives by enacting MSCS Act, 2002, replacing the MSCS Act, 1984. It aims at providing functional autonomy and democratic applicable to National level cooperative societies/Federations and other Multi-State Cooperative Societies, it is expected that it will work as a model Act for reforms in State Cooperative Laws.

THE NCDC (AMENDMENT) ACT, 2002

The NCDC Act, 1962 has been amended vide NCDC (Amendment) Act, 2002 expanding the mandate of NCDC to include food stuff, industrial goods, livestock and services in the programmes and activities in addition to the existing programmes. The a definition of agriculture produce has been amended to cover wider range of activities by including edible and non-edible oilseeds cattle feed, produce of horticulture and animal husbandry, forestry, poultry, farming, pisciculture and other allied activities to agriculture. Vide the amended Act, definition of industrial goods and livestock have been elaborated covering the products of allied industries in the rural areas and includes any handicrafts or rural crafts. The livestock includes all animals to be raised for milk, meat, fleece, skin, wool and other by products. NCDC

will be able to provide loan directly to the cooperative without State/Central Government guarantee on furnishing of security to the satisfaction of the NCDC. So far activities concerning the water conservation, animal care/health, disease prevention, agricultural insurance an agricultural credit, rural sanitation/drainage/ sewage have been made notified as notified services.

AMENDMENT TO THE CONSTITUTION IN RESPECT OF COOPERATIVES

In spite of the felt need for amendment in the State Cooperative Societies, Act, the pace of reforms in Cooperative legislations by the States is not encouraging. Therefore, to ensure the democratic, autonomous and professional functioning of cooperatives, it has been decided to initiate a proposal for amendment to the Constitution for the purpose. This decision has been taken after careful deliberations with the States in a conference of State Cooperative Ministers held on 7th December, 2004. The proposed amendment to the Constitution is purported to address the key issues for empowerment of cooperatives through their voluntary formation, autonomous functioning, democratic control and professional management. The Constitution One Hundred and Sixth Amendment Bill 2006 was introduced in the Lok Sabha on 22nd May, 2006. The Bill lapsed upon dissolution of Lok Sabha.

CONSTITUTION OF HIGH POWERED COMMITTEE

To review the achievements of Cooperative movement during the last 100 years of cooperative movement and challenges before it, and to suggest ways and means to fact them and to give a new direction to the movement, high powered committee has been constituted with following Terms of Reference :

- (1) To review the achievements of the cooperatives during the last 100 years.
- (2) To identify the challenges being faced by the cooperative sector and to suggest measures to address them to enable the movement to keep pace with the changing socio-economic environment.
- (3) To suggest an appropriate policy and legislative framework and changes required in the cooperative legislation in the country with a view to ensure the democratic, autonomous and professional functioning of cooperatives. The committee has submitted its interim report on the amendment to the MSCS Act, 2002 and constitutions (one hundred and sixth) Amendment Bill, 2006 Committee has submitted its in May, 2009 & its recommendations are being examined.

NATIONAL FOOD SECURITY MISSION

Centrally Sponsored Scheme on National Food Security Mission has been launched in the country to enhance the production of rice, wheat and pulses by 10, 8 and 2 million tonnes respectively by the end of the 11th Plan. The Mission covers 312 districts in 17 States and has become operational from Rabi 2007-08.

The focused and target oriented technological intervention under NFSM has made a significant impact since inception which is reflected by the fact as per the third advance estimate of 2008-09, the production of rice has raised to a level of 99.37 million tonnes thus depicting increase of 2.68 million tones when compared to 2007-08 and 6.02 million tonnes against 2006-07. Similarly, the situation is also promising in case of wheat, wherein the production of wheat showing an increase of 2.76 million tonnes over the last year. Consequently, as per the third advance estimate of 2008-09, the production of wheat is estimated to the level of 77.63 million tonnes which is 1.82

million tonnes more than 2006-07. As regards pulses, the production was recorded at 14.20 million tonnes during 2006-07. Accordingly, as per the third advance estimate of 2008-09 the production of pulses is estimated at 14.18 million tonnes, which is almost stagnated production trend when compared to 2006-07

INTEGRATED NUTRIENT MANAGEMENT

The main objective of Integrated Nutrient Management (INM) Division is to ensure adequate availability of quality fertilizers to farmers through periodical demand assessment and timely supply, promoting integrated nutrient management, which is soil test-based judicious and balanced use of chemical fertilizers in conjunction with organic manures and bio-fertilizers, promotion of organic farming and ensuring quality control of fertilizers through implementation of Fertilizer (Control) Order, 1985.

Fertiliser Consumption : India is the third largest producer and consumer of fertilizers in the world after China and the USA. Against 21.65 million tonnes of fertilizer nutrients (NPK) consumed during 2006-07, the nutrient consumption is 22.57 million tonnes during 2007-08. The consumption of major fertilizers namely, Urea, DAP, MOP, SSP and Complexes were 25.96, 7.50, 2.88, 2.29 and 6.57 million tonnes during 2007-08. India is by and large self sufficient in respect of Urea and about 90 per cent in case of DAP. The all India average fertilizer consumption is 116.5 kg/ha of NPK nutrients, though there is wide variation from state to state varying from 212.7 kg/ha in Punjab, 208.2 kg/ha in Andhra Pradesh, 190.9 kg/ha in Haryana to less than 5 kg/ha in States like Arunachal Pradesh and Nagaland etc. Considering the skewed pattern of fertilizer use, Government of India is promoting balanced and integrated use of fertilizer nutrient through various initiatives. As a result, NPK consumption ratio has now improved to 5.5:2.1:1 during 2007-08 from 7.0:2.7:1 during 2000-01.

Price of Fertilizers : Presently urea is the only fertilizer which is under Statutory Price Control. To ensure adequate availability of fertilizers to farmers at reasonable rates, subsidy is provided by Government of India. Urea, the most consumed fertilizers, is subsidized under the New Urea Pricing Scheme, whereas P&K fertilizers, which are decontrolled, are covered under the Concession Scheme. The policy for uniform freight subsidy on all fertilizers under the fertilizer subsidy regime is also implemented. There is no change in the prices of major fertilizers since 28.02.2002. However, the prices of complexes grade of fertilizers have been reduced on nutrients based pricing of subsidized fertilizer w.e.f. 18.06.2008. The prices are as under :-

Fertilizer Product	MRP (Rs. per MT)
UREA	4830
DAP	9350
COMPLEXES	5121-8185
MOP	4455
SSP	3400

Buffer Stocking of P&K Fertilizers : A buffer stock of limited quantity of Di-Ammonium Phosphate (DAP) and Muriate of Potash (MOP) is being maintained at strategic locations to meet emergent requirements. These stocks are in the nature of rolling stocks and are replenished when depleted. Besides meeting emergent needs, the

Buffer Stock also helps to meet requirements of States which have low demand and hence sometimes find it difficult to induce suppliers to move fertilizers in small quantities.

Fertiliser Quality Control : Fertilizer is the most critical and costly input for sustaining agricultural production and ensuring food security of the country. The Government ensures the quality of fertilizers through Fertilizer (Control) Order (FCO), issued under Essential Commodities Act, 1955 to regulate, the trade, price, quality and distribution of fertilizers in the country. The State Governments are the enforcement agencies for implementation of the provisions of FCO, 1985. The Order strictly prohibits the manufacture, import and sale of any fertilizer, which does not meet prescribe standards. The FCO provides for compulsory registration of fertilizer manufacturers, importers and dealers, specifications of all fertilizes manufactured/ imported and sold in the country, regulation on manufacture of fertilizer mixtures, packing and marking on the fertilizer bags, appointment of enforcement agencies, setting up of quality control laboratories and prohibition on manufacture/import and sale of non-standard/spurious/adulterated fertilizers. To check the quality of fertilizes sold in the country, there are 71 Fertilizer Quality Control Laboratories at present, which includes 4 Central Government laboratories namely; Central Fertilizer Quality Control & Traiing Institute, Faridabad and is three Regional Laboratories at Chennai, Navi Mumbai and Kalyani (Near Kolkata). These laboratories have a total annual analyzing capacity of 1.31 lakh samples. The analytical capacity and the number of samples analyzed and found non standard during the last 5 years are as follow :

Year	No. of Labs	Annual analytical capacity	No. of samples analyzed	% Non-standard samples
2004-05	67	124730	108859	6.0
2005-06	67	122488	111745	6.0
2006-07	68	129250	116142	6.0
2007-08	68	129331	95866	6.2
*2008-09	71	131565	81189	3.9
* Provisional				

The per centage of non standard samples on all India basis is hovering around 6% samples during last 5 years. However, there is a large variation from state to state.

Fertilizer Control Order, 1985 : In pursuance of Clause 20 A of FCO, 1985, fertilizer companies namely, Chambal fertilizer Ltd., Sri Ram Fertilizer Ltd., Tata Chemicals, National Fertilizers Ltd and KRIBHCO have been permitted to manufacture neem coated urea as provisional fertilizer for commercial trial upto 3rd August, 2009. In order to encourage use of micronutrients, NRK complex fertilizer 15:15:15:9(S) have been included in FCO, 1985. Two new NPK 100% water soluble fertilizers 28:28:0 and 24:24:0 have also been notified under clause 20A provisionally. The specification of triple super phosphate has been revised under clause 20 of FCO, 1985 to enable easy availability of phosphatic fertilizer. 14 new grades of soil specific and crop specific customised fertilizers have been notified so far.

National Project on Organic Farming : With the view to promote organic farming practices to reduce the burden on Chemical Fertilizers, to ensure effective utilization

of farm resources and to cater domestic and international growing Organic Food Market, a National Project on Organic Farming was launched during 10th Plan with an outlay of Rs. 115.00 crores. The earlier scheme "National Project on Development and Use of Biofertilizers" has been merged with the "National Project on Organic Farming". The main objective of the scheme includes :

1. Capacity Building through Service Providers.
2. Financial and Technical support for setting up of organic input production unit such as Fruits and Vegetable market waste compost, Biofertilizers and biopesticides and Vermiculture hatcheries.
3. Human resource development through training and demonstration.
4. Awareness creation and market development.
5. Quality Control of Organic Inputs.

As a continuing efforts from previous scheme for promotion of biofertilizers there are around 169 biofertilizer production units in the country with installed capacity of 67000 MT. and annual production of more than 20 thousand ton of biofertilizers and more than 18800 ton of other inoculants including biopesticides.

Under the scheme a capacity has also been created for processing of 708 tons of agricultural waste per day in to compost, 5606 MT of biofertilizers and more than 17000 ton of vermiculture and vermicompost. Since the launch of the scheme, the area under certified organic farming has increased 20 fold from 42000 ha (2003-04) to 865,000 ha (2007-08). The organic food production has increased from 4.09 lakh ton in 2006-07 to 9.02 lakh ton during 2007-08.

Promotion of Integrated Nutrient Management (INM) : The Government is promoting soil test-based balanced and judicious use of chemical fertilizers, bio-fertilizers and locally available organic manures like farmyard manure, compost, nadeep compost, vermi compost and green manure to maintain soil health and its productivity. A Centrally Sponsored Scheme. "National Project on Management of Soil Health and Fertility" (NPMSF) has been approved during 2008-09 with an outlay of Rs. 429.85 crores for the remaining period of XI Plan. The two existing schemes namely : i) centrally sponsored scheme of Balanced and Integrated Use of Fertilizers and ii) Central Sector Scheme "Strengthening of Central Fertilizer and Quality Control & Traiing Institutes and its Regional Labs. have been subsumed in the new scheme w.e.f. 1.4.2009. The components of the new scheme include setting up of 500 new soil testing laboratories, strengthening of the existing 315 soil testing laboratories, setting up of 250 mobile soil testing laboratories, promotion of organic manures, soil amendments and distribution of micro nutrients, setting up of 20 new fertilizers quality control laboratories and strengthening of 63 existing fertilizer quality control laboratories during 11th Plan.

There are 686 Soil Testing Laboratories (2007-08) in India. These include 560 static and 126 mobile Laboratories maintained by State Governments and fertilizer industry with an annual analyzing capacity of about 7 million soil samples. During 2008-09, an amount of Rs. 16.63 crore has been released under NPMSF for 42 new Static Soil Testing Laboratories (STLs), 44 Mobile Soil Testing Laboratories (MSTLs), strengthening of 39 existing soil testing laboratories, 2 new fertilizer quality control laboratories and strengthening of 19 existing fertilizers quality control laboratories (FQCLs) in 16 States.

INFORMATION TECHNOLOGY

i) IT Apparatus in Department of Agriculture and Cooperation Headquarters : The thrust of the ICT initiatives in on e-Governance, i.e., to make improved services accessible to farmers using information and Communication Technology.

The Department of Agriculture and Cooperation is preparing National e-Governance Plan in Agriculture (NeGP-A) with the help of National Institute of Smart Government (NISG), Hyderabad. It is being implemented in two phases. Phase-I of NeGP-A has been completed and a list of prioritized services to be targeted and processes to be re-engineered under e-Governance activities is concluded. Phase-II will provide detailed strategy, road map and guidelines for implementation of e-Governance in Agriculture at both Central and State levels. Phase-II will also define the role of private sector and civil society. Process for Phase-II is underway.

For success of the e-Governance initiative, it is necessary that adequate hardware, software and training support is provided at various levels.

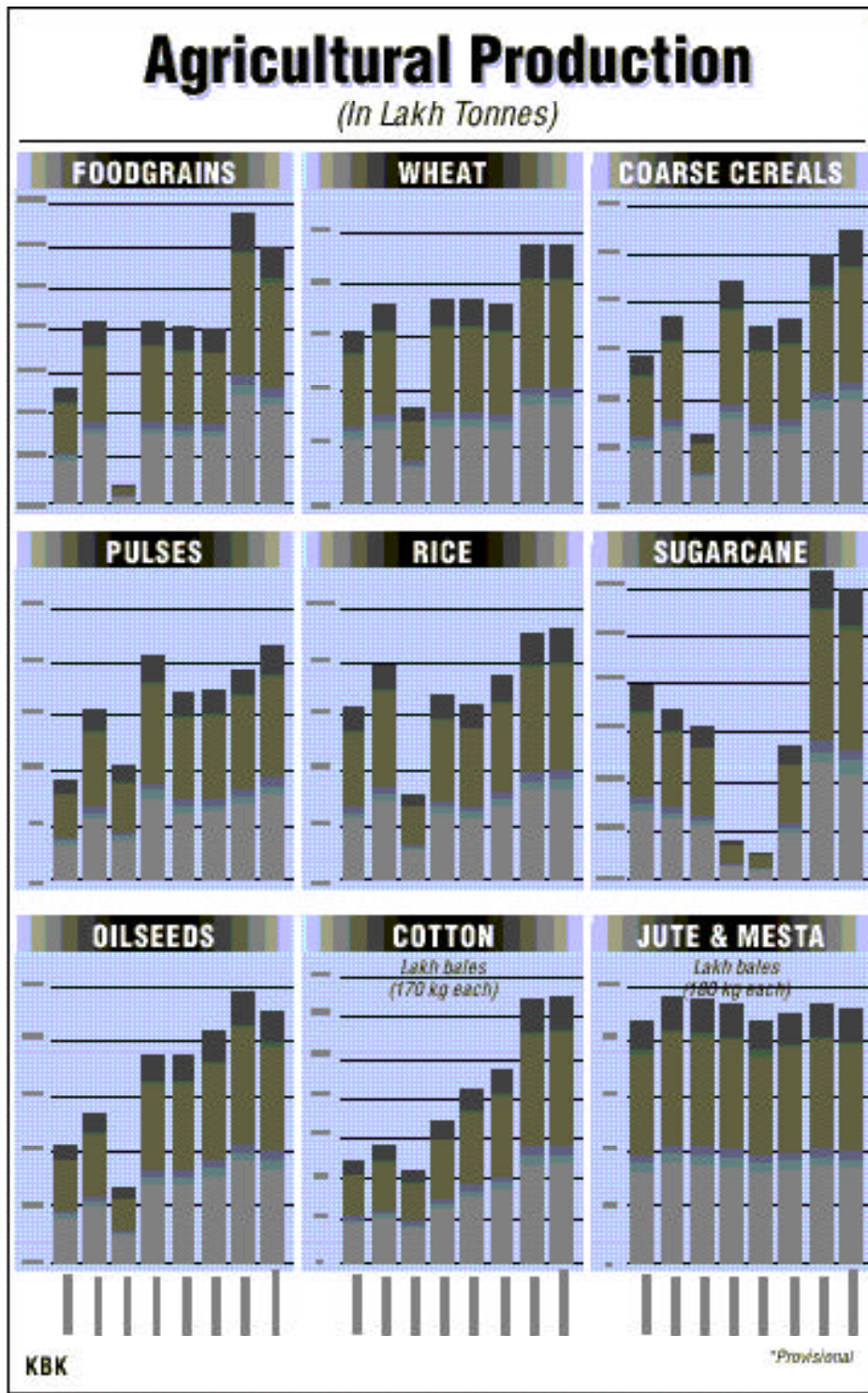
ii) IT Apparatus in the field Offices and Directorate of DAC : Under the DACNET Project, the Directorates/field units have already been provided basic infrastructure which has helped in achieving e-readiness. It has been decided that respective Directorates and field offices would meet their expenditure from out of their budget. However, the residual expenditure on networking, software development and training for Field Offices/Directorates will be met from this component of the scheme.

iii) Agricultural Resources Information System (ARIS) : This component of the X Plan Scheme is aimed to develop decision support system for optimum utilization of natural resources using GIS and RS technology. Work on two pilot districts of Rohtak in Haryana and Banaskantha in Gujarat is continuing. This component will be subsumed in the DACNET component of the scheme during the XI Plan and will be supported for completion of the ongoing pilot project.

iv) Development of Agricultural Informatics and Communication : The objective of this component is to build a reservoir of all data related to agriculture and development of web-based applications. A number of portals such as digitization of Soil Mapping, Data, Seed Net Portal, Datawarehousing, RFS and Watershed Development are under various stages of development. The Development/enrichment of portals of various subjects of agriculture is a continuous process. It is also proposed to have portals on INM, Horticulture and Cooperatives etc.

As the number of portals and the quantity and expansion of content increase over the years, there will be a need to have proper infrastructure for updation of content. It is expected that over time, regular data updating and designing of web content will require manpower. It is proposed to partly outsource such activities.

v) Strengthening of IT Apparatus in Agriculture and Cooperation in the States and Union Territories (AGRISNET) : States have a major role in providing improved services to the farmers through the use of ICT. The present component of AGRISNET is proposed to be continued in the XI Plan and further strengthened. Till date 21 States have so far availed of assistance under AGRISNET. In these States too, funds been released mostly for implementation of limited e-Governance applications in ATMA districts. Therefore, the scheme needs to be expanded multifold for providing improved services to farmers throughout the country. It is also proposed that based on the experience gained in the X Plan, more services are covered under AGRISNET.



vi) Kissan Call Centres : This scheme was launched on 21st January, 2004. It aims to provide online information to farmers through toll free No. 1880-180-1551. This facility is being publicized through Doordarshan and radio programmes. The whole country is covered under the scheme. A Knowledge Management System is proposed to be established. It is proposed to continue this scheme during the XI Plan also.

TECHNOLOGY MISSION ON OILSEEDS, PULSES AND MAIZE

The Technology Mission on Oilseeds was launched by the Central Government in 1986 to increase the production of oilseeds to reduce import and achieve self-sufficiency in edible oils. Subsequently, pulses, oil palm and maize were also brought within the purview of the Mission in 1990-91, 1992 and 1995-96 respectively. In addition, the National Oilseeds and Vegetable Oils Development (NOVOD) Board also supplement the efforts of TMOP by opening of newer areas for non-traditional oilseeds. It is promoting Tree Borne Oilseeds (TBO)s. The schemes implemented under TMOP are : (i) Oilseeds Production Programme (OPP); (ii) National Pulses Development Project (NPDP); (iii) accelerated Maize Development Programme (AMDP); (iv) Post Harvest Technology (PHT); (v) Oil Palm Development Programme (OPDP) and vi) National Oilseeds and Vegetable Oils Development Board (NOVOD).

Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize : In order to provide flexibility to the States in implementation based on regionally differentiated approach, to promote crop diversification and to provide focused approach to the programmes, the schemes of Oilseeds Production Programme, Oil Palm Development Programme, National Pulses Development Project and Accelerated Maize Development Programme of Ninth Plan have been merged into one Centrally Sponsored Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM) during the 10th Five Year Plan which is being implemented with effect from 1st April, 2004. The scheme is being implemented by 14 major growing States for oilseeds and pulses and 15 States for Maize and in 10 States for oil palm.

The ISOPOM has the following special features : (i) Flexibility to the States to utilize the funds for the scheme/crop of their choice; (ii) Annual action plan to be formulated by the State Governments for consideration and approval of the Government of India; (iii) Flexibility to the States for introducing innovative measures or any special component to the extent of 10 per cent of financial allocation; (iv) involvement of private sector by the State Governments for the implementation of the programme with a financial cap of 15 per cent; (v) Flexibility for inter component diversion of funds upto 20 per cent for non-seed components only; and (vi) Diversion of funds from seed components to non-seed components with the prior approval of the Department of Agriculture and Cooperation.

Implementation of oilseeds production programme helped in increasing the production of oilseeds from 108.30 lakh tones in 1985-86 to 281.57 lakh tonnes during 2008-09 (IV Adv. Est.). The pulses production in the country increased from 128.60 lakh in 1989-90 to 146.62 (IV Adv. Est.) lakh tonnes in 2008-09.

The area under Oil palm increased from 8585 ha. at the end of 1992-93 to 26178 ha. in 2008-09. Actual production of Fresh Fruit Bunches (FFBs) during 2008-09 is 355480.36 MTs yielding around 59007.40 Metric tonnes of Crude Palm Oil (CPO).

The production of maize increased from 88.94 lakh tones in 1994-95 to 192.87 lakh tonnes in 2008-09 (IV Adv. Estimates).

EXTENSION

Support to State Extension Programme for Extension Reforms : The Scheme launched during 2005-06, aims at making extension system farmer driven and farmer accountable by way of new institutional arrangement for technology dissemination in the form of an Agricultural Technology Management Agency (ATMA) at district level to operationalize the extension reforms. ATMA will have active participation of farmers/farmers groups, NGOs, Krishi Vigyan Kendras (KVKs), Panchayati Raj Institutions (PRIs) and other stakeholder operating at district level and below. The release of funds is based on State Extension Work Plans (SEWPs) prepared by the State Governments. 586 districts level ATMAs have been established; over 517 State Research Extension Plans (SREPs) have been prepared, over ninety one lakh farmers including 17.97 lakh farm women (19.74%) have been benefited through farmers oriented extension activities and over 42,060 Farmers' Interest Groups (FIGs) have been mobilized since inception of the scheme. A total of Rs. 474.62 Crores have been released upto 30th August, 2009 under the programme since the launch of the scheme.

MASS MEDIA SUPPORT TO AGRICULTURE

This scheme is focusing on two initiatives. The first is use of Doordarshan Infrastructure for providing agriculture related information and knowledge to the farming community. 180 Narrowcasting centres, 18 Regional Centres and one National Centre of Doordarshan Kendra telecast agricultural programmes for 30 minutes duration five days a week. Programmes of Regional Kendras and some Narrowcasting centres are being repeated the next day on respective Regional Satellite Channel. At National Level programme are being telecast 6 days a week from Monday to Saturday. Films covering Success Stories, Innovation by farmers are being provided by Department of Agriculture & Cooperation for the Saturday slot.

Audio/Video spots on emerging issues viz. Rabi/Kharif campaign, Kisan Call Centres, Kisan Credit Card facility and publicity campaign of National Food Security Mission (NFSM) etc. are also publicized through the programme using the Free Commercial Time (FCT). Live 'Crop Seminars' on DD involving farmers and experts have also been organized.

The other component of the mass media initiative is use of 96 FM Transmitter of AIR to broadcast area specific agricultural programmes with 30 minutes radio transmission in the evening six days a week.

KISAN CALL CENTRE (KCC)

Kisan Call Centres have been functioning since 21st January, 2004 and working in 25 different locations covering almost all the States of the country. At present 144 Call Center Agents have been engaged in KCCs who are answering farmers' queries in 21 local dialects. All KCC locations are accessible by dialing single toll free number 1551 & 1800-180-1551 from 6.00 A.M. to 10.00 P.M. on all 7 days a week nation-wide. At each of the KCC locations the Kisan Call Centre Agents known as L-1 agents are responding to farmers queries instantly. With a view to monitor the activities of KCCs, a State Level Monitoring Committee (SLMC) comprising of Secretary (Agriculture), Director of Agriculture and other development Departments, representatives of BSNL, Nodal Officer of KCC, etc. has been constituted for each KCC.

25 Nodal Officers identified by this Department are facilitating the KCC functioning at local level. With the demand of increased number of KCC locations, the scheme has been now expanded to function from 25 locations. Besides, Department of Agriculture & Cooperation has also taken initiative to develop a data structure in the form of Kisan Knowledge Management System (KKMS). This will facilitate Kisan Call Centre agents to provide correct answers to the farmers queries.

In order to generate awareness among masses publicity of KCC is being carried out through SAMETIs/DAVP, States/UTs, Doordarshan/All India Radio. Since inception amid till July, 2009, almost 36 lakh calls from farmers have been received in the Kisan Call Centres. Propagation of application of biotechnology in agriculture, Promotion of use of hybrid seeds of rice and evaluation/review.

(ii) Implementation of Protection of Plant Varieties and Farmers' Rights Act, 2001. In order to fulfill the obligations under Article 27(3)b of Trade Related Aspects of the Intellectual Property Rights (TRIPS) Agreement of the World Trade Organisations (WTO), to which India has ratified, the Department of Agriculture and Cooperation have enacted a Legislation for Protection of Plant Varieties and Farmers' Rights. The Legislation provides for the establishment of an effective system for Protection of Plant Varieties, the Rights of Farmers and Plant Breeders and to encourage the development of new varieties of plants. With a view to provide necessary back-up support for enactment of the above Legislation, a Central Sector Scheme is under implementation. The Scheme is implemented by the Protection of Plant Varieties and Farmers' Rights (PPV&FR) Authority established on 11th November, 2005, under the provision of PPV&FR Act, 2001 and PPV&FR Rules, 2003 & Regulations, 2006 made thereunder. The Authority is in process of registration of plant varieties in respect of 14 selected crops. The National draft guidelines for the conduct of tests for Distinctiveness, Uniformity and Stability (DUS) for different 35 crops have been formulated. The main objective of the Scheme is to provide financial support for establishment of PPV&FR Authority and financial assistance for developing test guidelines of crops for DUS and strengthening and equipping of various DUS centres.

AGRICULTURAL MARKETING

Organised marketing of agricultural commodities has been promoted in the country through a network of regulated markets. Most of the State governments and Union Territories have enacted legislations (APMC Act) to provide for regulation of agricultural produce markets. While by the end of 1950, there were 286 regulated markets in the country, today the number stands at 7,521 (31.3.2005). Besides, the country has 27,294 rural periodical markets, about 15 per cent of which function under the ambit of regulation. The advent of regulated markets has helped in mitigating the market handicaps of producers/sellers at the wholesale assembling level. but, the rural periodic markets in general, and the tribal markets in particular, remained out of its developmental ambit.

Agriculture sector needs well functioning markets to drive growth, employment and economic prosperity in rural areas of the country. In order to inject dynamism and efficiency into the marketing system, large investments are required for the development of post-harvest and cold chain infrastructure nearer to the farmers' field. A major portion of this investment is expected from the private sector, for which an appropriate regulatory and policy environment is necessary. Alongside, enabling policies need to be put in place to encourage procurement of agricultural commodities

directly from farmers' field and to establish effective linkage between the farm production and the retail chain and food processing industries. Accordingly, amendment to the State APMC Act for deregulation of marketing system in the country is suggested to promote investment in marketing infrastructure, motivating corporate sector to undertake direct marketing and to facilitate a national integrated market.

The Ministry of Agriculture formulated a model law on agricultural marketing for guidance and adoption by State Governments. The model legislation provides for establishment of Private Markets/Yards, Direct Purchase Centres, Consumer/Farmers Markets for direct sale and promotion of Public Private Partnership in the management and development of agricultural markets in the country. Provision has also been made in the Act for constitution of State Agricultural Produce Marketing Standards Bureau for promotion of Grading, Standardisation and Quality Certification of agricultural produce. This would facilitate pledge financing, direct purchasing, forward/future trading and exports. Thirteen States/U.Ts have amended their APMC Act and the remaining States are in the process of doing so. In pursuance of the 53rd NDC resolution, the Ministry of Agriculture has prepared Draft Model Rules also based on the Model Law and circulated to all concerned States/U.Ts. So far, 7 States have framed their amended APMC Rules.

Infrastructure Requirement: Investment requirement for the development of marketing, storage and cold storage infrastructure in the country has been estimated to be huge and with a view to induce investment in the development of marketing infrastructure as envisaged above, the Ministry has implemented the following Plan Schemes:

- i) A capital investment subsidy scheme titled 'Construction of Rural Godowns' is being implemented w.e.f. 1 April 2001. The main objectives of the scheme include creation of scientific storage capacity with allied facilities in rural areas to meet various requirements of farmers for storing farm produce, processed farm produce, agricultural inputs, etc., and prevention of distress sale by creating the facility of pledge loan and marketing credit. Under the original scheme, back ended subsidy @ 25 per cent of capital cost of the project was provided. In case of NE States, hilly areas and SC/ST entrepreneurs, subsidy was provided @ 33.33 per cent of the capital cost of the project. The Scheme has since been modified with effect from 20 October 2004, to provide subsidy @ 25 per cent to farmers, Agriculture graduates, cooperatives and Central Warehousing Corporation/State Warehousing Corporations. All other categories of individuals companies and corporations are now given subsidy @ 15 per cent of the project cost. The scheme has been made farmer friendly by allowing subsidy for smaller godowns of 50 MT size in general and of 25 in hilly areas. Five lakh tonnes capacity to be created is reserved for small farmers. The scheme is being implemented through NABARD and NCDC. Till 31 May 2006, 11,583 storage projects having a capacity of 166.42 lakh tonnes have been sanctioned under the scheme. The scheme is being implemented through NABARD and NCDC. Since inception of the scheme w.e.f. 1/4/2001 and upto 30th June 2009, 20689 storage projects having a capacity of 240.87 lakh tonnes with a subsidy release of Rs. 553.80 crore have been sanctioned under the scheme.
- ii) With a view to establish a nationwide information network for speedy collection and dissemination of price and market related information to farmers, electronic connectivity is being provided to all important agricultural markets in the country

under a Central scheme, 'Market Research and Information Network'. 3,024 market nodes and 175 State Marketing Boards and Directorate of Marketing and Inspection offices have been networked on a single portal, wherein daily prices of more than 300 commodities and about 2000 varieties are being reported. It is planned to connect additional 36 wholesale markets under the scheme during the XI Plan. In order to facilitate wider market access opportunities and better price discovery the scope and contents of the scheme is being strengthened regularly.

- iii) The Ministry of Agriculture is implementing another Central Sector scheme for "Development/Strengthening of Agricultural Marketing Infrastructure, Grading and Standardisation". Under the scheme, investment subsidy is provided @ 25 per cent on the capital cost of the marketing infrastructure development project subject to a maximum of Rs 50 lakh for each project in all States and @ 33.3 per cent of capital cost subject to a maximum of Rs 60 lakh for each project in case of North Eastern States, hilly areas and to Scheduled Castes/ Scheduled Tribes entrepreneurs. In respect of infrastructure projects of State Governments/State Agencies, there is no upper ceiling on subsidy to be provided under the scheme. The scheme is reform- linked, to be implemented in those States/Union Territories wherein the law dealing with agriculture markets (Agricultural Produce Marketing Regulation Act) allows setting up of competitive agricultural markets in private and cooperative sectors, direct marketing and contract farming. So far, 25 States / U.T.s namely, Madhya Pradesh, Kerala, Manipur, Tamilnadu, Himachal Pradesh, Punjab, Sikkim, Nagaland, Andhra Pradesh, Rajasthan, Chhattisgarh, Arunachal Pradesh, Orissa, Maharashtra, Bihar, Assam, Tripura, Gujarat, Karnataka, Goa, and U.T. of Andaman and Nicobar Islands, Daman and Diu, Dadra and Nagar Haveli, Lakshadweep, Chandigarh have been notified for implementation of the scheme. In the country, till 31.03.2009, so far 3265 infrastructure projects with an amount of subsidy of Rs. 141.00 crore have been sanctioned through banks / NABARD, NCDC has promoted 784 infrastructures projects with an amount of subsidy of Rs. 9.50 crore in the cooperative sector. The Directorate has sanctioned 289 infrastructures projects of State agencies with an amount of subsidy of Rs. 84.00 crore (approx.) Total 530 Training and Awareness programmes have been conducted by NIAM in notified States/UTs till 31.03.2009.
- iv) The Department has recently taken the initiative to promote modern terminal markets for fruits, vegetables and other perishables in important urban centres of the country. These markets would provide state of art infrastructure facilities for electronic auction, cold chain and logistics and operate through primary collection centres conveniently located in producing areas to allow easy access to farmers. The terminal markets are envisaged to operate on a 'Hub-and-Spoke' format wherein the Terminal Market (the hub) would be linked to a number of collection centres (the spokes), conveniently located in key production centers to allow easy access to farmers for the marketing of their produce. In order to ensure better response to the scheme, the funding pattern of the scheme has now been modified to provide subsidy for setting up of projects under the above scheme. Under the modified scheme, maximum subsidy of 40% of the project cost has been offered with a floor subsidy of 25% to the private entrepreneurs for setting up of TMC. The unit cost ceiling has been kept at Rs. 150.00 crore for

calculating subsidy, which shall not exceed Rs. 50.00 crore per TMC. There is also a provision for participation of Producers' Associations in the equity of project to a maximum of 26% to protect the interests of farmers and ensure service quality standards. Accordingly, the operational guidelines of the scheme have been modified and a copy of the modified guidelines has been circulated and put on the website (www.agmarknet.nic.in).

The Department of Agriculture and Cooperation has three organisations dealing with marketing under its administrative control, namely, the Directorate of Marketing and Inspection (DMI), Faridabad, the Ch. Charan Singh National Institute of Agricultural Marketing (NIAM), Jaipur and the Small Farmers Agri-Business Consortium (SFAC), New Delhi.

DIRECTORATE OF MARKETING AND INSPECTION

It is an attached office of the Department and is headed by Agricultural Marketing Adviser. The Directorate has its Head Office at Faridabad (Haryana), Branch Head Office at Nagpur (Maharashtra), 11 Regional Offices and the Central Agmark Laboratory at Nagpur. Besides, there are 26 Sub-Offices, 16 Regional Agmark Laboratories (RALs) spread all over the country.

The main functions of the Directorate are as follows:

1. Rendering advice on statutory regulation, development and management of agricultural produce markets to the States/UTs;
2. Market Research, Surveys and Planning;
3. Training of personnel in Agricultural Marketing;
4. Marketing Extension;
5. Agricultural Marketing Information Network;
6. Construction of Rural Godowns; and
7. Development of Agricultural Marketing Infrastructure.

Grading and Standardisation : The Agricultural Produce (Grading and Marking) Act, 1937 empowers the Government to fix quality standards, known as "AGMARK" standards and to prescribe terms and conditions for using the seal of 'AGMARK'. So far, grade standards have been notified for 200 agricultural and allied commodities. The purity standards under the provision of the Prevention of Food Adulteration (PFA) Act, 1954 and Bureau of Indian Standards (BIS) Act, 1986 are invariably taken into consideration while framing the grade standards. International Standards framed by Codex/International Standards Organisation (ISO) are also considered so that Indian produce can compete in the international market.

DMI is implementing the Certification Scheme under AGMARK for domestic market for agricultural commodities for which grade standards have been notified. DMI is the official inspection and certification body for exports of fresh fruits and vegetables to EU countries. Inspection and certification is voluntary. Grapes, onions and pomegranates are being certified under AGMARK for exports to EU countries.

During the year 2009-10 (up to 30th June, 2009). The Final Notification of Vegetable Oils Grading and Marketing (Amendment) Rules, 2009 has been published in the Gazette of India (extraordinary), Part II, Section 3, sub section (i) on 3rd June, 2009 vide GSR No. 383(E) dated 3rd June, 2009. The final notification of Organic Agricultural

Produce Grading and Marketing Rules, 2009 sent to the Ministry for publication in the Gazette of India after legal vetting from the Ministry of Law and Justice.

The Preliminary draft notification of Karanja Seeds Grading and Marketing Rules, 2009 has been published in the Gazette of India (extraordinary), Part II, Section 3, sub section (i) on 11th June, 2009 vide GSR No. 402(E) dated 4th June, 2009. The preliminary draft notification of Puwad Seeds Grading and Marking Rules, 2009 has been published in the Gazette of India (extraordinary), Part II, Section 3, sub section (i) on 11th June, 2009 vide GSR No. 402(E) dated 4th June, 2009. The preliminary draft notification of General Grading and Marking (Amendment) Rules, 2009 has been published in the Gazette of India (extraordinary), Part II, Section 3, sub section (i) on 11th June, 2009 vide GSR No. 400(E) dated 3rd June, 2009. The preliminary draft notification of Fruits and Vegetables Grading and Marking (Amendment) Rules, 2009 (containing standards of nine Fruits and Vegetables approved by the Standing Committee on fresh fruits and vegetables, APEDA viz., Limes, Lemons, Grape fruits, Mandarins, Oranges, Walnut in shell, Walnut shelled, Amla and Potatoes) have been sent to the Official Language Bureau of the Ministry of Law and Justice for its Hindi translation.

Till date (up to 30th June 2009) 109 Commodities Grading and Marketing Rules covering 200 agricultural commodities have been notified under the provisions of AP (G&M) Act, 1937.

All the final notifications have been uploaded on the AGMARKNET website www.agmarknet.nic.in for the benefit of its users.

SMALL FARMERS' AGRIBUSINESS CONSORTIUM (SFAC)

The Small Farmers' Agribusiness Consortium (SFAC) was registered by Department of Agriculture & Cooperation as a Society under the Societies Registration Act, 1860 on January 1994. Members at present include Reserve Bank of India, National Bank for Agriculture and Rural Development, Industrial Development Bank of India, State Bank of India, Oriental Bank of Commerce and Export Import Bank of India are the Promoter Members and Canara Bank, M/s United Phosphorous Ltd., and National Agricultural Cooperative Marketing Federation of India Ltd. etc.

The SFAC is managed by a Board of Management consisting of 20 members and chaired by Hon'ble Union Minister of Agriculture as its Ex-Officio President and the Secretary (Department of Agriculture & Cooperation), Government of India as its Ex-Officio Vice-President. Managing Director is the Chief Executive of SFAC. SFAC has established 21 State level SFAC's by contributing to corpus fund. The mission of the Society is to support innovative ideas for generating income and employment in rural areas by promoting private investment in agribusiness project.

The Central sector scheme for agribusiness development implemented by SFAC was approved by the Government on 19th July, 2005 for implementation during remaining period of the Tenth Plan with an outlay of Rs. 48.00 crore. The scheme is being implemented by SFAC in close association with commercial banks to provide (a) Venture Capital to agribusiness projects and (b) assist farmer/producer groups in preparation of quality Detailed Project Reports (DPR).

The main objectives of the scheme are to facilitate setting up of agribusiness ventures in participation with banks, catalyse private investment in setting up of agribusiness projects and thereby providing assured market to producers for

increasing rural income and employment, strengthen backward linkages of agribusiness projects with producers, assist farmers, producer groups, and agriculture graduates to enhance their participation in the value chain through project development facilities, arrange training and visits, etc. of agripreneurs setting up identified agribusiness projects. SFAC provides financial assistance to agribusiness project by way of equity participation.

The quantum of SFAC venture capital will depend on the project cost and will be the lowest of the following:-

- 10% of the total project cost assessed by the bank;
- 26% of the project equity;
- Rs. 75.00 lakhs whichever is lower.

Higher venture capital can be considered by SFAC to deserving projects on merit and/or to projects that are located in remote and backward areas, North-eastern and hilly States and projects recommended by State agencies.

NATIONAL INSTITUTE OF AGRICULTURAL MARKETING (NIAM), JAIPUR

Ch. Charan Singh National Institute of Agricultural Marketing (NIAM) came into being on 8th August, 1988 at Jaipur (Rajasthan) with a mandate for Training, Research, Consultancy and Education in the field of Agricultural Marketing. As an apex body of Agricultural marketing in India, the Institute has been playing a vital role as policy advisory body to the Ministry of Agriculture, Government of India.

The institute is managed by a Governing Body under the Chairmanship of Minister for Agriculture and an Executive Committee under the Chairmanship of Secretary, Department of Agriculture and Co-operation.

The aim of the Training Programmes is upgradation of the skills of the existing Agricultural Marketing personnel. The programmes cover contemporary topics in the areas of Quality Standards, Post Harvest Management, Contract farming, Agricultural Marketing Reforms, Market led Extension & Risk Management, Food Safety, Information Technology, Women Empowerment, Scientific Storage, World Trade Organization (WTO) etc. During the year 2008-09, institute conducted 50 training programmes. Institute will conduct about 50 training programmes during 2009-10.

The Institute has been imparting training to senior and middle level Executives of Agricultural and Horticultural departments, agro industries, corporations, State Marketing Boards, Agricultural Produce Marketing Committees and apex level co-operatives, Commodity Boards, export house recognized by Agricultural and Processed Food Products Development Authority (APEDA), commercial banks and non-governmental organizations.

The Institute has prepared Agricultural Marketing Plans for the development of Agricultural Marketing in a number of States. It also prepares Project Reports for setting up Terminal Markets and other Agri-Business projects.

The Institute has prepared a Master Marketing Plan for the Royal Govt. of Bhutan (RGoB) which was completed in 2008. NIAM is also nodal Institution for facilitating the State Governments in preparing the proposals for World Bank concessional assistance under the Multi-State Agricultural Competitiveness Project (MSACP) NIAM has also completed and submitted the report on the Marketing Component of the Assam Agricultural Competitiveness Project in 2008-09. Besides

these, the Institute has implemented an agreement with USAID for undertaking a programme for Strengthening the Agricultural Marketing System of India (SAAMS). The institute publishes a journal namely, "WATS" covering different aspects of Agricultural Commodity Trade.

NIAM conducts applied research on important Agricultural Marketing issues through its own faculty and students.

NIAM is conducting Post Graduate Diploma Programme (PGDABM), which is a two-year residential AICTE approved programme. The admission to the course is made through NIAMAT test on all India centres.

ANIMAL HUSBANDRY

Animal Husbandry and Dairy Development plays a prominent role in the rural economy in supplementing the income of rural households, particularly, the landless and small and marginal farmers. It also provides subsidiary occupation in semi-urban areas and more so for people living in hilly, tribal and drought-prone areas where crop output may not sustain the family. According to estimates of the Central Statistical Organization (CSO), the value of output from livestock and fisheries sectors together at current prices was about Rs. 2,82,779 crores at current prices during 2007-08 (Rs. 2,40,601 crores for livestock sector and Rs. 42,178 crores for fisheries) which is about 30 per cent of value of output of Rs. 9,36,597 crores from total of Agriculture, Animal Husbandry & Fisheries sector. The contribution of these sectors to the total GDP during 2007-08 was 5.21%.

India is endowed with the largest livestock population in the world. It accounts for 57 per cent of the world's buffalo population and 14 per cent of the cattle population. According to Livestock Census (2003), the country has about 18.5 crore cattle and 9.8 crore buffaloes.

CONTRIBUTION OF LIVESTOCK SECTOR TO FOOD BASKET

The contribution of livestock sector to the food basket in the form of milk, eggs and meat has been immense in fulfilling the animal protein requirement of ever-growing human population. The present availability of human protein in an Indian diet is 10gm per person per day, as against a world average of 25gm. However, keeping in view the growing population, the animal protein availability has to increase at least twofold, for maintaining the nutritional level of growing children and nursing mothers in India.

Milk Production : During past five-year plans, several measures were initiated by the Government to increase the productivity of livestock, which has resulted in significant increase in the milk production to the level of 104.9 million tonnes in the year 2007-08. India continues to be the largest producer of milk in the world.

Egg-Production : The egg production in the country has reached 53.5 billion numbers in 2007-08.

Wool Production : The wool production in the country has reached 44.0 million kg during 2007-08.

Other Livestock Products : Livestock sector not only provides essential protein and nutritious human diet through milk, eggs, meat etc., but also plays an important role in utilization of non-edible agricultural by-products. Livestock also provides raw material by products such as hides and skins, blood, bone, fat etc.

SCHEME/PROGRAMMES IMPLEMENTED BY THE DEPARTMENT

Livestock Insurance Scheme : The Livestock Insurance Scheme was Implemented in all the States except Goa has twin objectives of providing protection mechanism to the farmers and cattle rearers against any eventual loss of their animals due to death and to demonstrate the benefit of the insurance of livestock to the people and popularize it with the ultimate goal of attaining qualitative improvement in livestock and their products.

The scheme was implemented on a pilot basis during the year 2005-06 and 2006-07 in 100 selected districts across the country. For the year 2007-08, the scheme continued in the same format in the same 100 districts. A full fledged scheme on Livestock Insurance, which was approved on 20.11.2008, is being implemented in 100 newly selected districts on regular basis.

In order to assess the impact of implementation of scheme during the years 2005-06 to 2007-08 in terms of achieving the objective of the scheme and to identify the weaknesses affecting it, an Evaluation Study was given to Institute of Rural Management, Anand (IRMA). Based on findings and suggestions of the study and past experience, it has been decided to extend the scheme in 300 districts including the 100 districts in which the scheme was implemented during the pilot run during 2005-06 to 2007-08.

Under the scheme, crossbred and high yielding cattle and buffaloes are insured at a maximum of their current value. One 50% of the premium of the insurance is paid by the beneficiary and the rest is provided by the Central Government. The scheme is being implemented through State Implementing Agencies (SIA), like State Livestock Development Board. In the States, where there are no SIAs, the Livestock Insurance Scheme is being implemented through the State Animal Husbandry Departments.

3.28 lakh animals were insured during 2008-09 at a cost of Rs. 17.59 crore. Upto 2008-09, 12.83 lakh animals were insured under the scheme utilizing an amount of Rs. 59.80 crore. Out of 40,891 claims made, 33,306 claims were settled as on 18.06.09.

LIVESTOCK CENSUS

India has vast resource of livestock and poultry, which play a vital role in improving the socio-economic conditions of rural masses. India ranks first in respect of buffalo, 2nd in cattle and goats, 3rd in sheep, 4th in ducks, 5th in chickens and 6th in camel population in the world. The livestock population supports Agricultural Labourers, Small and Marginal farmers, rural women folk, Agro based Industries, Dairy products, Milk Plants, Fertilizer and pesticides, Skin and wool products etc.

In view of the importance of Livestock sector to the National economy and considering the short span of reproductivity and life of domestic animal, it was decided by the Government to conduct the Livestock Census. The first Livestock Census was conducted during 1919-1920 and since then it is being conducted quinquennially by all States/UTs in India. So far 18 such Censuses have been conducted and the latest one is 18th Livestock Census in the series with 15/10/2007 as the date of reference.

Three schedules were canvassed in the 18th Livestock Census, namely, (i) House list schedule; (ii) Village/ward profile (Infrastructure data); and (iii) Household schedule; (a) Livestock, (b) Poultry (Backyard/Farm), (c) Animal operated Agricultural Implements and (d) Fisheries Statistics. The fieldwork in all States and UTs was

completed as per schedule (as per reference date of 15th October 2007) except some States like Uttar Pradesh, Bihar, Assam, Mizoram, Meghalaya and Tripura. The field work in Bihar is yet to be completed. The data required for quick results have been received from all States/UTs except Assam and Bihar. Data entry work in respect of quick results is in progress in Assam and Bihar. Data entry work in respect of quick results is in progress in Assam and Bihar. The provisional results are expected to be finalized by the end of August, 2009. The data entry work for detailed data is in progress in various States/UTs. All India detailed household results are expected to be released by July, 2010.

An amount of Rs. 27.62 crore were revalidated during 2007-08 and Rs. 203.67 crore were released during 2007-08 & 2008-09 for conducting census. An amount of Rs. 23.11 crore has been provided during 2009-10 under BE for the scheme.

CATTLE AND BUFFALO DEVELOPMENT

India possesses 27 acknowledged indigenous breeds of cattle and seven breeds of buffaloes. Various Central and Centrally sponsored schemes are being implemented for genetic improvement of cattle and buffalo with a view to enhance the per capita availability of consumption of milk through increased milk production. Efforts are also made to protect and preserve the indigenous cattle and buffalo in their native tract, which are facing threat of extinction. The elite animals are selected and registered on the basis of their performance for production of superior pedigree bulls, bull-mothers, frozen semen and frozen embryos for future breeding improvements.

The National Project for Cattle and Buffalo Breeding envisages 100 per cent grant in aid to implementing agencies. At present 28, States and one UT are participating in the project. Financial assistance to the tune of Rs. 398.36 crore has been released to these States upto 2007-08. During the financial year 2008-09, against the RE of Rs. 89.70 crore, an amount of Rs. 87.37 crore has been released.

A Central Herd Registration Scheme for identification and location of superior germ plasm of cattle and buffaloes, propagation of superior germ stock, regulating the sale and purchase, help in formation of breeders society and to met requirement of superior bulls in different parts of the country is also being implemented. The Government of India has established Central Herd Registration Unit in four breeding tracts i.e. Rohtak, Ahmedabad, Ongole, Ajmer. A total of 92 Milk Recording Centres are functioning to register these breeds of cattle viz. Gir, Kankrej, Hariana and Ongole and in Buffalo Jaffrabadi, Mehsani, Murrah and Surti. During 2007-08, 14,882.

The seven Central cattle breeding farms at Suratgarh (Rajasthan), Chiplima and Semiliguda (Orissa), Dhamrod (Gujarat), Hessarghatta (Karnataka), Alamadi (Tamil Nadu) and Andeshnagar (Uttar Pradesh) are engaged in scientific breeding programmes of cattle and buffaloes and production of high pedigreed bulls for National Project for Cattle/Bufaio Breeding Programme besides providing training to farmers and breeders. During 2008-09, these farms produced 346 bull calves and supplied 245 high pedigreed bulls for use under Artificial Insemination Programme in various parts of the Country. 3711 persons were trained in farm management practices and demonstration of scientific breeding. The CCBFS trained 2912 nos. of farmers in during farm management.

The Central Frozen Semen Production and Training Institute (CFSP&TI) located at Hessarghatta (Bangaluru) is producing frozen semen doses of indigenous, exotic

and crossbreed cattle and Murrah buffalo bulls for use in artificial insemination (AI). The Institute also provides training in semen technology to technical officers of the State Governments and acts as a Centre for testing the indigenously manufactured frozen semen and AI Equipments. The Institute produced 8.66 lakhs doses of frozen semen and provided training to 227 persons in field of frozen semen technology and andrology during the year 2008-09.

POULTRY DEVELOPMENT

Poultry development in the country has shown steady progress over the years, primarily due to research and development schemes of Government as well as effective marketing & management by organized private sector.

India, with poultry population of 489 million and estimated more than 532 billion eggs production, ranks among the top three countries in egg production in the world. During 1980-81, egg production reached double-digit billion figures (10 billion numbers) and has increased over 5 times currently. Per capita availability has, during this period, also increased nearly 3 times from a mere fifteen numbers per person per annum to forty-two per annum.

The broiler production is growing at the rate of nearly 8-10% every year and growth in production of poultry/chicken meat increased from mere 0.12 million metric tonnes in 1981 to 2.2 million metric tonnes presently. The annual per capita availability of eggs and chicken meat has also increased from a mere 10 eggs and 146 grams in 1970s to around 42 eggs and 1.6 Kgs respectively presently.

India's share of the world trade in poultry and poultry products is very small. However, the country has come a long way during the last decade increasing its value of exports from nearly Rs. 11.00 crores in 1993-94 to around Rs. 441 crores during 2007-08. Poultry Sector, besides providing direct or indirect employment to nearly 3 million people is a potent tool for subsidiary income generation for many landless and marginal farmers and also provides nutritional security especially to the rural poor.

To provide necessary services to the farmers of the country region-wise, four regional centres have been restructured on the principle of one-window service to the farmers. In these regional Central Poultry Development Organizations (CPDOs) located at Chandigarh, Bhubaneswar, Mumbai and Hessarghatta, training is also being imparted to the farmers to upgrade their technical skills. To monitor the production potential of various stocks in the country, the Central Poultry Performance Test unit at Gurgaon is conducting one layer and two broiler tests in a year.

Recently Cabinet Committee on Economic Affairs approved the Centrally Sponsored Scheme. "Poultry Development" from third year of XI Five Year Plan i.e. 2009-10, at a total outlay of Rs. 150 crore. The Centrally Sponsored Scheme combines three components viz., 'Assistance to State Poultry Farms', (which is a continuing component) and two new components 'Rural Backward Poultry Development and 'Poultry Estates'. The administrative approval and scheme guidelines are being issued.

The Scheme through its 'Assistance to State Poultry Farms' component aims at strengthening existing State poultry farms so as to enable them to provide inputs, mainly in terms of providing improved stocks suitable for rural backyard rearing. The 'Rural Backyard Poultry Development' component is expected to cover the needy Below Poverty Line section of society to mainly enable them to gain supplementary

income and nutritional support. Entrepreneurship skills are expected to be improved through pilot component of 'Poultry Estates' which is meant primarily for educated, unemployed youth and small farmers with some margin money, for making a profitable venture out of various poultry related activities in a scientific, and biosecure cluster approach.

SHEEP & GOAT DEVELOPMENT

According to Livestock census 2003, there are about 61.47 million sheep and 124.36 million goats in the country. About five million households in the country are engaged in the rearing of small ruminants (sheep & goats) and other allied activities.

Central Sheep Breeding Farm, Hissar is engaged in production of acclimatized exotic/cross bred superior quality rams. During 2008-09, the farm supplied 613 rams and 95 bucks. A total of 44 farmers were trained in mechanical sheep shearing and 633 farmers were trained in sheep management.

CONSERVATION OF THREATENED BREEDS

The population of purebred animals of some of the small ruminants, equines, pigs and pack animal breeds has come down considerably and below 10,000 in some cases, which has brought such breeds to the category of threatened breeds in the country.

A new centrally sponsored scheme for conservation of such threatened breeds was started during Tenth Five Year Plan with a budget outlay of Rs. 1500 lakhs. Farms/farmer's unit in their respective breeding tract are established under the scheme with 100 per cent central assistance. The conservation projects are being implemented by State Governments, Universities and NGO's. During the Tenth Plan period conservation projects for 27 breeds were taken up.

Eleventh Plan allocation has been enhanced from Rs. 16.00 crore to Rs. 45.00 crore during 2008-09. Poultry and duck breeds would also be covered during XI Plan whose population is around 1000.

Allocation under the scheme during 2008-09 was Rs. 1.90 crore against which Rs. 194.95 lakh has been released up to March, 2009. The State of Gujarat has been assisted for conservation of Surti Goat (Rs. 32.25 lakh), Kerala Livestock Development Board has been assisted for conservation of Attapaddy Goat (Rs. 27.25 lakh) as well as Angamally Pig (Rs. 9.20 lakh) and Government of Jammu and Kashmir has been assisted for conservation of Zanskari Pony (Rs. 6.00 lakh). Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana has been provided with Rs. 30.00 lakh towards conservation of Beetal Goats and Rs. 68.00 lakhs to the Govt. of Gujarat for conservation of Kachchhi Camel during 2008-09. NABCONS has been provided with Rs. 2.25 lakh towards completion of evaluation of the performance of the scheme.

INTEGRATED DEVELOPMENT OF SMALL RUMINANTS AND RABBITS

This new Central Sector Scheme has been approved in the first fortnight of April, 2009 for implementation during XI Plan with an allocation of Rs. 134.825 crores out of which B.E. for 2009-10 is Rs. 18.33 crore. The scheme envisages setting up of 54 intensive small ruminant development clusters with venture capital through NABARD as well as infrastructure development and institutional restructuring through State Implementing Agency.

MEAT PRODUCTION/PROCESSING AND EXPORT

There are 20 export-oriented modern abattoirs and 21 meat processing plants registered with Agricultural and Processed Food Products Export Development Authority exporting raw meat (Chilled and frozen) to about 56 countries. During 2007-08, about 483478 M.T. Buffalo Meat and 8908.72 MT sheep/goat meat valued at Rs. 3549.79 crore and Rs. 134.09 crore respectively were exported. During April 2008 to February, 2009 Meat & its product worth Rs. 4859 crores have been exported indicating 31.91% growth in rupee term.

PIGGERY DEVELOPMENT

As per Livestock census 2003, the pig population in the country was 139.19 lakhs of which 21.80 lakhs were cross bred/exotic pigs. Exotic breeds like white Yorkshire, Hampshire and Landrace are maintained at these farms. There are about 158 pig breeding farms in the country run by the State Governments/UTs. Efforts are being made in consultation with Planning Commission and other appraisal agencies to initiate Integrated Piggery Development Scheme under Macro Management Scheme during 11th Five Year Plan.

FEED AND FODDER DEVELOPMENT

For the development of the production potentiality of our livestock, availability of nutritious feed and fodder is essential. To facilitate fodder availability, several regional Stations have been established in different agro climatic Zones of the country for production of high yielding varieties of fodder/fodder seed and transfer of scientific fodder production technology through training of officers/farms, demonstration of latest fodder agronomic practices and organization of farmer fairs. During 2008-09 these stations produced 212.50 MT of high yielding fodder variety seeds, conducted 6249 field demonstrations, organized 110 training programmes and 116 Farmer Fairs.

The Central Fodder Seed Production Farm located at Hessairghatta (Karnataka) working with the same objectives as of Regional Stations produced 66.01 MT fodder seeds of different varieties of grasses/legumes, conducted 605 field demonstrations, organized 12 training programmes and 12 farmers fairs. A Central Minikit. Testing programme of fodder crops is under implementation for popularizing the high yielding fodder varieties on a large scale through Director Animal Husbandry of States. During 2008-09, 6.34 lakh minikits were allotted to the states for distribution to farmers free of cost.

Besides a centrally sponsored fodder Development Scheme is being implemented from 2005-06 for establishment of Fodder Block making units, grass land development including grass reserve, fodder seed production and biotechnology research project, under which funds of Rs. 924.91 lakh was released to various States during 2008-09.

In addition, Special Livestock Package for Suicide Prone Districts of Maharashtra, Karnataka, Andhra Pradesh and Kerala is implemented under which Rs. 1382.00 lakhs was released during 2008-09 for Feed and Fodder Supply Programme and establishment of fodder Block making units.

DAIRY DEVELOPMENT

The Indian, dairy industry has acquired substantial growth from the Eighth Plan onwards, achieving an annual output of over 104.8 million tonnes (provisional) of

milk at the end of 2007-08. India's milk output has not only placed the industry first in world, but also represents sustained growth in the availability of milk & milk products. The Government is implementing following schemes for the development of dairy sector during 2008-09.

(a) Intensive Dairy Development Programme (IDDP) : The Schemes, modified as Intensive Dairy Development Programme on the basis of the recommendation of the evaluation studies was launched during Eighth Plan period and is being continued during the Eleventh Plan with an outlay of Rs. 32.49 crore for 2009-10. So far 86 projects with an outlay of Rs. 489.84 crore have been sanctioned in 25 States and one UT. A sum of Rs. 373.82 crore has been released to various State Governments upto 31st March, 2009 and 207 districts have been covered. The scheme has benefited about 18.79 lakh farm families and organized about 26882 village level Dairy Cooperative Societies till 31st March, 2009.

(b) Strengthening Infrastructure for Quality and Clean Milk Production (CMP) : A centrally sponsored scheme was launched in October 2003, with the main objective of improving the quality of raw milk produced at the village level in the country. Under this scheme, assistance is provided for training of farmers on good milking practices. The scheme is being implemented on 100% grant-in-aid basis to District Coop Milk Unions and State Coop. Milk Federation through the State Governments/UTs for components viz. training of farmer member, detergents, stainless steel utensils, strengthening of existing laboratory facilities whereas 75% financial assistance is provided for setting up of milk ceiling facilities at village level in the form of Bulk Milk Coolers. Since inception 131 projects at a total cost of Rs. 195.17 crore with central share of Rs. 159.33 crore have been approved up to 31st March, 2009 under this scheme. A total sum of Rs. 128.11 crore as a central share has been released to the concerned State Governments for implementation of approved project activities up to 31.03.09. The scheme has benefited 5,30,468 farmer members by imparting training and by installing 21.05 lakh litre capacity of Bulk Milk Coolers to facilitate marketing of milk produced by them and keeping its quality intact as on 31.03.09.

Assistance to Cooperative : The scheme aims at revitalizing the sick Dairy Cooperatives Unions at the District level and Co-operative Federations at the State level. Under the scheme rehabilitation programmes are prepared by NDDDB in consultation with Milk Union Federation/State Government. Central grants is released to milk union/Federations through NDDDB. The scheme is being continued during Eleventh Five Year Plan with a tentative outlay of Rs. 50 crore. Since inception in 1999-2000, 34 rehabilitation proposals of milk union in 12 States namely, Madhya Pradesh, Chhattisgarh, Karnataka, Uttar Pradesh, Haryana, Kerala, Maharashtra, Assam, Nagaland, Punjab, West Bengal and Tamil Nadu at a total cost of Rs. 230.94 crore with a central share of Rs. 115.66 crore have been approved upto 31.3.09. A total sum of Rs. 88.19 crore has been released till 31.03.2009. An amount of Rs. 9.00 crore has been provided in BE 2009-10 out of which a sum of Rs. 155.495 lakh has been released to the concerned Milk Unions during current financial year till 20.8.2009.

Dairy Venture Capital Fund : To bring about structural changes in unorganized sector, measures like milk processing at village level, marketing of pasteurized milk in a cost effective manner, quality upgradation of traditional technology to handle commercial scale using modern equipments and management skills, a new scheme viz. Dairy Venture Capital Fund was initiated in the Tenth Five Year Plan. The assistance under the scheme is provided to the rural/urban beneficiaries under a

schematic proposal through bankable projects with 50% interest free loan component. The scheme is implemented through NABARD and the funds released by GOI to NABARD are kept as revolving fund. Under the scheme the entrepreneur has to contribute 10% and arrange 40% loan from local bank. Government of India provide 50% interest free loan through NABARD. Government of India also subsidizes the interest component payable by the farmers agricultural activities to the extent of 50% only in case of regular/timely repayment.

This scheme was approved in Dec-2004 with a total outlay of Rs. 25.00 crore. The scheme is being implemented through NABARD and the funds released to NABARD to be kept as revolving fund. Since inception, a sum of Rs. 112.99 crore has been released to NABARD for implementation of the scheme up to 31st March 2009. There is a provision of Rs. 38.00 crore for implementation of the scheme during 2009-10, out of which 10.00 crore have been released til, 31.07.2009.

Milk and Milk Product Order-1992 : With the Enactment of Food Safety Standard Act-2006, at present the work related to MMPO-92 are under Food Safety and Standard Authority of India (FSSAI), M/o Health & Family Welfare.

National Dairy Plan : Government is also examining launching a National Dairy Plan with an outlay of more than Rs. 17,300 crore to achieve a target of 180 million tonnes of Milk producing annually by 2021-22. Milk production is expected to grow at 4% with an annual incremental output of 5 million tonnes in the next 15 years. Under this plan the government is contemplating to enhance milk production in major milk producing areas, strengthen and expand infrastructure to production, process and market milk through the existing and new institutional structures. The plan envisages breed improvement through AI and through nature service, setting up plants to augment cattle feed, bypass protein and mineral mixture. The plan also proposed to bring 65% of the surplus milk produced under the organized sector for procurement as against the present 30%. Efforts are on the tap for World Bank funding for this project.

LIVESTOCK HEALTH

Animal wealth in India has increased manifold. The Animal husbandry practices have also been changed to a great extent. Due to the liberalization of trade after the advent of the WTOs SPS agreement, the chances of ingress of exotic diseases into the country have increased. With the improvement in the quality of livestock through launching of extensive cross breeding programmes, the susceptibility of these livestock to various diseases including exotic diseases has increased. For ensuring the maintenance of disease-free status and to be compatible with the standards led by the World Animal Health Organization (OIE), major health schemes have been initiated to support animal health programmes in the State.

In order to reduce morbidity and mortality, efforts are being made by the State/ Union Territory Governments to provide better health care through Polyclinics/ Veterinary Hospitals/Dispensaries/First-Aid Centres including Mobile Veterinary Dispensaries. A network of 27562 Polyclinics/Hospitals/Dispensaries and 25195 Veterinary aid Centres (including Semen Centres/Mobile Dispensaries), supported by about 250 Disease Diagnostic Laboratories, are functioning in the States and Union Territories for quick and reliable diagnosis of diseases. In order to provide referral services over and above the existing disease diagnostic Laboratories are also functioning. Further, for control of major livestock and poultry diseases by way of

propylactic vaccination, the required quantity of vaccines are produced in the country at 27 veterinary vaccine production units of these, 21 are in the public sector and 6 in private sector. Import of vaccines is also permitted as and when required.

Animal Quarantine and Certification Service : The objective of this service is to prevent ingress of livestock diseases into India by regulating the import of livestock and livestock related products, and providing export certification of International Standards for livestock and livestock products which are exported from India.

At present, there are four Animal Quarantine Stations functioning one each at Mumbai, Delhi, Calcutta, and Chennai. It has been decided to strengthen Bio-security in Livestock sector through setting up of two additional Animal Quarantine Stations at Hyderabad and Bangaluru and also strengthening of four existing Quarantine Stations through setting up of additional quarantine units at operational areas of Airports, Sea-port and International Container Depots (ICDs) at Delhi, Mumbai, Kolkata and Chennai. Further, for strengthening of Bio-security in Marine sector, two Aquatic Quarantine Units along with Disease Diagnostic Laboratory at Mumbai and Chennai and Coordination Units at Headquarters will be setup. The required land for the establishment of the quarantine stations at Hyderabad and Bangaluru has already been acquired. The import of GP stock of poultry, pets, laboratory animals and livestock products has already commenced through the Hyderabad airport.

National Veterinary Biological Products Quality Control Centre : At order to assess the quality of vaccines and biological. National Veterinary Biological Products Quality Control Centre (National Institute of Animal Health) has been set up at Baghpat, Uttar Pradesh.

The Institute has the following objectives :

- To recommend licensing of manufacturers of veterinary vaccines, biological, drugs, diagnosis and other animal health preparations in the country.
- To establish standard preparations to be used as reference materials in biological assays.
- To ensure quality assurance of the veterinary biological both produced indigenously and imported.

The construction work of the Office building and Laboratory building has been completed. It is expected that the institute will be fully functional very soon.

Central/Regional Disease Diagnostic Laboratories : In order to provide referral services over and above the existing disease diagnostic laboratories in the States, one Central and five Regional Disease Diagnostic Laboratories have been set up by strengthening the existing state diagnostic facilities. The Centre for Animal Disease Research and Diagnosis (CADRAD) of Indian Veterinary Research Institute, Izatnagar is functioning as Central Disease Diagnostic Laboratory. The Disease Investigation Laboratory, Pune, Institute of Animal Health and Veterinary Biologicals, Kolkata, Institute of Animal Health & Biologicals, Bangaluru, Animal Health Institute, Jalandhar and Institute of Veterinary Biologicals, Khanapara, Guwahati are functioning as referral laboratories for Western, Eastern, Southern, Northern and North-Eastern region, respectively.

The main objectives of CDDL/RDDL are :

- (i) To work as a centre par excellence and provide referral diagnostic services to States/Union Territories and later on to the neighbouring countries.

- (ii) To study the problems of emerging diseases of livestock, mainly the infectious Bovine Rhinotracheitis in cattle, Blue Tongue, Peste Des Petits Ruminants (PPR), Sheep Pox etc. in sheep and goat. Swine fever in pigs, Glanders, Equine rihnopneumonitis in horse, Canine parvovirus in dog, Avian Influenzaa, Avian Encephalitis, Avian infectious laryngotracheitis, etc. in poultry.
- (iii) To demonstrate modern diagnostic techniques both in the laboratory and in the field to the disease investigation officers and field veterinarians in the country and
- (iv) To study the problems associated with inter State transmission of infectious livestock diseases and suggest remedial measure.

Livestock Health and Disease Control (LH&DC) : In order to control the economically important livestock diseases and to undertake the obligatory functions related to Animal Health in the country, the Government of India is implementing Livestock Health and Disease Control (LH&DC) with the following components.

(i) Assistance to States for Control of Animal Diseases (ASCAD) : Under this component, assistance is provided to State/Union Territory Governments for control of economically important diseases of livestock and poultry by way of immunization, strengthening of existing State Veterinary Biological Production Units, strengthening of existing State Disease Diagnostic Laboratories, holding workshops/seminars and in-service training to Veterinarians and Paraveterinarians. The programme is being implemented on 75:25 sharing basis between the centre and the states, however, 100% assistance is provided for training and seminar/workshops.

Besides this, the programme envisages collection of information on the incidence of various livestock and poultry diseases from States and Union Territories and compiling the same for the whole country. The information so compiled is disseminated in the form of Monthly Animal Disease Surveillance Bulletin to all the States and Union Territories and also the organizations like World Organisation for Animal Health (OIE), Animal Production and Health Commission for Asia and the Pacific (APHCA) etc. This information system has been harmonized in accordance with the guidelines of OIE.

(ii) National Project on Rinderpest Eradication (NPRE) : The objective of the scheme is to strengthen the veterinary services and to eradicate Rinderpest and Contagious Bovine Pleuro-Pneumonia (CBPP) and to obtain freedom from Rinderpest & CBPP infection following the pathway prescribed by World Organisation for Animal Health (OIE), Paris followed by the physical surveillance to maintain freedom status. OIE declared India as Rinderpest infection free and Contagious Bovine Pleuro-Pneumonia (CBPP) disease free country on 26th May, 2006 and 26th May, 2007 respectively. Hence, it is very important to maintain country's freedom status against these two diseases in the interest of trade and export.

The physical surveillance through village, stock route & institutional searches is going on throughout the country with the help of the staff of Animal Husbandry department of the States & Union Territories to maintain freedom status.

A strategic reserve of 2.5 million doses of Rinderpest Vaccine is being maintained at 6 Vaccine Banks across the country to meet any eventuality arising due to re-emergence of Rinderpest.

(iii) Foot and Mouth Disease Control Programme (FMD-CP) : 'Foot and Mouth Disease Control Programme' is being implemented in 54 specified districts in the country to

control the Foot and Mouth Disease. This involves six monthly vaccinations of susceptible livestock against FMD. Eighth round of vaccination has been completed in all the participating States except Punjab. Ninth round has also been completed in Maharashtra and Gujarat. About 28.00 million vaccinations are conducted in every round.

(iv) Professional Efficiency Development (PED) : The objective of this scheme is to regulate veterinary practice and to maintain register of veterinary practitioners as per the provisions of Indian Veterinary Council Act, 1984 (IVC Act) and to improve in the efficiency of Veterinary professionals on latest technical knowledge by way of providing continuing Veterinary Education (CVE). The scheme envisages establishing Veterinary Council of India at the Centre and the State Veterinary Councils in those states, which adopted the Indian Veterinary Council Act, 1984. At present, it is implemented in all the States and Union Territories, except Jammu and Kashmir.

AVIAN INFLUENZA : PREPAREDNESS, CONTROL AND CONTAINMENT

PAST OUTBREAKS OF AVIAN INFLUENZA IN INDIA

The first outbreak of Avian Influenza in India was reported in February, 2006 in Nandurbar district of Maharashtra and Surat district of Gujarat. This was followed by second outbreak of the disease in Jalgaon district of Maharashtra and Burhanpur district of Madhya Pradesh in March-April, 2006. The third outbreak of Avian Influenza occurred in July 2007 in a small poultry farm at Chingmeirong in East Imphal district of Manipur.

The fourth outbreak of Avian Influenza in the country was confirmed in Birbhum and Dakshin Dinajpur districts of West Bengal on 15.1.2008. Subsequently, the disease spread to 13 more districts of the State viz., Murshidabad, Burdwan, South-24 Parganas, Nadia, Hooghly, Howrah, Coochbehar, Malda, Paschim Medinipur, Bankura, Purulia, Jalpaiguri and Darjeeling. The outbreak covered 55 blocks and 2 municipalities in 15 districts of West Bengal. The last incidence of Avian Influenza in the state was notified on 16th May, 2008. During control and containment operations in West Bengal, a total of about 42.62 lakh birds were culled, 15.60 lakh eggs (approx.) and 89,823 kg. feed materials destroyed.

Outbreak of Avian Influenza was also reported in Salema Block of Dhalai district of Tripura on 7th April 2008. Subsequently, the disease spread to two more blocks i.e. Mohanpur and Bishalgarh in West Tripura district. The last notification of Avian influenza outbreak was notified in Bishalgarh block of West Tripura district on 24th April 2008. A total of 0.19 million birds were culled in Tripura during control and containment operation of Avian Influenza.

After successful control and containment operations, India declared freedom from the disease on 4th November, 2008.

Recent Occurrence of Avian Influenza in Assam and reoccurrence in West Bengal:

After a full of about a month, other outbreak of Avian Influenza was confirmed on 27.11.2008 in Kamrup district of Assam. Subsequently, the disease spread to eight more districts of the State i.e. Kamrup (Metro), Barpeta, Nalbari, Chirang, Dibrugarh, Bongaigaon, Nagaon and Baksa. The outbreak covered 13 blocks and 2 municipalities in 9 districts of Assam. The last incidence of Avian Influenza in the state was notified on 24th December, 2008.

Outbreak of Avian Influence was again reported in Englishbazar Block of Malda district of West Bengal on 15th December, 2008. Subsequently, the disease spread to 9 more blocks in 5 districts in West Bengal. The last outbreak was notified on 27th May, 2009 in Uttar Dinajpur district. The outbreak was also confirmed in Ravongla municipality in South Sikkim district in Sikkim. All the outbreaks have been resolved.

The following measures have been taken up by the Government of India for control and containment of current Avian Influenza outbreak as well as to prevent its ingress into the country.

- (i) Culling of entire poultry population in the affected zone of 05/0-3 Kms, as appropriate.
- (ii) Continuous strengthening of preparedness to tackle any future eventuality in terms of upgradation of laboratories, training of manpower, stockpiling of materials for control and containment etc.
- (iii) The training of veterinary personnel in preparedness, control and containment is continuing. More than 75% veterinary workhorse, in the country has been trained to handle control and containment operations.
- (iv) Reserve of essential material for control operations have been developed and the being expanded further. The Department has developed a vaccine bank arrangement with the capacity of 45 million doses of Avian Influenza vaccines for poultry.
- (v) Sensitization of general public on Avian Influenza through Information, Education and Communication (IEC) campaigns.
- (vi) Transparent approach towards reporting not only outbreaks but also information of unusual sickness/mortality in poultry and results of laboratory diagnosis.
- (vii) All the state governments have been alerted to be vigilant about the outbreak of the disease, if any.
- (viii) Import of poultry and poultry products have been banned completely from HPAI positive countries.
- (ix) Border check posts with neighboring countries have been strengthened.
- (x) Guidelines issued to the states for further guidance to the poultry farmers.

FISHERIES

The Department of Animal Husbandry, Dairying and Fisheries has been undertaking various production, input supply and infrastructure development programmes and welfare oriented schemes besides formulating/ initiating appropriate policies to increase production and productivity in the Fisheries Sector.

Fish production since 1980-81 is shown in the table below:

(lakh tonnes)			
Year	Marine	Inland	Total
1980-81	15.55	8.87	24.42
1990-91	23.00	15.36	38.36
1991-92	24.47	17.10	41.57
1992-93	25.76	17.89	43.65

1993-94	26.49	19.95	46.44
1994-95	26.92	20.97	47.89
1995-96	27.07	22.42	49.49
1996-97	29.67	23.81	53.48
1997-98	29.50	24.38	53.88
1998-99	26.96	26.02	52.98
1999-2000	28.52	23.23	56.75
2000-2001	28.11	28.45	56.56
2001-2002	28.30	31.20	62.00
2002-2003	29.90	32.10	62.00
2003-2004	29.41	34.58	63.99
2004-2005	27.78	35.26	63.04
2005-2006	28.16	37.55	65.71
2006-2007	30.24	38.45	68.69
2007-2008	29.19	42.07	71.26

The fisheries sector has been one of the major contributors of foreign exchange earnings through export. Export of fish and fishery products has grown manifold over the years. From about 15,700 tonnes valued at Rs. 3.92 crore in 1961-62, exports have grown to 5.41 lakh tonnes valued at Rs. 7621 crore in 2007-08.

DEVELOPMENT OF INLAND FISHERIES AND AQUACULTURE

The ongoing scheme of Development of Freshwater Aquaculture and Integrated Coastal Aquaculture have been combined with four new programmes on Development of Coldwater Fish Culture, Development of water-logged Area and Derelict water bodies into aquaculture estates, Use of Inland Saline/Alkaline Soil for Aquaculture and programme for augmenting the Productivity of Reservoirs. This scheme broadly has two components. Aquaculture and Inland Capture Fisheries.

DEVELOPMENT OF FRESHWATER AQUACULTURE

The Government has been implementing an important programme in inland sector, viz., Development of Freshwater Aquaculture through the Fish Farmers Development Agencies (FFDAs). A network of 429 FFDAs covering all potential districts in the country are in operation. During 2007-08, about 24,752 ha of water area was brought under fish culture and 35,000 fish farmers were trained in improved aquaculture practices through FEDAs.

DEVELOPMENT OF BRACKISHWATER AQUACULTURE

With the objective of utilizing the country's vast brackishwater area for shrimp culture, an area of about 30,889 hectares was developed for shrimp culture till 2007-08 through 39 Brackishwater Fish Farmers Development Agencies (BFDAs) set up in the coastal areas of the country. The agencies have also trained 31,624 fishermen in improved practices of shrimp culture till 2007-08. Presently about 50 per cent of the shrimp exported from the country is from aquaculture.

DEVELOPMENT OF MARINE FISHERIES

The Government is providing subsidy to poor fishermen for motorizing their traditional craft, which increases the fishing areas and frequency of operation with consequent increase in catch and earnings of fishermen. About 46,223 traditional crafts have been motorized so far. The Government has also been operating a scheme on fishermen development rebate on HSD oil used by fishing vessels below 20 meter length to offset the operational cost incurred by small mechanized fishing boat operators.

DEVELOPMENT OF FISHING HARBOUR

The Government has been implementing a scheme with the objective of providing infrastructure facilities for safe landing and berthing to the fishing vessels. Since inception of the scheme, six major fishing harbours viz., Cochin, Chennai, Visakhapatnam, Roychowk, Paradip and Season dock (Mumbai), 62 minor fishing harbours and 190 fish landing centres have been taken up for construction in various coastal States/UTs.

WELFARE PROGRAMMES FOR TRADITIONAL FISHERMEN

Important programmes for the welfare of traditional fishermen are (i) Group Insurance Scheme for active fishermen, (ii) Development of Model Fishermen Villages, (iii) Saving-cum-relief Scheme, and (iii) Saving cum component financial assistance is provided to the fishermen during the lean fishing season.

About 3.5 lakh fishermen were assisted under the saving-cum-relief programme in 2008-2009.

SPECIALISED INSTITUTES

The Central Institute of Fisheries, Nautical and Engineering Training, Kochi with units at Chennai and Visakhapatnam, aims at making available sufficient number of operators of deep-sea fishing vessels and technicians for shore establishments. Integrated Fisheries Project, Kochi, envisages processing, popularizing and test marketing of unconventional varieties of fish. The Central Institute of Coastal Engineering for Fisheries, Bangaluru, is engaged in techno-economic feasibility study for location of fishing harbour sites. Fishery Survey of India (FSI) is the nodal organization responsible for survey and assessment of fishery resources under the Indian Exclusive Economic Zone (EEZ).

NATIONAL FISHERIES DEVELOPMENT BOARD

National Fisheries Development Board was established to work towards blue revolution with a focus on to increase the fish production of the country to a level of 10.3 million tonnes, to achieve double the exports from 7,000 crores to 14,000 crores and direct employment to an extent of 3.5 million by extending assistance to the various agencies for implementation of activities under Inland, Brackish water and Marine sectors. IT will become a platform for public-private partnership for fisheries, a mechanism for an end approach for ensuring proper in self-availability to efficient marketing etc.

It is an autonomous organization under the administrative control of the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Govt. of India. IT has been registered with the Office of the Registrar of Societies, Hyderabad on 10th July 2006 with the registration number of 933 of 2006. The Board was inaugurated on 9th September 2006. The office was established at Hyderabad.

The period of implementation of the various activities of the board is 6 years (2006-12) :

- i) To bring major activities relating to fisheries and aquaculture for focused attention and professional management;
- ii) To coordinate activities pertaining to fisheries undertaken by different Ministries/Departments in the Central Government and also coordinate with the State/Union territory Government.
- iii) To improve production, processing, storage, transport and marketing of the products and culture fisheries.
- iv) To achieve sustainable management and conservation of natural aquatic resources including the fish stocks,
- v) To apply modern tools of research and development including biotechnology for optimizing production and productivity form fisheries;
- vi) To provide modern infrastructure mechanisms for fisheries and ensure their effective management and optimum utilization.
- vii) To generate substantial employment.
- viii) To train and empower women in the fisheries sector, and
- ix) To enhance contribution of fish towards food and nutritional security.

Major activities to be taken up by the National Fisheries Development Board :

- i) Intensive aquaculture in ponds and tanks.
- ii) Enhancing productivity from Reservoir Fisheries.
- iii) Brackish water Coastal Aquaculture.
- iv) Mariculture.
- vi) Sea Ranching.
- vii) Seaweed Cultivation.
- viii) Infrastructure for Post Harvest Programmes.
- ix) Fish Dressing Centres and Solar Drying Fish
- x) Domestic Marketing.
- xi) Other Activities.

The total budget provision for implementation of various activities of National Fisheries Development Board for the period 2006-12 is Rs. 2100.00 crores and subsequently reduced to Rs. 1500.00 crores.

BUDGET ALLOCATION TO THE BOARD

The projected expenditure for undertaking the various activities of the Board during the six years period is Rs. 2100.00 crores.

Govt. of India has released an amount of Rs. 105.00 crores right from inception of NFDB. Out Rs. 105.00 crores, an amount of Rs. 96.33 crores was released to various states and organizations for various fisheries developmental activities during the last three years. Out of Rs. 96.33 crores used in the last three years an amount of Rs. 65.58 crores relates to the year 2008-09.

DEPARTMENT OF AGRICULTURAL RESEARCH AND EDUCATION

The Department of Agricultural Research and Education (DARE), Ministry of Agriculture provides government support, service and linkage to the Indian Council

of Agricultural Research (ICAR) and is responsible for coordinating research and educational activities in the field of agriculture, animal husbandry and fisheries. Also, it helps to bring about interdepartmental and inter-institutional collaboration with national and international agencies engaged in agriculture and allied sectors.

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

The Indian Council of Agricultural Research (ICAR) is an apex national organization for conducting and coordinating research and education in agriculture including animal husbandry and fisheries. The Council undertakes research on fundamental and applied aspects in traditional and frontier areas to offer solutions to problems related to conservation and management of resources, productivity improvement of crops, animals and fisheries. It plays a pivotal role in developing new technologies in agriculture and allied sectors and performs the functions of introduction and disseminating it to the end users through its wide network Krishi Vigyan Kendras.

AGRICULTURAL RESEARCH

The Council has its headquarters at New Delhi and a vast network of institutes all over the country consisting of 49 institutes including 4 national institutes with Deemed to be University status; 6 national Bureau; 17 national Research Centres; 25 Project Directorates; and 61 All India Coordinated Research Projects (AICRPs) and 17 network projects. For higher education in agriculture and allied fields there are 45 State Agricultural Universities and one Central Agricultural University at Imphal besides 4 Deemed to be Universities. The SAUs are provided and developmental grants and the 61 CAUs and Deemed Universities are fully funded by the department.

RESEARCH, EDUCATION AND EXTENSION ACTIVITIES OF THE ICAR

The activity spectrum and the highlight of research, education and extension in different fields for 2008-2009 are submitted below :

CROP SCIENCES

During the year, 33 explorations were undertaken and 2,203 accessions including 784 of wild species were collected. In the National Herbarium of Cultivated Plants, 371 herbarium specimens, 121 seed samples and 21 economic products were added. A total of 25,456 diverse crop accessions were introduced from various countries, and 15,000 accessions, including germplasm from the ICRISAT, were exported to 19 countries. About 13,850 accessions of orthodox and species were added to the National Genebank.

Five varieties of wheat, three of barley and one of triticale have been released. Sixteen wheat genetic stocks showing resistance to different wheat diseases have been registered. Nine hybrids/composites of Maize were released by the Central Variety Release Committee for different agro-climatic regions of the country.

Two varieties of sorghum, viz., CSV 23 a dual purpose *Kharif* variety and SPV 1626 a *rabi* variety has been developed. Two finger millet and one little millet variety were released. Short duration Finger millet variety, GPU 48, suitable for cash cropping and season cultivation released for Karnataka, 219 q breeder seed of 47 released varieties/inbred lines were produced.

Pigeonpea varieties viz., Azad (NEPZ), JKM 189 (CZ), LRG 30 and LRG 38 (SZ) were found suitable for delayed planting. Two high yielding varieties, one each of

Lentil, Angoori (IPL 406) and of *Rajmash*, Arun (IPL 98-3-1) were notified for northern states, Gujarat, Maharashtra and Chhattisgarh.

DOR Bt-1, a local isolates of bacillus thuringiensis var *kuskaki* (H-3a, 3b, 3c) developed for management of castor semilooper has been registered under the trade name KNOCK W.P. for commercialization with the Central Insecticides Board, Govt. of India DRS-1, hybrid with high oil content (42-44 %) and yield of 1300-1600 kg/ha has been released the Rabi.

Summer in all sunflower growing area of India. NARI-H-15, a sunflower hybrid having the yield potential of 2200 kg/ha, 28% oil content and tolerance to aphid was released. JSF-99, a variety, moderately resistant to aphid, *Alternaria* leaf spot released for Madhya Pradesh. DCH-519, and Sugar Shakti, Castor hybrids have been released for all castor growing area. Three improved soyabean varieties namely PS 1347 and PRS 1 (Uttarakhand) and IS 93-60 (Madhya Pradesh) were released.

Bi-cotton variety Bikaneri Nerma and NRH 44 Bt cotton hybrid and Mustard hybrids developed. An economically viable and rapid method for compost production has been developed by Mushroom production using fungus *S. thermophilum*.

Integrated Pest Management (IPM) strategies in cotton was successfully demonstrated in 2,360 ha area of conventional cotton and 605 ha area of Bt cotton in nine cotton growing states all over the country through twelve field centres. Plant health clinics were established at four centres in order to cater to the requirements of knowledge support and demonstration of IPM strategies to the farmers.

Pest Management Information System (PMIS), a computer based retrieval system with complete information on pests and IPM strategies along with the source of availability of critical inputs was developed for cotton, brinjal and okra. Decision making software (pesticide Advisor) was also developed providing all information on available pesticides.

Taxonomic keys had been developed for the genera and species of Lariidae, Pyrocoridae and Cercopidae. Biosystematic studies leading to morphological characterization and differentiation of *Pseudophytoseaphus* from Phytosaphus, species of Cleoninae, Pyralidae genus Magaronia were initiated.

Research work at Kerala Agricultural University on stingless bees *Trigona irridipermis* for honey and pollination of crops resulted in development of earthen pots, bamboo splits and PVC as artificial nest material.

HORTICULTURE

Improved lines identified in Indian bean (AHDB-16) bottle gourd, line AHLS-II, AHLS-24 and AHG-13 cluster bean. Identification of PGPR strains carried out. Soft wood grafting in mahua standardized. Two cropping models recommended. Disease control using biocontrol agent like *Trichoderma* worked out. Improvement of coconut, arecanut and cocoa, biotechnological investigations in palms and cocoa, production technology in plantation crops, integrated management of diseases and pests, production physiology in palms and cocoa carried out. Collection, characterization and evaluation of cashew germplasm, molecular characterization of germplasm using RAPD / Isozyme Markers, canopy management, high density planting trials, organic farming, soil and water conservation, development of IPM tech for management of CSRB & TMB and studies on effect of pollinators of cashew were carried out.

PGR management; development of high yielding varieties/hybrids; development of RILs for important traits in tomato, brinjal, chilli and pumpkin; development of

transgenic lines in tomato using Cry 1 Ac, DREB, ZAT-12 and T-rep gene construct pyramiding; expression profiling of gene in tomato for early blight, draught and heat and development of organic farming protocols developed. Conserved 1,400 cultivated potatoes *in vitro* under slow growth. Hybrid MP/98-71 was released as a French fry variety, while hybrid MP/98-916 was introduced in AICPIP as chipping hybrid. 3 lines with resistance to bacterial wilt were identified. Data base for the use of INFOCROP potato model has been developed.

Technology for increasing the productivity and production of mushrooms and consumption of mushrooms and its produce are under progress. Technology for enhanced productivity of tuber crops, end-specific varietal development, reduction in per unit cost of cultivation, ensuring solid health of cassava production system are under progress. Lines identified for release at national level for kharif and late kharif and also for high TSS white onion suitable for processing. The package of fertigation for onion and garlic being finalized. IPM module for management of thrips and diseases and INM module for enhancing productivity of existing genotypes being finalized.

High yielding varieties of ginger, turmeric, black pepper developed. New accessions are under collection with desired traits. Evaluation of coriander, cumin, fennel, fenugreek, dill, ajwain, nigella, anise, celery for high yield, dwarfness, biotic and abiotic stress is in progress. Inter/mixed cropping of fruits with seed spices is in progress. In long pepper a new genotype (Acc.No. 2) has been identified as superior type. New Efficient method of aloin extraction from *Aloe barbadensis* has been developed. Five newly collected varieties of rose were added to the existing germplasm of 324 cultivars including 201 HT, 73 Floribunda, 42 Miniature and 8 climbing roses at Bhubaneswar.

In gladiolus, two hybrids each from IARI, New Delhi and MPKV, Pune; 6 new varieties in chrysanthemum from PAU Ludhiana are under multi vocational testing

NATURAL RESOURCE MANAGEMENT

The Natural Resource Management Division is addressing issues related to conservation, improvement and efficient utilization of natural resources to increase agricultural production in a sustainable manner. The research programmes are being carried out within the perspective of different themes, viz; Soil Inventory and Characterization, Soil Management, Nutrient Management, Water Management, Cropping/farming system, Agroforestry including Bio fuel Crops and Climate Change on agriculture.

Major achievements include standardized multi-spectral remote sensing technique for assessing and mapping soil erosion with an accuracy of over 80%. New high yielding varieties of brinjal (Swarna Abhilamb), sponge gourd (Swarna Prabha), garden pea (Swarna Mukti) cowpea (Swarna Suphala) and Indian dolichus bean (Swarna Utkrist) released for cultivation in eastern India. A salt tolerant wheat genotype (KRL 119) with resistance to rust and other diseases identified. A better acceptable thorn less variety of *vilayati babool* (*Prosopis juliflora*) for arid ecosystem of the country developed. The pods of the plant are used for production of aromatic coffee power and biscuits.

The agri-horti system of drumstick + green gram - fennel requiring less water was more remunerative compared to tobacco crop in Vasad, Gujarat. For effective utilization of drainage waterways, technology was devised by growing crops (rice bean & millet

in *kharif*, brassica & lentil in *rabi* and *Panicum maximum* as perennial grass) along with lemon on side slope. Vegetative barriers increased sorghum & soyabean yield by 20 % besides supplying about 4-5 q/ha air dry forage on arable lands of Kota, Rajasthan. Bio-engineering measure involving Contour Staggered Trenches (CST) + Beans was found highly effective in reducing run off and soil loss in new tea plantation areas of Nilgiris, Udhamandalam.

The Guava/*Prosopis* and zero tilled soyabean - wheat systems proved ideal in reclaimed sodic soils of north-west India compared to rice-wheat system for sustaining soil health and productivity. Developed liquid biofertilizer formulations of *Rhizobium*, *Azospirillum* and P-solubilizing *Bacillus megaterium* with enhanced shelf life upto one year. A quality control kit for testing the biofertilizers viz, *Azotobacter*, *Psuedomonas*, *Bacillus* and *Rhizobium* developed based on genetically marked strains. A field kit for assessing soil sodicity developed for reclamation of salt affected soils. Standardized integrated nutrient management package for pomegranate comprising 10 kg vermi compost/FYM + 50% recommended dose of fertilizer NPK per plant.

A 4 row pre-germinated paddy seeder for wet land paddy developed for NEH region. Developed a seed drill suitable for sowing of maize, pulses and oilseeds under high slopes in NEH region. A project on 'More crop and income per drop of water' in farmers participatory mode has been launched in collaboration with Ministry of Water Resources for the conservation and better utilization of rain water in rainfed areas. ICAR has established a National institute on Abiotic Stress Management in Maharashtra in order to find a holistic solution to the emerging problem of various edaphic, soil and climatic stresses (droughts, cold waves, floods, salinity, alkalinity, acidity and nutritional disorders etc.) on agriculture.

A World Congress on Conservation Agriculture was organized in Feb 2009 at New Delhi in order to address the issues of improving efficiency, equity and environment. Several farmers' training/ FLDS/ workshop organized on various thrust areas of Natural Resource Management.

AGRICULTURAL ENGINEERING

Several new Machineries and tools to improve efficiency in agriculture production has been developed like tractor operated farm yard manure spreader; the controlled traffic rotary no-till slit planter for straw laden fields; plastic mulch laying machine for raised bed; A spinning disc spraying attachment to the intercultural frame and dynapod for the optimization of speed for operation using ergonomic principles for hand operated maize sheller. Women friendly tools and implements have been introduced in three villages and women involvement index has been worked out. Suitable tractor operated three-row weeder with reduction in human drudgery and higher coverage has also been developed.

A decorticator for jatropha seed extraction has been developed with a capacity of 100 kg/ha; Fruit-vegetable bars using papaya, pumpkin, bottle gourd, brinjal, cabbage and cauliflower; ready to eat breakfast cereal from sorghum; Banana comb cutter; Aonla pricking machine; a coriander splitter for spilting the coriander into two halves for seed purposes; fabricated blade tenderizer using surgical knives and handles; a process for making Green chilli, puree with capsicum have been developed. The dehulling of guar was optimized and a low cost hand operated aloe vera juice extractor has been developed.

Protein content, trypsin inhibitor and nitrogen solubility index of fourteen cultivars were evaluated. A Software namely 'Cotton Bale Manager' has been developed. Delinted dehulled cottonseed meal was taken and sieved into two fractions. Preliminary trials were conducted on softening of freshly extracted fibres. Nine different fabric substrates were made from Nylon 6 using matt, honeycomb and mock leno constructions. A Mobile Chipper was procured and its cost economics worked out. Cotton stalks were blended with Mulberry stalks and Bagasse in different proportions and tested. Standardized the time, temperature, chemical concentration of the retting process by which fibres of definite physico-chemical properties can be obtained.

Some resin substitutes have been developed out of jute lignin through partial degradation, which can be used in particle board making from jute stick. Two collection of *rangeeni* lac insect from Jammu and Rajasthan have been multiplied for evaluation for summer susceptibility under field conditions. Two potential lac insect lines (LIK 0023 and 0031) have been found promising for cultivation on *Calliandra calothyrsus* and *Dalbergia assamica*. Host plant collection was made from four states and 12 collections have been added to the field gene bank. Two new lac host species viz. *Acacia tortilis* and *colliandra surinamensis* have been recorded. Five safer chemical insecticide i.e. Indoxacarb Spinosad, Fipronil, Alphamelthrin and Carbosulphan and two bio-pesticide i.e. Halt and Knock were found safe and effective against lac insect predator. Nine diseases of commercial lac host (*Palas, Ber, Kusum* and *F. semialata*) were identified.

Documentation of status of commercially available natural resins, gums and gum resins carried out. Documented the package of practices for storage of seedlac, shellac and bleached lac and extent of losses. 119 training camp were organized including 7412 beneficiaries on Scientific method of lac cultivation. A compression ignition engine was modified for operation with pure biogas by altering the compression ratio and ignition timings. Laboratory scale production of ethyl alcohol from rice straw has been successfully carried out. Jatropha oil was dewaxed and degummed using established processes and blended with high-speed diesel for the operation of a tractor.

A few family size biogas plants 2-6m³ capacity have been put up at farmers' sites for poultry droppings/poultry litters as substitute. A moving platform type fuel wood cutter has been developed. Its output is around 3 times more than the commercially available fuel wood cutter. Multi-location trials are under progress. A concentrator for solar photovoltaic panel has been developed and patent filed. Suitable system for crops sensitive to water logging has been developed by which good yields of maize and pigeon pea could be obtained. An increase of 20-40% in the yields of these crops could be achieved. Water quality of surface and ground water was assessed during pre-monsoon, monsoon and post monsoon seasons using digital elevation model and geographic information system. Different envelope materials for drains were evaluated for losses in varying operating heads. Envelope made of geo-textile fabric was found to be best suited.

Software for carrying out the design of drip and sprinkler system has been developed. Mole drainage system was evaluated in two villages of Raisen district for draining excess water. Fifty-eight training programmes were organized with the participation of 1023 officials from Madhya Pradesh, Uttar Pradesh, Chhattisgarh

and Maharashtra. Central Institute for Agriculture Engineering (CIAE) supplied a total of 1671 improved equipments all across the country. Four front line demonstrations of direct paddy seeder were carried out during the year.

ANIMAL SCIENCES

Tuberculin and Johns disease vaccine produced and commercialized. Kits developed for diagnosis of Brucellosis and IBR were validated. Cell culture vaccine against swine fever developed which is being validated. Pentavalent vaccine for blue tongue disease has been developed. Field trial of PPR vaccine has been carried out. Goat-pox vaccine developed is being released. Assessed LPBE & ELISA in 2000 samples under National FMD control program monitored serotypes of FMD virus throughout the country.

Sensitive test for detecting soya milk adulteration developed. Quarg type cheese from buffaloe milk prepared. Health drinks like sorghum and bajra based lassi developed. Number of indigenous milk products like channa, basundi, mango lassi, herbal ghee, kunda, peda, diatetic burfi, etc. have been developed. Technology for production of low cholestoral egg has been standardized.

Area specific mineral mixture for feeding livestock has been commercialized. New feed resources has been identified and tested for their nutritional value. Data base on feed and animal resources prepared district-wise for different agro-eco systems of the country. Bio-availability of micro nutrient in sheep assessed. In vitro assessment of various tree leaves for anti- methanogenic property carried out. Programme on mitigation of methane emission due to enteric fermentation launched. Developed strains of layers and broilers were further improved by intensive selection. Control population of various layers and broiler strains supplied to AICRP centres. Coloured broiler pure lines and six white lines further improved for achieving targeted body weight gains in 5 weeks. Multi-location testing of developed strains has been conducted. Improved poultry strain laying 300 eggs per annum has been developed. A dual purpose rural poultry strain laying 220 eggs per annum has been developed.

Daily weight gain in Chokla and Marwari breeds increased from 60 to 120g through intensive selection. Elite germ plasm of Broiler and Angora rabbits made available for breed improvement programme at farmers level. Sponge technique for estrus induction developed at the institute was validated in farmers flock. Developed feed blocks for sheep, mithun and yak using locally available feed resources. Added value to inferior grade rabbit wool and short length crossbred sheep wool through preparation of superior quality lightweight felts. Validated the protocols developed for estrus synchronization under field conditions. Elite germplasm of various breeds of sheep (carpet wool/mutton) produced and distributed among farmers. 12th generation crop of Barbari & Jamunapari goats produced through intensive selection and evaluated under farm and field conditions. Kid feeder and watering device designed and developed. A prototype low cost animal feed mixture designed and developed.

Farmers herd improvement programme undertaken with quality Murrah breed semen. Selection of elite Murrah bulls for 10th set completed and 11th set initiated. 15 Murrah Bulls of 5th set progeny tested and 10000 doses of semen preserved. Indicators for assessing semen quality and predicting fertilizing potential identified. Incorporation of limiting amino acid rich supplements, like cotton seed cake and soyabean cake in the diet of buffaloes resulted in 6-10% increase in milk yield.

ICAR has achieved a unique scientific landmark recently with the birth of the first cloned buffalo calf in the world. The first calf and born in February, 2009 died due to Pneumonia, but the second cloned buffalo calf born on 6th June, 2009 is quite hail and healthy. This technology would provide us tool to produce animals of desired sex and traits faster. Similar programme for cloning of Pashmina goats has been initiated.

Red Sindhi, Krishna valley cattle; Madras Red, Tiruchy Black, Magra sheep; Gohilwadi goat; Telecherry chicken phenotypically characterized. Genetic characterization of Dangi cattle, Changthangi goat, Jalauni, Chottanagpuri sheep, and Nagami mithun completed. Breed Registration Authority designated, documented indigenous breeds of livestock and poultry registered and given Accession numbers. Project on buffalo genomics has been launched.

Four strain of pigs from NE states procured and are being evaluated. 50-87.5% crossbreds produced and field trial conducted. Molecular kit for identification of sex and species of the animal in the meat developed. Draughtability parameters in 3 camel breeds assessed. Value addition to camel milk done by preparing paneer, different flavours of kulfi and sugar free kulfi and technology commercialized. 40830 doses of semen used across Military Farms for Progeny testing of Frieswal bulls. 1920 daughters of Haryana and 2366 of ongole breed produced by test mating. Data Bank on animal disease trends, disease prevalence, meteorological data, land use data, animal and human demography, soil pattern and crop production developed.

FISHERIES

Database on gear wise catch effort and species composition of sardines, mackerel, tuna, seer fish, anchovies, carangids, Bombay duck, ribbonfish developed. Guidelines for sustainable production and management of marine fisheries along the Kerala coast was developed and published. Underwater resource surveys was conducted with GPS-mapping of Gulf of Mannar and Palk Bay. The study showed that hard corals were affected by brown band disease, porites ulcerative syndrome, white pox syndrome and pink line syndrome. Evaluation of species variation and catch composition of family Lutjanidae is being carried out at Karwar, Mangalore, Cochin, Vizhinjam and Tuticorin. A total of 70 species of marine fishes belonging to 19 families were recorded in the coral reef ecosystem using underwater visual census technique of belt-transect. 9 species of bivalves belonging to 6 families and 25 species of gastropods belonging to 17 families were also recorded. Diversity indices were worked out.

Seaweeds *Sargassum* and *Gelidiella* were collected from Mandapam coast for extraction of active compounds. Alginic acid and agar were extracted for further development of useful seaweed based process/products. Year round breeding of seabass under captive conditions was validated. Fishes were found to attain maturity even in 14 ppt salinity and successful spawning was recorded in 18 ppt. Eight natural spawning were also obtained. Larval rearing of seabass following the standardized protocols resulted in every survival of 32%. On farm trial of seabass nursery rearing in hapa at Chirala Andhra Pradesh @ 750 nos. / hapa resulted in 90% survival after 25 days. Milk fish seed collected from the wild with the size ranging from 12-20 mm were subjected for nursery rearing in the RCC tank and bed, fed formulated diet attained natural maturity and oozing males were observed in the captive stock. A low fish meal shrimp feed was developed by replacing 40% fish meal with plant protein

sources and fed to *P. monodon* in grow out ponds. The shrimps attained 16 gms. in two months.

The total fish catch from wetland eco-system in West Bengal and Assam ranged from 0.04 to 9 tonnes with an estimated fish yield ranging from 0.1 to 0.4 tonnes/ ha/ year; in Karnataka reservoir it is 8.4 tonnes for entire reservoir with CPUE of 8.5kg. In river Brahmaputra the fish catch was 23.62 tonnes during the period. Stocking protocol developed for reservoirs was tested in Madhya Pradesh which enhanced the catch effort by 72% and increased the catch by 60%. Golden mahseer and snow-trouts of two different size groups were stocked in floating cages in Bhimtal lake and the survival, growth and other parameters were recorded. Slower growth rate in snow-trout fry and golden mahseer was observed due to low water temperature in the lake during winter season. Growth performance of chocolate mahseer in freshwater aquaculture systems in North Eastern and Western Himalayan region are being assessed. Breeding of brown trout carried out in Arunachal Pradesh and approximately 15,000 trout seed has been produced and rearing is in progress. 75,000 mahseer seed was produced at mahseer hatchery.

The coldwater fishery resources of Uttarakhand are estimated using Geoinformatics. A 6.4m length plank built canoe for gill net fishing was constructed using coconut wood in place of the costly *Aini* wood. The canoe is given for experimental fishing through the Chellanam Kandakadavu Fishermen Welfare Cooperative Society. Experimental trials are continued with the newly designed 26 meter multi-seam Simi-pelagic trawl and a CPUE of 38 kg/hr was recorded. Metalised polyester pouches were suitable for freeze dried coated fish balls and EVOH pouches were ideal for packaging system. A total of 100 training / awareness programmes were conducted in various parts of the country and over 400 people were trained under these programmes on various aspects of harvest and post harvest technology. 100 women of coastal self help group participated in the on-site training workshop on coastal aquaculture. 50 coastal women were trained in crab fattening.

Over thirty short term training programmes (STPs) were organized and over 500 participants were trained in various aspects of fisheries and aquaculture and harvest and post harvest technology. Apart from STPs, 117 participants including fish farmers, students and fishery officials were given training on fish culture under 5 different programmes. Data and information collected on marine ornamental fishes and mollusks were entered in digital format to facilitate online access. Data entry were made in SQL server for 254 fishes belonging to 30 families coming under order Clupeiformes and Perciformes, for developing digital information system on marine fish taxonomy. 250 tissue samples were collected from 60 species of marine fishes from Gulf of Mannar region. The broodstock was maintained with pelleted feed containing 30-32% protein. *Pangasius pangasius* was bred successfully with fertilization and hatching rate of over 80% and 60% respectively and larval rearing has been completed with a survival of 37-46% after two weeks. Multiple breeding of *Anabas testudineus* with a survival of 37-46% after two weeks. Multiple breeding of *Anabas testudineus* with prolonged duration was achieved.

AGRICULTURAL EDUCATION

Development Grant of ICAR has made a significant impact on the overall quality of agricultural education in the country. There is a marked reduction in the inbreeding of students. With the objective of building excellence in specific strategic areas in

education and research. ACAR supported 29 Niche Areas of Excellence in different agricultural universities. Recommendations of the Fourth Deans' Committee particularly with regard to norms, standards, academic regulations and UG course curricula and syllabi have been adopted by the AUs. This has a continuing positive effect on enhancement of the quality, acceptability and relevance of education as well as employability of the graduates. Common academic regulations, course curricula and syllabi of all the post-graduate (master' and doctors) programmes in agriculture and allied sciences revised in 2008-09 for the first time making them need based and uniform. A mega-project on " Modernization of Agricultural Universities farms" has been initiated in 2008-09 to enhance the research and educational capabilities of the agricultural universities. Twenty-two agricultural universities have been accredited. Development of quantifiable parameters for accreditation and for performance rating of agricultural universities is in progress. Course delivery system has improved, and practical hands-on-training has received better attention leading to improved entrepreneurship development in students. The grant has led to do better gender equity, better classroom / laboratory facilities and student amenities. The support has resulted in knowledge and skill acquisition / updation by faculty and students and about 2000 faculty members are being trained in emerging areas every year. Computer facilities for teaching have definitely improved leading to quality teaching resources. Improvement in Central / College library out of the funds provided under the scheme has led to better teaching and improved postgraduate research. There has been an appreciable improvement on the overall development of universities.

A new activity of providing overseas fellowships has been initiated to develop competent human resources to be trained in the best laboratories in the world and expose overseas candidates to the best of the Indian Agricultural Universities/ Institutes for facilitating further co-operation with these countries and for ensuring quality research and human resources development.

AGRICULTURE EXTENSION

520 technologies related to Crop Production, Crop Protection and Livestock Production and Management were taken up at 2044 locations with 20,002 farm trials for its assessment and refinement in order to identify the location specificity of technology under different farming systems. Altogether 74,732 forntline demonstrations including hybrids of different crops were taken up in order to establish the production potential of improved technology on the farmers' fields. During the same period, 11.53 lakh farmers and 0.90 lakh extension personnel were trained to update their knowledge and skills on improved agricultural technologies. Various other extension programmes were also organized by the KVKs benefiting 80.69 lakh farmers and other officials. The KVKs produced 2.02 lakh quintal of seeds and 133.20 lakh saplings/seedlings, besides 11.97 lakh kg bio-fertilizers, bio-pesticides and bio-agents and 61.19 lakh fingerlings and other livestock/poultry strains for availability of the farmers. As far as networking of KVK is concerned, the work is in advance stage of completion for providing e-linkage to 200 KVKs/Zonal Project Directorates.

Structure for data-base and gender specific information, collection of gender data from nine-states, testing technologies for weed control and work on horticulture based cropping model for gender mainstreaming indicated. During the period, initiated action research on gender mainstreaming on livestock management,

aquaculture; developed index on involvement of women in farm operations; and developed concepts of village-level para-extension workers for testing of technologies in four village of Orissa.

568 Krishi Vigyan Kendras (KVKs) have been established so far against the target of 667 as approved by the Government, to conduct on-farm trials, to identify the location specificity of technologies under various farming systems, frontline demonstrations to establish the production potential of improved agricultural technologies on the farmers' fields and training of farmers to update their knowledge and skills.

NATIONAL AGRICULTURAL INNOVATION PROJECT

Component-I (Strengthening ICAR as Catalyzing Agent of Management of Change) of NIANP aims at promoting knowledge products like digital repository of about 10,000 Ph.D theses, online access to publications of Springer (www.springerlink.com), Annual Reviews (www.annualreviews.org) and CSIRO (www.publish.csiro.au) covering nearly 2000 e-journals/resources and linking to 126 NARS libraries. Skill development of about 3500 personnel in project proposal writing and reporting. 'Agropedia'. a platform for aggregation and sharing information with browsing interfaces and search tools developed and released. Over 400,000 SMS messages in four months delivered, established Zonal Technology Management and business planning and development units. International training of about 500 scientists in 26 cutting edge areas of agricultural sciences and training of about 1000 NARS scientists by about 80 international experts conducted.

Under Component-2 (Research on Production to Consumptions System), the approved subprojects include innovations in the utilization of sweet sorghum for ethanol production, development of food products from millets, (sorghum, pearl millet, foxtail and little millet). exploitation of multiple uses of cotton (stalk, cotton fibre for quantity yarn and fabric, oil, protein) and craft and gear for cost effective and responsible fishing and processing for total utilization of small pelagic and freshwater fishes.

Under Component-3 (Research on Sustainable Rural Livelihood Security), through 36 approved projects, 80 disadvantaged districts (out of 150 disadvantaged districts) in 27 States of the country are covered. The total number of targeted farmers /agricultural labourers includes 83,000. Nearly one third of the partners are NGOs and the rest consists of SAUs, ICAR institutes, International centres etc, reflecting diverse partnerships. The main expected contributions of the 61 approved projects include develop mitigation strategy to control the deadly arsenic problem in food chain, genetic engineering for fixation of heterosis, genetic solutions for improved cotton ball and fibre development, enhance yield and quality in buffaloe milk etc.

DARE /ICAR HEADQUARTERS

Six Indian patents were granted to ICAR, which covered inventions in the fields of animal nutrition (areas-specific mineral mixture), pest control and plant nutrition (biopesticide-cum-biofertilizer, fungicide, insect trap), agricultural machinery (seed-cum-fertilizer drill) and ramie fibre (degumming) 227 Scientists and other concerned staff were reoriented with the nuances of IPR in 5 training-cum-workshop programmes on IP & Technology Management conducted in five states-Meghalaya, West Bengal, Kerala, Madhya Pradesh and Uttar Pradesh during the period.

During 2008-09 all the issues of seven periodicals, ICAR News/Reporter and Annual Report DARE/ICAR and other publications were published. Besides, bandwidth and infrastructure of internet connectivity was enhanced and e-library publications started.

Directorate of Information and publications of Agriculture has developed on-line scrolling of day-to-day news, in addition to regular uploading the issues of ICAR Reporter and ICAR News on the ICAR web page. World-wide more than 753,039 visitors have browsed ICAR Web page during 2008.

CENTRAL AGRICULTURAL UNIVERSITY, IMPHAL

The University is following semester system of education with 10-point scale of grading. It has internal cum external system of examination for UG programmes and only internal system for PG programmes. The University has adopted model academic regulations and syllabi as proposed by the ICAR/VCI, with some minor changes to suit the regional needs. The University offers 7 (seven) undergraduate and 20 (twenty) postgraduate degree programmes.

A total number of 226 undergraduate students were admitted, and 129 students successfully completed their programme during the year, 2008. Fifty Seven students were admitted in different Postgraduate programmes and 18 students completed their degree programme from the Collage of Agriculture.

RESEARCH FOR HILLY AND TRIBAL REGIONS

Hill Regions

Eleven varieties/hybrids of different crops were released for different agro-climatic regions resulting from the research work carried out by the institutes in North-west Himalayas.

A total of 21.9 tonnes breeder seed of 47 released varieties/inbred lines was produced. Organic seed (0.495 tonne) of wheat, pea, lentil, horsegram and French bean was also produced. In addition, around 1.2 tonnes nucleus seed of 33 released varieties was produced. Breeder seed (20.795 tonnes) was supplied to different seed-producing agencies to take up further multiplication.

The research work conducted at institute located in North-East Himalayas led to development of two cold-tolerant short-duration rice genotypes with yield potential of 6.0 tonnes/ha for post-flood cultivation in NEH region. Another rice genotype, RCPL 1-129, was also developed for shifting cultivation (*jhum*) areas, yielding 1.8 tonnes/ha at farmers' fields without any fertilizer or crop management input. Fifty six accessions of maize were collected from so far unexplored areas of Ukhrul district of Manipur. Eighty accessions were also collected from Nagaland.

Three guava genotypes were found to be quality genotypes for the north-eastern region. These genotypes are ready for multilocation trial. Strawberry varieties recommended for different locations are : Orfa for Meghalaya and Sweet Charlie for Sikkim and Manipur. Cultivation of various mushroom species using sawdust incorporated with paddy straw has been standardized with other locally available raw materials under local conditions. A quantity of 5-6 kg dried (weight) mixture of sawdust and paddy straw yielded 3 kg *Lentinus edodus* within 6-8 months.

An enthomopathogenic nematodes (EPNs), *Heterorhabditis* was isolated from soils and mass multiplied on laboratory hosts *Galleria mellonella* and *Corcyra*

cephalonica, *Heterorhabditis* @ 5 million ijs/ha was found effective in controlling maize stem-borer in 70% of the fields. The same was also used at farmers' fields for the control of maize stem-borer.

A simple and low cost technique of *in-situ* moisture conservation was developed for *rabi* crop (mustard) using residue of preceding maize crop grown during rainy season and *Ambrosia*, a weed, as external input ensuring double cropping under both upland terrace and flat upland situations. Mustard sown in October between maize rows by removing maize stalk and put back between mustard rows on the same day immediately after sowing and kept till harvest of mustard ensured good germination of mustard growth resulted in 5-fold increase in mustard yield over control under terrace and flat upland situations.

Mineral deficiency in dairy cows in Mizoram was quantified and based on the data, a state-specific mineral mixture feed formula was evolved. Blood serum samples of cows and the soil and fodder samples were collected from different areas of Mizoram and analyzed for macro and micro-minerals. Based on deficiency in blood, a mineral mixture composition was developed for cattle of Mizoram.

ISLANDS (ANDAMAN & NICOBAR)

Component analysis of developed integrated farming system (IFS) models under different resource conditions in humid tropics of Bay Islands indicated that cropping contributed more to new returns (69% to 83%) in hilly and sloping hilly uplands, whereas livestock components (cattle, poultry and fish) contributed more to net returns (49 to 66%) in medium upland valley and low-lying valley areas. On an average, net returns from IFS was Rs. 1.0-2.5 lakh/ha under various resource situations. Bacterial load in fish-cum-poultry-cum-duck-system revealed that *Samonell* sp. in the pond gets increased during monsoon and further increased during the summer, revealing unsuitability of pond water for household purpose.

Out of 32 local early flowering mango clones, 15 clones exhibiting higher qualitative characters were collected and were found free from post-harvest diseases like anthranose. Polyembryonic characters were found in all these clones even in the seedling progeny. Identification of gene expression using RAPD and ISSR markers were also done. Fifty saplings were planted in the main field for evaluation in Bay Islands (Andaman & Nicobar).

Two breed of goats (Local Andama and Teressa) belonging to Andaman and Nicobar islands were phenotypically characterized for the first time. After Tsunami predation by crown of thorns, siltation of coastal waters, effluent discharge, unfavourable environmental conditions, human interference like coral mining were found as some of the factors responsible for damage and destruction of corals.

Of the recorded 105 species of reef fishes, about 15 varieties of damselfishes species are harbouring in Andaman and Nicobar islands.

5 Art and Culture

THE Ministry of Culture plays a vital role in the preservation and promotion of art and culture. Its aim is to develop ways and means by which basic cultural and aesthetic values and perceptions remain active and dynamic among the people. It also undertakes programmes for the promotion of various manifestations of contemporary art. The Department is a nodal agency for commemorating significant events and celebrating centenaries of great artists.

VISUAL ARTS

LALIT KALA AKADEMI

To promote and propagate understanding of Indian art, both within and outside the country, the Government of India established Lalit Kala Akademi (National Akademi of Arts) at New Delhi in 1954. The Akademi has regional centres called Rashtriya Lalit Kala Kendras at Lucknow, Kolkata, Chennai, Garhi in New Delhi and Bhubaneswar with workshop facilities in painting, sculpture, print-making and ceramics.

Since its inception, the Akademi has been organising national exhibition of contemporary Indian art with 15 national awards, each of Rs 50,000. Every three years, the Akademi also organises Triennial India, an International exhibition of contemporary art in New Delhi.

The Akademi honours eminent artists and art historians every year by electing them as Fellows of the Akademi. To propagate Indian art outside, the Akademi regularly participates in International Biennials and Triennials abroad and also organises exhibitions of works of art from other countries. To foster contacts with artists from outside, it sponsors exchange of artists with other countries under the various Cultural Exchange Programmes and Agreements of the Government.

The Lalit Kala Akademi accords recognition to art institutions/associations and extends financial assistance to these bodies as well as State Academies. It also gives scholarships to deserving young artists belonging to its regional centres. Under its publication programme, the Akademi brings out monographs on the works of Indian contemporary artists in Hindi and English and books on contemporary, traditional, folk and tribal arts authored by eminent writers and art critics. The Akademi also brings out bi-annual art journals, *Lalit Kala Contemporary* (English), *Lalit Kala Ancient* (English) and *Samkaleen Kala* (Hindi). Apart from these, it brings out large size multi-colour reproductions of contemporary paintings and graphics from time to time. The Akademi has started a regular programme on research and documentation. Scholars are given financial assistance to undertake projects in contemporary projects on various aspects of Indian society and culture.

PERFORMING ARTS

MUSIC

Two main schools of classical music—*Hindustani* and *Carnatic* continue to survive through oral tradition being passed on by teachers to disciples. This has led to the existence of family traditions called *gharanas* and *sampradayas*.

DANCE

Dance in India has an unbroken tradition of over 2,000 years. Its themes are derived from mythology, legends and classical literature, two main divisions being classical and folk. Classical dance forms are based on ancient dance discipline and have rigid rules of presentation. Important among them are *Bharata Natyam*, *Kathakali*, *Kathak*, *Manipuri*, *Kuchipudi* and *Odissi*. *Bharata Natyam* though it derives its roots from Tamil Nadu, has developed into an all India form. *Kathakali* is a dance form of Kerala. *Kathak* is a classical dance form revitalised as a result of Mughal influence on Indian culture. Manipur has contributed to a delicate, lyrical style of dance called *Manipuri*, while *Kuchipudi* is a dance form owing its origin to Andhra Pradesh. *Odissi* from Orissa, once practised as a temple dance, is today widely exhibited by artistes across the country. Folk and tribal dances are of numerous patterns.

Both classical and folk dances owe their present popularity to institutions like Sangeet Natak Akademi and other training institutes and cultural organisations. The Akademi gives financial assistance to cultural institutions and awards fellowships to scholars, performers and teachers to promote advanced study and training in different forms of dance and music, especially those which are rare.

THEATRE

Theatre in India is as old as her music and dance. Classical theatre survives only in some places. Folk theatre can be seen in its regional variants practically in every region. There are also professional theatres, mainly city-oriented. Besides, India has a rich tradition of puppet theatre, prevalent forms being puppets, rod puppets, glove puppets and leather puppets (shadow theatre). There are several semi-professional and amateur theatre groups involved in staging plays in Indian languages and in English.

SANGEET NATAK AKADEMI

Sangeet Natak Akademi, India's National Academy of Music, Dance and Drama, may be regarded as a pioneer in the process of creation of modern India that led politically to India's freedom in 1947. The ephemeral quality of the arts, and the need for their preservation led to the adapting of a democratic system in which a common man had the opportunity to learn, practice and propagate the art. Within the first few decades of the twentieth century, public perception of responsibility for both preservation and development of the arts had started inclining towards the state.

The first comprehensive public appeal to government in this direction was made in 1945, when the Asiatic Society of Bengal submitted a proposal for the creation of a National Cultural Trust consisting of three academies - an Academy of Dance, Drama, and Music, an Academy of Letters, and an Academy of Art and Architecture.

The entire question was reconsidered after independence, in a Conference on Art held in Kolkata in 1949, and two Conferences, on Letters, and the other on Dance, Drama, and Music, held in New Delhi in 1951. These Conferences convened by the Government of India finally recommended the creation of three national academies: an Academy of Dance, Drama, and Music, an Academy of Letters and an Academy of Art.

The National Academy of Dance, Drama, and Music, named Sangeet Natak Akademi, was the first of these entities to be established by a resolution of the Ministry of Education, headed by Maulana Abul Kalam Azad, signed on 31 May 1952. On 28 January 1953, Sangeet Natak Akademi was inaugurated by the then President of India, Dr Rajendra Prasad.

The Akademi's charter of functions contained in the 1952 resolution was expanded along the original lines in 1961, when Sangeet Natak Akademi was reconstituted by the Government as a society and registered under the Societies registration Act of 1860 (as amended in 1957). These functions are set down in the Akademi's Memorandum of Association, adopted at its registration as a society on 11 September 1961.

Since its inception the Akademi has worked towards building up a unified structure of support for the practice of music, dance and drama in India. This support encompasses traditional and modern forms, and urban as well as rural environments. The festivals of music, dance and drama presented or promoted by the Akademi are held all over India. The great masters of the performing arts have been elected as Fellows of the Akademi. The Sangeet Natak Akademi Awards conferred annually on eminent artists and scholars are considered the most coveted honours in the field of the performing arts. Thousands of institutions across the country, including many in the remote areas, engaged in teaching or promotion of music, dance and theatre have received financial assistance for their work, from the Akademi, as do researchers, authors and publishers in relevant disciplines.

The extensive recording and filming of the performing arts carried on by the Akademi since its inception have resulted in a large archive of audio-and video-tape, 16-mm film, photographs and transparencies, and remains the single most important resource for researchers in the performing arts of India.

The Akademi's Gallery of Musical Instruments has a collection of more than 600 instruments of prominence and has been the source of a great deal of published documentation over the years. The library of Sangeet Natak Akademi has similarly attracted, and continues to attract, authors, students and researchers in these disciplines. *Sangeet Natak*, the Akademi's journal published since 1965, had proved to be one of the longest-running periodicals in its own domain, and has published the original work of both eminent writers as well as those of lesser known.

The Akademi also establishes and looks after institutions and projects of national importance in the performing arts. Chronologically, the Jawaharlal Nehru Manipuri Dance Academy in Imphal, the premier institution in Manipuri dance and music established in 1954, is the first of these institutions. In 1959 the Akademi established the National School of drama and in 1964 the Kathak Kendra, both being based in Delhi. The Akademi's ongoing projects of national importance are in *Kutiyattam* theatre of Kerala, which commenced in 1991 received recognition from UNESCO as a Master piece of oral and intangible heritage of Humanity in 2001. The project in *Chhau* dance of Orissa, Jharkhand and West Bengal began in 1994. The project support to *Sattriya* music, dance, theatre and allied arts of Assam was started in 2002.

As the apex body specialising in the performing arts, the Akademi also renders advice and assistance to the Government of India in the task of formulating and implementing policies and projects in the field. Additionally, the Akademi carries a

part of the responsibilities of the state for fostering cultural contacts between various regions in India, and between India and other countries. The Akademi has held exhibitions and major festivals in foreign countries. The Akademi has held exhibition and seminars in Hongkong, Rome, Moscow, Athens, Valladolid, Cairo and Tashkent and Spain. Major festivals of foreign countries like Japan, Germany and Russia have been presented by the Akademi.

The Sangeet Natak Akademi is at present an autonomous body of the Ministry of Tourism and Culture, Government of India and is fully funded by the Government for implementation of its schemes and programmes.

NATIONAL SCHOOL OF DRAMA

The National School of Drama (NSD) - one of the foremost theatre institutions in the world and the only one of its kind in India was set up by Sangeet Natak Akademi in 1959. Later in 1975, it became an autonomous organisation, totally financed by Department of Culture. The objective of NSD is to train students in all aspects of theatre, including theatre history, production, scene design, costume design, lighting, make-up, etc. The training course at NSD is of three years duration. Each year, 20 students are admitted to the course. The eligible applicants for admission to the course are screened through two stages. The Diploma of NSD is recognised by the Association of Indian Universities as equivalent to M.A. Degree for appointment as teachers in colleges/universities and for purposes of registration for Ph.D.

The School has a performing wing, a *Repertory Company* which was set up in 1964 with the dual purpose of establishing professional theatre on one hand and continuing with the regular experimental work on the other. The NSD has made a significant contribution in promoting children's theatre. The *Theatre-in-Education Company* (renamed as Sanskar Rang Toli) was founded in 1989 and has been actively involved in production of plays for children, organising summer theatre workshops in the schools of Delhi and also promoting children's theatre through Saturday Club. Since 1998, the School has organised National Theatre Festival for Children christened 'Jashne Bachpan' every year. The first ever National Theatre Festival christened *Bharat Rang Mahotsav* was held from 18 March to 14 April 1999 to commemorate the 50th year of India's Independence. Encouraged by the success of the first *Bharat Rang Mahotsav*, it has been made an annual feature.

To reach a vast majority of theatre artists in various states with diverse languages and cultural backgrounds, who cannot have access to the regular training course provided by the School, a short-term teaching and training programme titled 'Extention Programme' was started in 1978. Under this programme, the School organises workshops in collaboration with the local theatre groups/ artists and these programmes are invariably held in the local languages. The workshops could be broadly divided under three categories, Production Oriented Workshops, Production Oriented Children Workshops and Teaching and Training Programme in Theatre. The School has also set up a Regional Research Centre at Bangalore to cater to the theatrical needs of the four Southern States and Pondicherry.

Another important activity of the School is the publication of textbooks on theatre and arrange the translation of important books on theatre from English into Hindi.

SAHITYA AKADEMI

Sahitya Akademi is the Indian National Academy of Letters meant to promote the cause of Indian literature through publications, translations, seminars, workshops, cultural exchange programmes and literary meets organised all over the country. The Akademi was founded in March 1954 as an autonomous body fully funded by the Department of Culture. It was registered as a Society in 1956 under the Societies Registration Act, 1860. The Akademi has recognised 24 languages. It has an Advisory Board for each of the languages that suggests various programmes and publications in the concerned languages. There are four Regional Boards to promote regional interaction among the languages of the North, West, East and South. Besides its Head Office in New Delhi, it has four offices : in Kolkata, Mumbai, Bangaluru and Chennai. The Akademi has two Translation Centres at Bangalore and Kolkata, besides a Project Office at Shillong for promotion of oral and tribal literature and an Archives of Indian literature in Delhi. It maintains a unique multilingual library in New Delhi and at its regional offices at Bangaluru and Kolkata, having about 1.5 lakh books in over 25 languages.

The highest honour conferred by the Akademi on a writer is by electing him its Fellow. This honour is reserved for the 'Immortals of Literature' and limited to 21 at any given time. So far 66 writers have been elected Fellows of the Sahitya Akademi. It has so far recognised 850 authors and 283 translators with its Awards and Translation Prizes for distinguished contribution to literature, and given 31 *Bhasha Sammans*, awards meant to promote peripheral languages and Honorary Fellowships for foreign scholars who have done significant work in Indian literature. The Akademi publishes books in 24 languages including translations of Award-winning works, monographs on the great pioneers of Indian literature, histories of literature, Indian and foreign classics in translation, anthologies of fiction, poetry and prose, biographies, Register of Translators, Who's Who of Indian Writers, National Bibliography of Indian Literature and Encyclopedia of Indian Literature. So far, the Akademi has published over 4,000 books in these different categories. It has three journals, *Indian Literature* (bi-monthly in English), *Samkaleena Bharatiya Sahitya* (bi-monthly in Hindi) and *Sanskrita Pratibha* (half-yearly in Sanskrit). Every year the Akademi publishes 250-300 books on an average. It has certain special projects like the *Ancient Indian Literature*, *Medieval Indian Literature* and *Modern Indian Literature* together constituting ten volumes of the best of Indian writing over five millennia. It has also launched a new project *Encyclopedia of Indian Poetics*.

Sahitya Akademi holds a number of regional, national and international seminars every year on various topics in literature, literary history and aesthetics. The Akademi also regularly holds Translation Workshops.

The Akademi holds an annual week-long 'Festival of Letters', usually in February with Award-giving ceremony, Samvatsar Lecture and a National Seminar. The Akademi also introduced a new series of programmes entitled *Sur Sahitya* as part of the Golden Jubilee celebrations in 2004-05.

SCHOLARSHIP AND FELLOWSHIP DIVISION

The Scholarship and Fellowship Division operates four schemes to provide monetary assistance to individuals engaged in promoting cultural activities in the country.

Scholarships to Young Artistes in different Cultural Fields : The Scholarships are awarded to young artistes in the fields of Indian Classical dances, Indian Classical Music, Theatre, Visual Arts and Folk, Traditional forms of Arts, etc. Under the Scheme,

a total of 400 scholarships are awarded each year for a period of two years. The value of Scholarships is Rs. 2000 per month.

Artistes in the age group of 18-25 years are eligible to apply. The scholarships are awarded for taking advance training.

Fellowships to Outstanding Artistes in the fields of Performing, Literary and Visual Arts : Fellowships are awarded to the outstanding Artistes in the fields of Indian Classical Dances, Indian Classical Music, Theatre, Visual Arts, Folk, Traditional forms of Performing Arts and Literature. A total of 170 fellowships are awarded for a period of two years; out of this 85 are Senior fellowships having a value of Rs. 12000 per month and 85 are Junior fellowships having a value of Rs. 6000 per month. Artistes in the age bracket of 41 years and above are eligible to apply for Senior fellowship and artistes from 25-40 years of age can apply for Junior fellowships. The applicants who are employed in the Central Government/Undertakings/Government Organisations/UGC aided Colleges, etc., will be required to take study leave or any other kind of leave for a period of two years, if selected.

The Fellowships are awarded for undertaking research oriented projects. While both the academic research and performance related research are encouraged, the applicant is required to provide evidence of his/her capabilities in undertaking the project. The fellowships are not intended for providing training, conducting workshops, seminars or writing autobiographies/fictions, etc.

Award of Senior/Junior Fellowships in New Areas related to Culture : Fellowships are awarded in the fields of Indology, Epigraphy, Sociology of Culture, Cultural Economics, Structural and Engineering aspects of monuments, Numismatics, Scientific and Technical aspects of Conservation, Management aspects of Art and Heritage and Studies relating to application of Science and Technology in areas related to culture and creativity. A total of 19 fellowships are awarded each year; 11 Senior and 8 Junior. Post-graduates in the relevant field and in the age group of 41 years and above are eligible for Senior fellowships and eligibility age is 25-40 years for Junior Fellowships. The value of fellowships is Rs. 12000 per month and Rs. 6000 per month respectively.

The Senior and Junior fellowships are awarded for undertaking projects in the new areas with the objective to encourage application of modern ideas, principles, methodology and technology to art and culture related issues. The objective is to encourage analytical application of new research techniques, technologies and modern management principles to contemporary issues and problems in the art and culture related areas.

Scheme of Financial Assistance for Research Support to Voluntary Organisations Engaged in Cultural Activities : The scheme covers voluntary organisations which are engaged in cultural activities and are doing research in different aspects of Indian Culture as related to its traditions and philosophy, etc. They should have been functioning for at least three years and registered under the Societies Registration Act (XXI of 1860). Financial assistance is given for the following purposes : (a) Holding of conference, seminars and symposia on important cultural matters. (b) To meet expenditure on activities of development nature like conduct of surveys, pilot project, etc.

Grants for specific projects shall be restricted to 75 per cent of the expenditure, subject to a maximum of rupees one lakh per project as recommended by the Expert Committee.

In the year 2004-05, 176 proposals were selected by the Expert Committee for financial assistance for research work to voluntary organisations.

RAMAKRISHNA MISSION INSTITUTE OF CULTURE, KOLKATA

The Institute was conceived in 1936 as one of the permanent memorials to Sri Ramakrishna (1836-1886) on the occasion of his first birth centenary. It was formally established on 29 January 1938 as a branch centre of the Ramakrishna Mission founded by Swami Vivekananda to propagate the message of Vedanta as propounded by Sri Ramakrishna whose basic teachings stressed: (i) the equality of all religions; (ii) the potential divinity of man; and (iii) service to man as a way of worshipping God - a new religion for mankind.

Dedicated to promote the ideal of the unity of mankind the Institute has endeavoured over the years to make people aware of the richness of the cultures of the World and also of the urgent need for inter-cultural appreciation, understanding and acceptance of each other's points of view - an approach which is conducive to international understanding at the global level and national integration at home. The key note of everything the Institute does is thus respect for others point of view and its assimilation and acceptance for one's own enrichment.

ANTHROPOLOGICAL SURVEY OF INDIA

The Anthropological Survey of India is a premier research organisation under the Ministry of Culture. It has completed 59 years of its splendid existence and has adhered itself to its commitments to carry out anthropological researches in the area of bio-cultural aspects of Indian population in general and on those who are referred to as the "Weakest of the Weak" in particular. Besides this there are other pertinent activities of the Survey, which include collection, preservation, maintenance; documentation and study of ethnographic materials as well as ancient human skeletal remains. Over the years the Survey generated information from grass-root level through sustained research by its Head Office at Kolkata and also its seven Regional Centres, one Sub-regional Centre, one permanent field station and eight other field stations located in various parts of the country, besides a Camp Office at New Delhi.

During the Tenth Plan following National Projects are being studied namely, Cultural Dimension of Tourism in the Biosphere Reserve in addition to the locations of tourists interest.

ARCHAEOLOGICAL SURVEY OF INDIA

The Archaeological Survey of India (ASI) was established in 1861. It functions as an attached office of the Department of Culture. The organisation is headed by the Director General.

The major activities of the Archaeological Survey of India are :

- i) Survey of archaeological remains and excavations;
- ii) Maintenance and conservation of centrally protected monuments sites and remains;
- iii) Chemical preservation of monuments and antiquarian remains;
- iv) Architectural survey of monuments;
- v) Development of epigraphical research and numismatic studies;

- vi) Setting up and re-organisation of site museums;
- vii) Expedition abroad;
- viii) Training in Archaeology;
- ix) Publication of technical report and research works.

There are 21 Circles and 3 Mini-Circles through which the Archaeological Survey of India administer the work of preservation and conservation of monuments under its protection.

Under the Ancient Monuments and Archaeological Sites and Remains Act, 1958, the ASI has declared three thousand six hundred and fifty six monuments/sites to be of national importance in the country which includes twenty one properties that are inscribed on the World Heritage List by UNESCO. Since its establishment one hundred and forty four years ago, the ASI has grown into a large organisation with an all India network of offices, branches and circles.

Three sites, namely, Champaner - Pavagarh Archaeological Park in Gujarat, Chhatrapati Shivaji Terminus (formerly Victoria Terminus) Station in Mumbai and the Brihadisvara temple complex, Gangakondacholapuram and the Airavatesvaira temple complex, Darasuram as an extension to the Brihadisvara temple complex, Thanjavur (now commonly called as the Great Living Chola Temples) have been inscribed on the World Heritage List of UNESCO in 2004.

Nomination dossiers for the following sites have been sent to the World Heritage Centre for inscription on the World Heritage List of UNESCO : (i) Shri Harminder Sahib (Golden Temple) at Amritsar, Punjab. (ii) Majuli Island in Mid-stream of river Brahmaputra in Assam. (iii) Valley of Flowers as an extension to the Nanda Devi National Park in Uttaranchal. (iv) Red Fort, Delhi (a deferred nomination).

The total number of individual structures being maintained by the ASI is over five thousand.

Underwater Archaeology Wing : Search, study and preservation of cultural heritage lying submerged in inland or territorial waters are among the principal functions of the Underwater Archaeology Wing. It carries out exploration and excavation in Arabian Sea as well as in Bay of Bengal.

Science Branch : The Science Branch of the Survey with its headquarters at Dehradun and field laboratories in different parts of the country carries out chemical preservation of monuments, antiquities, manuscripts, paintings, etc.

Laboratories of Science Branch at Dehradun have undertaken the following Scientific Projects : (1) Evaluation of new materials as preservative coatings and strengthened for stone, terracotta, bricks & adobe structures. (2) Scientific studies related to conservation of ancient lime plaster. (3) Evaluation of physical characteristics of plaster cement with addition of rapid hardening plaster cement in different proportions.

Horticulture Branch : The Horticulture Branch of the ASI maintains gardens in about two hundred and eighty seven centrally protected monuments/sites located in different parts of the country. The branch provides periodic plants to be used in gardens by developing base nurseries at Delhi, Agra, Srirangapatna and Bhubaneswar.

Epigraphy Branch : The Epigraphy Branch at Mysore carries out research work in Sanskrit and Dravidian languages while the one at Nagpur carries out research work in Arabic and Persian.

Expeditions Abroad : The ASI has taken up the conservation project of Ta Prohm, Cambodia under the ITEC programme of Ministry of External Affairs with an outlay of Rs. 19.51 crore. The conservation project has been started as per the assurance of the Hon'ble Prime Minister of India, during his visits to Cambodia in April and November 2002, on the request of the Royal Government of Cambodia for India's assistance in Conservation and Restoration of Prasat Ta Prohm. The conservation project is for a period of ten years and is to be completed in five phases.

The ASI has commenced the conservation project from January 2004 onwards and it was formally launched in February 2004 in Cambodia.

NATIONAL ARCHIVES OF INDIA

The National Archives of India (NAI), New Delhi known until Independence as Imperial Record Department was originally established in Kolkata on 11 March 1891. It is the official custodian of all non-current record of permanent value to the Government of India and its predecessor bodies. It has a Regional Office at Bhopal and three Record Centres at Bhubaneswar, Jaipur and Pondicherry.

Major activities of the Archives include: (i) making public records accessible to various Government agencies and research scholars; (ii) preparation of reference media; (iii) preservation and maintenance of records and conducting of scientific investigations for the said purpose; (iv) evolving records management programmes; (v) rendering technical assistance to individuals and institutions in the field of conservation of records; (vi) imparting training in the field of archives administration, records management, reprography, repair and conservation of records, books and manuscripts at professional and sub-professional levels; and (vii) creation and promotion of archival consciousness in the country by organising thematic exhibitions.

The National Archives of India provides financial assistance to States/Union Territories Archives, Voluntary Organisations and other custodial institutions, so that the documentary heritage is preserved and archival science is promoted.

NATIONAL MISSION FOR MANUSCRIPTS

The National Mission for Manuscripts was launched in February, 2003 by the Ministry of Culture to save the most valuable of our cultural inheritance, i.e., manuscripts. An ambitious five year Project, the Mission seeks not merely to locate catalogue and preserve India's manuscripts but also to enhance access, spread awareness and encourage their use for educational purposes. The Web Site of National Mission for Manuscripts is www.namami.nic.in.

NATIONAL MUSEUM

The National Museum, which was set up in 1949 and which has been functioning as a subordinate office under the Ministry of Culture since 1960, houses over 2.6 lakh art objects dating from prehistoric era onwards. The main activities of the Museum are as follows: Exhibitions, Reorganisation/Modernisation of Galleries, Educational Activities and Outreach Programmes, Public Relations, Publications, Photo Documentation, Summer Holiday Programme, Memorial Lectures, Museum Corner,

Photo Unit, Modelling Unit, Library, Conservation Laboratory, and Teaching and Workshop.

NATIONAL MUSEUM INSTITUTE OF HISTORY OF ART, CONSERVATION AND MUSEOLOGY

The National Museum Institute of History of Art, Conservation and Museology, New Delhi, an autonomous organisation fully funded by the Ministry of Culture was established and declared a Deemed to be University in 1989. This is the only Museum University in India and is presently functioning at the first floor of National Museum, New Delhi. As per its Memorandum of Association, the Director General, National Museum is the ex-officio Vice-Chancellor of this University.

Main objectives : (a) To provide education and training in the specialised areas of Art History, Conservation and Museology leading to the award of M.A. and Ph.D. Degrees in these three disciplines. (b) A few short-term courses - India Art and culture, Art Appreciation and Bhartiya Kalanidhi (Hindi Medium) are also conducted to popularise the Indian culture. (c) To organise seminars/workshops, conferences and special lectures on Museum Education, Art and Culture in a befitting manner so as to open new areas in this field.

NATIONAL LIBRARY

The National Library, Kolkata was established in 1948 with the passing of the imperial Library (Change of Name) Act, 1948. The basis functions of the Library, which enjoys the status of an institution of national importance, are : (i) Acquisition and conservation of all significant production of printed material (to the exclusion only of ephemera) as well as of manuscripts of national importance; (ii) Collection of printed material concerning the country, no matter where this is published; (iii) Rendering of bibliographical and documentary services of current and retrospective material, both general and specialised. (This implies the responsibility to produce current national bibliographies and retrospective bibliographies on various aspects of the country); (iv) Acting as referral centre, purveying full and accurate knowledge of all sources of bibliographical information and participation in international bibliographical activities; and (v) Acting as a centre for international book exchange and internal loan.

CENTRAL SECRETARIAT LIBRARY

The Central Secretariat Library (CSL) originally known as Imperial Secretariat Library, Kolkata was established in 1891. Since 1969 the Library has been housed at Shastri Bhawan, New Delhi. It has a collection of over seven lakh documents mainly on Social Sciences and Humanities. It is a depository of Indian Official Documents, Central Government and has a strong collection of State Government documents also.

The collection of Area Studies Division is unique in which books have been arranged according to geographical area. Besides this, its biographical collection is very large and has an extremely rich rare book collection.

The CSL is a Microfilm repository under Microfilming of Indian Publication Project (MIPP) having large number of microfilm collection.

The CSL is mainly responsible for overall collection and development on all subjects useful in policy decision-making process and is also responsible to build its collection on developmental literature. It provides all possible readers' services to

Central Government Officials and other research scholars visiting the Library from all over India. In the recent past CSL has undertaken the development of IT based products by digitizing the Government of India Gazette, Committee and Commission Reports and has also developed the OPAC system for its collection.

The Library has two branches, namely, Hindi and Regional Languages Wing popularly known as Tulsi Sadan Library, Bahawalpur House, New Delhi that houses about 1.9 lakh volumes of Hindi and 13 other constitutionally approved Indian Regional Language books and a Text Book Library located at R.K. Puram, New Delhi which caters to the needs of wards of Central Government Employees of Under Graduate level.

The CSL has recently launched, a portal "India Information Gateway" and its Web Site <http://www.csl.nic.in> was inaugurated by Secretary, Ministry of Culture on 21 March 2005.

CENTRE FOR CULTURAL RESOURCES AND TRAINING

The Centre for Cultural Resources and Training (CCRT) is one of the premier institutions working in the field of linking education with culture. The Centre was set up in May 1979 as an autonomous organisation by the Government of India. Today it operates under the administrative control of Ministry of Culture, Government of India. With headquarters in New Delhi, it has two regional centres at Udaipur and Hyderabad.

The broad objectives of CCRT have been to revitalise the education system by creating an understanding and awareness among students about the plurality of the regional cultures of India and integrating this knowledge with education. The main thrust is on linking education with culture and making students aware of the importance of culture in all development programmes. One of the CCRT's main functions is to conduct a variety of training programmes for in-service teachers drawn from all parts of the country. The training provides an understanding and appreciation of the philosophy, aesthetics and beauty inherent in Indian art and culture and focuses on formulating methodologies for incorporating a culture component, in curriculum teaching. This training also stresses the role of culture in science and technology, housing, agriculture, sports, etc. An important component of training is to create awareness amongst students and teachers of their role in solving environmental pollution problems and conservation and preservation of the natural and cultural heritage. To fulfill these objectives, the Centre organises variety of training programmes for teachers, educators, administrators and students throughout the country.

The CCRT organises academic programmes on Indian art and culture for foreign teachers and students on special request. Workshops are conducted in various art activities like drama, music, narrative art forms, etc., to provide practical training and knowledge in the arts and crafts. In these workshops, teachers are encouraged to develop programmes in which the art form can be profitably utilised to teach educational curriculum.

The CCRT organises various educational activities for school students, teachers and children belonging to governmental and non-governmental organisations under its extension and community feedback programmes which includes educational tours to monuments, museums, art galleries, craft centres, zoological parks and gardens, camps on conservation of natural and cultural heritage, camps on learning

crafts using low cost locally available resources, lectures and demonstrations by artists and experts on various art forms, demonstrations by artists and craft persons in schools. These educational activities emphasise the need for the intellectual and aesthetic development of the students.

Over the years, CCRT has been collecting resources in the form of scripts, colour slides, photographs, audio and video recordings and films. Each year the CCRT's documentation team conducts programmes in different parts of the country with the objective of reviving and encouraging the art and craft forms of rural India. The Centre also prepares publications, which attempt at providing an understanding and appreciation of different aspects of Indian art and culture.

One of the most important functions of CCRT is to implement the Cultural Talent Search Scholarship Scheme, which was taken over from the Department of Culture in 1982. The scheme provides scholarships to outstanding children in the age group of 10 to 14 years, studying either in recognised schools or belonging to families practicing traditional performing or other arts to develop their talent in various cultural fields particularly in rare art forms. The scholarships continue till the age of 20 years or the first year of a University degree. About 350 scholarships are offered every year.

The Centre has instituted CCRT Teachers Award which is given every year to selected teachers for the outstanding work done by them in the field of education and culture. The Award carries with it a citation, a plaque, an angavastram and a cash prize of Rs 10,000.

ZONAL CULTURAL CENTRES

Zonal Cultural Centres have been conceptualised with the aim of projecting cultural kinship which transcend territorial boundaries. The idea is to arouse awareness of the local cultures and to show how these merge into zonal identities and eventually into the rich diversity of India's composite culture. These centres have already established themselves as a premier agency in the field of promotion, preservation and dissemination of culture in the entire country. They are not only promoting performing arts but also making a significant contribution in the associated field of literary and visual arts. The seven zonal cultural centres were established under this scheme during 1985-86 at Patiala, Kolkata, Thanjavur, Udaipur, Allahabad, Dimapur and Nagpur. The participation of states in more than one zonal cultural centre according to their cultural linkage is a special feature of the composition of the zonal centres. With the approval of the Cabinet a Corpus fund for each ZCC was created by Government of India and the participating State Governments to enable the ZCCs to finance their activities from the interest earned on the investment of this Corpus Fund. The Government of India has provided a grant of Rs five crore to each ZCC and each constituent state has been provided Rs one crore. In the event of a State being a member of more than one centre, the State's contribution would not exceed Rs one crore in all. From 1993 all the Zonal Cultural Centres have been sending their folk artistes for participation in the Republic Day Folk Dance Festival. This festival is inaugurated by the Hon'ble President of India every year on 24th/25th January at the Talkatora Indoor Stadium. The Festival provides a unique opportunity for folk artistes to perform at the national level. A Crafts Fair is also held in the various zones along with the Republic Day Folk Dance Festival. Master craftsmen and artisans from various ZCCs participate in this Crafts Fair. The Crafts Fair has been providing a valuable opportunity for crafts persons from different

parts of India to exhibit their products as well as their process of manufacturing directly to the customers. Documentation of various Folk and Tribal Art forms especially those which are rare and on the verge of vanishing, is one of the main thrust areas of the ZCCs. Under the National Cultural Exchange Programme (NCEP), exchanges of artists, musicologists, performers and scholars between different region within the country take place. It has been extremely useful in promoting awareness of different tribal/folk art forms in different parts of the country and thus a very useful expressions of the concept of unity within diversity of our country. A scheme of Theatre Rejuvenation has been started to provide an opportunity to students, actors, artists, directors and writers to perform on a common platform and to interact with each other. To promote new talents in the field of music and dance a scheme of Guru Shishya Parampara has been introduced where masters will be identified in the zone, pupil assigned to them and scholarship provided for the purpose. The ZCCs also provide promotion and marketing facilities to craftsmen through Shilpgrams. ZCCs have also started a new scheme for recognition and encouragement of young talents in which each ZCC will identify the different performing/folk art forms in their area and select one or two talented artists in each of the fields.

NATIONAL GALLERY OF MODERN ART

The National Gallery of Modern Art (NGMA), New Delhi was founded in 1954. The main aim of the NGMA is the promotion and development of contemporary Indian Art. The collection of NGMA inter-alia comprises 17858 works of art, representing about 1748 contemporary Indian artists. The collection has been built up mainly by purchase and also by gift. The NGMA's important collections include paintings, sculpture, graphic arts and photographs. NGMA organises exhibitions from its collection and under Cultural Exchange Programme periodically. Several colour reproductions have been brought out. The objective of NGMA is to help people look at the works of modern art with understanding and sensitivity. Keeping this in view, NGMA Mumbai was inaugurated in 1996, while a new one is being set up at Bangalore.

INDIRA GANDHI NATIONAL CENTRE FOR THE ARTS

The Indira Gandhi National Centre for the Arts (IGNCA) is a premier national institution engaged in the pursuit of knowledge on arts and culture and in the exploration of relationships of arts and culture with various disciplines of learning and diverse aspects of life. Established in 1985 in the memory of the Late Prime Minister Smt. Indira Gandhi, it is involved in multifarious activities such as research, publication, training, documentation, dissemination and networking and is poised to grow into a large repository of information pertaining to the arts in India. The IGNCA seeks to place the arts within the natural environment by providing a forum for creative and critical dialogue between the diverse arts, between the arts and sciences, between arts and the traditional and current knowledge systems. The IGNCA promotes interaction and understanding between diverse communities, regions, social strata, and between India and other parts of the world.

The IGNCA has been designated as a nodal agency for setting up a National Data Bank on Arts, Humanities and Cultural Heritage. It has an outstanding reference library, documented material including audio/video material, manuscripts, slides, photographs and artifacts. A major initiative is a Cultural Informatics Lab (CIL), which employs an integrated methodology to develop

applications to access diverse media on all fields relating to arts through multimedia and digital technology. Broadly, the major activities of CIL can be classified under three categories of digitization, web-enabled digital library and CRDROM/DVDROM project.

NATIONAL RESEARCH LABORATORY FOR CONSERVATION OF CULTURAL PROPERTY

The National Research Laboratory for Conservation of Cultural Property (NRLC), which was established in 1976, is a Subordinate Office of the Department of Culture, and is recognised by the Department of Science and Technology as a scientific institution of the Government of India. The aims and objectives of the NRLC are to develop conservation of cultural property in the country. To meet its objectives, NRLC provides conservation services and technical advice in matters concerning conservation to museums, archives, archaeology departments and other similar institutions, imparts training in different aspects of conservation, carries out research in methods and materials of conservation, disseminates knowledge in conservation and provides library services to conservators of the country. The headquarters of NRLC is situated at Lucknow, and to further the cause of conservation in the southern region of the country, a regional centre of the NRLC, the Regional Conservation Laboratory is functioning at Mysore. For more information visit NRLC at <http://www.nrlccp.org>.

6 Basic Economic Data

THE Ministry of Statistics and Programme Implementation consists of two wings namely : Statistics Wing and Programme Implementation Wing. The Ministry is the apex body in the official statistical system of the country. It is the authority that controls the Indian Statistical Service (ISS) and Subordinate Statistical Service (SSS). It is also the Administrative Ministry for the Indian Statistical Institute, an autonomous registered scientific society of national importance. The Ministry includes, inter-alia, the Central Statistical Organisation (CSO) and the National Sample Survey Organisation (NSSO).

CENTRAL STATISTICAL ORGANISATION

The Central Statistical Organisation (CSO) located in Delhi with a wing at Kolkata, is responsible for formulation and maintenance of statistical standards, work pertaining to national accounts, industrial statistics, consumer price indices for urban non-manual employees, conduct of economic census and surveys, training in official statistics, coordination of statistical activities undertaken within the country and liaising with international agencies in statistical matters.

NATIONAL AND PER CAPITA INCOME

National Income is defined as the sum of incomes accruing to factors of production, supplied by normal residents of the country before deduction of direct taxes. It is identically equal to the net national product at Factor Cost. Table 6.1 gives National and Per Capita Income at Factor Cost at current and 1999-00 prices, while table 6.2 gives the relationship of national income and other aggregates at current prices. Table 6.3 gives the performance of the public sector and table 6.4 gives private final consumption expenditure, net domestic saving and capital formation.

CATEGORIES OF WORKERS

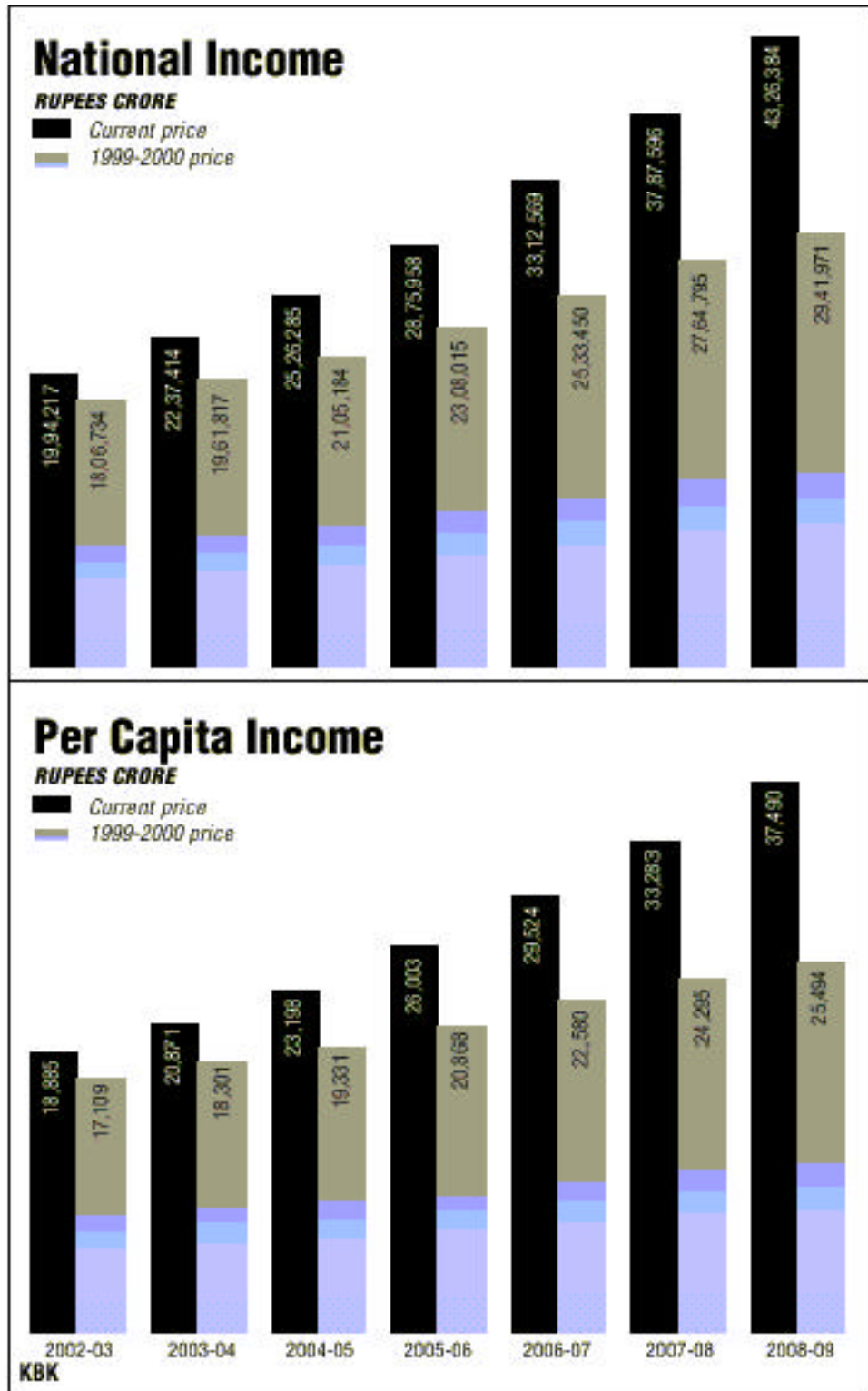
For the 2001 census, the population was divided into main workers, marginal workers, and non-workers. The table 6.5 shows total workers sub-divided into main workers and marginal workers and distribution of total workers in four broad categories in rural and urban areas as on 1 March 2001. Employment in the organised sector has been shown in table 6.6.

UNEMPLOYMENT

The number of persons on the live register of the employment exchanges gives an idea of the trend of unemployment subject to certain limitations. Table 6.7 gives registrations, vacancies, placements and job seekers on the 'live register' for the period 1994-2008.

NATIONAL SAMPLE SURVEY ORGANISATION

The National Sample Survey (NSS) was set up in 1950 for conducting large scale sample surveys to meet the data needs of the country for the estimation of national income and other aggregates. It was reorganized in 1970 by bringing together all aspects of survey work under a single agency known as the National Sample Survey Organisation (NSSO) under the overall technical guidance of a Governing Council.



After setting up of the National Statistical Commission (NSC), vide Government of India resolution of 1.6.2005 the role of Governing Council has been taken over by the NSC. On recommendations of the NSC, a Steering Committee for NSS has been constituted to look into the various aspects of its surveys. The Director General and Chief Executive Officer (DG & CEO) of the NSSO is responsible for supervising the activities of the organization. It has four divisions viz. (i) Survey Design and Research Division (SDRD) (ii) Field Operations Division (FOD) (iii) Data Processing Division (DPD) (iv) Co-ordination and Publication Division (CPD).

The SDRD has its headquarters at Kolkata. The FOD has its headquarters at New Delhi with a network of 6 zonal offices located at Bangluru, Guwahati, Jaipur, Kolkata, Lucknow and Nagpur, 49 regional offices and 116 sub-regional offices spread throughout the country. The DPD with its headquarters at Kolkata, functions through the Data processing Centres at Ahmedabad, Bangaluru, New Delhi, Giridh, Kolkata and Nagpur. The CPD located at New Delhi functions as the Secretariat of DG & CEO, NSSO.

The subjects taken up under socio-economic surveys are surveys on Consumer Expenditure, Employment-Unemployment, Social Consumption (Health, Education, etc.) Manufacturing Enterprises and Service Sector Enterprises in the Unorganized Sector being covered once in five years, while subjects like Land and Livestock Holding, Debt and Investment are covered once in 10 years. Other than irregular surveys, ad-hoc surveys are also undertaken to cover special topics of current interest to meet the demand of the data users. The data on Consumer Expenditure and Employment - Unemployment were also collected in every round from a thin sample along with the main subject of enquiry up to 64th round of NSS. The 62nd round of NSS (July 2005 - June 2006) was on Unorganized manufacturing and usual annual survey of Household Consumer Expenditure and Employment-Unemployment. All the Five reports of this round have been brought out and are available to the public. NSS 63rd round (July 2006 - June 2007) survey was on "Services Sector Enterprises (excluding Trade) and Household Consumer Expenditure. All three reports on this survey have been released. NSS 64th round (July 2007 - June 2008) survey was on Participation and Expenditure in Education, Employment-Unemployment & Migration and Household Consumer Expenditure. The Field work of this survey has been completed and the Five reports based of this survey are under finalisation. NSS 65th round (July 2008 - June 2009) is devoted to Domestic Tourism, Housing Condition, Urban Slums and Civic Amenities and the field work of this survey has been completed in June 2009. The next round of National Sample Surveys is 66th round in series and is 8th Quinquennial Round on Employment, Unemployment and Consumer Expenditure. Field work of this survey has started from 2009 and will continue upto June 2010.

The results of the surveys are brought out in the form of NSS reports which are available for sale. The NSS reports are also available on the website of the Ministry www.mospi.gov.in for viewing/downloading free of cost. Summary of the results of these surveys are also published in **Sarvekshana** - a Bi-annual Technical Journal of the NSSO. Validated unit level data relating to the NSS surveys are available on CD-ROM for sale at normal price.

The NSSO undertakes the fieldwork of the Annual Survey of Industries (ASI) under statutory provisions of the Collections of Statistics Act, 1953 (Central Rule, 1959) in the whole country except for the State of Jammu & Kashmir where the ASI is conducted under Jammu & Kashmir Collection of Statistics Act, 1961. The survey covers all

factories registered under Section 2 m (i) and 2 m (ii) of the Factories Act, 1948 (2 m (i): those factories employing 10 or more workers and using power and 2 m (ii): those factories employing 20 or more workers and not using power) and Establishment registered under the Bidi and Cigar Workers (Conditions of Employment) Act, 1966. The coverage extends not only to manufacturing sector but also to other categories under services such as cold storage, water supply, gas production, motion picture production, laundry services, repair of motor vehicles and of other consumer durables. However, defence factories, technical training institutions, jail factories, unit engaged in storage and distribution of oil, restaurants/cafe and computer services are kept out of the survey. From ASI 1998-99, the electricity units engaged in generation, transmission and distribution registered with the Central Electricity Authority (CEA) are excluded. The departmental units such as railways workshops, Road transportation, Corporation Workshops, Government mints, sanitary, water supply, gas storage etc. are not covered as there are alternative sources of their data compilation for the Gross Domestic product (GDP) estimates by the National Accounts Division of Central Statistical Organisation (CSO).

The NSSO also provides technical guidance to States in the field of agricultural statistics for conducting crop estimation surveys and keeps a continuous watch on the quality of crop statistics through the Improvement of Crop Statistics Scheme.

The NSSO regularly collects rural price data on monthly basis from shops/outlets in selected markets located in a sample of 603 villages for compilation of Consumer Price Index (Agricultural Labour/Rural Labour). For urban area, price data was being collected from 59 urban centres for compilation of Consumer Price Index Number for Urban Non-Manual Employees upto March, 2008. From April, 2008 price data is being collected for compilation of new series of Consumer Price Index (Urban) from 310 towns spread over all the States/UTs.

The NSSO conducts an Urban Frame Survey (UFS) for providing a sampling frame of first stage units in the urban sector for its surveys. It is carried out in a cycle of five years (known as Phase of Urban Frame Survey) thereby providing an updated frame twice in a span of 10 years. Currently the field work of 2007-12 Phase of Urban Frame Survey is on in accordance with new guidelines finalised by the committee set up for reviewing the arrangement of preparation and updation of Urban Frame.

PRICES

WHOLESALE PRICES

The current series of index numbers of wholesale prices (base 1993-94=100) was introduced from April 2000. The series have 435 commodities with 1918 quotations.

Table 6.8 gives the index numbers of wholesale prices (1993-94=100) for the period 2003-04 to 2008-09 for all commodities and for selected groups/sub-groups of three major groups, namely: (i) primary articles; (ii) fuel, power, light, lubricants; and (iii) manufactured products.

CONSUMER PRICES

Table 6.9 gives Consumer Price Index Numbers for industrial workers on base 1982=100 for the period 1993-94 to 2005-06 and on base : 2001 = 100 for the period 2006-07 to 2008-09. New Series of Consumer Price Index Numbers for Industrial Workers on base 2001 = 100 had been released w.e.f. January 2006 Index. Table 6.10 gives the Consumer Price Index Numbers for urban non-manual employees for the

period 1993-94 to 2007-08 at the all-India level and some selected centres. Since April, 2008, the Central Statistical Organisation has discontinued the compilation of Centre-wise Consumer Price Index for urban non-manual employees.

FIFTH ECONOMIC CENSUS

The Central Statistical Organisation (CSO) undertook a countrywide Economic Census, for the first time in 1977 to provide a better frame for conducting follow-up surveys for collection of detailed information particularly from unorganized establishments. The basic information, relating to the distribution of non-agricultural establishments by activity, type of ownership, rural/urban break up and by employment size needed for preparation of a frame for conducting detailed surveys was collected in the Economic Census.

The second and third Economic Censuses were conducted in 1980 and 1990 along with house listing operation of 1981 and 1991 Population Censuses respectively. The fourth Economic Census was conducted during 1998 in all States/UTs in collaboration with concerned State/UT Directorates of Economics and Statistics.

The Fifth Economic Census was conducted in the year 2005 in all the States/UTs again in collaboration with State/UT Directorates of Economics & Statistics. The Census covered all entrepreneurial activities throughout the country (except crop production and planation).

The final results of Economic Census 2005 were released on 29th May, 2008. According to the results there are 418.27 lakh establishments* in the country employing 100.9 million persons. The detailed results of the Economic Census are available on the Ministry's website viz. www.mospi.gov.in

ANNUAL SURVEY OF INDUSTRIES

The Annual Survey of Industries (ASI) is the principal source of industrial statistics in India. It provides statistical information to objectively and realistically assess and evaluate the change in the growth, composition and structure of the organised manufacturing sector. This sector comprises activities related to manufacturing processes, repair services, generation, transmission, etc., of electricity, gas and water supply and cold storage. The survey is conducted annually under the statutory provisions of the Collection of Statistics Act, 1953. The ASI extends to the entire country except the States of Arunachal Pradesh, Mizoram and Sikkim and the Union Territory of Lakshadweep. It covers all factories registered under Sections 2m(i) and 2m(ii) of the Factories Act, 1948. The survey also covers bidi and cigar manufacturing establishments registered under the Bidi and Cigar Workers (Conditions of Employment) Act, 1966. Certain services and activities like cold storage, water supply, repair of motor vehicles and of other consumer durable like watches, etc., are also covered under the survey. Defence establishments, oil storage and distribution depots, restaurants, hotels, cafe and computer services and also the technical training institutes are excluded from the purview of survey. Units registered with Central Electricity Authority (CEA) are also not covered under the ASI. The data collected through ASI relate to capital, employment and emoluments, consumption of fuel and lubricants, raw material and other input/output, value added, labour turnover, absenteeism, labour cost, construction of houses by employers for their employees and other characteristics of factories/industrial establishments. The field work is

* From Fifth Economic Census the word 'enterprise' is being replaced by 'establishment'.

TABLE 6.1: NATIONAL AND PER CAPITA INCOME AT FACTOR COST

Item	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Net National Product at Factor Cost (Rs crore) at current prices	1589673	1700466	1849361	1994217	2237414	2526285	2875958	3312569	3787596	4326384
at 1999-2000 prices	1589673	1648018	1743998	1806734	1961817	2105134	2308015	2533450	2764795	2941971
Per Capita Net National Product (Rs) at current prices	15881	16688	17782	18885	20871	23198	26003	29524	33283	37490
at 1999-2000 prices	15881	16173	16759	17109	18301	19331	20868	22580	24295	25494
Index Number of Net National Product with 1999-2000 as base at current prices	100	107	116	125	141	159	181	208	238	272
at 1999-2000 prices	100	104	110	114	123	132	145	159	174	185
Index Number of Per Capita Net National National Product with 1999-2000 as base at current prices at 1999-2000 prices	100	105	112	119	131	146	164	186	210	236
at 1999-2000 prices	100	102	106	108	115	122	131	142	153	161
Gross National Product at Factor Cost (Rs crore) at current prices	1771095	1902284	2077658	2244725	2517462	2855326	3256269	3749607	4297047	4906167
at 1999-2000 prices	1771095	1841873	1952467	2029419	2203258	2367683	2595441	2849856	3114864	3323648
Index number of Gross National Product with 1999-2000 as base at current prices	100	107	117	127	142	161	184	212	243	277
at 1999-2000 prices	100	104	110	115	124	134	147	161	176	188

TABLE 6.2 : RELATIONSHIP OF NATIONAL INCOME AND OTHER AGGREGATES
(at current prices)

S. No.	Item	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
	08									
1.	National income (Net national product at factor cost)	1589673	1700466	1849361	1994217	2237414	2526285	2875958	3312569	3787596
2.	Indirect taxes less Subsidies	165510	177297	181226	193146	216450	271706	304358	309789	402508
3.	Net national product at market prices (1+2)	1755183	1877763	2030587	2187363	2453664	2797991	3180316	3662358	4190104
4.	Other current transfers from rest of the world (Net)	53132	58811	73363	79229	99165	91971	108565	126088	163709
5.	Net national disposable income (3+4)	1808315	1936574	2103950	2266592	2553029	2889962	3288881	3788446	4353813
6.	Net factor income from abroad	-15431	-22733	-20068	-16690	-20708	-22375	-26116	-29778	-23845
7.	Net domestic product at market prices (3-6 =5-6-4)	1770614	1900496	2050655	2204053	2474572	2820366	3206432	3692136	4213949
8.	Net domestic product at factor cost (7-2)	1605104	1723199	1869429	2010907	2258122	2548660	2902074	3342347	3811441
9.	Income from entrepreneurship & property to govt administrative departments*	36895	33576	33274	37182	52542	47526	59426	74393	89101
10.	Saving of non-departmental enterprises	20361	15782	29131	46637	58245	70133	75967	95467	105800
11.	Income accruing to private sector from domestic product (8-9-10)	1547848	1673841	1807024	1927088	2147335	2431001	2766681	3172497	3616540
12.	Interest on public debt	93329	114071	125521	140782	166144	171791	192057	225724	241305
13.	Current transfers from government administrative departments	50048	58551	69157	70796	84149	103215	129698	168250	202012
14.	Private income (11+12+13+4+6)	1728926	1882541	2054997	2201205	2476085	2775603	3169885	3662781	4199721
15.	Saving of private corporate sector net of retained earnings of foreign companies	41036	26750	14351	30308	49298	119092	164675	206655	250426
16.	Corporation tax	30692	35696	36609	46172	63267	82344	101343	144348	164065
17.	Personal income (14-15-16)	1657198	1820095	204037	2124725	2363520	2574167	2903867	3211780	3785230
18.	Direct Taxes paid by households and miscellaneous receipts of Government administrative departments	39233	46845	49198	59886	81372	79152	97440	129070	193058
19.	Personal disposable income* (17-18)	1617965	1773250	1954839	2064839	2282148	2495015	2806427	3182710	3592172

* Includes savings of railways and communication

** Separate data on fees, fines, etc. paid by producers are not available and to that extent personal disposable income is underestimated.

TABLE 6.3 : PERFORMANCE OF PUBLIC SECTOR
(at current prices)

S. No.	Item	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	
		(Rs crore)									
1.	Gross Domestic Product	1786525	1925017	2097726	2261415	2538170	2877701	3282365	3779385	4320892	
	1.1 Public	457006	480952	523781	576210	613897	669335	714876	804937	887757	
	1.2 Private	1329520	1444065	1573945	1685205	1924273	2208366	2567509	2974448	3433136	
2.	Gross Domestic Saving	484256	499033	534885	647521	820885	997873	1228026	1475108	1779614	
	2.1 Public	-15494	-36882	-46186	-15936	29521	68951	86823	137926	212543	
	2.2 Private	499750	535915	581071	662457	791154	928922	1141203	1337182	1567071	
3.	Gross Domestic Capital formation unadjusted	493999	493285	536855	604850	713649	955045	1207497	1452799	1775755	
	3.1 Public	144610	144638	156537	149399	146579	216962	271825	329679	429014	
	3.2 Private	349389	348647	380318	455451	539070	738083	935662	1123120	1346741	
4.	Final Consumption Expenditure	1510285	1610671	1752087	1843596	2013843	2186162	2439658	2741372	3084958	
	4.1 Public	252744	265088	281786	290978	310297	338052	375562	421546	479099	
	4.2 Private	1257541	1345583	1470302	1552618	1703546	1848110	2064296	2319826	2605859	
PERCENTAGE SHARE OF PUBLIC SECTOR											
1.	Gross Domestic Product	25.6	25.0	25.0	25.5	24.2	23.3	21.8	21.3	20.5	
2.	Gross Domestic Saving	-3.2	-7.4	-8.6	-2.5	3.6	6.9	7.1	9.4	11.9	
3.	Gross Domestic Capital Formation (unadjusted)	29.3	29.3	29.2	24.7	24.5	22.7	22.5	22.7	24.2	
4.	Final Consumption Expenditure	16.7	16.5	16.1	15.8	15.4	15.5	15.4	15.4	15.5	

TABLE 6.4 : PRIVATE CONSUMPTION, SAVING AND CAPITAL FORMATION

Year	Private final consumption expenditure in domestic market (Rs crore)		Per capita private consumption domestic market (Rs)		Net domestic saving (Rs crore)		Rate of net saving (per cent)		Net domestic capital formation (Rs crore)		Rate of net capital formation (per cent)	
	at Current prices	at 1999-2000 prices	at Current prices	at 1999-2000 prices	at Current prices	at 1999-2000 prices	at Current prices	at 1999-2000 prices	at Current prices	at 1999-2000 prices	at Current prices	at 1999-2000 prices
1999-2000	1257541	1257541	12563	12563	302835	302835	17.1	17.1	324823	324823	18.3	18.3
2000-01	1345583	1303435	13205	12791	297215	297215	15.6	15.6	309970	294803	16.3	16.0
2001-02	1470302	1377919	14138	13249	306588	306588	15.0	15.0	292359	265980	14.3	13.8
2002-03	1552618	1417031	14703	13419	396014	396014	18.0	18.0	367528	330359	16.7	16.6
2003-04	1703546	1501974	15891	14011	540637	540637	21.8	21.8	479277	409905	19.4	19.0
2004-05	1848110	1584690	16971	14552	558832	558832	23.7	23.7	682171	531046	24.2	22.7
2005-06	2064296	1692194	18665	15300	847714	847714	25.5	25.5	892318	661054	27.8	25.8
2006-07	2319826	1800874	20676	16051	1038071	1038071	28.1	28.1	1084768	757377	29.4	27.0
2007-08	2605859	1946780	22899	17107	1270165	1270165	30.1	30.1	1336064	881177	31.7	28.9

carried out by the Field Operation Division, NSSO. The CSO processes the data and publishes the results.

The ASI 2005-06 indicates a total of 1,40,160 working factories in all States and Union Territories except the States of Arunachal Pradesh, Mizoram and Sikkim and Union Territory of Lakshadweep. These factories together had a total fixed capital worth Rs. 6,06,94,028 lakh, productive capital Rs. 7,91,40,288 lakh and invested capital Rs. 9,01,57,861 lakh. These factories provided gainful employment to about 9.11 million persons and distributed Rs 74,00,820 lakh in emoluments to employees.

ENERGY STATISTICS

The Economic Statistics Division of CSO of brings out a publication on energy statistics containing time series data of different energy sources, viz., coal, crude petroleum, natural gas and electricity (thermal, hydro and nuclear) etc. Since the time of publication of "Energy Statistics 2000-01", data on installations made under major non-conventional energy programmes of the States and at of all-India level are also being presented in this publication. The latest publication "Energy Statistics – 2007" is the fifteenth in the series of documents brought out from time to time by the CSO to meet the information needs of national and international policy makers, administrators and researchers concerned with the energy sector. Time series data relating to production, availability, consumption and wholesale price indices of major sources of energy in India for the last 37 years (from 1970-71 to 2006-07) have been presented in the publication. The Statistics presented in this publication are based on the latest data supplied by the concerned government departments/ organizations, viz., Office of Coal Controller, Ministry of Petroleum and Natural Gas; Office of the Economic Adviser, Ministry of Commerce and Industry, Central Electricity Authority, and Ministry of Non-Conventional Energy Sources. The next issue of the publication " Energy Statistics 2008" is under printing.

TABLE 6.5 : POPULATION BY CATEGORY OF WORKERS

	(in crores)		
	Rural	Urban	Total
2001 Census			
Total Population	74.25	28.61	102.86
Total Workers	31.00	9.23	40.22
Marginal Workers	8.08	0.85	8.92
Main Workers	22.92	8.38	31.30
Category of Total Workers			
(i) Cultivators	12.47	0.26	12.73
(ii) Agricultural Labourers	10.24	0.43	10.68
(iii) Household Industry Workers	1.21	0.48	1.70
(iv) Other Workers	7.07	8.05	15.12

Note : These figures exclude those of the three sub-divisions viz. Mao Maram, Paomata and Purul of Senapati district of Manipur as Census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons

Source : Office of the Registrar General, India, New Delhi.

TABLE 6.6 : EMPLOYMENT IN ORGANISED SECTOR

(in lakhs)

	March 1995	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007
Public Sector													
Central Government	33.95	33.66	32.95	32.53	33.13	32.73	32.61	31.95	31.33	30.27	29.39	28.60	28.00
State Government	73.55	74.14	74.85	74.58	74.58	74.60	74.25	73.84	73.67	72.22	72.02	73.00	72.09
Quasi Government	65.20	64.58	65.35	64.61	63.85	63.26	61.92	60.20	59.01	58.22	57.48	59.09	58.61
Local Bodies	21.97	21.92	22.44	22.46	22.59	22.55	22.61	21.75	21.79	21.26	21.18	21.18	21.32
Private Sector (non-agriculture)													
Large establishments (employing 25 or more workers)	71.18	75.50	77.06	78.21	77.70	77.19	77.09	75.08	74.72	72.34	74.89	78.04	82.29
Smaller establishments (employing 10 to 24 workers)	9.40	9.61	9.79	9.27	9.28	9.27	9.43	9.24	9.49	10.12	9.63	10.01	10.46

Source : DGE&T, Ministry of Labour

TABLE 6.7 : REGISTRATIONS, VACANCIES NOTIFIED, PLACEMENTS AND
NUMBER OF JOB-SEEKERS
(LIVE REGISTER) 1994-2005 (JANUARY-DECEMBER)

Year	Number of Employment Exchanges ¹	Registrations	Vacancies notified	Placements	Live Register at the end of year	Percentage increase in Live Register over previous year
(IN THOUSANDS)						
1994	891	5,927.3	396.4	204.9	36,691.5	1.1
1995	895	5,858.1	385.7	214.9	36,742.3	0.1
1996	914	5,872.4	423.9	233.0	37,429.6	1.9
1997	934	6,322.0	393.0	275.0	39,139.9	4.6
1998	945	5,852.0	358.8	233.3	40,089.6	2.4
1999	955	5,966.0	328.9	221.3	40,371.4	0.7
2000	958	6,041.9	284.5	177.7	41,343.6	2.4
2001	938	5,552.6	304.1	169.2	41,995.9	1.6
2002	939	5,064.0	220.3	142.6	41,171.2	-2.0
2003	945	5,462.9	256.1	154.9	41,388.7	0.5
2004	947	5,373.0	274.6	137.6	40,457.7	-2.2
2005	947	5,437.1	349.2	173.2	39,347.8	-2.7
2006	947	7,289.5	358.2	177.0	41,466.0	5.4
2007	965	5,434.2	525.8	263.5	39,974.0	-3.6
2008	968	5,315.7	571.0	304.9	39,114.9	-2.1

* Including University Employment Information and Guidance Bureaus.

Source: DGE&T, Ministry of Labour, New Delhi

TABLE 6.8 : INDEX NUMBERS OF WHOLESALE PRICES
(Base 1993-94 = 100)

Major Group/Groups & Sub-Groups	Revised Series									
	Weight	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
I. All Commodities	100.000	155.7	161.3	166.8	175.9	187.3	195.6	206.2	215.7	233.9
Primary Articles	22.025	162.5	168.4	174.0	181.5	188.1	193.6	208.7	224.4	247.3
(a) Food Articles	15.402	170.5	176.1	179.2	181.5	186.3	195.3	210.5	222.0	239.8
(b) Non-Food Articles	6.138	146.5	152.9	165.4	186.3	187.6	179.1	188.2	211.9	235.8
(c) Minerals	0.485	113.5	119.3	118.8	121.6	255.1	322.8	413.6	460.4	631.6
II. Fuel Power Light & Lubricants	14.226	208.1	226.7	239.2	254.5	280.2	306.8	323.9	327.0	351.4
III. Manufactured Products	63.749	141.7	144.3	148.1	156.5	166.3	171.4	179.0	187.8	203.1
(a) Food Products	11.538	145.7	145.4	153.0	166.7	174.9	176.8	182.5	190.2	209.3
(b) Beverages, Tobacco & Tobacco Products	1.339	179.8	193.8	204.3	205.6	216.2	226.8	243.5	268.3	294.0
(c) Textiles	9.800	119.9	119.3	122.2	131.6	135.7	129.5	132.3	130.9	138.8
(d) Wood & Wood Products	0.173	180.0	174.4	179.1	179.4	179.5	194.6	206.3	215.9	233.9
(e) Paper & Paper Products	2.044	165.4	172.8	174.0	173.3	174.6	178.5	190.7	194.2	202.7
(f) Leather & Leather Products	1.019	149.6	141.0	130.1	146.9	155.7	166.8	159.5	166.1	167.9
(g) Rubber & Plastic Products	2.388	125.5	126.0	132.6	135.0	134.5	139.1	148.2	158.9	166.3
(h) Chemicals & Chemical Products	11.931	164.4	169.0	173.9	177.2	181.7	188.2	193.9	204.6	219.5
(i) Non-Metallic Mineral Products	2.516	133.9	144.0	143.4	148.3	157.7	170.0	191.7	208.7	216.6
(j) Basic Metals, Alloys & Metal Products	8.342	140.3	140.7	145.1	167.8	203.3	218.4	233.3	248.6	285.3
(k) Machinery & Machine Tools	8.363	123.0	129.1	130.3	132.7	140.2	147.4	155.6	166.6	174.5
(l) Transport Equipment & Parts	4.295	143.4	146.8	147.5	147.4	154.3	159.0	162.4	166.8	175.5

Source : Office of the Economic Advisor, M/o Commerce and Industry, New Delhi

TABLE 6.9: CONSUMER PRICE INDEX NUMBER FOR
INDUSTRIAL WORKERS

Year	Mumbai	Ahmedabad	Kolkata	Chennai	Kanpur	Delhi	All India	
							General	Food
Linking Factor	5.12	4.78	4.74	5.05	4.69	4.97	4.93	4.98
I. Base : 1982 = 100								
1993-94	279	257	264	264	262	278	258	272
1994-95	314	285	286	297	283	306	284	304
1995-96	346	309	319	336	313	331	313	337
1996-97	372	343	347	367	337	356	342	369
1997-98	412	363	369	390	360	392	366	388
1998-99	461	409	427	432	420	461	414	445
1999-2000	474	428	439	452	430	486	428	446
2000-01	512	444	456	478	430	518	444	453
2001-02	536	465	507	494	451	534	463	466
2002-03	565	480	533	519	461	556	482	477
2003-04	588	492	547	536	477	575	500	495
2004-05	610	510	568	555	494	611	520	506
2005-06*	608	522	593	567	525	652	540	526
II. Base : 2001 = 100								
Linking Factor	5.18	4.62	5.12	4.95	4.50	5.60	4.63	4.58
2006-07	128	123	124	119	127	124	125	126
2007-08	136	131	134	126	133	130	133	136
2008-09	148	141	145	139	144	140	145	153

*Figures are average of 9 months from April-December 2005.

TABLE 6.10: CONSUMER PRICE INDEX NUMBER
FOR URBAN NON-MANUAL EMPLOYEES
(Base 1984-85=100)

Year	Mumbai	Kolkata	Chennai	Delhi	All-India
1993-94	219	212	232	211	216
1994-95	239	229	259	229	237
1995-96	260	251	284	247	259
1996-97	285	268	311	267	283
1997-98	309	286	334	288	302
1998-99	339	316	368	338	337
1999-2000	353	328	386	359	352
2000-01	375	344	420	381	371
2001-02	395	355	456	398	390
2002-03	406	364	486	412	405
2003-04	415	382	502	425	420
2004-05	434	398	520	446	436
2005-06	450	416	543	472	456
2006-07	478	439	569	499	486
2007-08	504	476	605	521	515

Note : A New Series of Index Numbers on Base 1984-85 = 100 was introduced from November 1987. All India Index on New Base may be converted to Old Base (1960=100) by multiplying the New Index by conversion factor 5.32. Conversion factors in respect of Mumbai, Kolkata, Chennai, Delhi are 5.38,4.51,5.77 and 5.08 respectively.

Source : CSO, M/o S&PI, New Delhi

**MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION
(Programme Implementation Wing)**

The Infrastructure and Project Monitoring Division (IPMD) in the Ministry of Statistics and Programme Implementation monitors the performance of infrastructure sectors and Central sector projects costing Rs.20 crore and above.

MONITORING OF INFRASTRUCTURE SECTORS

The Infrastructure and Project Monitoring Division (IPMD) in the Ministry of Statistics and Programme Implementation is monitoring the performance of the country's eleven key infrastructure sectors, namely, Power, Coal, Railways, Shipping and Ports, Telecommunications, Fertilizers, Cement, Petroleum & , Roads and Civil Aviation. It prepares and submits monthly Review Reports and Capsule Reports on the performance of infrastructure sectors, inter-alia, to the Prime Minister office, and the Cabinet Secretariat. The growth rate in respect of each infrastructure sector since 2000-01 and the production/achievement during 2008-09 is given in the table 22.1.

MONITORING OF CENTRAL SECTOR PROJECTS

The Project Monitoring envisages monitoring of all Central Sector projects costing Rs. 20 crore and above. In addition, it has been monitoring the progress of irrigation projects, which are being financed centrally under the Accelerated Irrigation Benefit Programme (AIBP). The Ministry, in coordination with the administrative Ministries concerned, takes up initiatives to bring about systematic improvements in various areas of project implementation. For the purpose of monitoring, the projects have been grouped into three categories viz., (i) Mega projects, each costing Rs. 1000 crore and above, (ii) Major projects, costing between Rs.100 crore and 1000 crore and (iii) Medium projects, costing between Rs. 20 crore and Rs. 100 crore. While all projects are monitored on quarterly basis, projects costing Rs. 100 crore and above are monitored on monthly basis. At the end of the 4th quarter of 2008-09 there were 925 projects with an anticipated cost of Rs. 552,0921.66 crore on the monitor of this Ministry. Statement of ongoing projects showing extent of time and cost overruns with respect to the latest schedule may be seen in Table 22.2.

TWENTY POINT PROGRAMME

The Twenty Point Programme (TPP) was conceived with the objective of improving the quality of life of the people, especially those living below the poverty line. It is meant to give a thrust to schemes relating to poverty alleviation, employment generation in rural areas, housing, education, family welfare and health, protection of environment and many other schemes having a bearing on the quality of life, especially in the rural areas. The programme, initiated in the year 1975 was restructured in 1982, 1986 and in 2006. The restructured programme is known as Twenty Point Programme (TPP) – 2006, became operational with effect from 1st April, 2007.

TWENTY POINT PROGRAMME(TPP) – 2006

Twenty Point Programme (TPP)-2006 originally consisted of 20 Points and 66 items being monitored individually by Central Nodal Ministries concerned. One of the 66 items viz. "Sompoorna Grameen Rojgar Yojana (SGRY)" has since been subsumed into another item namely "National Rural Employment Guarantee Act"

with effect from 1st April, 2008, and therefore during 2008-09, SGRY was dropped from the list of 66 items under TPP-2006. The list of 65 items is enclosed at annexure I.

During 2008-09, of the 65 items, 20 items (33 parameters) were mentioned on monthly basis. The monthly progress report in respect of these items is supplied by various States/Union Territories and the Central Nodal Ministries.

MONITORING DESIGN FOR TPP- 2006

The monitoring mechanism for TPP-2006 has been widened by including block level monitoring in addition to District, State and Central level monitoring. Most of the States/Union Territories have constituted the block, district and state level monitoring committees. At the Centre, the progress of individual items is monitored and reviewed by the Departments/Ministries concerned and the Ministry of Statistics & Programme Implementation (MOSPI) monitors the Programme/Schemes covered under TPP-2006 on the basis of monthly performance reports received from State Governments/UT Administrations and Central Nodal Ministries. The Monitoring Guidelines of TPP-2006 have been suitably revised based on the suggestions with respect to parameters/indicators/frequency of monitoring, etc. offered by Central Nodal Ministries and State/UT Governments and intimated to, the users and issued to States/UTs and also available on the website of the Ministry (www.mospi.gov.in).

MANAGEMENT INFORMATION SYSTEM (MIS)

The Management Information System (MIS) consists of Monthly Progress Report (MPR) for monthly monitored items based on information received from States/UTs and Central Ministries concerned. The Monthly Capsule Report contains highlights of MPR. Monthly Progress Report and Monthly Capsule Report have been released up to March, 2009. The Annual Review Report on TPP covers all items under TPP on the basis of information being received from Central Nodal Ministries and State Governments/UT Administrations and the report for 2007-08 containing information on all items of TPP-2006 is under final stage of preparation.

MONITORING AND IMPACT ASSESSMENT OF TWENTY POINT PROGRAMME-2006

As per the mandate given by the Cabinet, this Ministry has awarded a study to assess the impact of National Rural Guarantee Scheme (NREGS) for selected three districts of the North-East India namely Saiha (Mizoram), Mon (Nagaland) and Dhalai (Tripura).

PUBLICITY OF TPP-2006

To give wide publicity to the restructured programme, a leaflet and a booklet on TPP-2006 have been prepared and sent to State-UT Governments, Central Nodal Ministries concerned and to Members of Parliament.

PERFORMANCE OF MONTHLY MONITORED ITEMS UNDER TWENTY POINT PROGRAMME (TPP) - 2006

The performance of the monthly monitored items under the TPP-2006 for the year April, 2008 to March, 2009 is given in the Annexure II.

Annexure-I**TWENTY POINT PROGRAMME (TPP)-2006****List of Points and Items under TPP-2006**

Point No.	Item No.	Name of the Points/Items
I.		Garibi Hatao [Poverty Eradication]
		Rural Areas
	1.	Employment generation under the National Rural Employment Guarantee Act
	2.	Swaranjayanti Gram Swarojgar Yojana
	3.	Rural Business Hubs in Partnership with Panchayats
	4.	Self help Groups
		Urban Areas
	5.	Swaranjayanti Shehari Rojgar Yojana
II.		Jan Shakti (Power to People)
	6.	Local Self Government (Panchayati Raj and Urban Local Bodies) <ul style="list-style-type: none"> - Activity Mapping for devolution of functions - Budget Flow of Funds - Assignment of Functionaries
	7.	Quick and Inexpensive Justice – Gram Nyayalayas and Nyaya Panchayats.
	8.	District Planning Committees.
III.		Kisan Mitra [Support to Farmers]
	9.	Water shed development
	10.	Marketing and infrastructural support to farmers
	11.	Irrigation facilities (including minor and micro irrigation) for agriculture
	12.	Credit to farmers
	13.	Distribution of waste land to the landless
IV.		Shramik Kalyan [Labour Welfare]
	14.	Social Security for Agricultural and Unorganised Labour
	15.	Minimum Wages Enforcement (including Farm Labour)
	16.	Prevention of Child Labour
	17.	Welfare of Women Labour
V.		Khadya Suraksha [Food Security]
	18.	Food security: <ul style="list-style-type: none"> (i) Targeted Public Distribution system, (ii) Antodaya Anna Yojana, (iii) Establishing Grain banks in chronically food scarcity areas

- VI. Subke Liye Aawas [Housing for All]**
19. Rural Housing - Indira Awaas Yojana
 20. EWS/LIG Houses in Urban Areas
- VII. Shudh Peya Jal [Clean Drinking Water]**
21. Rural Areas: Accelerated Rural Water Supply Programme
 22. Urban Areas: Accelerated Urban Water Supply Programme
- VIII. Jan Jan Ka Swasthya [Health for All]**
23. Control and prevention of major diseases:
(a) HIV/AIDS (b) TB (c) Malaria (d) Leprosy (e) Blindness
 24. National Rural Health Mission
 25. Immunisation of Children
 26. Sanitation Programme in
 - Rural Areas
 - Urban areas
 27. Institutional Delivery
 28. Prevention of Female Foeticide
 29. Supplementary nutrition for Mothers and Children
 30. Two Child norm
- IX. Sabke Liye Shiksha [Education for All]**
31. Sarv Shiksha Abhiyan
 32. Mid Day Meal Scheme
 - Compulsory Elementary Education
- X. Anusuchit Jaati, Jan Jaati, Alp-sankhyak evam Anya Pichhre Varg Kalyan [Welfare of Scheduled Castes, Scheduled Tribes, Minorities and OBCs]**
33. SC Families Assisted
 34. Rehabilitation of Scavengers
 35. ST Families Assisted
 36. Rights of Forest dwellers – Owners of minor forest produce
 37. Primitive Tribal Groups
 38. No alienation of Tribal lands
 39. Implementation of Panchayats (Extension to Scheduled Areas) Act [PESA]
 40. Welfare of Minorities
 41. Professional education among all minority communities
 42. Reservation of OBCs in
 - Education
 - Employment
- XI. Mahila Kalyan [Women Welfare]**
43. Financial Assistance for Women Welfare Scheme

44. Improved participation of women in
(a) Panchayats (b) Municipalities
(c) State Legislatures (d) Parliament
- XII. Bal Kalyan (Child Welfare)**
45. Universalisation of ICDS Scheme
46. Functional Anganwadis
- XIII. Yuva Vikas [Youth Development]**
47. Sports for all in Rural and Urban areas
48. Rashtriya Sadbhavana Yojana
49. National Service Scheme
- XIV. Basti Sudhar [Improvement of Slums]**
50. Number of Urban poor families assisted under seven point charter viz. land tenure, housing at affordable cost, water, sanitation, health, education, and social security.
- XV. Paryavaran Sanrakshan evam Van Vridhi [Environment Protection and Afforestation]**
51. Afforestation
(a) Area Covered under Plantation on - Public and Forest Lands
(b) Number of Seedlings planted on -Public and Forest Lands
52. Prevention of pollution of rivers and water bodies
53. Solid and liquid waste management in
- Rural Areas
- Urban Areas
- XVI. Samajik Suraksha [Social Security]**
54. Rehabilitation of handicapped and orphans
55. Welfare of the aged
- XVII. Grameen Sadak [Rural Roads]**
56. Rural Roads - PMGSY
- XVIII. Grameen Oorja [Energization of Rural Area]**
57. Bio-diesel Production
58. Rajiv Gandhi Grameen Vidyutikaran Yojana
59. Renewable Energy
60. Energising Pump sets
61. Supply of Electricity
62. Supply of Kerosene and LPG
- XIX. Pichhare Kshetra ka Vikas [Development of Backward Areas]**
63. Backward Regions Grants Fund
- XX. e- Shasan [IT enabled e-Governance]**
64. Central and State Governments
65. Panchayats and Municipalities
-

ANNEXURE-II
PERFORMANCE OF MONTHLY MONITORED ITEMS UNDER TWENTY POINT PROGRAMME-2006
FOR THE YEAR APRIL, 2008 TO MARCH, 2009

Sl. No.	Item/Parameter	Unit	Annual Target for 2008-09	Achievement for the 2008-09	Per cent Achievement
(1)	(2)	(3)	(4)	(5)	(6)
1	No. of Job cards issued	000 No.	@	76141	—
2	Employment generated	000 Mandays	@	2062350	—
3	Wages given	Lakh Rs.	@	1863287	—
4	No. of Individual Swarozgaris Assisted*	No.	380981	716671	188
5	No. of SHGs formed	No.	—	533711	—
6	No. of SHGs to whom income generating activities provided*	No.	138168	153700	111
7	Land distributed	Hectare	@	106988	—
8	No. of Inspections made	No.	@	229669	—
9	No. of Irregularities detected	No.	@	47423	—
10	No. of Irregularities rectified	No.	@	40634	—
11	No. of Claims filed	No.	@	7091	—
12	No. of Claims settled	No.	@	6877	—
13	No. of Prosecution cases filed	No.	@	16238	—
14	No. of Prosecution cases filed	No.	@	90	—
15	No. of Prosecution cases decided	No.	@	180	—
16	Food Security - Off take of food grains by States/UTs under TPDS*	Tonne	38776431	34600804	89
17	Food Security - Off take of food grains by States/UTs under AAY*	Tonne	10195770	9524637	93
18	Indira Awaas Yojana - No. of Houses constructed*	No.	2127165	1988532	93
19	EWS/LIG Houses in urban area - No. of Houses constructed*	No.	119504	65954	55

Sl. No.	Item/Parameter	Unit	Annual Target for April, 2007-March, 2008	Achievement for the April, 2007-March, 2008	Per cent Achievement
(1)	(2)	(3)	(4)	(5)	(6)
20	ARWSP - Habitations covered (NC and PC)*	No.	16763	11402	68
21	ARWSP - Slipped back Habitations and Habitations with water quality problems addressed*	No.	201135	128844	64
22	Sanitation Programme in rural areas - No. of Individual household latrines constructed	000 Nos.	@	11790	—
23	No. of deliveries in institutions	000 Nos.	@	15159	—
24	No. of SC Families Assisted*	000 Nos.	4774	4369	92
25	No. of ICDS Blocks Operational (Cumn.)*	No.	6284	6278	100
26	No. of Functional Anganwadis (Cumn.)*	No.	1052638	1036367	98
27	No. of urban poor Families Assisted*	No.	84502	82808	98
28	Area covered under Plantation (Public & Forest Lands)*	000 Hectares	1771	1676	9529
30	Seedlings planted (Public & Forest Lands)*	Lakh Nos.	11514	11963	104
31	Length of Road Constructed (PMGSY)*	Km.	64440	56541	88
32	No. of Villages Electrified (RGGVY)*	No.	19000	13641	72
33	No. of Pump sets energized*	No.	211635	288941	137
	Electricity supplied* (Million Unit)	MU	763297	677547	89

*Items having monthly targets and considered for ranking of States.

@ No targets were fixed

MEMBER OF PARLIAMENT LOCAL AREA DEVELOPMENT SCHEME (MPLADS)

The Member of Parliament Local Area Development Scheme (MPLAD) was launched by the Government of India on 23rd December, 1993, to enable Members of Parliament to recommend works of developmental nature with emphasis on the creation of durable community assets based on the locally felt needs to be taken up in their Constituencies/States. Initially the MPLADS was under the control of the Ministry of Rural Development. The subject relating to the MPLADS was transferred to the Ministry of Statistics and Programme implementation in October, 1994. The Scheme is governed by a set of Guidelines, which have been comprehensively revised from time to time. The present Guidelines were issued in November, 2005.

Some of the salient features of the scheme are enumerated below:-

- The MPLADS is a Plan Scheme fully funded by the Government of India, under which funds are released in the form of Grants-in-Aid, as special Central Assistance to States.
- In 1993-94, when the Scheme was launched, an amount of Rs. 5 lakh per MP was allotted which was enhanced to Rs. 1 crore per annum from 1994-95 per MP constituency. This was further increased to Rs. 2 crore from 1998-99. It is released in two equal instalments of Rs. 1 crore each by the Government of India directly to the District Authorities for execution of the eligible works recommended by the MPs by following the established procedure of the concerned State Government.
- The funds released under the scheme are non-lapsable i.e. the funds not released in a particular year will be carried forward for making releases in the subsequent years subject to eligibility.
- Works which are developmental in nature, based on locally felt needs and available for public use at large, are eligible under the scheme.
- Examining the eligibility, sanctioning, funding, selection of implementing agencies, prioritization and overall execution, monitoring of the scheme at the ground level, is done by the District Authorities.
- The Lok Sabha Members can recommend works in their respective constituencies. The elected members of Rajya Sabha can recommend works anywhere in the State from which they are elected. Nominated Members of the Lok Sabha and the Rajya Sabha can recommend works for implementation anywhere in the country.
- Right from the inception of the Scheme, works for creation of durable assets of national priorities viz., drinking water, primary education, public health, sanitation and roads, etc have been given priority.
- Special attention is given for infrastructural development of areas inhabited by Scheduled Castes and Scheduled Tribes population by earmarking 15% and 7.5% respectively of MPLADS funds for those areas.
- MPs can also recommend community infrastructure and public utility building works for registered Societies/Trusts subject up to a ceiling of Rs. 25 lakh. The

ownership of the land may remain with the Society/Trust, but the structure constructed with MPLADS funds shall be the property of State/UT Government.

- In order to undertake rehabilitation works in the areas affected by calamities in a State, Lok Sabha MPs from the non-affected areas of that State can recommend permissible works to the tune of up to Rs. 10 lakh per annum in those areas. In the event of calamity of severe nature in any part of the country, an MP can recommend works up to a maximum of Rs. 50 lakh for the affected district.
- MPs can promote education and culture of a State/UT wherefrom they are elected at a place outside that State/UT by selecting works relating to education and cultural development not prohibited under the Guidelines on MPLADS up to a maximum of Rs. 10 lakh in a financial year.
- At the time of the constitution of Lok Sabha, and election of a Rajya Sabha Member, the first instalment of Rs. 1 crore will be released to the District Authorities.
- To bring in more financial accountability, furnishing the Utilization Certificate for the previous financial year and the Audit certificate for the funds released for the MP concerned in the year prior to the previous year are also pre-requisites for release of the second instalment. The first instalment of the fund will be released in the beginning of the financial year, subject to the condition that second instalment of the previous year was released for the MP concerned.
- The normal financial and audit procedures prevalent in the states in which the works are executed apply with regard to the implementation of the works.
- An important initiative for physical monitoring of MPLADS works has also been taken by the Ministry. The task has been assigned to NABARD Consultancy Services (NABCONS). In the first and second phases, the work of physical monitoring has been taken up in 73 districts across the country and NABCONS has filed reports. In the third phase, 60 more districts have been selected for physical monitoring of works under the Scheme. This step will further strengthen transparency and accountability of the Scheme.

Impact of the Scheme

Since its inception, the Scheme has immediately benefited the local community by meeting their various developmental needs such as drinking water facility, education, electricity, health and family welfare, irrigation, non-conventional energy, community centres, public libraries, bus stands/stops, roads, pathways and bridges etc.

Scheme Performance (as on 30.06.2009)

- Rs. 19,685.25 crore has been released, since the inception of the Scheme.
- As per the reports received from the Districts, an expenditure of Rs. 18,304.59 crore has been incurred. The percentage utilization over release is 92.99.
- Approximately 11.40 lakh works have been sanctioned and 10.35 lakh works have been completed, as on 30.06.2009, since the inception of the scheme. The percentage of works completed to sanctioned ones is 90.82.

PROGRESIVE STATUS OF FUNDS RELEASED BY GOI AND EXPENDITURE INCURRED BY DISTRICT AUTHORITIES

(Rs. in crore)

As on	Release by GOI	Expenditure incurred	% Utilisation over release
31.03.1998	2837.80	1549.02	54.59
31.03.1999	3626.39	2315.40	63.85
31.03.2000	5017.80	3813.14	75.99
31.03.2001	7097.80	4649.49	65.51
31.03.2002	8897.80	6610.18	74.29
31.03.2003	10497.80	8272.70	78.80
31.03.2004	12179.80	10009.38	82.18
31.03.2005	13489.80	11918.49	88.35
31.03.2006	14923.70	13562.46	90.87
31.03.2007	16375.20	14579.83	89.04
31.03.2008	17845.75	16086.28	90.14
30.06.2008	19425.75	18057.91	92.96
30.06.2009	19685.25	18304.59	92.99

TABLE 22.1 : ANNUAL GROWTH RATE OF INDUSTRIAL INFRASTRUCTURE SECTORS

Sl. Sector No	Growth Rate (in %age)									
	2000-01 per cent	2001-02 per cent	2002-03 per cent	2003-04 per cent	2004-05 per cent	2005-06 per cent	2006-07 per cent	2007-08	2008-09	Actuals 2008-09
1. Power	3.9	3.1	3.2	5.0	5.2	5.1	7.3	6.3	2.7	723.79 (BU)
2. Coal	3.6	4.2	4.4	5.6	6.1	6.4	5.9	6.0	8.1	487.25 (MT)
3. Finished Steel @	6.7	4.3	9.2	13.7	7.6	10.8	12.2	5.2	0.6	56.41 (MT)
4. Railway Revenue Earning Freight Traffic	3.7	4.0	5.3	7.5	8.1	10.7	9.2	9.0	4.9	833.31 (MT)
5. Cargo Handled at Major Ports	3.4	2.4	9.0	10.0	11.3	10.4	9.5	11.9	2.1	530.35 (MT)
6. Telecommunications:										
a) Addition in Switching Capacity	6.4	-2.6	-35.6	0.1	49.8	85.8	-23.0	-25.4	101.0	14392.60 ('000 Lines)
b) Telephone Connections	20.5	-4.7	-39.8	148.8	-17.7	123.3	-19.6	79.2	10.1	24683.29 ('000')
c) Cell Phone connections	-	-	119.2	115.3	10.4	89.4	85.4	38.3	44.8	104569.46 ('000')
7. Fertilizers	2.9	-0.5	-1.1	-1.4	8.0	1.1	3.3	-8.6	-2.5	14.33 (MT)
8. Cement	-2.8	9.5	8.8	6.1	8.2	10.7	9.4	7.8	7.5	187.42 (MT)
9. Petroleum										
a) Crude Oil	1.5	-1.2	3.2	1.0	1.8	-5.3	5.6	0.4	-1.8	33.51 (MT)
b) Refinery	20.3	3.7	4.9	8.2	4.3	2.4	12.6	6.5	3.0	160.77 (MT)
b) Natural Gas	3.6	0.8	5.7	1.8	-0.6	1.4	-1.4	2.1	1.4	32849 (MT)
10. Civil Aviation										
a) Export Cargo handled	5.1	4.1	13.3	1.0	12.4	7.3	3.6	7.5	3.4	537382 (Tonnes)
b) Import Cargo handled	3.6	-1.0	18.6	13.4	24.2	15.8	19.4	19.7	-5.7	429527 (Tonnes)
c) Passengers handled at International Terminals	4.6	-5.0	4.8	6.5	14.0	12.8	12.1	11.9	3.8	219.26 (Lakh No.)
d) Passengers handled at Domestic Terminals	7.7	-5.7	9.6	13.1	23.6	27.1	34.0	20.6	-12.1	429.76 (Lakh No.)
11. Roads ^^										
Upgradation of Highways										
i) NHAI	NA	NA	NA	NA	207.9	-69.1	-12.5	164.6	30.9	2203 (K.m.)
ii) NH(O) & BRDB	NA	NA	NA	NA	-3.1	35.7	-10.5	12.5	17.3	2226 (K.m.)

BU - Billion Units MT - Million Tonnes MCM - Million cubic metre N.A. - Not available @ Finished steel

^^ - Includes widening to four lanes, two lanes and strengthening of existing weak pavement by NHAI, NH(O) & BRDB.

TABLE 22.2 : EXTENT OF COST AND TIME OVERRUN IN PROJECTS WITH RESPECT TO LATEST SCHEDULE (AS ON 31.3.2009)

Sr. No.	Sector	Total Projects											
		Projects with cost overrun						Projects with time overrun					
		No. of Projects	Latest Approved Cost (Rs. Crore)	Anticipated Cost (Rs. Crore)	Cost Overrun %	No. of Projects	Latest Approved Cost (Rs. Crore)	Anticipated Cost (Rs. Crore)	% increase	No. of Projects	Latest Approved Cost (Rs. Crore)	Anticipated Cost (Rs. Crore)	Range of delay (Months)
1.	Atomic Energy	6	25397.55	24466.55	-3.67	0	0.00	0.00	0.00	3	20456.00	19525.00	2-19
2.	Civil Aviation	29	2237.38	2117.58	-5.35	5	202.89	221.56	9.20	24	1933.64	1808.84	4-48
3.	Coal	125	29760.48	31063.73	4.38	12	6951.99	8855.21	27.38	30	7313.69	8357.54	3-192
4.	I & B	1	35.00	35.00	0.00	0	0.00	0.00	0.00	0	0.00	0.00	-
5.	Mines	1	4091.51	4091.51	0.00	0	0.00	0.00	0.00	0	0.00	0.00	-
6.	Steel	55	47134.60	52039.16	10.41	16	15872.55	20793.48	31.00	32	23727.97	28243.03	2-28
7.	Petroleum	53	103808.38	113279.55	9.12	19	34041.13	48286.79	41.85	30	48998.61	59363.00	1-61
8.	Power	70	130882.01	133065.06	1.67	20	26163.79	29381.22	12.30	32	71571.43	73382.86	1-68
9.	Health & FW	1	422.60	443.15	4.86	1	422.60	443.15	4.86	0	0.00	0.00	-
10.	Railways	262	52259.31	90344.48	72.88	179	38544.83	76729.20	99.06	58	19869.76	41056.90	1-180
11.	Road Transport & Highways	195	54333.17	55034.05	1.29	15	3995.31	4997.97	25.10	154	38716.50	39377.12	1-96
12.	Shipping & Ports	50	13291.94	13489.98	1.49	11	550.40	879.87	59.86	20	1975.51	2002.77	1-94
13.	Telecommunication	46	15779.92	15093.26	-4.35	3	553.55	654.48	22.67	25	7664.12	7143.92	3-54
14.	Urban Development	28	16271.99	16255.74	-0.10	2	8689.03	8811.03	1.40	14	9142.60	9128.42	3-55
15.	Water Resources	1	542.90	1187.00	118.64	1	542.90	1187.00	118.64	1	542.90	1187.00	60
16.	Information Technology	2	64.90	86.86	33.84	1	20.00	41.96	109.80	0	0.00	0.00	-
Total		925	496313.64	552092.66	11.24	285	136530.97	201282.92	47.43	423	251912.73	290576.40	

7 Commerce

FOREIGN trade has played a crucial role in India's economy growth. The composition and direction of India's foreign trade has undergone substantial changes, particularly, after the liberalization process which began in the early 1990s. Our major exports now includes manufacturing goods such as Engineering Goods, Petroleum Products, Chemicals & Related Products, Gems & Jewellery, Textiles, Electronic Goods, etc. which constitute over 80 per cent of our export basket. On the other hand, major import items constitute capital goods and intermediates which not only support the manufacturing sector but also supply raw-materials for the export oriented units. Over the years, India's trade with countries of Asia & ASEAN and Africa has gone up substantially. Apart from that, India is now a major player in global trading system and all the major sectors of Indian economy are linked to world outside either directly or indirectly through international trade.

TABLE 7.1 : INDIA'S FOREIGN TRADE

(Rs crore)

Year	Exports	Imports	Total trade	Trade deficit
1991-92	44042	47851	91893	-3809
1992-93	53688	63375	117063	-9687
1993-94	69751	73101	142852	-3350
1994-95	82674	89971	172645	-7297
1995-96	106353	122678	229031	-16325
1996-97	118817	138920	257737	-20103
1997-98	130101	154176	284277	-24075
1998-99	139753	178332	318085	-38579
1999-2000	159561	215236	374797	-55675
2000-01	203571	230873	434444	-27302
2001-02	209018	245200	454218	-36182
2002-03	255137	297206	552343	-42069
2003-04	293367	359108	652475	-65741
2004-05	375340	501065	876405	-125725
2005-06	456483	635013	1091496	-178530
2006-07	571779	840506	1412286	-268727
2006-08	655864	1012312	1668176	-356448
2008-09(P)	766935	1385503	2072338	-538568

(P) Provisional data — Sources : DGCI & S. Kolkata

TRADE SCENARIO

India's total external trade (exports plus imports including re-exports) in the year 1990-91 stood at Rs. 91,893 crore. Since then, this has witnessed continuous increase with occasional downturns. During 2008-09 the value of India's external trade reached Rs. 20,72,438 crore. A statement indicating India's total export, import, total value of foreign trade and balance of trade from the year 1991-92 to 2008-09, in rupee terms, is given in table 7.1 (see above).

India's exports during 2008-09 reached a level of Rs. 7,66,935 crore registering a growth of 16.9 per cent. In US \$ terms, exports reached a level of US\$168.7 billion, registering a growth of 3.5 per cent as compared to a growth of 29.1 per cent during the previous year. The growth of exports during the year has exhibited a significant slow-down from September 2008 onwards. While, during the first half of the year 2008-09, April-September, exports increased by 31.3 per cent with almost all the major commodity groups, except increased by 31.3 per cent with almost all the major commodity groups, except marine products, handicrafts and carpets, recording significant growth. In the second half of the year 2008-09, October-March, exports recorded a decline of (-) 19.2 per cent with almost all the commodity groups recording significant negative growth.

During 2008-09 imports increased to Rs. 13,05,503 from the level of Rs. 10,12,312 crore in 2007-08 registering growth of 29.0 per cent in rupee terms. In US \$ terms, imports reached a level of US \$ 287.8 billion in 2008-09 registering a growth of 14.4 per cent. Oil imports were valued at US \$ 93.2 billion, which was higher by 16.9 per cent over the previous year. Non-Oil imports increased to US \$ 194.6 billion, which was higher by 13.2 per cent. Items which registered significant growth are Pearl, Precious & Semi-Precious Stones, Crude & Manufactured Fertilizer, Coal, Inorganic Chemicals, Project Goods, etc. Import of Gold and Transport Equipment registered significant decline.

The Trade deficit during 2008-09 increased to Rs. (-) 538568 crore as against Rs. (-) 356449 crore during 2007-08. In US \$ terms, trade deficit increased to US & 119.1 billion from a level of US & 88.5 billion during 2007-08.

India has trading relations with all the major trading blocks and geographical regions of the world. Region and sub region-wise spread of India's during 2007-08 and 2008-09 as per data available up to 2008-09 (April-February) is given in table 7.2. During the period 2008-09 (April-February), the share of Asia and ASEAN region comprising South Asia, East Asia, Mid-Eastern and Gulf countries accounted for 51.4 per cent of India's total exports. The share of Europe and America in India's exports stood at 23.8 per cent and 16.5 per cent respectively of which EU countries (27) comprises 22.3 per cent. During the period, USA (12.0 per cent), has been the most important country of export destination following by United Arab Emirates (10.8 per cent), China (5.1 per cent), Singapore (4.7 per cent), Netherlands (3.7 per cent), Hong Kong (3.7 per cent), U.K. (3.6 per cent), Germany (3.4 per cent), Saudi Arabia (3.0 per cent), Belgium (2.6 per cent) and Italy (2.2 per cent).

Asia and ASEAN accounted for 61.7 per cent of India's total imports during the period followed by Europe (18.7 per cent) and America (10.1 per cent). Among individual countries the share of China stood highest at (10.7 per cent) followed by Saudi Arabia (7.1 per cent), UAE (6.4 per cent) and USA (6.0 per cent), Iran (4.3 per

cent), Switzerland (4.2 per cent), Germany (3.6 per cent), Kuwait (3.4 per cent), Nigeria (3.2 per cent), and Iraq (2.8 per cent).

TABLE 7.2 : DIRECTION OF INDIA'S TRADE

(Rs crore)

Region	Exports		Import	
	2007-08 (Apr-Feb)	2008-09 (Apr-Feb)(P)	2007-08 (Apr-Feb)(P)	2008-09 (Apr-Feb)(P)
1. Europe	1,33,151	1,65,925	1,75,335	2,23,813
1.1 EU countries 27)	1,23,219	1,55,266	1,27,315	1,61,593
1.2 Other WE countries	9,553	10,123	47,881	62,115
1.3 East Europe	379	536	138	106
2. Africa	38062	44922	51519	60151
2.1 Southern Africa	13,058	12,393	17,868	29,377
2.2 West Africa	12,851	13,204	35,614	48,514
2.3 Central Africa	934	1,372	189	632
2.4 East Africa	15,126	18,687	1,158	1,518
3. America	98,900	1,14,966	79,780	1,21,381
3.1 North America	79,880	89,476	56,281	80,825
3.2 Latin America	19,019	25,490	23,498	40,556
4. Asia and ASEAN	2,96,287	3,57,982	5,43,551	7,39,622
4.1 East Asia	5,070	6,719	30,783	40,230
4.2 ASEAN	56,663	75,357	82,289	1,06,418
4.3 WANA	1,08,920	1,44,039	2,58,645	3,56,716
4.4 NE Asia	92,974	96,846	1,64,030	2,28,746
4.5 South Asia	32,659	35,020	7,805	7,513
5. CIS & Baltics	6,101	7,623	14,238	28,793
5.1 CARs Countries	826	1,047	419	1,157
5.2 Other CIS Countries	5,275	6,577	13,818	27,636
6. Unspecified Region	1,482	4,346	2,666	4,710
Total	5,77,889	6,96,498	8,70,399	11,98,360

(P) Provisional Figures

Source : DGCI&S, Kolkata

EXPORTS

Disaggregated data on exports by Principal Commodities, in Rupee terms, available for the period 2008-09 (April-February) as compared with the corresponding period of the previous year are given in Table 7.3. Exports during the period was mainly driven by Engineering Goods, Chemical & related products, Agriculture & allied products, Electronic goods, Plantation and Sports goods. The top five Principal

Commodity Groups in India's total exports basket during 2008-09 (April-February) include Engineering Goods (23.9 per cent), Petroleum Products (16.3 per cent), Chemicals (14.1 per cent), Gems & Jewellery (11.2 per cent) and Textiles (11.1 per cent).

TABLE 7.3 : EXPORT OF PRINCIPAL COMMODITIES

(Rs crore)

Sl. No.	Commodities	2007-08 (Apr-Feb)	2008-09 (Apr-Feb) (P)	% change
1.	Plantation	3,348	4,343	29.7
2.	Agri & allied products	48,542	59,312	22.2
3.	Marine products	6,396	6,522	2.0
4.	Ores & minerals	31,994	32,965	3.0
5.	Leather & mnfrs	12,908	15,011	16.3
6.	Gems & jewellery	71,868	78,260	8.9
7.	Sports goods	481	596	23.9
8.	Chemicals & related products	78,795	98,389	24.9
9.	Engineering goods	1,19,546	1,66,206	39.0
10.	Electronic goods	12,521	18,462	47.5
11.	Project goods	559	595	6.5
12.	Textiles	66,610	77,211	15.9
13.	Handicrafts	1,918	1,273	-33.7
14.	Carpets	3,591	3,302	-8.1
15.	Cotton raw incl. waste	6,597	2,507	-62.0
16.	Petroleum Products	97,803	1,13,270	15.8
17.	Unclassified Exports	14,412	18,272	26.8
18.	Total	5,77,889	6,96,498	20.5

(P) Provisional Figures Source : DGCI&S, Kolkata

IMPORTS

Disaggregated data on imports by principal commodities, in Rupee terms, available for the period 2008-09 (April-February), as compared to the corresponding period of the previous year are given in Table 7.4. Imports during the period was mainly driven by commodities such as Petroleum crude & products, Fertilizers manufactured, Pearls Precious and semi-precious stones, coal, coke & briquettes, inorganic chemicals, vegetable oils, manufactures of metals, project goods etc.

The share of top five Principal Commodities in India's total imports during 2008-09 (April-February) include Petroleum Products (32.8 per cent), Electronic Goods (7.4 per cent), Machinery except Electronic (7.3 per cent), Gold (6.1 per cent), Pearls, Precious & Semi-Precious Stones (4.9 per cent).

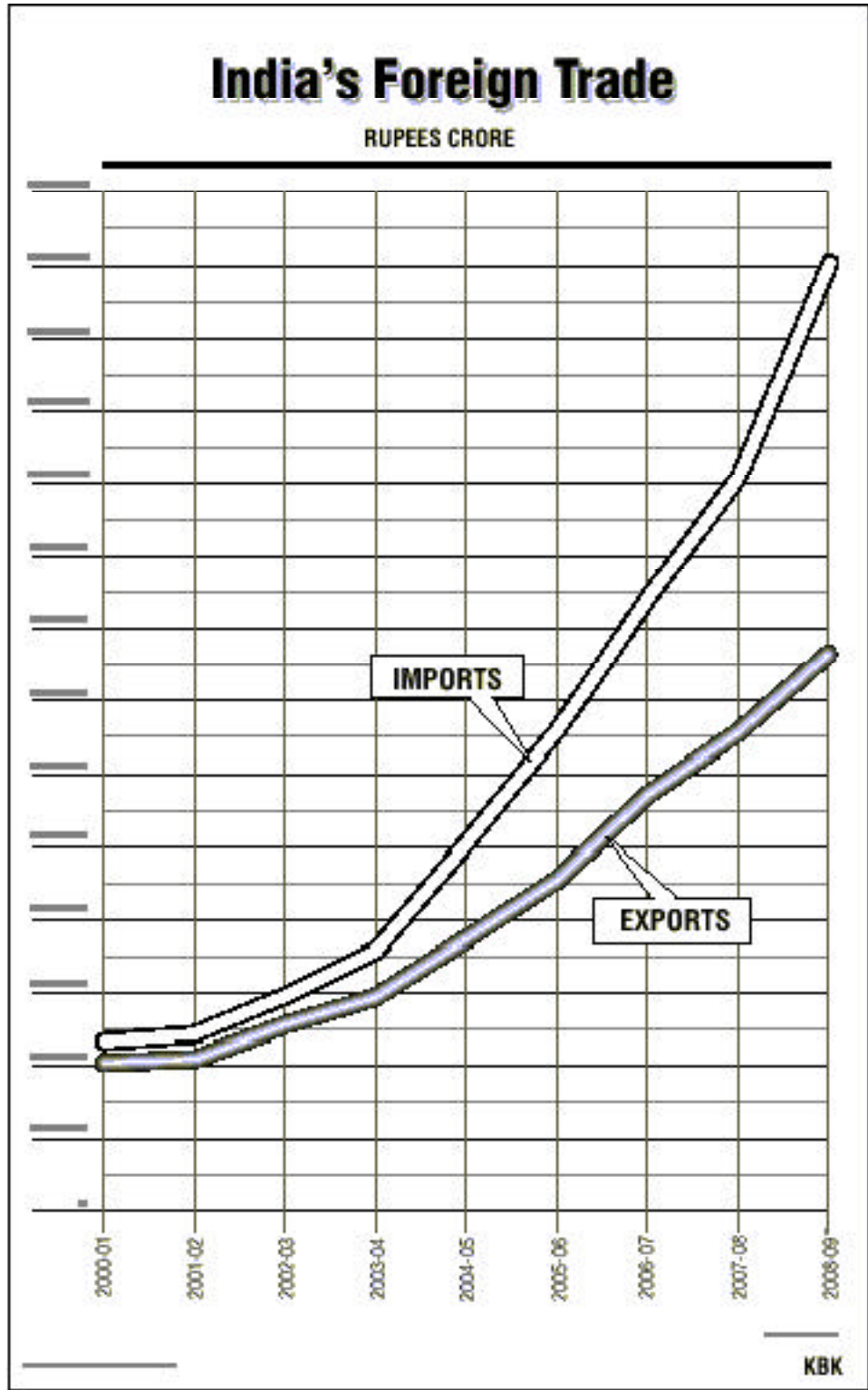


TABLE 7.4 : IMPORT OF PRINCIPAL COMMODITIES

(Rs crore)

Commodities	2007-08 (April-Feb)	2008-09(P) (April-Feb)	Grwoth
A. Bulk Imports	404,458	5,73,170	41.71
1. Cereals & preparations	2,829	195	-93.09
2. Fertilizers	20,512	60,522	195.06
3. Edible Oil	9,623	14,446	50.12
4. Sugar	5	423	7672.31
5. Pulp & waste paper	2,864	3,451	20.51
6. Paper board & mfrs.	5,760	5,835	1.30
7. Newsprint	1,997	3,608	80.67
8. Crude rubber	2,856	3,799	33.02
9. Non-ferrous Metals	12,651	13,446	6.28
10. Metalliferous ores & products	28,983	34,244	18.15
11. Iron & Steel	32,348	40,123	24.03
12. Petroleum crude & products	2,84,029	3,93,076	38.39
B. PEARLS, PRECIOUS & SEMI-PRECIOUS STONES	29,181	58,237	99.57
C. MACHINERY	1,20,920	1,43,949	19.04
1. Machine Tools	8,062	9,696	20.27
2. Machinery other than electrical	71,789	86,926	21.08
3. Electrical Machinery	10,521	13,411	27.46
4. Transport equipment	30,547	33,916	11.03
D. PROJECT GOODS	4,489	12,885	187.01
E. OTHERS	3,11,350	4,10,119	31.72
1. Electronic goods	73,804	88,828	20.36
2. Gold & Silver	65,926	82,060	24.47
3. Organic & Inorganic chmls.	36,467	51,705	41.78
4. Coal, coke & briquettes	23,549	42,691	81.29
5. Artf. resins, etc.	13,529	15,736	16.32
6. Profl. instruments, etc.	14,031	16,852	20.11
7. Manufacruates of metals	9,706	13,458	38.65
8. Medicinal & Pharma, prds.	6,183	7,588	22.72
10. Wood and wood products	4,910	5,590	13.84
Total	870,399	1,198,360	37.68

(P) : Provisional Figures Source : DGCI&S, Kolkata

EXPORT PROMOTION MEASURES

Export promotion being a constant endeavour of the government, export performance is constantly monitored and export strategy and export policies are formulated. In the Foreign Trade Policy for the years 2004-09 announced on 31st August 2004, the

Government spelt out a bold vision to double India's percentage share of global merchandise trade within five years and to focus on the generation of additional employment. Stability of trade policy regime has yielded positive results since the inception of the Foreign Trade Policy (FTP), India's merchandise export have recorded appreciable growth.

MULTILATERAL TRADE ISSUES AND INITIATIVES

The negotiating mandate agreed to by all the members of the World Trade Organisation is contained in the Doha Ministerial Declaration of 14 November 2001; further elaborated and complemented by the General Council Decision of 1 August 2004 (the July Framework) and the Hong Kong Ministerial Declaration of 18 December 2005. At Hong Kong, the Trade Ministers of the WTO Members had resolved to complete the negotiations in 2006, within interim timelines for establishing modalities across all areas. However, the negotiations were suspended on 24 July 2006 as the gaps in the positions of WTO Members were too wide, particularly in respect of market access and domestic support issues in agriculture. The negotiations resumed on 7 February 2007. The years 2007 and 2008 saw intensive discussions and considerable progress on many elements of the Agriculture and Non-Agricultural Market Access (NAMA) modalities¹, but as in the past, agriculture issues proved to be the major stumbling blocks.

A mini-ministerial meeting of the WTO, attended by about 30 Trade Ministers, was held in Geneva from 21 to 29 July 2008. The objective of the meeting was to finalise modalities for Agriculture and NAMA. Simultaneously, a meeting on Services trade (a "Signalling" conference) was also held. The intention was that once the Agriculture and NAMA modalities were finalised, the scheduling exercise would be completed by the end of the year, by which time negotiations in all the other areas (such as Services, Rules, Trade Facilitation, Trade and Environment, issues related to Trade Related Intellectual Property Rights etc.) would also have been completed. The mini-Ministerial talks, however, ended without an agreement on any issue. While Ministers were amenable to moving towards an agreement on several complex issues in both Agriculture and NAMA, provided other issues of concern to them were resolved to their satisfaction, there were many issues which either could not be discussed at all or on which agreement could not be reached on account of persisting differences. While many of these were issues critical to developing countries, several were developed country concerns. In the end, however, the focus was almost entirely on the Special Safeguard Mechanism (SSM) for developing countries.

These include the formulae and methodology for cutting tariffs on agricultural and industrial goods, reducing domestic subsidies in agriculture, phasing out export subsidies in agricultures, phasing out export subsidies, the contours of flexibilities/exemption from tariff cuts on both agricultural and industrial goods etc.

In the agriculture negotiations, WTO Members discuss the formulae and other methods or "modalities" to be used to cut tariffs on agricultural products and agricultural subsidies. The three main elements or "pillars" of the Agreement on Agriculture (AOA) and the negotiations are: (i) market access, (ii) domestic support and (iii) export competition. The Doha Ministerial Declaration of November 2001 committed Members to comprehensive negotiations aimed at—substantial improvements in market access; reductions of, with a view to phasing out, all forms

¹ As published in Volume Eight of Sri Aurobindo Birth Centenary Library Popular Edition 1972

of export subsidies; and substantial reductions in trade-distorting domestic support. Special and differential treatment for developing Members is also intended to be an integral part of the modalities.

Safeguarding the interests of low income and resource poor agricultural producers remains paramount for India. Substantial and effective reductions in domestic support and tariffs in agriculture by developed countries, while enabling developing countries to protect and promote the interests of their low income and resource poor farmers are key priorities for India in the negotiations.

India has been working constructively with her coalition partners in developing country groupings such as the G-20 and the G-23 in order to achieve an outcome in the agricultural negotiations that would fully reflect the level of ambition of the Doha mandate and the interests of developing countries.

In the NAMA negotiations, India along with its coalition partners in the NAMA 11 has been negotiating for flexibilities that are both adequate and appropriate for protecting its sensitive sectors and nascent industries for the impact of tariff reductions or bindings.

During the mini-ministerial meeting held in July 2008 to finalise Agriculture and NAMA modalities, a Signalling Conference on Services was also held. At the conference, members signalled the openings in various service sectors that can be expected in the forthcoming offers. India 'signalled' that it has already put an ambitious revised offer on the table and the ability to respond further would depend on the response to India's requests and disciplining of domestic regulations. The EC and the US also gave signals indicating improvements in their Mode 4 offers. However, these signals were unambiguous in terms of the improvements being offered by them. Since the modalities on the agriculture and NAMA could not be finalized, no timelines were fixed with regard to the tabling of the draft offers and the finalization of offers.

India is very keen to take the services negotiations forward as these contribute to more than 55% of our GDP and a substantial portion of our trade. Services are a major driver of India's economic growth and development and provide opportunities for gainful employment.

We also have major concerns in the area of Fisheries Subsidies, which form part of the Rules Negotiations.

These are, however, not the only issues on which the WTO negotiations have shown a lack of progress. Multilateral negotiations in the WTO cover Agriculture, Non-Agricultural Market Access, Services and several other areas such as Trade-related Intellectual Property Rights and Trade and Environment as part of a 'single undertaking'.

In the WTO, decisions on any issue are taken on the basis of consensus amongst its Members, which number 153 at present. The negotiations have stalled from time to time due to differences in the views of Members on a number of issues.

Duty Free Tariff Preference Scheme of LDCs

There has been a growing acceptance globally that the Least Developed Countries (LDCs) have to be provided integrated development assistance to help in their economic development. With this in view, it was decided during the WTO's Hong Kong Ministerial Meeting held in December 2005 that all developed countries, and developing countries declaring themselves in a position to do so, would provide Duty Free Quota Free market access for all products originating from all LDCs.

In line with the above mandate, the Prime Minister of India announced the DutyFree Tariff Preference (DFTP) Scheme for the 49 LDCs (33 in Africa) on 8 April, 2008. The Scheme provides duty free and preferential duty access on 94% of India's total tariff lines. Specifically, the Scheme provides preferential market access on tariff lines that comprise 92.5% of global exports of all LDCs. Products of immediate interest to Africa which are covered in the Scheme include cotton, cocoa, aluminium ores, copper ores cashew nuts, cane sugar, ready-made garments, fish fillets and non-industrial diamonds.

For operationalising the DFTP Scheme, the beneficiary countries have to submit to the Government of India letters of intent and details of agencies/officials authorised to issue the certificates of origin. As of June 2009, letters of intent have been received from 19 LDCs (Benin, Burkina Faso, Cambodia, Eritrea, Ethiopia, Gambia, Cambodia, Lao PDR, Madagascar, Malawi, Maldives, Mali, Mozambique, Myanmar, Rwanda, Samoa, Senegal, Sudan, Tanzania and Uganda) out of which 8 have also submitted the details of agencies/officials authorised to issue the certificates of origin.

SPECIAL ECONOMIC ZONES

India was one of the first in Asia to recognise the effectiveness of the Export Processing Zone (EPZ) model in promoting exports, with Asia's first EPZ set up in Kandla in 1965. Seven more zones were set up thereafter. However, the zones were not able to emerge as effective instruments for export promotion on account of the multiplicity of controls and clearances, the absence of world-class infrastructure, and an unstable fiscal regime. While correcting the shortcomings of the EPZ model, some new features were incorporated in the Special Economic Zones (SEZs) Policy announced in April 2000. This policy intended to make SEZs an engine for economic growth supported by quality infrastructure complemented by an attractive fiscal package, both at the Centre and the State level, with the minimum possible regulations. The salient features of the SEZ Scheme are :-

- A designated duty free enclave to be treated as foreign territory only for trade operations and duties and tariffs.
- No licence required for import.
- Manufacturing or service activities allowed.
- SEZ units to be positive net foreign exchange earner within three years.
- Domestic sales subject to full customs duty and import policy in force.
- Full freedom for subcontracting.
- No routine examination by customs authorities of export/import cargo.

In order to impart stability to SEZ regime and to achieve generation of greater economic activity and employment through the establishment of SEZs, a Special Economic Zone Act has been enacted. The SEZ Act, 2005, supported by SEZ Rules, have come into effect on 10th February 2006. Incentives and facilities offered to units in SEZs under the Act, for promotion of investment, including foreign investment include: duty free import/domestic procurement of goods for development, operation and maintenance of SEZ units, 100% Income Tax exemption on export income for SEZ units under Section 10AA of the Income Tax Act for first 5 years, 50% for next 5 years thereafter and 50% of the ploughed back export profit for next 5 years, exemption

from Central Sales Tax, exemption from Service Tax and single window clearance mechanism for establishment of units.

All the 8 Export Processing Zones (EPZs) located at Kandla and Surat (Gujarat), Santa Cruz (Maharashtra), Cochin (Kerala), Chennai (Tamil Nadu), Visakhapatnam (Andhra Pradesh), Falta (West Bengal) and Noida (U.P.) have been converted into Special Economic Zones. In short span of about three years, SEZs Act and rules were notified in February, 2006. So far formal approvals have been granted for setting up of 576 SEZs out of which 319 have been notified. Out of the total employment provided to 3.87 lakh persons in SEZs as a whole, 2.53 lakh persons is incremental employment generated after February, 2006 when the SEZ Act came into force. This is apart from the million of mandays of employment created by the developer of infrastructure activities. Physical exports from SEZs have increased from Rs. 66,638 crore in 2007-08 to Rs. 99,689 crore in 2008-09, registering a growth of 50%. There has been overall growth of export of 620% over past five years (2004-09). These figures establish beyond doubt that the response to the SEZ policy of the Central Government has been overwhelming and the scheme has been able to achieve the envisaged objectives. An investment of Rs. 1,08,903 crore has been made in SEZs. This includes Foreign Direct Investment of US \$ 2.29 billions.

Exports from the functioning SEZs during the last five years are as under:

Year	Value (Rs. Crore)	Growth Rate (over previous Year)
2004-2005	18,314	32%
2005-2006	22,840	24.7%
2006-2007	34,615	52%
2007-2008	66,638	92%
2008-2009	99,689	50%

A total of 91 SEZs are making exports. Out of this 43 are IT/ITES, 13 Multi product and 35 other sector specific SEZs. The total number of units in these SEZs is 2263.

Impact of the scheme

The overwhelming response to the SEZ scheme is evident from the flow of investment and creation of additional employment in the country. The SEZ scheme has generated tremendous response amongst the investors, both in India and abroad, which is evident from the following details of certain SEZs which have recently come up:

- Nokia Special Economic Zone in Tamilnadu (Telecom equipments SEZ).
- Mahindra City SEZ, Tamil Nadu (Apparels and fashion accessories; IT/hardware; auto ancillary).
- Apache SEZ (Adidas Group) in Andhara Pradesh (Footwear SEZ).
- Mundra Port and Special Economic Zone, Gujarat (Multi product SEZ).
- Moser Baer SEZ, Noida, Uttar Pradesh (SEZ for Non-conventional energy incl. solar energy equipment).
- Wipro Limited, Andhra Pradesh (IT SEZ).

- Divvy's Laboratories Limited, Andhra Pradesh (Pharma SEZ).
- Flextronics SEZ in Tamil Nadu (Electronic Hardware SEZ).
- ETL Infrastructure IT SEZ, Tamil Nadu (IT SEZ).
- Wipro Limited, Karnataka - 2 SEZs in Sarjapur and Electronic City (IT SEZ).
- Biocon Limited, Karnataka (Biotech SEZ).
- Serum Bio-Pharma Park, Maharashtra (Pharma SEZ).
- Manyata Promoters Private Limited, Karnataka (IT/ITES SEZ).
- Chandigarh Administration, Chandigarh (IT SEZ).
- Hyderabad Gems Limited, Hyderabad (Gems and Jewellery SEZ).
- Maharashtra Airport Development Corporation Limited, Maharashtra (Multi product SEZ).
- Reliance JamnagarInfrastructure Ltd. (Multi Product).
- Suzlon Infrastructure Ltd. (Hi-tech Engineering Products & related services).

TRADE WITH AFRICAN COUNTRIES

Since independence India has had cordial and friendly trade relations with Africa in general. Trade relations expanded considerably since 1947, particularly after the transition into 2nd millennium. India's trade with Africa since 2005-06 is given below :

INDIA - AFRICA TRADE

(Value in US \$ millions)

Year	Exports**	Imports	Total Trade
2005-06	6,993.53	4,878.56	11,872.09
2006-07	10263.96	14,726.67	24,990.63
2007-08*	14,196.09	20,497.65	34,693.74
2007-08 (April 07-Feb 08)*	12,716.42	18,789.23	31,505.65
2008-09 (April 07-Feb 08)*	12,857.06	22,853.51	35710.57

* Including Oil in Import figures

** Including Petroleum Product exports from India

Total trade (including oil) with Africa during 2007-08 amounted to US \$ 34693.74 million with exports amounting to US \$ 14196.09 million and imports at US \$ 20497.65 million. The oil inclusive trade turnover during April 2008-February, 2009 has been US \$ 35710.57 million with exports at US \$ 12857.06 million and imports amounting to US \$ 22853.51 million. The corresponding figures during April 2007 - February 2008 were US \$ 31505.65 million (total trade), \$ 12716.42 million (exports) and \$ 18789.23 million (imports) respectively. If oil is factored out, India enjoys a positive trade balance with Africa.

During 2007-08, the total commodity trade (excluding oil) between India and African countries was US \$ 16,586.60 million as against US \$ 12,445.36 million in 2006-07, thereby registering a growth of 33.27%. India's exports to the African countries

increased by 33.42% from US \$ 7,668.81 million in 2006-07 to US \$ 10,231.75 million in 2007-08. India's imports from the African countries also increased by 33% from US \$ 4,776.55 million in 2006-07 to US \$ 6,354.85 million in 2007-08.

Commodity trade turnover with West African countries was US \$ 4507.19 million during 2007-08 as compared to US \$ 3214.89 million during 2006-07, indicating a 40% growth. Transport equipments, drugs, pharmaceuticals & fine chemicals, rice (other than Basmati), manufactures of metals and machinery and instruments were the major items of export. Metalifer ores & metal scrap, cashew nuts, wood and wood products, inorganic chemicals and fertilizers and crude were the major items of import. Nigeria was the top most trading partner within this region with a trade of US \$ 1162.89 million during 2007-08 as compared to US \$ 978.40 million during 2006-07, reflecting a growth of 18.85%.

Commodity trade with countries in Southern Africa was US \$ 6014.24 million during 2007-08 as compared to US \$ 4600.12 million during 2006-07, indicating a growth of 37.74%. Transport equipments, drugs, pharmaceuticals and fine chemicals, machinery and instruments, primary and semi finished iron and steel and rice (other than Basmati) were the major items of export. Gold, Metalifers ores & metal scrap, inorganic chemicals, coal and non-ferrous metals were the major items of import. South Africa was the top most trading partner within this region with a trade of US \$ 5200.09 million during 2007-08 as compared to US \$ 3906.73 million during 2006-07, reflecting a growth of 33.10%.

Commodity trade with countries of North Africa was US \$ 3418.77 million during 2007-08 as compared to US \$ 2748.79 million during 2006-07, indicating a growth of 24.37%. Transport equipments, manufactures of metals, machinery & instruments and non ferrous metals were the major items of export. Fertilizers, manufactured, organic chemicals, inorganic chemicals, Metalifers ores and metal scrap were the major items of import. Egypt was the top most trading partner within the region with a trade of US \$ 1438.85 million during 2007-08 as compared to US \$ 951.15 million during 2006-07, reflecting a growth of 51.27%.

Commodity trade with countries of East Africa was US \$ 2341.83 million during 2007-08 as compared to US \$ 1650.83 million during 2006-07, indicating a growth of 41.85%. Primary and semi finished iron & steel, machinery & instruments, drugs, pharmaceuticals & fine chemicals, sugar and manufactures of metals were the major items of export. Cashew nuts, pulses, Metalifers ores and metal scrap, inorganic chemicals and spices were the major items of import. Kenya was the top most trading partner within this region with a trade of US \$ 748.68 million during 2007-08 as compared to US \$ 541.24 million during 2006-07, reflecting a growth of 38.22%.

Commodity trade with countries of Central Africa was US \$ 304.48 million during 2007-08 as compared to US \$ 230.72 million during 2006-07, indicating a growth of 32%. Drugs, pharmaceuticals & fine chemicals, machinery & instruments, transport equipments, manufactures of metals and plastic and linoleum products were the major items of export. Metalifers ores and metal scrap, pulses, cotton raw, tea and non ferrous metals were the major items of import. Uganda was the top most trading partner within this region with a trade of US \$ 167.51 million during 2007-08 as compared to US \$ 110.85 million during 2006-07, reflecting a growth of 51%.

PTA with SACU

The Southern African Customs Union (SACU), the oldest Custom Union of the world, comprises South Africa, Lesotho, Swaziland, Botswana and Namibia. India and SACU have expressed their intent to enter into a Preferential Trade Agreement (PTA) with the aim of promoting expansion of trade between the two parties and providing mechanism to negotiate and conclude a comprehensive Free Trade Agreement within a reasonable time. India and SACU have commenced negotiations for PTA in October, 2007 and three meetings of the negotiating teams have taken place so far. India and SACU signed a Memorandum of Understanding, an enabling instrument to facilitate negotiations, during the third round of negotiations held in New Delhi on 25-27 November 2008.

CECPA with Mauritius

A Comprehensive Economic Cooperation and Partnership Agreement (CECPA) aimed at boosting bilateral trade, investment and general economic cooperation between India and Mauritius is being negotiated.

Focus Africa Programme

The "Focus Africa" Programme was initially launched with focus on seven countries of Sub-Saharan African (SSA) Region, viz., South Africa, Nigeria, Mauritius, Tanzania, Kenya, Ghana and Ethiopia. With a view to further widen and deepen India's trade with Africa, the scope of this Programme was further extended to include Angola, Botswana, Ivory-Coast, Madagascar, Mozambique, Senegal, Seychelles, Uganda, Zambia, Namibia and Zimbabwe, along-with the six countries of North Africa, viz., Egypt, Libya, Tunisia, Sudan, Morocco and Algeria. Under this Programme, the Government extends assistance to exporters and Export Promotion Councils etc. to visit countries in Africa and organize trade fairs and also sponsors African trade delegations to visit India. A number of export promotion activities were conducted by various Export Promotion Councils and Apex Chambers with grant under MDA and MAI Scheme. The Focus Africa Programme is continuing for the seventh year during 2008-09.

Bilateral Cooperation

Issues pertaining to trade and economic cooperation between India and African countries are reviewed through Joint Commissions and Joint Trade Committees. The second meeting of the India-Namibia Joint Trade Committee was held at Walvis Bay (Namibia) on 18-19 February, 2008. The fifth meeting of the India-Ethiopia Joint Trade Committee was held in Addis Ababa on 7th October, 2008 and the fifth meeting of the India-Kenya Joint Trade Committee was convened in New Delhi on 16-17 December, 2008. India and Zambia held a bilateral meeting on 17 September 2008 in New Delhi to review the trade and economic cooperation between the two countries.

Business to Business interactions have also been encouraged between Apex Indian Chambers and their African counterpart Chambers with a view to further enhance trade & investment relations between India and African Countries. High level bilateral meetings and visits by trade and industry delegations are also organized with a view to strengthening trade and economic partnerships between India and African countries. Two such multi-disciplinary high level delegations visited Angola and Namibia during March-April, 2008 and the Democratic Republic of Congo during June, 2008.

INDIA'S TRADE WITH AFRICA

(in Rs. crore)

Year	Exports**	Imports	Total Trade
1960-61	40	63	103
1970-71	129	169	298
1980-81	350	205	555
1990-91	668	959	1,627
2000-01	10,764.95	9,410.7	20,175.65
2001-02	13,766.99	12,435.34	26,202.33
2002-03	15,156.11	16,636.23	31,792.34
2003-04	17,683.56	14,702.80	32,386.36
2004-05	25,036.30	18,003.89	43,040.19
2005-06	30,982.78	21,599.09	52,561.87
2006-07*	46,407.31	66,663.33	1,13,070.64

* Including Oil in Import figures

** Including Petroleum Product exports from India

INDIA-EUROPE TRADE

Europeans countries account for about 21.5 per cent of India's total trade while India's exports to Europe during 2006-07 were US\$ 28.87 billion. During this year, bilateral trade increased by 26 per cent over 2005-06. While India's export to Europe recorded a growth of 17 per cent, India's import from Europe grew by 33 per cent. The top five items of India's exports to Europe are ready-made garments including accessories, gems & jewellery, machinery & instruments, petroleum (crude & products) and transport equipment. The top five items of India's imports from Europe are machinery (except electrical & electronics), pearls/precious, semi-precious stones, electronic goods, transport equipments and iron & steel.

Trade and Investment relations with European Union

The European Union (EU) presently consists of 27 countries. These countries are Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, UK, Bulgaria and Romania.

India and EU enjoy healthy economic relations. These relations have been built on the foundation of (i) India-EU Cooperation Agreement on Partnership and Development which came into effect in August, 1994 and (ii) India-EU Strategic Partnership which was announced in September, 2005. India also has bilateral economic Agreements with a number of individual EU countries in the areas of trade, investments and avoidance of double taxation. India has agreements for investments and promotions/protections with 22 countries of Europe, including 17 countries of EU. Similarly, agreements for avoidance of double taxation exist with 26 countries in EU.

India-EU bilateral relations are reviewed at the official level by the India-EC Joint Commission. This had its last meeting in July 2008. Three Sub-Commissions on Trade, Economic Cooperation and Development Cooperation and nine Joint Working Groups on agriculture and marine products, textiles, information technology & communications, consular matters, environment, steel, food processing industries, pharmaceuticals & bio-technology and technical barriers to trade (TBT)/sanitary and phyto sanitary (SPS) issues are functioning and their reports are considered by Joint Commission.

MMTC

MMTC Limited is India's largest trading company with an annual business turnover close to US \$ 8 billion. It is the largest exporter of Minerals and Ores from India, leading exporter/importer of Agro commodities, single largest importer/supplier of Bullion, a major player in the Coal and Hydrocarbons and Non-Ferrous Metals imports by the country and one of India's largest buyers of Finished Fertilizers and Fertilizer Raw Materials. The company commands extensive market coverage in over 65 countries in Asia, Europe, Africa, Oceania and America, etc. The domestic network of MMTC in India spreads across a number of offices, warehouses and retail outlets.

MMTC, currently holding the no. 1 rank amongst Trading Companies in India, has in 2008-09 further improved upon its already impressive performance by achieving record level topline and bottomline consecutively in the fifth year by registering its highest ever turnover of Rs. 36,905 crore. During the fiscal year 2008-09, the company achieved its best ever exports of Rs. 4,580 crore, all time high imports of Rs. 30,767 crore and domestic trade of Rs. 1,558 crore. MMTC earned net profit after tax of Rs. 165 crore during 2008-09.

As a strategy to diversify and add value to its trading operations, MMTC has earlier set up Neelanchal Ispat Nigam Limited (NINL) - an iron and steel plant of 1.1 million tonne capacity and a 0.8 million tonne coke oven plant with captive power plants, jointly with the Government of Orissa at a total capital outlay of nearly Rs. 2000 crore.

MMTC has also promoted a wholly-owned foreign subsidiary namely, MMTC Transitional Pte. Ltd. (MTPL) with a share capital of US\$ 1 million under the laws of Singapore in October 1994 as a part of its strategy to enhance its presence in South & South East Asian Countries, which holds the prestigious "Global Trader" status awarded to it by International Enterprise, Singapore in 2000. During the year 2008-09, MTPL achieved its highest ever business turnover of US\$ 687 million and generated a Profit after tax of US\$ 6.8 million. The net worth of MTPL stood at US\$ 15 million as on 31st March 2009.

Besides keeping its position intact in its core area of activities, MMTC also associates itself in promotion and development of trade related infrastructure. Aiming at diversification and to add value to trading operations, MMTC has taken various strategic initiatives following public-private partnership route, which include, in broad terms, setting up of a commodity exchange, a Currency Exchange and putting up a Gold/Silver medallion manufacturing unit, which would also include a Gold refinery as an integral part. For effective marketing of the finished products from this unit, as well as jewellery from other sources, MMTC plans to set up in partnership with a leading Indian company, a chain of retail stores at various cities in India for medallions, jewellery and its home grown brand of 'SANCHI' silverware. As a

measure of investing in mining infrastructure MMTC is promoting a joint venture company for exploration and development of mines for minerals, ferrous and non-ferrous ores, precious metals, diamonds and coal etc. MMTC had also applied for and has been allotted a coal mine in Jharkhand having estimated reserves of about 700 million MT of both cooking and thermal coal. MMTC has also applied for iron ore mining leases which will be a precursor to setting up of an iron ore pelletization plant for adding value to iron ore sourced from such mines.

In the area of logistics, MMTC has already promoted development of a temporary jetty at Ennore port for loading iron ore to decongest Chennai port. MMTC is also a member of a consortium which is constructing permanent iron ore loading berth at Ennore which is expected to be commissioned by early 2010. MMTC is also a partner in another consortium, which has been awarded the project for construction of a deep draft iron ore berth at Paradip port as well. Moreover, to facilitate promotion of two ways trade MMTC took lead in setting up free trade and warehousing zones at Greater Noida, Haldia and Kandla.

MMTC has also already acquired railway rakes under the 'Own Your Wagon Scheme' of the Indian Railways, besides commissioning a crushing & screening plant in Bellary-Hospet sector to produce caliberated lumpy iron ore. MMTC has entered into clean power sector that is environment and eco-friendly by setting up and operating a 15 MW Wind Power farm in Karnataka.

8 Communications

POSTS

THE establishment of the modern postal system in India can be traced back to the second half of the 18th century. This postal system, established by Lord Clive in the year 1766, was further developed by Warren Hastings by establishing the Calcutta G.P.O. under a Postmaster General in the year 1774. In the other Presidencies of Madras and Bombay, the General Post Offices came into existence in 1786 and 1793 respectively. The Act of 1837 first regulated the Post Office on a uniform basis to unite the post office organisation throughout the three Presidencies into one all-India Service. The Post Office Act of 1854 reformed the entire fabric of the postal system, and the Post Office of India was placed on the present administrative footing one hundred and fifty four years ago on 1st October 1854. The statute presently governing the postal services in the country is the Indian Post Office Act, 1898.

Besides providing postal communication facilities, the post office network has also provided facilities for remittance of funds, banking and insurance services from the latter half of the 19th century.

POSTAL NETWORK

At the time of Independence there were 23,344 post offices throughout the country. Of these 19,184 post offices were in the rural areas and 4,160 in the urban areas. As on 31 March 2008 the country has 1,55,035 post offices, of which, 1,39,173 are in rural areas and 15,862 in urban areas. As a result of this seven-fold growth in the postal network, today India has the largest postal network in the world.

Expansion of the postal network especially in the rural areas, has to a great extent been brought about by opening part time Extra Departmental Post Offices, a system unique to the Department of Posts. Under this system, local residents are employed, subject to fulfilment of certain criteria, to man the post office for a period not exceeding five hours and to deliver and convey mails on payment of a certain allowance. On an average in India, a post office serves an area of 21.20 sq km, and a population of 7174. Post Offices are opened subject to satisfaction of norms regarding population, income and distance stipulated by the Department. There is an element of subsidy for opening post offices in rural areas, which is to the extent of 85% of the cost in hilly, desert and inaccessible areas, and 68 per cent of the cost in normal rural areas.

The postal network consists of four categories of post offices, viz, Head Post Offices, Sub-Post Offices, Extra Departmental Sub-Post Offices and Extra Departmental Branch Post Offices. All categories of Post Offices retail similar postal services, while delivery function is restricted to specified offices. In terms of management control, accounts are consolidated progressively from Branch Post Offices to Sub-Post Offices and finally in Head Post Offices.

The Department has about 2.18 lakh departmental employees and about 2.76 lakhs Gramin Dak Sevaks as on 31 March 2009. Their training needs are met through a well-developed training infrastructure.

MAIL SYSTEM

First-class mail, viz., post cards, inland letter cards and envelopes, are given airlift wherever found advantageous, without any surcharge, between stations connected by air. Second-class mail, viz., book packets, registered newspapers and periodicals are carried by surface transport, i.e., trains and road transport.

NEW MAIL PARADIGM

The mail profile in India Post has changed substantially with increase in volume of mail in Business-to-Customer (B2C) and Business-to-Business (B2B) segments. In line with this, India Post has designed a new mail paradigm whereby technology would be leveraged to create focal points for expeditious delivery of mails. Mail Business Centres (MBCs) with state-of-the-art technology and modern mailing tools are being designed as an integrated mail business-hub for collection, processing and delivery of (bulk) mail. Up to March 2009, 161 Mail Business Centres have been established in the country.

The Department also plans to establish Automatic Mail Processing Centres in major cities in the country for faster processing and delivery of mail. In order to resolve problems associated with transmission of mail, the Department had inducted its first dedicated freighter aircraft for carriage of mail, parcel and logistics in the North East Region. The aircraft operates on Kolkata-Guwahati-Imphal-Agartala-Kolkata route on a daily basis. With a view to bring in greater, consistencies in mail transmission, the Department has plans to introduced two more freighter aircraft on major metro centre (in addition to the NE service) in a hub and spoke manner for air transportation.

INTERNATIONAL MAILS

India is a member of the Universal Postal Union (UPU) since 1876 and of the Asian Pacific Postal Union (APPU) since 1964. These organisations aim at extending, facilitating and improving postal relations among other countries. India exchanges mail with more than 217 countries by air and surface.

Money can be remitted from selected foreign countries to India by way of money orders. India has money order services with 27 countries. India has two-way money order service with Bhutan and Nepal, wherein money orders can be sent to and received from these countries. With the remaining 25 countries, only inward service is available where money orders booked in these countries can be paid in India.

International EMS, which started in 1986 with five countries, has now been extended to 97 countries. With a view to facilitate export and import to and from foreign destinations, principal foreign offices of exchanges have been set up at Mumbai, Kolkata, Chennai and Delhi. In addition, six sub-foreign post offices have been established at Ahmedabad, Bangaluru, Jaipur, Cochin, Srinagar and Noida for both import and export. Export Extension Windows have also been made operative at Varanasi, Kanpur, Surat, Ludhiana, Moradabad and Guwahati to cater to the needs of the exporters/tourists in these areas.

The department has introduced electronic International Money Order service (Inward) through International Financial System Software developed by Universal Postal Union (UPU) to provide fast, reliable efficient and up to date remittance service to the customers, the expansion of this service to more countries is under consideration.

In order to ensure higher standards of quality performance in transmission of delivery of international mail, a scheme viz. UP-gradation of International Mail processing Facilities at the Office of Exchange has been implemented under 11th five-year plan.

BUSINESS DEVELOPMENT ACTIVITIES

A Business Development Directorate was set up in 1996 with the objective of marketing and promoting premium services for meeting the needs of specific customer segments. It was reorganised into Business Development and Marketing Directorate w.e.f 1st April 2005, to provide a sharper focus on marketing of the whole continuum of postal products. A separate Parcel and Logistics Division has been created in the Business Development and Marketing Directorate w.e.f. the same date to focus attention on parcel products. Some of the premium services offered by the Department are given below:

Speed Post: Speed Post service was introduced on 1st August 1986. Under this service, letters, documents and parcels are delivered within a given time frame failing which full refund of postage is given to the customer. The Speed Post Network comprises 266 National and 857 State Speed Post Centres. This service is also available internationally to 97 countries.

An Internet based track and trace service speed net was launched on 3^d January 2002. Apart from providing tracking facility for Speed Post articles to the customers, it also provides information to the management about the quality of service, business performance, marketing customer service etc. It is now operational from all 315 National Speed Post Centres and 857 State Speed Centres.

Business Post: The Department launched Business Post with effect from 1st January 1997 in order to meet specific needs of bulk customers for pre-mailing activities. Accordingly, it provides value addition to all traditional services offered by the Post in the form of collection, insertion, addressing, sealing, franking etc. Recently, printing of bills, financial statements, mailers etc. have also been included among the pre-mailing services extended to customers under Business Post.

Bill Mail Service: Bill Mail Service was introduced w.e.f 15th September, 2003 to provide a cost effective solution for mailing of periodic communication in the nature of financial statements, bills, monthly account bills or other items of similar nature, which may be posted by service providers to their customers.

A National Bill Mail Service was launched in February 2005 that allows Bill Mail Service items meant for outstation destinations also to be bundled in package, which can be sent to destination cities as Speed Post, Express Parcel Post etc. on payment by the sender. The individual bills in the package are charged only at Local Bill mail service rates.

Express Parcel Post: The Express Parcel Post seeks to provide a reliable and time bound parcel service through surface transport. It provides door-to-door delivery and VPP service upto Rs 50,000 to cater to corporate users and business establishments on contractual basis. Express Parcel Post can be booked in 315 stations in the country, where National Speed Post Centres exist.

Logistics Post: A Logistics Post service was introduced by the Department in 2004-05. This service has already started in many Postal Circles. Logistics Post is designed to carry consignments from point to point without any maximum limit. Value added services like pick-up, delivery, track and trace are also being provided in Logistics Post.

Media Post: The Department offers a unique media to help the corporate and government organisations reach potential customers through Media Post. Under this facility, customers can use the following for their branding exercise: (a) Advertisement on Postcards, Inland Letter Cards, Aerogram and other Postal Stationery. (b) Space sponsorship options on letter-boxes.

Retail Post: Through its vast network of more than 1.5 lakh post offices, the Department offers the facility to collect all public utility bills and sale of application forms for government and other private organisations. Sale of application forms for UPSC etc., surveys through postmen, address verifications through postmen, collection of loan applications through postal network etc. are some of the activities undertaken under Retail Post.

Direct Post: Many countries have identified Direct Marketing/Advertising mail as an important component of business mail with high potential for growth. With high economic growth, Direct Mail volumes are expected to grow significantly in India also. A service called Direct Post was introduced w.e.f. 2nd June, 2005 to deal with delivery of un-addressed mail to the doorsteps of the target population. A new Direct Post value addition has also been introduced from 18th April, 2006, allowing advertising mail to be combined with transaction mail like bills etc.

e-Post: e-post service, launched on 30th January, 2004, utilises the last mile advantage provided by the Department to enable people to send and receive message or scanned images through e-mail in all post offices in the country. People who would not normally have access to internet are able to send and receive e-mail messages without possessing an e-mail ID, thereby bridging the digital divide. To make it useful for business also, a corporate version of e-post was also launched on 18th October, 2005, which allows simultaneous sending of e-post to a maximum of 9999 addresses.

e-Bill Posts : A new service, called e-bill Post has been launched by the Department as one of the technology enabled services for the customers. Presently this service is available at Bangaluru and Kolkata and is likely to start in other cities very soon. This has been designed keeping in view the requirements of the clients. The service is useful for payment of electricity, telephone, mobile, water and other kinds of bills/dues at the Post Office counters by the users. The user can go to a nearby Post Office and pay their utility bills.

PHILATELY

Indian postage stamps provide a kaleidoscopic glimpse of our historical and natural heritage and the rich diversity of our culture and traditions. Covering a wide range of themes, the stamps also commemorate important national and international events, the contributions of renowned personalities and institutions and our achievements in various fields like sports, arts, science and technology etc. These stamps are very popular.

India Post has participated in Olympics Post Expo Beijing 2008 during the Olympic games held at Beijing & World Philatelic Exhibition Praga 2008 at Prague during the last year. With the spirit of creating environment of mutual respect and cooperation, the Indo-China joint issue of stamps was released in Beijing as well as in New Delhi. State level Philatelic Exhibitions were also organized by Bihar, Jharkhand, Delhi, Haryana, Gujarat, Tamil Nadu, Punjab, Uttar Pradesh, Karnataka & Chattisgarh Circle. The Department marked the National Girl Child

Day with the release of stamps. Stamps on Louis Braille's Birth Bicentenary, St Paul's Church, Sant Santaji Jannade Maharaj, Baburao Puleshwar Shedmake were among the stamps released in 2009.

The philatelic items like commemorative postage stamps, miniature sheets, first day covers, information brochures, post cards and maxim cards etc. are available through 68 Philatelic Bureaux and 881 Philatelic Counters across the country.

FINANCIAL SERVICES

(i) Post Office Savings Bank: The Post Office Savings Bank (POSB) operates the Small Savings Schemes of Govt. of India, Ministry of Finance, on an agency basis. It operates more than 170 million Savings Accounts. The POSB operates out of more than 1.54 lakh Post Offices spread across the country. The rural network of POSB itself extends to as many as 1.38 branches. At present the schemes being operated through POSB are: Savings Account Schemes, Recurring Deposit Schemes, Time Deposit Schemes (1, 2, 3 & 5 years), Monthly Income Schemes, Public Provident Fund Schemes, Kisan Vikas Patras Scheme, National Savings Certificate (VIII Issue) and Senior Citizens' Savings Schemes-2004.

(ii) Money Order: A "Money Order" is an order issued by the Post Office for payment of a sum of money through the agency of Post Office. The amount for which a single money order may be issued must not exceed Rs. 5000/-. This service is available in more than 1.5 lakh Post Offices covering every nook and corner of the country. This allows customers to remit their money anywhere in India without any haste and with ease and they can receive money at their doorstep.

MONEY ORDER

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OTHER FINANCIAL SERVICES

(i) International Money Transfer Service : This service, operated in association with a multinational company - Western Union Financial Services International, provides the customers the facility of receiving remittances from 205 countries and territories on a real time basis. The service is currently available at 8511 post offices. The service has provided the common man who has no bank account or access to Internet, a viable channel for receiving remittances from their relatives and family members abroad. The Department received the award in the years 2004 and 2005 for "Highest Growth in Transactions".

(ii) Instant Money Order (IMO) : Instant Money Order (IMO) is an online domestic money transmission service intended for a market clientele requiring instant money remittance. This service enables the customer to receive money in minutes from any of the post offices providing IMO service. The service was introduced on 20th January 2006. Under this service, a person can send amount from Rs. 1000/- up to Rs. 50,000/- in one transaction. Money will be disbursed to the payee at any of the IMO Post

Offices in India other than the office of booking on presentation of 16 digit IMO number and photo identity proof. Currently, the service is being offered by more than 1000 post offices across the country. This service is in the process of further expansion.

(iii) Postal Finance Mart : The concept of 'Setting up Postal Finance Marts' (PFM) envisages providing specialized value added financial services, in conformity with market standards, in a customer friendly environment, in an ergonomically improved Post Office. The PFM seeks to offer all the financial products and services of the Department under one roof-"One Stop Shop for Financial Services"-in a fully computerized office supported by technology, at par with reputed banking institutions. The PFM is a brand positioning exercise of financial services offered by the Post office Savings Bank on the lines of the personalized services offered by banks to customers. Therefore, the facilities offered through PFM is distinct from the services offered through Post Office not merely in terms of the ambience but also in the providing of specialized facilities like 'Investment Desk', being manned by AMFI qualified staff etc. The PFM will provide POSB services like Saving Bank, Recurring Deposit, Monthly Income Scheme, Term Deposit, Senior Citizen Saving Scheme, National Savings Certificates (VIII Issue), Kisan Vikas atriya, as well as other financial services like Postal Life & Non-life Insurance, Mutual Funds & Bonds, Government Securities, Pension schemes, International Money Transfer, Money Order etc.

(iv) Retailing of Mutual Funds and Bonds : Since February 2001, a growing network of over 1000 Post Offices are distributing select mutual funds of Principal, UTI, SBI, Franking Templeton and Reliance Mutual Fund. While extending the reach of the capital market of the country the service also provides the common man easy access to market based investment options.

(v) Accidental Death Insurance Cover to POSB account holders : Department of Posts in a tie up with Oriental Insurance Company Limited (OIC) is providing Accidental Death Insurance for SB/MIS/SCSS account holders on request basis. On 20th January 2006 this service was launched and is an add on product to the products already provided by OIC for sale from Post Office. It is a step in the direction of providing value addition to Post Office Savings Bank customers.

The scheme provides Accidental Death Insurance cover for one year of Rs. one lakh at a low premium of Rs. 15/- for the entire year. It is very attractive to Post Office Savings Bank customers especially in rural and remote areas, as most of them do not have any risk cover whatsoever.

(vi) Retailing Pension Products of ICICI prudential life Insurance through Post Offices: The Department of Post has signed an Agreement on 17.9.08 with the ICICI Prudential Life Insurance Company Ltd. to retail their Pension Products through select Post Offices on Referral Model. ICICI Prudential pays fee to Department of Posts at the prescribed percentage of the premium paid by the customers to whom the policies were issued based on the reference provided by India Post.

(vii) E-Money Order : The Department of Posts has launched eMO on 10.10.08. Electronic Money Order is a system that facilitates remittance of MOs electronically, for which post offices should have connectivity by WAN/ Broadband. These connected HOs and SOs will transmit eMOs for other connected HOs and SOs (including SOs and BOs in account with them). The advantages over

the traditional system would be reduced transmission time at no extra cost to the customer, besides, availability of MIS in the central database ensuring more efficient and improved quality of service.

(viii) Salient Features : The tariff structure would be same as that for ordinary MO with the following features :

- Messages in standard codes.
- Tracking facility through 18 digits PNR No.
- Bulk booking of eMOs on the basis of lists provided by the bulk remitter; uploading data available in soft copy.
- Payment of bulk eMOs through consolidated lies.
- MIS for sender and payee in the case of bulk booking/payment.

After payment, the post office of payment to upload payment particulars to the central server.

(ix) ECS Scheme : The Electronic Clearing Service is being offered in the Department of Posts at all the 15 locations of RBI and 21 locations of State Bank of India in connection with payment of monthly interest under "Monthly Income Scheme" (MIS). This scheme obviates the need for issuing and handling paper instruments and thereby facilitates, improved customer service by the Department of Posts.

NATIONAL RURAL EMPLOYMENT GUARANTEE ACT (NREGA)

The Government of India enacted the National Rural Employment Guarantee Act in September, 05 that seeks to provide for the enhancement of livelihood security of the households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in every financial year to every household. Department of Posts has been entrusted with the responsibility of disbursing wages of National Rural Employment Guarantee Scheme (NREGS) beneficiaries through Post Offices (including HOs/SOs/BOs). As on 31st March 2009 nearly 2.92 crores NREGS accounts have been opened in Post Offices and the amount of Rs. 3907 crores has been disbursed to the beneficiaries. In the Annual Plan for 2009-10, Department of Posts has been allocated Rs. 100 crores for implementation of this project as a Plan Scheme and it is expected that Post Offices will service upto five crores accounts by the end of 2009-10.

POSTAL LIFE INSURANCE

Postal Life Insurance (PLI) was introduced in 1884 as a welfare measure for Postal employees. Over the years, it was extended to the employees of Central/State Government, Public Sector Undertakings, Universities, Government-aided institutes, nationalized banks, financial institutions and Gramin Dak Sevaks of the Postal Department and Defence and Paramilitary personnel.

PLI offers seven insurance schemes, namely : (1) Suraksha (Whole Life Assurance); (2) Suvidha (Convertible Whole Life Assurance); (3) Santosh (Endowment Assurance); (4) Sumangal (Anticipated Endowment Assurance); (5) Yugal Suraksha (Joint Life Endowment Assurance for couple); (6) Children Policy (As on March 2006) and (7) Handicapped Policy. The total numbers of active policies stood at 38,41,539 as on 31.03.2009. Total corpus as on 31.03.2009 was 14152.59 crores.

The rural Postal Life Insurance (RPLI) was introduced by the PLI organization on 24th March 1995, to provide insurance cover at low premium to the common man

and to weaker sections of the society in rural areas. It is now allowed to continue on permanent basis. There are seven types of plans under RPLI, namely: (1) Gram Suraksha (Whole Life Assurance); (2) Gram Suvidha (Convertible whole Life Assurance); (3) Gram Santosh (Endowment Assurance); (4) Gram Sumangal (Anticipated Endowment Assurance); (5) Gram Priya (10 year Anticipated Endowment Assurance); (6) Children Assurance.; As on March 2009 and (7) Handicapped Policy. The total numbers of active policies were 73,56,446 as on 31.03.2009 and total corpus as on 31.03.2009 was Rs. 3994.36 crores.

CUSTOMER CARE

Since 1948, the Department of Posts has a well-established system of redressal of public grievances and presently over 1500 Computerized Customer Care Centres (CCCCs) have been established at the District Headquarters/Divisional Headquarters across the country for online exchange of information amongst all the units for speedy redressal of public grievances and to provide convenient point to the customer for redressal of grievance and feedback. This network covers all Head Post Offices in the country with the objective of providing easy and speedy access to information and help required by the customer, apart from the redressal of grievances. Each post office works as a receiving point for complaints making the system readily accessible for the customers. Since 2001, the Department has introduced the facility for customers to register their complaints online at its website www.indiapost.gov.in and since 2003, it has developed a web-based system to interconnect its customer care centres to redress grievance rapidly. The Department has implemented its Citizen's Charter in all Head Post Offices and large Sub Post Offices as also a large number of post offices selected for implementation of Project Arrow. The Charter is implemented in other sub Post Office also in mission mode. An updated Citizen's Charter is available on www.indiapost.gov.in it contains the vision, mission introduction about the organization, purpose of citizen's charter, postal services and facilities for the customers, postal products and services, delivery standards and customers expectation, complaints settlement mechanism, liability of the organization and administrative set up. The department has also initiated proactive steps of reaching out to its customers for their feedback through personal visits, telephone calls and questionnaires. India Post has got the IS 15700, 2005 certification for implementing "Sarvottam-service delivery excellence model for its retail outlet New Delhi GOP which awarded on 11 April 2008 and valid for three years. India Post gets the credit for being the first Government Department to implement this scheme.

Right to Information Act, 2005 : In addition to the implementation of RTI Act, 2005 within the Department, India Post is also providing a service to the general public under which the RTI application meant for certain specific central public authorities of other Central Government Ministries/Departments and organizations can be submitted to the designated CAPIOs at District/sub-District-level post offices. The applications so received would be promptly forwarded by the CAPIO to the concerned designated nodal officer of public authorities, with an acknowledgment to the applicant. CAPIO module developed by NIC for use of the department has been made functional at more than 4000 post offices. Offices selected under Project Arrow are being authorized to act as Central Assistance Public Information Officers (CAPIOs). Currently Department of Posts has authorized 778 offices all over the country to act as Central Public Information Officers. During the year 2008-09, Department of Posts

handled 25598 requests for information within the Department and 8265 requests for information on behalf of other Central Government/Ministries/Departments.

TECHNOLOGY INDUCTION

India Posts aims to provide enhanced customer and employee satisfaction along with increasing its revenue through induction of IT. The Department of Posts aims to leverage information technology to attain a position of leadership and excellence in delivery of postal services transforming the Department to a modern communications and financial services agency. The key initiatives undertaken during year 2008-09 are as under :

Computerisation and Networking of Post Offices : By the end of March 2009, the Department of Posts supplied computer and its peripherals like printers, scanner weighing scales, modems, etc. along with requisite power equipment like Gensets, UPS, etc. to all Head Post Offices and a large number of sub post offices. A Total of 9939 post offices have been computerised by March 2009. The National Information Centre (NIC) is also implementing a WAN (Wide Area Network) connecting all the Head Post Offices, Administrative Offices, Major Speed Post Centres and Accounts Offices. Till March 2009, 1274 offices have been linked through this network. National Data Centre has also been set up at New Delhi and Mysore and this Data Centre has been connected in the WAN.

PROJECT ARROW AND LAUNCH OF NEW LOGO

The Department of Posts has launched "Project Arrow" to revitalize its core operations and to provide new technology enabled services to the common man. The objective of the scheme is to give a new outlook to post offices by modernizing exterior and interior designs of the Post Office, upgrading infrastructure and enhancing core operation including IT enabled services and processes. So far this has been successfully implemented in 500 post offices in the country. As the project has been widely accepted and appreciated by the staff as well as the customers, it is being extended to another 500 post offices across the country. Funds to the extent of Rs. 65 crores has been allocated for this activity during 2009-10.

Under the Project Arrow, a New Logo for India Post has been launched on 23rd September 2008 at New Delhi. The new logo presents India Post as a forward looking and modern organisation, carrying emotion and expressions across physical distance. With the launch of the new logo, India Post aims to create a new and vibrant image of India Post, as a customer friendly and efficient organization.

TELECOMMUNICATIONS

The Telecommunication services were introduced in India soon after the invention of telegraphy and telephone. The first Telegraph line between Kolkata and Diamond Harbour was opened for traffic in 1851. By March 1884, telegraph messages could be sent from Agra to Kolkata. By 1900, telegraph and telephone had started serving Indian Railways. As in the case of telegraph, telephone service was also introduced in Kolkata in 1881-82, barely six years after the invention of telephone. The first automatic exchange was commissioned at Shimla in 1913-14 with a capacity of 700 lines.

The telecommunication services have improved significantly since independence with the sector witnessing a series of reform measures that included,

announcement of National Telecom Policy in 1994 that defined certain important objectives, including availability of telephone on demand, provision of world class services at reasonable prices, ensuring India's emergence as major manufacturing / export base of telecom equipment and universal availability of basic telecom services to all villages. Telecom Regulatory Authority of India (TRAI), the independent regulator was established in 1997 and New Telecom Policy was announced in 1999, which further laid stress on providing an enabling framework for the development of this sector and to facilitate India's vision of becoming an IT superpower and develop a world class telecom infrastructure in the country.

Since then, Indian telecom sector has come a long way in achieving its dream of providing affordable and effective communication facilities to its citizens. As a result common man today has access to this most needed facility. Larger efforts are continuously being made to provide universal service to all uncovered areas including rural areas. The other thrust areas include, building a modern and efficient telecommunications infrastructure, transforming telecommunications sector to a greater competitive environment with equal opportunities and level playing field for all players, strengthening research and development efforts in the country, achieving efficiency and transparency in spectrum management and enabling Indian telecom companies to become truly global players.

The reform measures coupled with the proactive policies of the Department of Telecommunications have resulted in an unprecedented growth of the telecom sector. Today, the Indian telecommunications network with about 494 million connections as on 31st August, 2009 is the third largest in the world. With its 457 million as on 31st August 2009 wireless phones, India has the 2nd largest wireless network in the world. India has emerged as a major base for the telecom industry worldwide and it is the endeavor of the Government to facilities further growth of this vital industry as it is not just the growth of a sector but it has 'multiplier effect' on the entire economy.

The structure and composition of telecom growth has undergone a substantial change in terms of mobile vs. fixed phones and public-private participation. The growth of wireless services has been phenomenal, with wireless subscribers growing at a compound annual growth rate (CAGR) of 61.54 per cent per annum since April 2004 upto 31.03.2009. Today, the wireless subscribers are not only much more than the wireline subscribers in the country, but also increasing at a much faster pace. The share of wireless phones has increased from 24.3 per cent in March 2003 to 92.44 per cent in 31st August 2009. Improved affordability of wireless phone has made universal access objective more feasible.

The liberalization efforts of the Government are evident in the growing share of private sector in total telephone connections, which has increased to 80.98 per cent in August 2009 from a mere 5 per cent in 1999.

Promotion of rural telephony and accessibility of telephones to remote areas is an important thrust area of the department. It is well recognized that a well spread out provision of telecom services in rural areas enhances the ability of people to participate in the market economy, which, in turn, improves their productivity and contributes to their earnings.

As on August 2009, there are 150.83 million phones in rural areas with a teledensity of 18.37% and the strategy for network expansion in rural areas mainly involves provision of phones in the viable areas through market mechanisms and through Universal Service Obligation Fund (USOD) in the non-viable areas. While

Village Public Telephone (VPTs) and Rural Community Phones (RCPs) will enable public access, a scheme of Rural Community Phones (RCPs) has been launched under USOF to create infrastructure in rural and remote areas.

Recognizing the potential of Broadband service in the growth of GDP and creation of an enabling environment for promoting knowledge based society, the Broadband policy announced in October 2004 has a vision of covering 20 million broadband subscribers by the end of 2010. It has been proposed in the Eleventh Plan targets to provide the broadband for all secondary and higher secondary schools, all Public Health Care Centers and Gram Panchayats.

As on August, 2009 there are 6.98 million broadband subscribers, which is a substantial increase from 0.18 million as on March 31, 2005.

Foreign Direct Investment (FDI) is one of the important sources to meet the requirement of huge funds for rapid network expansion. The FDI policy provides an investor-friendly environment for the growth of the telecom sector. The total FDI equity inflows in the telecom sector from April 2000 up to July 2009 have been Rs. 33264 crore which is 8% of the total FDI equity inflows in India during the period.

FDI in telecommunication sector has a bright future. Today, it is the third largest recipient of FDI after service (financial & non-financial) and computer hardware & software, which attract 23% and 11% respectively. Recently Government has issued Press Note No. 2/2009 regarding guidelines for calculation of total investment i.e. direct and indirect foreign investment in the Indian Company; and Press Note No. 3/ 2009 regarding guidelines for transfer of ownership or control of Indian Companies in sectors with caps from resident Indian citizens to Non resident entities.

The Government is working steadily towards addressing the issue of releasing additional spectrum from government use for the use of commercial telecom operators so that the growth of this dynamic sector is not constrained by the shortage of this vital resource. The Government also recognizes the need to take a forward-looking approach, based on an appreciation of changing technologies and to accelerate structural changes in this sector in line with trends in other countries to ensure that the telecommunication services are not only made available on the scale needed to sustain rapid growth in the economy as a whole but also that the quality and cost of these services come up to the requirements of a modernizing economy.

ACHIEVEMENTS OF DEPARTMENT OF TELECOM

Performance of Telecom Sector: The reform measures coupled with the proactive policies of the Government have resulted in an unprecedented growth of the telecom sector. As on August 2009, the Indian telecommunications network with about 494 million connections (overall tele-density 42.27%) is the second largest wireless network in the world. India is also the fastest growing telecom market in the world with an average addition of over 12 million subscribers per month.

The Department has been able to provide state of art world-class infrastructure as globally competitive tariffs and reduce the digital divide by extending connectivity to the unconnected areas. India has emerged as a major base for the telecom industry worldwide.

The overall teledensity has gone up more than six times from 7.02% in March 2004 to 42.27% in August 2009. The rural teledensity has increased more than eleven times from 1.57% to 18.37% during the same period. The total number of telephone connections have gone six fold from 76.5 million to about 494 million in August, 2009. Wireless connections have multiplied more than twelve times from 35.6 million to about 457 million.

Sharing of Infrastructure: Government has issued detailed guidelines on sharing of both active and passive infrastructure to different service providers in order to reduce input of telecom Access service providers and facilitate further reduction in tariff as well as enhanced tele-density in rural areas.

Broadband: As on August 2009, about 6.98 million broadband connections have been provided in 3935 cities, 5377 block headquarters, 625 district head quarters covering about 85,913 villages.

Broadband coverage will get a fillip with the setting up of 100,000 Common Service Centres (CSCs) covering all the village in the country. As on May 2009, 22,089 CSCs have been covered. They will provide internet access and benefit of e-governance to the common citizens.

Research & Development: The increased use of new technologies, the move towards corporatisation, competition and the separation of regulatory functions from operational services require advanced level policy, regulatory, managerial and technological expertise. In order to develop and strengthen the capability to generate this expertise. Telecom Centres of excellence (TCOE) have been established in Public Private Partnership (PPP) mode. There are seven TCOEs at the premier academic institutes at IITs, IIM Ahmedabad & Indian Institute of Science, Bangalore and each supported by a major telecom operator.

These centres have identified important projects in association with the industry and are working to generate a skilled talent pool, cutting edge research, customer centric regulatory framework and innovative business models for rural India with the ultimate vision to extend the education and economic benefits to the poorest of the poor through telecommunications.

A Telecom Entrepreneur Development Centres & Telecom Standard Development Centres are also being planned.

India Telecom 2008: India Telecom 2008, held in New Delhi from 11-13 December 2008, was inaugurated by the Hon'ble Prime Minister of India. The theme of India Telecom 2008 was "Connecting Rural India". The event provided networking & business opportunities for the different stakeholders of the entire telecom ecosystem. The Hon'ble Prime Minister also launched the 3G Mobile service in India by receiving a video call from the Hon'ble MOC&IT. The India Telecom 2008 exhibition held at Pragati Maidan was inaugurated by the Hon'ble MOC&IT.

India Telecom 2009: A Seminar on "How India can become a Leader in the Wireless World" was conducted to establish collaboration and provide platform for exchange of ideas with premier universities and research organizations of the world from different countries. The two-day conference discussed new growth drivers that are revolutionizing the telecom sector in India and around the world and focused on opportunities and challenges in providing seamless connectivity to rural India.

During the summit, there was a CEOs/MDs Round Table with Hon'ble MOC&IT. The focus was to have decision makers together at one platform to have a concrete discussion on taking the Indian Telecom sector to the next level and to share the Government's vision for the growth of telecom sector particularly in rural areas.

REGULATORY FRAMEWORK IN THE TELECOM SECTOR

In early 1997, the Telecom Regulatory Authority of India (TRAI) was established under the Telecom Regulatory Authority of India Act, 1997 to regulate the telecommunications services and for matters connected therewith or incidental thereto. The establishment of the Regulator was considered necessary in the context of liberalization and private sector participation in the telecom sector and to provide a level playing field for all operators.

By amendments made in early 2000 to the TRAI Act, the entire telecom regulatory framework, and the disputes settlement mechanism were strengthened. Besides bringing about clarity in the role and functions of the Regulator (TRAI), certain additional functions were also entrusted to it. A separate disputes settlement body known as the Telecom Disputes Settlement and Appellate Tribunal was also constituted for expeditious settlement of disputes vide a notification dated 9 January 2004 of the Government of India. Broadcasting and Cable Services also have been brought within the definition of "Telecommunication Services".

2. **Grameen Sanchar Sevak (GSS) Scheme** carry a mobile fixed wireless terminal (FWT) with display unit and visit door to door to provide telephone facility in rural areas. The scheme is also available to existing STD/ISD/PCO on franchisee basis. It is implemented in whole country except in A&N, Haryana and Punjab which are already having sufficient / full coverage.

As on 31-08-2009 around 10,421 villages are covered by 2,453 GSSs throughout the country. The GSS is entitled to 20% commission on all outgoing calls. The GSS can charge Rs. 5/- for passing on the message to the concerned persons in the village.

TARIFF REBALANCING MEASURES

In response to the policy changes in the Indian Telecom Sector, the tariff structure has been altered substantially. The tariff regulation for the telecommunications services in India was initiated with the notification of Telecommunication Tariff Order 1999 by the Regulator (TRAI). This Order provided the broad and long term tariff policy framework for telecommunications services in the country. The tariff envisaged in the order included rebalancing towards costs while emphasizing the social objective of encouraging low users of telecom to get connected and use the system more intensively. Over a period of time, this rebalancing exercise has resulted in reduction of NLD and ISD tariffs considerably. In the area of cellular telephony also, the tariff rates have decreased substantially. The impact of the various regulatory measures is very much visible in the Indian telecommunication sector. We have succeeded in achieving affordable tariffs and also putting in place a transparent subsidy mechanism for implementation of policies to meet social objectives. The Policy has succeeded in providing the financial sustainability of the operators, promoting efficiency in the sector and meeting the social objectives. The results are evident from the phenomenal growth in subscriber base and the decline in tariffs.

The initiatives taken by TRAI to achieve the set objectives include a cost based Interconnection usage charges (IUC) regime and Calling Party Pays (CPP) regime. TRAI continues to monitor tariffs for telecommunication services and the Quality of Services. While following the policy of tariff forbearance, for segments where the competition is perceived to be insufficient, TRAI has prescribed ceiling tariffs. Thus, tariff for rural areas, roaming services and leased circuits continue to be regulated.

UNIVERSAL SERVICE OBLIGATION FUND

1. Organizational Structure

1.1 The Universal Service Obligation Fund formed by an Act of Parliament is headed by the Administrator USO Fund who is assisted by Joint Administrator (Technical), Joint Administrator (Finance) and DDG (Broadband). His office works as an attached office of the Department of Telecom, Ministry of Communications and Information Technology.

1.2 Amendment of Telegraph Act

The Universal Service Support Policy came into effect from 01.04.2002. The guidelines for universal service support policy were issued by DoT and were placed on the DoT website on 27th March 2002. Subsequently, the Indian Telegraph Act, 1885 was amended vide the Indian Telegraph (Amendment) Act, 2003 giving statutory status to the Universal Service Obligation Fund (USOF) in December 2003. An ordinance was promulgated on 30.10.2006 as Indian Telegraph (Amendment) Ordinance 2006 to amend the Indian telegraph Act 1885 in order to enable provision of all types of telegraph services in rural and remote areas. Subsequently Indian Telegraph (Amendment) Act 2006 was passed on 29.12.2006.

1.3 Rules for administration of USOF

The Rules for administration of the Fund known as Indian Telegraph (Amendment) Rules were initially notified on 26.03.2004. The Rules were subsequently amended as Indian Telegraph (Amendment) Rules, 2006 in order to enable support for mobile services and broadband connectivity in rural and remote areas of the country and the same were published in gazette on 17.11.2006. The Rules were again amended as the Indian Telegraph (Amendment) Rules 2008 on 18.07.2008 for providing subsidy support to eligible operational sustainability of Rural Wireline Household DELs installed prior to 01.04.2002.

1.4 Resources of USO Fund

The resources for implementation of USO are raised through a Universal Service Levy (USL) which is 5% of the Adjusted Gross Revenue (AGR) of all Telecom Service Providers except the pure value added service providers like Internet, Voice Mail, E-Mail service providers etc. Annual License fee payable by Basis Telephone Service/ UAS Licensees for rural fixed wire-line services in rural areas has been exempted with effect from 01.10.2008. In addition, the Central Government may also give grants and loans. The balance to the credit of the Fund are being made through Parliamentary approvals.

2. Functions and objectives

2.1 The USO Fund was established with the fundamental objective of providing access to 'Basic' telegraphs services to people in the rural and remote areas at affordable and reasonable prices. Subsequently the scope was widened to provide subsidy support for enabling access to all types of telegraphs services including mobile

services, broadband connectivity and creation of infrastructure like OFC in rural and remote areas. As per the Rules, the following services shall be supported by the Fund namely:-

(i) **Stream-I** : Provision of Public telecom and Information Services -

- (a) Operation and maintenance of Village Public telephone in the revenue villages identifies as per Census 1991 and installation of Village Public Telephone in the additional revenue villages as per Census 2001 ;
- (b) Provision of additional rural community phones in areas after achieving the target of one Village Public Telephone in every revenue village ;
- (c) Replacement of Multi Access Radio Relay Technology Village Public Telephone installed before 1st day of April 2002;

Stream-II - Provision of household telephones in rural and remote areas as determined by the Central Government from time to time;

Stream-III: Creation of infrastructure for provision of mobile services in rural and remote area;

Stream-IV: Provision of Broadband connectivity to villages in a phased manner;

Stream-V : Creation of general infrastructure in rural and remote areas for development of telecommunication facilities;

Stream-VI: Induction of new technological developments in the telecom sector in rural and remote areas;

2.2 The implementation of USO related activities is carried out by the "eligible operators" as per the aforesaid Indian Telegraph (Amendment) Rules covering Basic Service Operators, Cellular Mobile Service Providers. Unified Access Services Licensees, Infrastructure Providers are both public and private sector companies. The implementation status of the activities being undertaken by the USO Fund is available on DoT website (www.dot.gov.in)

3. Current Status: Ongoing USF Schemes

3.1 Stream-I: Public Access

a) Village Public Telephones

i) Opex For Existing VPTs.

Agreements were signed with M/s BSNL and other Private Basic Service Operators (PBSOs) in March 2003 for operation and maintenance of existing Village Public Telephones (VPTs) in the country in the identified revenue villages as per Census 1991. In addition, subsidy support is also admissible for the VPTs installed in additional revenue villages as per census 2001. As on 30.09.2009, about 5.66 lakh villages i.e. 95% of the Census 2001 inhabited revenue villages are already covered with Village Public Telephones (VPTs) including the VPTs being provided under Bharat Nirman and Newly Identified Villages as in para ii) & iii) below.

ii) Uncovered VPTs Under Bharat Nirman

Agreements were signed with M/s BSNL in November 2004 to provide subsidy support for provision of VPTs in 62302 no. of uncovered villages in the country excluding those villages having population less than 100, those lying in deep forests and those affected with insurgency. The provided VPTs in these villages has been included as one of activities under Bharat Nirman Programme. As on 30.09.2009, 59800 VPTs i.e. about 96% of the VPTs have been provided. The remaining VPTs are likely to be provided in a phased manner by November 2009.

iii) Newly Identified VPTs

Reconciliation of the VPTs working in the inhabited villages as per Census 2001 has recently been carried out taking into account the existing VPT and those provided under Bharat Nirman. All the remaining 62443 inhabited villages as on 31.10.2008 as per Census 2001 irrespective of criteria of population, remoteness, accessibility and law & order situations have been included for provision of VPTs with subsidy support from USO Fund under this scheme. Agreements in this regard have been signed with BSNL on 27.02.2009. A total number of 32932 VPTs have been provided under this agreement as on 30.09.2009. the remaining VPTs are likely to be provided in a phased manner by February 2011.

b) Replacement of MARR based VPTs (MARR-A & MARR-B)

Agreements were signed with M/s BSNL for replacement of 1,85,121 number of VPTs with reliable technologies, which were earlier working on Multi Access Radio Relay (MARR) technology and installed before 01.04.2002. These included 7075 MARR VPTs already replaced before 30.06.2003 (MARR-B) and 138046 MARR VPTs to be replaced from 01.07.2003 onwards (MARR-A). A total number of 1,84,284 MARR VPTs have been replaced as on 30.09.2009. The remaining MARR VPTs are likely to be replaced by November 2009.

c) Provision of Rural Community Phones (RCPs)

Agreements were signed on 30.09.2004 for providing 40,705 Rural Community Phones (RCPs) [BSNL:21,958, RIL: 18,747] in villages with population more than 2000 and not having PCO facility. Out of these, 40691 RCPs have been provided till September 2009 as per details given below. The remaining RCPs are likely to be provided by December 2009.

Service Provider	Target	Achievement
BSNL	21958	21958
R C L	18747	18733
Total	40705	40691

3.2 Stream-II: Individual Access**a) Support for RDELs installed prior to 01.04.2002 (RDEL-D)**

Support has been extended to nearly 90.5 lakh rural household Direct Exchange Lines (RDELs) installed prior to 01.04.2002 towards the rental differential between the TRAI prescribed rental and the rental charged by the Service Provider. The support was for the limited period of 01.04.2002 to 31.01.2004.

b) Support for RDELs installed after 01.04.2005 (RDEL-A and RDEL-X)

Agreement were signed with M/s BSNL, M/sRIL, M/s TTL and M/s TTL. (MH) in March 2005 for installation of Rural Household Direct Exchange Lines (RDELs) during the period 01.04.2005 to 31.03.2007 (RDEL-A). These RDE:s are to be installed in 1685 Short Distance Charging Areas (SDCAs), where cost of providing telephone is more than the revenue earned. Subsequently the cutoff date for installation of the RDELs has been extended to 31.03.2010 (RDEL-X). As on 30.09.2009, about 66.8 lakh RDELs have been provided with subsidy support from USO Fund under this scheme.

c) Support for RDELs installed during 01.04.2002 and 31.03.2005 (RDEL-B)

Subsidy support on the same Representative Rate is also being provided for about 18,65,690 Rural DELs [BSNL: 18,26,923, RIL: 38,767] installed in the eligible SDCAs

during the period 01.04.02 and 31.03.05. Agreements to this effect were signed with M/s BSNL and M/s RIL in May 2005 and August 2005.

d) Support for operational sustainability of Rural Wireless Household DELs installed prior to 01.04.2002

A MoU has been signed with BSNL on 12.03.2009 wherein subsidy support of Rs. 2000 crore per annum for a period of three years shall be given from USOF to BSNL for operational sustainability of their Rural Wireline Household DELs installed prior to 01.04.2002 in lieu of ADC being phased out.

3.3 Stream-III: Mobile Services

Shared Mobile Infrastructure Scheme (Phase-I)

A scheme has been launched by USO Fund to provide subsidy support for setting up and managing 7871 number of infrastructure sites (towers) in 500 districts spread over 27 states for provision of mobile services in the specified rural and remote areas, where there is no existing fixed wireless or mobile coverage. The number of towers is subject to change based on actual field survey and coverage achieved thereof as per the terms and conditions of the Agreements.

The infrastructure so created shall be shared by three service providers for provision of mobile services. The agreements effective from 01.06.2007 have been signed with the successful bidders in May 2007. As on 30.09.2009, 6566 towers have been set up under this scheme. The remaining towers are under different stages of installation. Most of the towers under this scheme are likely to be commissioned in a phased manner by December 2009.

Number of towers commissioned by the successful bidders (Part-A)

Sl. No.	Name of Bidder	No. of Towers to be set up	Revised number of towers	No. of Towers Commissioned
1.	Bharat Sanchar Nigam Ltd.	6175	5843	5006
2.	GTL Infrastructure Ltd.	421	412	409
3.	Vodafone Essar Cellular Ltd.	123	93	93
4.	Vodafone Essar South Ltd	208	216	216
5.	National Information Technologies Ltd (Now KEC)	384	376	374
6.	Quipo Telecom Infrastructure Ltd	88	88	88
7.	Reliance Communications Infrastructure Ltd	472	408	380
	Total	7871	7436	6566

- The number of towers is subject to change based on actual field survey and coverage achieved thereof as per the terms and conditions of the Agreements.

Utilizing the infrastructure so created, 8394 BTSs have been commissioned by different Universal Service Provider as on 31.08.2009.

3.4 Stream-IV: Rural Broadband Scheme for expanding provision of Wireline Broadband Connectivity upto village level.

- i) A Scheme has been launched to provide wire-line broadband connectivity to rural & remote areas by leveraging the existing rural exchanges infrastructure and copper wire-line network. The objective is to make the rural and remote areas broadband enabled by facilitating the service providers for creating broadband infrastructure. The speed of each of the broadband connections shall be at least 512 Kbps Always On, with the capability to deliver data, voice and video services in the fixed mode. The rural broadband connectivity will cover institutional users, such as Common Service Centres (CSCs), being set up by DIT, Gram Panchayats, Higher Secondary Schools and Public Health Centres, as well as Individual Users located in the villages.
- ii) An Agreement has been signed with BSNL on 20.01.09 to provide 8,61,459 wire-line Broadband connections to individual users and Government Institutions and 27789 number of kiosks under this Scheme over a period of 5-years. i.e., by 20.14. The subsidy disbursement is for (i) broadband connections, Customer Premises Equipment (CPE), Computer/Computing devices and (ii) setting up of Kiosks for public access for kiosks have been provided by BSNL under this Scheme as on 30.09.2009.
- iii) The Service Providers, with valid license from DoT for BSO/UASL, were also eligible to apply under this Scheme and their Eols are under consideration.

4. Planned USF Schemes

a) Stream-III: Shared Mobile Infrastructure Scheme (Phase-II & III)

It is proposed to cover other uncovered areas in the country through mobile services for which additional towers are being identified. Villages or cluster of villages having population of 500 or more and not having mobile coverage have been taken into consideration for installation of the tower under the new scheme.

b) Stream-IV: Wireless Broadband Connectivity for Rural Areas

It is also proposed to provide wireless broadband connectivity in about 2 lakh villages. The different User Ministers/Departments are being coordinated to prioritize and firm up their requirements. Further, various issues, related to the subject, including availability and allotment procedures for spectrum, have been discussed in detail. The Scheme would be launched after the BWA and 3G Spectrum auctioning position is announced by the Government.

c) Stream-V: Creation of General Infrastructure like OFC in Rural Areas

With a view to provide sufficient back-haul capacity to integrate the voice and data traffic from the access network in the rural areas to their core network, USOF has taken initiative to strengthen the OFC network in the rural and remote areas. This scheme considers OFC Network augmentation between the blocks, HQ and Districts' HQ to begin with. The State of Assam has been taken up first for implementation under this scheme.

d) Stream-VI: Pilot Projects

For induction of new technological developments in the telecom sector on a Pilot Project basis in rural and remote areas, a scheme has been launched wherein about

Five Pilot Projects shall be provided subsidy support. Support is also being considered for renewable energy resources (Solar, Wind, Diesel Hybrid solutions) for 20 sites on pilot basis. Further support is also being considered for mobile charging stations in 5000 villages through Teri project of Lighting a Billion Lives (LaBL).

5. Budget allocations and disbursements

Status of Disbursements and availability of Funds as on 31.08.09 (Crore)

(Rupees in Crore)

Financial Year	Opening Balance	Funds collected as USL	Funds allocated	Funds allocated and disbursed the Year	Balance at the end of
2002-03	0.00	1653.61	300.00	300.00	1353.61
2003-04	1353.61	2143.22	200.00	200.00	3296.83
2004-05	3296.83	3457.73	1314.59	1314.59	5439.97
2005-06	5439.97	3533.29	1766.85	1766.85	7206.41
2006-07	7206.41	4211.13	1500.00	1500.00	9917.54
2007-08	9917.54	5405.46	1290.00	1290.00	14033.00
2008-09	14033.00	5759.52#	1600.00	1600.00	18192.52*
Total		26163.96	7971.44	7971.44	18192.52*
2009-10	18192.52		2400.00**	972.46	

Tentative figures for USL collection for the year 2008-09.

* Ministry of Finance has stated that the reimbursement of license fees and spectrum charges to BSNL amounting to Rs. 6949 crore during the period 2002-03 to 2005-06 for fulfilling rural obligation is required to be taken into account for arriving at the available balance. Taking into account the compensation made to BSNL, the available balance would be Rs. 11243.52 crore only (18192.52-6949) at the beginning of F.Y. 2009-10

** Against the revised Budget Estimate of Rs. 3000 crores for the financial year 2009-2010, a budget allotment of Rs. 2400 crore is likely to be received.

BASIC TELEPHONE SERVICE, CELLULAR MOBILE TELEPHONE SERVICE (CMTS) AND UNIFIED ACCESS SERVICES (UAS)

State owned Public Sector Undertakings, Bharat Sanchar Nigam Limited (BSNL) and Mahanagar Telephone Nigam Limited (MTNL) are incumbent operators for Basic Telephone Services. MTNL provides Basis Telephone Services in two Metros, namely, Delhi and Mumbai, while BSNL provides Basic Telephone Services in rest of India.

78 CMTS licenses, with a maximum of four licenses in a service area, were granted between 1996 and 2001 for provision of mobile services in different service areas.

UAS Licensing Regime was introduced in November 2003 and the New Telecom Policy - 1999 was also amended to this effect. The existing Basic and CMTS licensees were offered migration to UAS Licensing Regime. All other Basic service providers have migrated to Unified Access Services (UAS) Licensing Regime. However, till date 53 CMTS licensees have not migrated to UAS Licensing Regime.

The country is divided into 22 Service areas for the purpose of UAS Licensing. Presently, the UAS licenses are granted under UAS licensing guidelines dated 14.12.2005. For grant of UAS licenses the applicant is required to pay non-refundable entry fee which varies between Rs. 1 crore and Rs. 233 crores depending on the service area. Annual license fee is payable in the form of 6-10% of AGR depending on the category of service area. In addition to annual license fee, the service providers are also required to pay spectrum charges, if they are using wireless frequency spectrum for providing Access Services.

The number of telephone subscribers as on 31st May 2009 is 452.91 million which includes 415.25 million mobile subscribers. The average tele-density in India is 38.88. The total number of Access Services Licensees in the country including Basic, CMTS and UAS are 281. The number of UAS licensees in each service area varies from 12 to 13.

NATIONAL LONG DISTANCE SERVICE

National Long Distance (NLD) service was opened to the private sector w.e.f. 13 August 2000. Indian registered companies having a net worth of Rs. 2.5 crore and paid up equity of Rs. 2.5 crore are eligible to apply. The total foreign equity in the applicant company must not exceed 74 per cent at any time during the entire licence period. Investment in the equity of the applicant company by an NRI/OCB/International funding agencies is counted towards its foreign equity. The entry fee of Rs. 2.5 crore is to be submitted before signing the licence agreement. There is no restriction on number of operators. An NLD operator can carry inter-circle traffic in the country. The licence for NLDO is issued on non-exclusive basis, for a period of 20 years and is extendable by 10 years at one time. In addition to Bharat Sanchar Nigam Ltd (BSNL) 28 more companies have signed licence agreement for National Long Distance Service. The competition resulted in lowering of tariff.

INTERNATIONAL LONG DISTANCE SERVICE

The International Long Distance (ILD) service is basically a network carriage service, providing International connectivity to the network operated by foreign carriers. In accordance with the New Telecom Policy-1999, the Government opened the International Long Distance Service from 1st April 2002 to the private operators. There is no restriction on the number of operators. The Indian registered companies having a net worth of Rs. 2.5 crore are eligible to apply. The total foreign equity in the applicant company must not exceed 74 per cent at any time during the entire licence period. Investment in the equity of the applicant company by an NRI/OCB/International funding agencies is counted towards its foreign equity. The entry fee of Rs. 2.5 crore is to be submitted before signing licence agreement along with Performance Bank Guarantee of Rs. 2.5 crore. The licence is valid for 20 years from the date of licence agreement. So far 24 companies have signed licence agreement for International Long Distance service.

INFRASTRUCTURE PROVIDER CATEGORY-I (IP-I)

The applicant company for IP-I requires registration only with DoT. Companies registered as IP-I can provide assets such as dark fibre, right of way, duct space and tower. All Indian Registered companies are eligible to apply. There is no restriction on foreign equity and number of entrants. There is no entry fee and bank guarantee.

The applicant company is required to pay Rs. 5,000 as processing fee along with the application. So far 273 companies have been registered as Infrastructure provider Category-I.

VOICE MAIL/AUDIOTEX/UNIFIED MESSAGING SERVICE

New policy for Voice Mail/Audiotex Service, in terms of NTP-1999 was announced in July 2001 by incorporating a new service, namely, Unified Messaging Service (UMS) - a system by which voice mails, fax and e-mails (all three) can be received from one mail box using telephone instrument, fax machine, mobile phones, internet browsers etc. Presently, 12 companies have 23 licences to provide these services in 08 cities.

POLICY FOR PUBLIC MOBILE RADIO TRUNK SERVICE (PMRTS)

Policy for Public Mobile Radio Trunk Service (PMRTS) in terms of NTP-99 was announced on 01.11.2001. The new PMRTS licences are granted on non-exclusive 'first come first service' basis. Presently, there are 60 licences owned by 15 companies to provide PMRT service in 3 Metros & 17 Circle areas and there are 21 licences owned by 13 companies and 4 Government Police Departments to provide CMRT service in 3 Metros & 7 circle areas.

GLOBAL MOBILE PERSONAL COMMUNICATION BY SATELLITE (GMPCS)

Policy for grant of licence for Global Mobile Personal Communication Satellite (GMPCS) service in terms of NTP-99 was finalized and announced on 02.11. 2001. The process of grant of GMPCS license is a very involved process. The application of GMPCS license containing the entire proposal is submitted to Law Enforcing Agency for Security Clearance. The LOI is issued after the proposal is cleared from security angle by an Inter-Ministerial Committee comprising Secretary, Cabinet Secretariat, Defence Secretary, Home secretary, Secretary (Deptt. of Space) and Director (Intelligence Bureau).

At present LOI for GMPCS license has been issued to one applicant company and the license is yet to be signed. The process also involves testing of the GMPCS Gateway and Earth Station with respect to Security Monitoring. The Licence fee, which is in the form of revenue share, is 10 per cent of the adjusted gross revenue and entry fee is Rs 1 crore.

Other service providers (OSP)

- (i) Registration of call centers (International & domestic), Network Operation Centres & Vehicle Tracking Systems is being done under OSP category.
- (ii) Over 2500 cases have so far been registered under OSP category at DoT HQ.
- (iii) Registration of call centres under OSP category and of telemarketers under telemarketing category was earlier decentralized from DoT HQ to TERM cells in 10 Circles w.e.f. 01.09.2007. Further w.e.f. 01.06.2008 the work has been decentralized to all TERM Cells. However, the CS cell shall handle the policy issues of OSP and Telemarketers.
- (iv) Recently, the OSP registration policy has been revised on 05.08.2008 and as per new policy, work from home concept has been permitted for call center OSPs.

TRAINING INFRASTRUCTURE

Bharat Sanchar Nigam has an elaborate training set up of 42 training centres which includes 3 (Three) Apex level training centres viz Advance level Training Centre (ALTTC) at Ghaziabad, Bharat Ratna Bhim Rao Ambedkar Institute of Telecom Training (BRBRAITT) at Jabalpur, National Academy of Telecom Finance and Management (NATFM) at Hyderabad & 39 other telecom training centres at regional, circle and district levels. These training centres cater to the training needs of all BSNL employees i.e.. executives & non-executives in various disciplines viz. telecommunication technology, management, computer, finance, build etc.

ALTTC, Ghaziabad established by the Government of India in 1975 with the assistance of United Nations Development Programme (UNDP) and International Telecommunications Union (ITU), is one of the leading telecom training centres of Asia and caters to training needs of BSNL and Telecom Administration of member countries of ESCAP and APT. The centre develops and imparts training in high tech-telecommunications and modern management practices for the base, middle and top level telecom engineers and managers. It functions as resource centre in providing developed course materials, audio visual instructional aids, computer based training, software etc. The centre also provides training to trainers. ALTTC, Ghaziabad is an ISO 9001-2000 certified institute.

BRBRAITT, Jabalpur is another premier institute of BSNL providing high quality training in Telecommunication and Information Technology. It is also ISO 9001-2000 certified for quality teaching. Other training centres fall into a hierarchical set up of regional, circle & district levels of training. The list of training centres in all these levels is enclosed at Annexure-1

ISO certification is available for BRBRAITT Jabalpur, ALTTC Ghaziabad, RTTC Thiruvananthapuram, RTTC Mysore, CTTC Mysore, RTTC Hyderabad, RTTC Kalyani, RTTC Chennai, RTTC Ahmedabad, CTTC Ahmedabad, RTTC Jaipur, RTTC Lucknow, RTTC Nagpur, CTTC Indore, RTTC Pune, RTTC Rajpura, CTTC Rajpura, CTTC Sunder Nagar, CTTC Jammu, CTTC Kurukshetra, CTTC Thiruvananthapuram & RGM TTC Chennai. Other training centres are also attempting to certify themselves to ISO standards.

In order to have a centralized facilitation and monitoring of the overall training activities of BSNL, across the country, computerization of these activities have been done through launch of CTMS (Computerised Training Management System) package. A network of training co-ordinators has been put in place covering all the SSA units so as to effectively handle the 'Training Plans' for each of the units, attempting to make the training 'need based' and 'relevant'. With the fast changing technological scenario, BSNL is regularly reviewing its training infrastructure to meet the competitive demands of the sector.

In addition to above, the following initiatives have been taken to improve the service in HR as well as Technical perspective.

1. Staff Empowerment Initiative has been launched to encourage the staff to directly project their own vision of skill upgradation.
2. Knowledge support pool has been created under which specialized trainings to Executives are planned and nominated for specific chosen area of specialisation.

3. Management-Distance Learning scheme has been introduced so as to encourage self learning.
4. Mandatory training for all executives at various levels was introduced under the executive promotion policy.
5. E-Learning initiative through professional content providers on select areas, has been put in place as a pilot project.
6. Project Vijay (Mobile segment) & Project Udan / Dosti (For Fixed Access) Project Kuber (Land Line) and Project VAS (VAlue Added Service) have been rolled out in various field units and the training of the associated employees are being carried out in various training centres.

LIST OF TRAINING CENTRES
UNDER BSNL

APEX LEVEL

1. ALTTC, GHAZIABAD
2. BRBRAITT, JABALPUR
3. NATFM, HYDERABAD

REGIONAL TELECOM TRAINING CENTRES

S. NO.	TRAINING CENTRE	S. NO.	TRAINING CENTRE
1	AHMEDBAD	9	MYSORE
2	BHUBANESHWAR	10	NAGPUR
3	CHENNAI	11	RANCHI
4	GUWAHATI	12	PUNE
5	HYDERABAD	13	RAJPURA
6	JAIPUR	14	THIRUVANANTHAPURAM
7	KALYANI	15	RGM TTC, CHENNAI
8	LUCKNOW		

CIRCLE TELECOM TRAINING CENTRES

S. NO.	TRAINING CENTRE	S. NO.	TRAINING CENTRE
1	AHMEDABAD	10	LUCKNOW
2	INDORE	11	MYSORE
3	BHUBANESHWAR	12	MEERUT
4	KOLKATA	13	NASIK
5	GUWAHATI	14	RAJPURA
6	JAIPUR	15	SHILLONG
7	JAMMU	16	SUNDERNAGAR (HP)
8	KAKINADA	17	THIRUVANANTHAPURAM
9	KURUKSHETRA	18	PATNA

DISTRICT TELECOM TRAINING CENTRES

S. NO.	TRAINING CENTRE	S NO.	TRAINING CENTRE
1	AHMEDABAD	5	HYDERABAD
2	BANGALURU	6	PUNE
3	KOLKATA		
4	CHENNAI		

TELECOMMUNICATION ENGINEERING CENTRE

Introduction

Telecommunication Engineering Centre (TEC) - a Technical Wing of DoT provides technical support to DoT, TEC publishes documents detailing the technical requirements for all telecom equipment to be used in various telecom networks in India. These documents are closely aligned with market needs, technological developments and international standards. The documents are prepared by involvement of all stakeholders (service providers and manufacturers) and subject experts from premier educational institutions. TEC also tests and certifies telecom products and networks for conformance to the aforesaid requirements as well as for interpretability. The documents as well as the certified products and services are not only accepted widely by all the Indian telecom service providers, but also by the service providers of neighbouring countries..

2. Technical Divisions

TEC has following technical divisions

- Fixed Line Access
- Information Technology
- Mobile Communication
- Network Terminals and Customer Premise Equipment
- Next Generation Networks
- NGN Coordination
- Radio
- Services & Applications
- Spectrum
- Switching
- Transmission

3. Standardisation

Standardization is an essential requirement for the open exchange of information between equipment and networks. No network can work without standards. TEC's prime objective is to support global harmonisation by preparing standards in which all the major stakeholders contribute actively.

Major activities for standardisation

- Formulation of technical requirements viz., Generic, Interface, and Service to ensure seamless interworking of different networks of various telecom service providers in India.

- Formulation of Fundamental National Telecom Plans, viz., Numbering Plan, Spectrum Management Plan, Transmission Plan, Switching Plan, Synchronisation Plan, and provide technical support to service providers in implementing them.
- Formulation of standards to limit harmful electromagnetic interference to ensure proper functioning of equipment, as well as to ensure safety for human beings.
- Formulation of norms to ensure optimal utilisation of scarce resources, like radio spectrum.
- Testing and certification of equipment, interfaces, and networks for conformance and interoperability.
- Testing and certification of equipment, to promote indigenisation and manufacturing take-off in India by active co-operation with C-Dot, to develop telecom technologies aimed specifically for rural areas.
- Monitoring of the network for compliance to the laid-down norms and standards.
- Interaction with their forums viz MEF, IETF, ZGPP, WIMAX, etc. for harmonising the standards.
- Interaction with stakeholders and associations, viz, COAI, AUSPI, ISPAI, VSAI, TEMA, FICCI, CII, etc., for implementation of standards and overall coordination.
- Functioning as Designating Authority (DA) for India, for designation of domestic and recognition of foreign Conformance Assessment Bodies (CAB) and Certification Bodies (CB) for testing and certification of telecom products for the use in the countries having Mutual Recognition Agreement (MRA).
- Interaction with international telecommunication standards organisations, viz., International Telecommunication Union (ITU), its Telecommunication Standardization Sector (ITU-T), Radio Communication Sector (ITU-R), Radio Regulation Board (RRB), Development Sector (ITU-D), Institute of Electrical and Electronics Engineers (IEEE) European Telecommunications Standards Institute (ETSI) etc.

4. Test and Approvals

TEC tests and certifies various telecom products for conforming to standards and its capacity to interwork in the existing network. For this purpose, testing and certification activities are carried out by its regional centres in four zones.

5. Technical Support and Other Activities

TEC provides support and advice to DoT on various technical issues, viz., formulating fundamental plans, technology plans, technology evaluations, efficient spectrum utilisation, etc.

TEC provides technical inputs to various telecom licensing and regulatory bodies, viz., TRAI, TDSAT, WPC, USOF, ICC, etc.

TEC coordinates with Telecom Centres of Excellence (TCOE) for development of the telecom eco-system in India, by encouraging R&D in participation of public and private sectors as well as educational institutions. TEC also provides technical inputs for issues related with telecom, to other departments, viz., Planning Commission, MHA, DoS, ISRO, MI&B, BIS, DIT, TDB, NDMA, DST, DSIR, etc.

TEC interacts with international agencies, viz., Asia-Pacific Telecommunity (APT), International Telecommunication Satellite Organization (INTELSAT), International

Mobile Satellite Organization (INMARSAT), International Intergovernmental Space Organisation (Intersputnik), etc., to safeguard interests of India.

TEC has taken a lead in dissemination of information for deploying Next Generation Network (NGN) in India. In this connection, a compendium on NGN was published in the year 2007. It is also setting-up NGN test-bed for carrying out conformance testing and certification of various network elements.

TEC is playing a major role in dissemination off information for migration from IPv4 to IPv6 to ensure seamless transition.

TEC is crucially involved in implementation of Mobile Number Portability (MNP) in India.

TEC is in the process of issuing guidelines for testing of radiation from cellular mobile base stations. It is also proposing to set up a lab for the testing of Specific Absorption Rate (SAR) parameter on the mobile handsets.

6. Publications

TEC publishes following documents

- Generic Requirements (GR)
- Interface Requirements (IR)
- Service Requirement (SR)
- Standards Document (SD)
- Approval Procedure
- Technology White Papers

7. Website

www.tec.gov.in

CENTRE FOR DEVELOPMENT OF TELEMATICS (C-DOT)

Centre for Development of Telematics (C-DOT) is the Telecom Research and Development Centre of the Government of India. It was established in 1984 to provide wide ranging, state-of-the-art and cost-effective indigenous total telecom solutions.

Beginning the journey with digital switching systems, C-DOT has transversed the complex. Telecom landscape, developing products in the area of optical, satellite and wireless communication from circuit switching technology of yester years, C-DOT has proven its expertise in ATM and Next Generation Networks. From a purely hardware development Centre it has diversified into development of Telecom software solutions like IN, NMS, Data Clearing House etc.

1. Projects of National and Strategic importance for the following sectors under the 11th Five Year Plan period are :
 - a) Rural Areas: The shared GSM Radio Access Network; which is currently under development will give a fillip to business in Rural India,
 - b) North Eastern Region: The MAX-NG programme will breathe fresh life into the fixed line infrastructure and bring to people of NER, VoIP and Broadband services.
2. Projects for software intensive, Telecom solutions:
 - a) NMS which provides a common umbrella of management of a network equipped with products from diverse vendors.

- b) Data Clearing House Centre for Roaming based on ASP model, which has become commercially operational.
- 3. Projects in the areas of hi-tech
 - a) Gigabit Optical Passive Network (GPON) to bring broadband pipes to homes and SOHOs.
- 4. Futuristic study projects
 - a) One Number, which will aim to utilize unique number like social security number, for a Mobile Personal Number.
 - b) Cognitive Radio
 - c) Advanced Optical Network Technology.

C-DOT has evolved, from a single mission oriented organization to an R&D centre, working on several important, cutting edge technologies in the state-of-the-art laboratories at its Delhi and Bangaluru campuses which are comparable with the best in the world. And, with the support it has been receiving from the Government, especially in projects of national importance, the Centre is striving to maintain its national relevance.

WIRELESS PLANNING AND COORDINATION WING

Wireless Planning and Coordination (WPC) Wing, established in 1952, is the national radio regulatory authority responsible for coordination and regulation of radio spectrum usages in the country. It is a nodal agency for all matters concerning International Telecommunication Union (ITU), - a specialized agency of the United Nations for all telecommunication matters and Asia Pacific Telecommunity (APT)- an inter-governmental organization of the region. WPC assisted by its Monitoring Organisation performs all functions related to planning, coordination, assignment, regulation and administration of the usage of the radio frequencies for all terrestrial, Geostationary Satellite Orbit (GSO) and Non-GSO based satellite networks, including positions in GSO and necessary coordination in this regard both at national and international levels. It also conducts examinations for of award certificate of proficiency for aeronautical and maritime mobile services and for radio amateurs. The decision of Government of India to make available basic mobile as well as value added services, FM Radio & Satellite TV/DTH by the private service providers, increase of broadcast coverage as well as Information Technology Sector with the liberalization on economy has resulted in a very large demand on the radio spectrum and orbit resources, which are limited natural resources.

The trend of modern telecommunication is towards increased mobility with higher data speeds. Mobile communications are possible through wireless only. This has placed greater demands on the already scarce resource of RF spectrum. The mobile services have brought about a revolution in the Indian telecom sector, besides immense socio-economic benefits. The WPC Wing is trying to meet the challenge and provide essential spectrum for new services/technologies through spectrum reframing etc.

The Government has announced detailed guidelines for 3G services on 01.08.08 and amendments dated 11.09.08, which stipulate, among others, roll out requirements including rural roll out. The licensees would be granted, through a controlled, simultaneous ascending e-auction, by a specialized agency to ensure transparency in the selection process, to the successful bidders. As per this guidelines any person,

who holds a UAS/CMTS licence; or (a) who has previous experience of running 3G Telecom Services; and (b) gives an undertaking to obtain Unified Access Services Licence (UASL) as per Department of Telecommunications guidelines dated 14.12.2005 before starting telecom operations can bid for 3G spectrum and is eligible to participate in the auction process.

The Government has announced detailed guidelines for auction and allotment of spectrum for Broadband Wireless Access (BWA) service on 01.08.08 and amendments dated 11.09.08. According to which, any person who holds a UAS licence or who fulfills the eligibility criteria for obtaining a Unified Access Services Licence (UASL) as per Department of Telecommunications guidelines dated 14.12.2005 or who holds a ISP licence category 'A' or 'B' is eligible for allotment of spectrum. Spectrum shall be auctioned in the 2.5 GHz, and 2.3 GHz bands for data services. Each successful bidder can get 20 MHz in 2.3 and 2.5 GHz bands in a telecom service area. The number of blocks shall be two in 2.3. GHz band and two in 2.5 GHz band.

The Government has released National Frequency Allocation Plan - 2008 which provides valuable information to wireless users, wireless equipment manufactures and telecom industry as whole on spectrum allocation issues. The document is dynamic in nature and it would be revised periodically in line with the decisions of WRCs and Radio Regulation of ITU.

Regarding ITU-R study Groups questions and APT works, Indian delegation consisting of Government representatives. & industry are participating in the various meetings of Study Groups and contributions on different study questions are being submitted for consideration.

Process of reviews and views of NFAP-2008 has also been initiated in view of new emerging technologies and spectrum requirement.

FDI POLICY IN TELECOM SECTOR

FDI policy for the Telecom Sector is as under:

Sr. No.	Sector/Activity	FDI Cap/ Equity	Entry route	Other Conditions
1.	Basic and cellular, Unified Access Services, National/ International Long Distance, V-Sat, Public Mobile Radio Trunked Services (PMRTS) Global Mobile Personal Communications Services (GMPCS) and other value added telecom services (GMPCS) and other value added telecom services	74% (including FDI, FII, NRI, FCCBs, ADRs, GDRs. convertible preference shares, and proportionate foreign equity in Indian promoters/ Investing Company)	Automatic up to 49% FIPB beyond 49%	Subject to guidelines notified in the Press Note no. 3 (2007 Series) read with Press Note No.2.2009
2.	ISP with gateways radio-paging, end-to-end bandwidth	74%	Automatic upto 49% FIPB beyond 49%	Subject to licensing and security requirements notified by the Department of Telecommunications www.dot.gov

3.	a) ISP without gateway	100%	Automatic upto 49%	Subject to the condition shall divest 26% of their equity in favour of Indian public in 5 years, if these companies are listed in other parts of the world. Also subject to licensing and security requirements, where required www.dot.gov.in
	b) Infrastructure provider providing dark fibre, right of way, duct space, tower (Category-1)		FIPB beyond 49%	
	c) Electronic mail and voice mail			
4	Manufacture of telecom equipments	100%	Automatic	Subject to sectorial requirements www.dot.gov.in
5	Guidelines for calculation of total foreign investment i.e. direct and indirect foreign investment in Indian companies			Press Note No. 2/2009
6	Guidelines for transfer of ownership or control of Indian companies in sectors with caps from resident Indian citizens to non-resident entities.			Press Note. No. 3/2009

The government has revised guidelines for ISP's on 24.08.2007 and new guidelines provide for ISP licenses with 74% FDI only.

STATEMENT ON FINANCIAL YEAR WISE FOR FOREIGN DIRECT
INVESTMENT (FDI) INFLOWS
FROM APRIL 2000 TO MARCH 2009
SECTOR TELECOMMUNICATIONS

(Rs. in crore)

Sl. No	Year (April-March)	FDI (Rs. in Crore)	FDI (US\$ in million)
1	2001-01	784	178
2	2001-02	3,937	873
3	2002-03	908	192
4	2003-04	514	112
5	2004-05	570	125
6.	2005-06	2,776	624
7.	2006-07	2,155	478
8.	2007-08	5,103	1,261
9.	2008-09	11,727	2,558
	Grand Total	28,474	6401

Note: 1. Amount includes the Inflows received through SIA/FIPB route, acquisition of existing shares and RBI's automatic route only.

PUBLIC SECTOR UNDERTAKINGS

Bharat Sanchar Nigam Limited

BACKGROUND NOTE/BRIEF

1. The Bharat Sanchar Nigam Limited (BSNL) was formed on 1st October 2000 by corporatization of the erstwhile Department of Telecom services. The company has taken over the erstwhile functions of the Department of Telecom in respect of provision of telecom services across the length and breadth of the country.
2. BSNL is a 100% Government of India owned Public Sector Undertaking with a paid up capital of Rs. 12,500 crore comprising Rs. 5000 crore of equity and Rs. 7500 crore of 9% preference shares & a net worth of Rs. 88,128 crore as on 31.03.2008.
- 2.1 Its annual revenue during 2007-08 was over Rs. 38,053 crore.
3. BSNL is a technology-oriented company and provides all types of telecom services namely telephone services on landline, WLL and mobile, leased circuits, internet, broadband and long distance telecom service.
4. BSNL employs 3.08 lakh personnel as on 31.03.08, most of whom were transferred from DTS & now have been absorbed in BSNL.
5. The company has also been in the forefront of technology with 100% digital new technology switching network. The vast switching network for landlines comprises 38,244 exchanges having a capacity of 465.92 lakh lines as on 31.07.2008. BSNL's nation-wide telecom network covers all District Headquarters, Sub-Divisional Headquarters, Tehsil Headquarters and almost all the Block Headquarters. As on 31.07.2008 BSNL has a customer base of 306.57 lakh telephones on landlines.
6. BSNL has deployed equipment of CDMA technology based Wireless in Local Loop (WLL) Network. As on 31.07.2008, 46.17 lakh telephones are working on WLL with a total equipped capacity of 74.39 lakh lines. 2,580 SDCAs out of 2642 SDCAs have been provided with at least one BTS.
7. BSNL launched its country wide GSM based Cellular Mobile Services on 19.10.2002. BSNL mobile network covers almost all the cities and substantial length of national highways, rail routes and state highways. The Cellular services of BSNL are also providing incidental coverage to the rural areas falling en route to national and important state highways. As on 31.07.2008 BSNL has a customer base 37.92 million and equipped of 34.32 million with incidental coverage in more than 2 lakh villages.
8. BSNL has launched its broadband services in January 2005 and has provided 24.57 lakhs connections till 31.07.2008, BSNL has provided broadband services in 589 out of 621 DHQ, 2, 698 out of 6,374 BHQ and 30,124 out of 593,601 villages.
9. BSNL is providing Internet Service on dial-up. As on 31.07.2008 it has a customer base of around 5.5 lakh.
10. BSNL has provided 2.59 crore telephone connections in rural areas.
11. Out of 5.94 lakh villages (as per Census 2001) 5.22 lakh villages have already been provided with VPTs by BSNL upto 31.07.2008
12. Value Added Services: BSNL is providing a lot of Value Added Services on Broadband & Mobile network like News, Finances, Entertainment, Travel, TV

schedule, Shero Shayari, Ringtones, Cricket, Jokes, Astrology, Games, Radio, Exam results, Religious & spiritual line, Health tips, Matrimonial, Horoscope, Music, Phone radio, Live chat, interesting facts, news, polyphonic tunes, wallpapers, cricket, color logos, animations, video clips, etc.

13. BSNL has wide spread Optical Fibre cable network of more than 5.5. lakh RKMs. It has more than 50,000 RKMs of Digital Microwave in addition to 216 satellite stations.
14. BSNL started its ILD operations in the year 2004. Presently BSNL is offering ILD.
- 14.1 BSNL has commissioned submarine cable to Sri Lanka.

MAHANAGAR TELEPHONE NIGAM LIMITED

The Mahanagar Telephone Nigam Limited (MTNL) came into existence on 1 April 1986 as a company wholly owned by the Government under the Department of Telecommunication, Ministry of Communications. MTNL is entrusted with the management, control and operation of telecom services (excluding public telegraph service) in metropolitan limits of Mumbai & New Mumbai (including Kalyan, and Thane, for mobile service) and Delhi (including four towns Noida, Gurgaon, Faridabad & Ghaziabad for mobile service).

The authorized capital of Company is Rs. 800 crore. The Paid up Share Capital is Rs. 630 crore divided into 63 crore share of Rs. 10 each. At present, 56.25% equity shares are held by President of India & his nominees and remaining 43.75% shares are held by FIIs. Financial Institutions, Banks, Mutual Funds and others including individual investors.

The last two decade have been an eventful period in the existence of MTNL. There has been all round development and growth and improved operational efficiency. In the present scenario, the Company is facing competition from other private telecom operators and is successfully adapting to new regulatory environment. To meet the challenge of competition, the Company has taken various initiatives, which include restructuring at operational level as well as broad basing the service portfolio being offered by the company. As the company has limited area of operation the emphasis has been placed on addition of new and value added services In addition to this the company is giving major thrust on the expansion of existing mobile and broadband services in both Delhi and Mumbai to provide high speed internet, high quality video and new generation wireless services. The Network Status (as on 30th June 09) of MTNL is as under:

	Delhi	Mumbai	Total
No. of Exchanges	344	214	558
Equipped Capacity (in lakh)			
Fixed Line including WLL fixed	27.76	28.65	56.41
CDMA (Garuda)	5.50	5.48	10.98
GSM (Dolphin and Trump)	20.25	23.25	43.50
Broadband capacity (in lakh ports)	5.64	5.20	10.83
Subscriber Base (in lakh)			
Fixed Line including WLL fixed	15.61	21.13	36.74
CDMA (Garuda)	1.12	0.73	1.85
GSM (Dolphine and Trump)	19.70	23.27	42.57
Broadband customers	3.33	3.69	7.01

Presently MTNL providing a host of telecom services that include fixed telephone service, GSM (including 3G services) & CDMA based mobile service, and Internet, Broadband, ISDN and Leased Line services. In addition to these, MTNL is providing a variety of services like :

- Phone plus services such as computerized morning alarm, voice mail, automatic changed member announcement, computerized fault booking/ payment system etc.
- Internet based services like E-mail, internet telephony, web hosting, web surfing etc.
- IN based services which include premium rate service, Pre-paid service, etc.
- MTNL is also providing a number Value Added services like news, gaming and cricket information in line with the emerging trends in both PSTN/ Mobile network.
- ITPV & VOIP services.
- M Commerce service in Delhi for Payment of bills (RSTN & GSM) through mobile telephone by sending the SMS.

Recently completed projects.

- i. MTNL has added 750 K 2G GSM capacity each in Delhi and Mumbai.
- ii) 250K 3G GSM Capacity has been installed each in Delhi & Mumbai. The 3G services have been launched in both the Cities.
- iii) 32K tandem capacity based on Class 4 NGN (Next Generation Network) each in Delhi and Mumbai has been commissioned in March 09.
- iv. Installation of 200K broadband equipment in Mumbai & 300K, broadband equipment in Mumbai & 300 K broadband equipment in Delhi is almost complete.

Current presently / on going projects

- i. **GSM Project:** MTNL has launched the cellular services using GSM technology in Delhi and Mumbai in February 2001 under the brand name Dolphin in 2002, the prepaid cellular services under the brand name 'Trump' was launched. The present capacity of the GSM network is 43.50 lakh. lines with 42.97 lakh subscribers in Delhi & Mumbai. To meet the growing demand of MTNL cellular service, GSM capacity in Delhi and Mumbai was planned to be further expanded by 2 million each (including 750K line 3G). Out of this, 1000K (750K 2G & 250K 3G) GSM capacity has already been commissioned in Delhi and Mumbai each. Remaining 1000K 2G/ 3G GSM capacity in Delhi and Mumbai is under installation.

On February 5, 2009 MTNL had launched 3G data/voice services in the NDMC area of Delhi (with 50 Node Bs) with the brand name **Jadoo**" Now the services are available in almost 50% of Delhi's GSM licensed service area. As on date 245 nos. of Node Bs are radiating in Delhi. In Mumbai 77 Node-Bs are radiating & 3G data services have been launched on 30th May 2009. The voice service in Mumbai is expected to be launched by end of July 2009. By the end of this year MTNL has planned to roll out around 820 nos. of Node B in each city & 3G services will be available in all across its licensed service areas of Delhi & Mumbai.

- ii. Broadband capacity expansion** The broadband services using ADSL 2+technology was launched in January 2005. Triple play services i.e. voice (including VOIP), high speed internet and PTV are being offered on this broadband network. The total customer base of broadband as on 30.06.09 is 7.01 lakh. In order to meet the growing demand a PO for the installation of 500 BB ports (200K in Mumbai & 300K in Delhi) were placed on M/s SOTL. Most of the equipment has been commissioned PO for the further addition of 1 million broadband ports for Delhi & Mumbai has been placed on Alcatel. Equipment supply will start shortly.
- iii. NGN Class IV** - MTNL has commissioned 32K tandem capacity based on Class 4 NGN (Next Generation Network), in Delhi and Mumbai each at the cost of Rs. 6.02 Crores.
- iv. DWDM** - MTNL has placed a PO for the supply of 42 terminals (20 Delhi & 22 Mumbai) of 40 channels 10 GB/channel DWDM equipment at the cost of Rs. 15.78 Crores to strengthen its transmission network. The testing of the equipment has been completed and shall be commissioned shortly.
- v. Wi-Max** - MTNL has been recently allotted 20 MHz of spectrum each in Delhi and Mumbai for providing Wi-Max services. Earlier in order to assess the technology, MTNL had conducted a trial of Wi-Max services in both Delhi and Mumbai, With the allotment of spectrum MTNL is in process of finalizing the EOI for providing the Wi-Max services.
- vi. Convergent billing** - A state-of-the-art convergent billing and CRM system is under installation. This will facilitate CDR based billing, single bill for all services to the subscribers. flexibility in billing and innovative tariff packages for subscribers and thus will help in reducing billing complaints. System is under testing phase. Equipment is being used for the printing of bills and (LIC billing in Delhi
- vii. Converged Network** - MTNL floated a tender for the Converged Network to facilitate the convergence of voice, data and video multi media networks into a single unified packet based multi-services platform capable of providing futuristic independent network which can facilitate rapid and economical introduction of new services. Due to unavoidable reasons, the tender was cancelled and is being invited again.

New project to be taken up in the near future

- i. FTTH** - MTNL is further adding optical fibre in its access network and is planning to introduce FTTH based on GPON so as to provide all of its important customers with fibre connectivity to their homes in order to meet their further increased bandwidth requirement of both data and video applications. The tender for the same have been invited Initially it is proposed to install 15,000 GPON ports such at Delhi & Mumbai at an estimated cost of Rs. 60.00 crores.
- ii. NGN Class V** - NGN class 5 tender to replace TDM switches with IP switches is also planned this year. About 1 lakh lines shall be installed each at Delhi & Mumbai at an estimated cost of Rs. 55.00 Crores taking estimated cost of Rs. 2,750/- per line.

Projects taken through subsidiaries/joint ventures by MTNL

i Millennium Telecom Ltd. (MTL): MTNL through MTL a joint venture of MTNL and BSNL is planning to lay Submarine Cable connecting both East & West coast of India to South-East Asia & Middle-East with an ultimate intent to connect to Europe & USA. Tender for the same was opened in December'08. Presently the financial bids are being evaluated and the contract is expected to be awarded by August / September 2009 end.

ii. Mahanagar Telephone Mauritius Limited (MTML): MTML is a 100% subsidiary of MTNL. The company is having license for fixed telephone service, mobile service international long distance services and internet services.

MTML is providing coast effective services for its customers. It has already rolledout its CDAM based fixed and mobile services as well as internet and ILD services. As on 30.06.09 the company has a subscriber base of 86.452.

iii. United Telecom Limited (UTL): A joint Venture company namely United Telecom Ltd. has been set up by MTNL, VSNL and TCIL along with Nepal Venture (P) Limited (NVPL) to provide CDMA based basic services in Nepal. UTL also has license to operate NLD and ILD services. MTNL has so far invested Rs. 29.015 crores as equity in UTL. As on 15.06.2009 the company has a customer base of 1,57,000.

iv. MTNL - STPI IT Services Limited : MTNL - STPI IT services Limited is a 50:50 joint venture between Software Technology Parks of India (STPI) and MTNL the joint formed in 2006 combines the STPIs rich experience as an ISP and MTNL's track record of being India's leading telecom operating company to offer niche Web portal Services to the Indian community.

The project will be implemented in three different phases. In addition to the portal and free e-Mail services, the revenue streams identified and hosted messaging solutions for SMS's. Family mail box, Web hosting, Application hosting Enterprise resource planning (ERP) solutions, portal advertisements etc. through the portal. The location for the proposed data center has already been identified. The data center will be coming up in the STPI building in Chennai.

Customer care and relationship

MTNL has taken several steps to improve its interface with the customers. Telephone Adalats and Open House Sessions are being held for both way effective communications with the customers. Quick customer service centers are running at all divisional offices for catering to the day-to-day needs of customers for accessories. phone plus services. STD barring/restoration, local shirt of telephone, ISDN, Internet connections and IN services.

- MTNL has taken a lot of measures to facilitate easy payment of telephone bills to meet the requirement of all segment of society viz. On line, ECS, through Master Card at selected petrol pumps and through automatic teller machines easy bill centers etc.
- Loyalty scheme & special care of corporate customers.
- MTNL has also launched various CRM service such as automatic rent rebate, charge, changed number announcement service, customer service management system etc.

- MTNL is operating call centre/help lines for the customers to book their grievances
- MTNL is revising tariffs from time to time to suite all segments of society.
- Online booking of different services and complaints for PSTN, B/B, GSM, CDMA (M) are now available.
- MTNL is having Sanchar Haats in Delhi and Customer Service Centers (CSCs) at Mumbai, where customer can get various services like registration for new service, duplicate bills of cellular connection, bill payment, VCC cards etc.

M/s ITI LIMITED.

M/s ITI Limited, a Public Sector Undertaking under Department of Telecommunication has six manufacturing units at Bangaluru, Rae Bareili, Naini, Mankapur, Srinagar and Palakkad. They manufacture a range of telecom related equipments. The Company is incurring losses continuously and has been declared sick under section 17/2 of SICA, 1985. However, the Government is putting in serious efforts to revive the company. 30% reservation quota from BSNL/MTNL is given to ITI. Exemption from provision of bid security and performance band guarantee is also being given by BSNL/MTNL. The facility of 30% reservation quota extended to ITI by BSNL/MTNL. by BSNL/MTNL has come to an end on 20.09.2009. The case is under process for extending the same.

The Company has been incurring losses continuously for the last many years but is in the revival path because of serious efforts put in by the Government. A financial package of Rs. 2820 crore has been released to ITI in the month of August, 2009 to enable it to clean up its balance sheet. A financial assistance of Rs. 180 crore has also been approved in principal by the Government. The Government has also approved formation of Special Purpose. Vehicles/Joint Ventures at Rai Bareili, Naini and Bangaluru for manufacturing select items.

A committee constituted under the Chairmanship of Additional Secretary in Department of Telecom is considering the case of formation of SPV/JV for ITI Ltd.

TELECOMMUNICATION CONSULTANTS INDIA LIMITED

The Telecommunications Consultants India Limited (TCIL) set up in 1978 is now a multi disciplinary telecom organization which provides complete telecom solutions from concept to completion. The core competence of the company is in turnkey execution of Communication Network Projects. i.e., backbone and access as also IT Networks, for basic, GSM, CDMA, microwave, Satellite, Radio Trunking and other captive networks besides Switching & Transmission, Rural Communications, e-Governance, e-Education. Tele-medicine etc. The company has formed a joint venture in Rajasthan for operation of GSM services in that state and other joint venture in Nepal for operation of CDMA based WLL communication services in that country. TCIL has been awarded the prestigious Pan African Project, which is aimed at providing Tele-education and Tele-medicine to 53 countries in the African Region. TCIL has also got such works to provide Tele-Medicine facilities for Bhutan and other SAARC countries.

TCIL has executed/is executing projects in 60 countries in the Middle East, South East Asia, Africa, Europe and Central Asia starting with a seed equity of Rs. 30 lakh. The company through 7 issues of bonus shares has equity of Rs. 43.20

crore as on date. The company achieved a turnover of Rs. 646 crore during the year 2008-09 and has a net worth of about Rs. 405 crore.

INTERNET SERVICE PROVIDERS

No. of Internet Service Providers as on 31st March, 09 (Category wise)

A	B	C	Total
96	128	148	372

No. of Internet Service Providers as on 31st August, 09 (Category wise)

A	B	C	Total
95	127	148	370

Sr. No.	Internet Subscribers	Broadband Subscribers
1	13646700 (as on 31.03.09)	6067577 (as on 31.03.09)
2.	14394793 (as on 30.06.09)	6630361 (as on 31.07.09)

9 Defence

THE first decade of the 21st century has made it increasingly evident that security threats are unconstrained by borders. Each of India's neighbours is undergoing a transition, giving rise to varied political experiences and experiments. The menace of terrorism and proliferation of arms, drugs and nuclear technology pose dangers that merit constant attention.

The developments in 2008, particularly the challenges confronting the global financial system, created unprecedented strains in the global security environment.

The continuing links of extremist and terrorist organisations with organs of the Pakistan State adds greater complexities and dangers to the evolving situation confronting us. Strengthening of our security apparatus both internally and on our frontiers is, therefore, a national priority of the highest order.

China's stated objectives, in their White Paper, of developing strategic missile and space-based assets and of rapidly enhancing its blue-water navy to conduct operations in distant waters, as well as the systematic upgrading of infrastructure, reconnaissance and surveillance, quick response and operational capabilities in the border areas, need to be monitored carefully in the foreseeable future for the implications that it can have on the security and defence of India. Similarly, its military assistance and cooperation with Pakistan, including the possibility of enhancing connectivity with Pakistan through the territory illegally occupied by Pakistan in the state of Jammu and Kashmir, will also have direct military implications for India.

India's credible minimum deterrence plays an important role in the regional security calculus. While maintaining a posture of minimum deterrence, India has announced a policy of no-first-use and a policy of non-use against non-nuclear weapon states. India also continues to maintain a voluntary, unilateral moratorium on nuclear testing.

The need for enhanced maritime security has to be seen in the backdrop of a long coastline facing the Arabian Sea on the West, the Bay of Bengal to the east and the vast Indian Ocean in the South. Increased economic activity along the coast and the growth of major towns has heightened this necessity.

Over the recent years, maritime issues like the security of sea-lanes, piracy on the high seas, energy security, WMD, terrorism etc. have become important elements in India's security. The Indian Navy has played an outstanding role in curbing piracy in parts of Indian Ocean. The Mumbai terror attacks have once again highlighted the importance of the maritime dimension in India's security.

ORGANISATION

The principal task of the Ministry is to frame policy directions on defence and security related matters and communicate them for implementation to the Services Headquarters, Inter-Service Organisations, Production Establishments and Research & Development Organisations. It is required to ensure effective implementation of the Government's policy directions and the execution of approved programmes within the allocated resources.

The principal functions of the Departments are as follows:

- (i) The Department of Defence deals with the Integrated Defence Staff (IDS) and three Services and various Inter-Service Organisations. It is also responsible for the Defence Budget, establishment matters, defence policy, matters relating to Parliament, defence co-operation with foreign countries and co-ordination of all defence related activities.
- (ii) The Department of Defence Production is headed by a Secretary and deals with matters pertaining to defence production, indigenisation of imported stores, equipment and spares, planning and control of departmental production units of the Ordnance Factory Board and Defence Public Sector Undertakings (DPSUs).
- (iii) The Department of Defence Research and Development is headed by a Secretary, who is the Scientific Adviser to the *Raksha Mantri*. Its function is to advise the Government on scientific aspects of military equipment and logistics and the formulation of research, design and development plans for equipment required by the Services.
- (iv) The Department of Ex-Servicemen Welfare, headed by a Secretary, deals with all resettlement, welfare and pensionary matters of Ex-Servicemen.

Integrated Defence Staff (IDS) was created on October 1, 2001 based on the recommendation of the Group of Ministers, which was set up in 2000 post Kargil to review the Nation's higher defence management. Since then, HQ IDS has been acting as the single point organisation for inculcating jointness and synergy between the Armed Forces, by way of integrating policy, doctrine, war fighting and procurement.

The three Services Headquarters, viz., the Army Headquarters, the Naval Headquarters and the Air Headquarters function under the Chief of the Army Staff (COAS), the Chief of the Naval Staff (CNS) and the Chief of the Air Staff (CAS) respectively. The Inter-Service Organisations, under the Department of Defence are responsible for carrying out tasks related to common needs of the three Services such as medical care, public relations and personnel management of civilian staff in the Defence Headquarters.

A number of Committees dealing with defence related activities assist the *Raksha Mantri*. The Chiefs of Staff Committee is a forum for the Service Chiefs to discuss matters having a bearing on the activities of the Services and also to advise the Ministry. The position of Chairman of the Chiefs of Staff Committee devolves on the longest serving Chief of Staff, and consequently rotates amongst the three Services.

Finance Division in the Ministry of Defence deals with all matters having a financial implication. This Division is headed by Secretary (Defence Finance)/ Financial Adviser (Defence Services) and is fully integrated with the Ministry of Defence and performs an advisory role.

ARMY

The Indian Army stands vigil along the border - watchful, prepared for any sacrifice - so that the people of the country may live in peace and with honour.

The infusion of high technology based precision weaponry has enhanced the lethality of future warfare manifold. The spectrum of threat ranges from the nuclear

to the conventional and the asymmetric, with terrorism emerging like a hydra-headed monster. The rigours of climate i.e., the glacial heights and extreme cold, dense mountainous jungles and the heat and simoom of the deserts also need to be factored.

A pragmatic vision of the shape, size and role of the Army in the long term perspective makes the modernization process of the Army dynamic and the technology process more towards development of a 'Threat Cum Capability Based Force'. The Army has to be prepared for multi spectrum orientation changes and be always a 'Ready and Relevant Army' as per anticipated challenges of the future.

The Mechanised Forces constitute a significant and essential segment of Defence Forces with a formidable combat potential and operational worth. The effort to modernize Mechanised Forces continues, wherein additional quantities of ATGMs for BMP-2 and T-90 tank have been contracted.

The artillery is acquiring an array of guns, missiles and rocket systems with long ranges and superior firepower as also state-of-the-art surveillance systems.

Weapon System of the Army include BrahMos Weapon System, Smerch Multi Rocket Launcher System (MLRS) and Pinaka Multi Barrel Rocket Launcher System (MBRLS).

The present situation in the region warrants state-of-the-art systems for the Infantry. This is being achieved through endeavour for better quality personal weapons, thermal imaging devices, mine protected vehicles and improved radio communication systems. A contract has been signed for supply of Boot Anti Mines for use by Infantry. Bullet proof vehicles and shot guns are being procured for counter insurgency operations.

NAVY

The Indian Navy (IN), by virtue of its capability, strategic positioning and robust presence in the Indian Ocean Region (IOR), has been a catalyst for peace, tranquillity and stability in the IOR. It has engaged other maritime nations by extending hand of friendship and co-operation. For the smaller nations in our neighbourhood as well as nations that depend on the waters of the Indian Ocean for their trade and energy supplies, the Indian Navy ensured a measure of stability and tranquillity in the waters around our shores. To achieve its tasks Indian Navy is enhancing its capabilities, cooperation and inter-operability with regional and extra regional navies.

In order to augment the Indian Navy force level, a number of ships, submarines, survey vessels, auxiliary support vessels etc. are under construction in India and abroad. The indigenous Aircraft carrier is also under construction at CSL, Kochi.

The firing of Beyond Visual Range (BVR) Derby Missile has been conducted successfully. Six UH3H utility helicopters have been inducted in the service. Intensive Flying Training Unit (IFTU) for UH3H helicopters has been set up. The unit was commissioned as Indian Naval Air Squadron (INAS) 350 on March 23, 2009.

In continuation with the policy of enhancing co-operation with foreign navies, a series of exercises were conducted. This included MILAN 08, SIMBEX 08, INDINDO Copat, KONKAN 08, VARUNA 08, IBSAMAR, HABUNAG 08, MALABAR 08 etc.

Indigenously built INS Kesari was commissioned into the Indian Navy in April 2008. Two Water Jet - Fast Attack Crafts Chetlat and Car Nicobar were commissioned into the Indian Navy in February 2009.

COAST GUARD

The Coast Guard was established as an independent service on August 19, 1978 as per the Coast Guard Act, 1978. Since its inception, the Coast Guard has acquired a wide range of platforms both surface and airborne to undertake the assigned tasks during peace time and to supplement the efforts of Indian Navy during war.

The command and control of the Coast Guard rests with the Director General of Indian Coast Guard at New Delhi. The Organisation has four Regional Headquarters i.e. Mumbai, Chennai, Gandhinagar and Port Blair. The four Regional Headquarters exercise command and control in the waters adjoining the entire coastline of India, through 11 Coast Guard District Headquarters.

The duties of Coast Guard include: (a) Ensuring the safety and protection of artificial islands, offshore terminals, installations and other structures and devices in Maritime Zones; (b) Providing protection to fishermen, including assistance to them at sea while in distress; (c) Taking such measures as are necessary to preserve and protect the maritime environment and to prevent and control marine pollution; (d) Assisting the customs and other authorities in anti-smuggling operations; (e) Enforcing the provisions of such enactments as are for the time being in force in the maritime zones; and (f) Such other matters, including measures for the safety of life and property at sea and collection of scientific data, as may be prescribed.

AIR FORCE

The Indian Air Force (IAF) is undergoing a phase of transformation. Not only is there a large scale modernisation and induction of new equipment, but also an accompanying doctrinal change in operational employment.

The IAF today has leapfrogged a generation ahead and has acquired advanced war-waging capabilities. Meanwhile, it continues to enhance its professional reputation, by superlative performances in many international exercises and missions, both at home and abroad.

The IAF has inducted state-of-the-art Su-30MKI aircraft in operational squadrons. Twenty Hawk AJT aircraft have also been inducted. Procurement contract of C-130-30 aircraft for special operations from US Government has been signed.

Airborne Warning and Control System (AWACS) are being procured to significantly enhance the effectiveness of both Offensive and Defensive operations of the IAF. Induction of AWACS would also enhance the force projection capabilities of the IAF in emergent situations.

Contract for MiG-29 mid life upgrade and extension of total technical life was signed with RAC MiG, Russia. IAF is also processing upgradation of the Mirage-2000 and Jaguar aircrafts and Mi-17 helicopters in order to optimise their utilization. To keep the DO-228 aircraft abreast with the latest technology, all the existing aircrafts are being upgraded with the latest avionics.

In order to exploit the AN-32 aircraft further, TTL (total technical life) extension up to 40 years and re-equipment with latest version of systems to meet the present ICAO standards for the entire AN-32 fleet is being undertaken.

Indigenisation of spares required for overhaul is a continuous process. Indigenisation of more than 80,000 lines of spares has been accomplished by the Base Repair Depots (BRDs) for various fleets of IAF. A long term plan has been prepared to replace all imported barriers with ADRDE indigenized barriers.

Indigenisation of maintenance and overhaul spares of imported Arrester Barriers is also under progress. Approximately 800 lines of spares have already been indigenised.

To enhance electronic surveillance, a large number of ground based radars are being inducted. Such Radars in different categories like Aerostat, Medium Power Radar (MPR), Low Level Light Weight Radar (LLLWR), Low Level Transportable Radar (LLTR), and Surveillance Radar Equipment (SRE) will greatly improve airspace management.

The IAF is acquiring state-of-the-art communication equipment across all spectrums. These include SATCOM, HF and V/UHF sets with associated encryption equipment to provide secure and reliable communications for all Command, Control and Combat elements.

COMMISSIONED RANKS

The following are the commissioned ranks in the three Services; each rank is shown opposite its equivalent in the other Service:

Army	Navy	Air Force
General	Admiral	Air Chief Marshal
Lieutenant General	Vice-Admiral	Air Marshal
Major General	Rear Admiral	Air Vice-Marshal
Brigadier	Commodore	Air Commodore
Colonel	Captain	Group Captain
Lieutenant Colonel	Commander	Wing Commander
Major	Lieutenant Commander	Squadron Leader
Captain	Lieutenant	Flight Lieutenant
Lieutenant	Sub-Lieutenant	Flying Officer

RECRUITMENT

The Armed Forces epitomize the ideals of service, sacrifice, patriotism and composite culture of the country. Recruitment to the Armed Forces is voluntary and open to all citizens of India irrespective of caste, class, religion and community provided the laid down physical, medical and educational criteria are met.

Recruitment of Commissioned Officers in Armed Forces through UPSC: Commissioned Officers in the Armed Forces are recruited mainly through the UPSC which conducts the following two All India Competitive Examinations:-

(a) **National Defence Academy (NDA) and Naval Academy (NA):** The UPSC holds entrance examination twice a year for entry into the NDA and NA. Candidates on completion of 10+2 examination or while in the 12th standard are eligible to compete.

(b) **Combined Defence Service Examination (CDSE):** CDSE is conducted by the UPSC twice a year. University graduates or those in final year of graduation are eligible to appear in the examination. Successful candidates join the Indian Military Academy/ Air Force Academy/ Naval Academy for Permanent Commission and Officers Training Academy (OTA) for Short Service Commission.

RECRUITMENT IN ARMY

Apart from recruitment through the UPSC, the commissioned officers are also recruited in Army through the following Non-UPSC entries:

(a) **University Entry Scheme (UES):** Final/ Pre-Final year engineering degree course students in the notified engineering disciplines are eligible to apply for Permanent Commission in the Technical Arms of the Army as Commissioned Officers under the UES. Eligible candidates are selected through a campus interview by the Screening Teams deputed by the Army Headquarters. These candidates are required to appear before SSB and Medical Board.

(b) **Technical Graduates Course (TGC):** Engineering graduates from notified disciplines of engineering/ post graduates with minimum second division aggregate marks (for Army Education Corps only), are eligible to apply for Permanent Commission through this entry. After the SSB and the Medical Board, the selected candidates are required to undergo one year pre-commission training at the IMA, Dehradun, before being commissioned.

(c) **Short Service Commission (Technical) Entry:** The Short Service Commission (Technical) Entry Scheme provides avenues to eligible technical graduates/ post graduates for recruitment in Technical Arms. After SSB and Medical Board, the selected candidates are required to undergo approximately 49 weeks pre-commission training at OTA, Chennai.

(d) **10+2 Technical Entry Scheme (TES):** Candidates who have qualified 10+2 CBSE/ ICSE/State Board Examination with minimum aggregate of 70% marks in Physics, Chemistry and Mathematics are eligible to apply for commission under the 10+2(TES).

(e) **Women's Special Entry Scheme Officers (WSES-O):** Eligible women candidates are recruited in the Army as Short Service Commissioned Officers through the (WSES-O). Commission is granted in Corps of Electronic and Mechanical Engineers, Engineers, Signals, Army Education Corps, Army Ordnance Corps, Army Educational Corps, Military Intelligence Corps, Judge Advocate General's Branch and Army Air Defence. Women are offered Short Service Commission in five streams, viz. Non-Technical, Technical, NCC (Special), Judge Advocate General and Post Graduate/ Specialist, for a period of ten years, extendable by further four years purely on voluntary basis. Recently, Government has allowed option for Permanent Commission for Army Education Corps and Judge Advocate General Branch.

(f) **NCC (Special Entry Scheme):** University graduates possessing NCC 'C' Certificate with minimum 'B' grade and 50% aggregate marks in graduation examination are eligible to apply for Short Service Commission through this entry. Such cadets are exempted from written examination conducted by the UPSC and are directly put through the SSB interview followed by a Medical Board.

(g) **Judge Advocate General Entry:** Law graduates with minimum 55% aggregate marks in LLB, who are within the age between 21 to 27 years, can apply for Judge Advocate General Branch. Eligible candidates are called for direct SSB interview and thereafter for medical test. It is a Short Service Commission Entry wherein suitable candidates can opt for Permanent Commission.

Recruitment of Personnel Below Officers Rank (PBOR): In the Army, there are eleven Zonal Recruiting Offices, two Gorkha Recruiting Depots, one Independent Recruiting Office and 59 Army Recruiting Offices in addition to 47 Regimental Centres which carry out recruitment through rallies in their respective areas of jurisdiction. All recruitment is being carried out through open rally system. The recruitment of

PBOR commences with the preliminary screening of aspiring candidates at rally site followed by document checking, physical fitness test, physical measurement and medical examination. This is followed by a written examination for the candidates found eligible in all respects. Finally selected candidates are dispatched to respective Training Centres for training.

RECRUITMENT IN INDIAN NAVY

Recruitment of Officers through Non-UPSC Entries: Recruitment for the Non-UPSC entries is made through Service Selection Board interviews for the following Branches/ Cadres of the Navy:-

(i) **Recruitment through NCC:** Under this scheme University Graduates holding NCC 'C' certificates with minimum 'B' grading are eligible to apply. The short listed candidates are then sent for SSB interviews.

(ii) **Executive Branch:** Short Service Commission for Air Traffic Control/Law/ Logistic/Naval Armament Inspectorate (NAI)/Hydro cadres/ Aviation/ Observer and Permanent Commission for Law/NAI Cadres.

(iii) **Engineering Branch (Including Naval Architects):** Short Service Commission through University Entry Scheme (UES), Special Naval Architects Entry Scheme (SNAES) Short Service Commission (E) Scheme and Permanent Commission through 10+2 (Tech) Scheme.

(iv) **Electrical Branch:** Short Service Commission through University Entry Scheme, SSC (L) Schemes and Permanent Commission through 10+2 (Tech) Scheme.

(v) **Education Cadre:** Permanent Commission and Short Service Commission schemes exist for this branch.

(vi) **10+2 (Tech) Scheme:** The Scheme is a Permanent Commission entry for commission in the Engineering and Electrical branches of the Indian Navy. Under the scheme, candidates with 10+2 (PCM) qualification, after selection through the Services Selection Board, are sent to the Naval Academy for the Naval Orientation Course. Thereafter, they undergo a four-year Engineering course at INS Shivaji/ Valsura.

(vii) **University Entry Scheme (UES):** Under UES Final and Pre-Final year Engineering students are eligible for induction into the technical Branches/Cadres of the Navy. Naval selection teams from the IHQ of MoD (Navy) and Command Headquarters visit AICTE approved engineering colleges, across the country, to shortlist the candidates. The short listed candidates, based on All India Merit, are called for interview at the Services Selection Board.

(viii) **Women Officers:** Women are being inducted into the Navy, as Short Service Commission (SSC) officers in the Executive (ATC, Law & Logistic Cadres), Education Branch and the Naval Architecture Cadre of the Engineering Branch. Indian Navy has also introduced SSC (Observer) entry scheme for women also w.e.f. July, 2008.

(ix) **Permanent Commission to SSC Officers (Men and Women):** Permanent Commission would be granted to SSC officers of Education, X/Law and E/Naval Constructor Cadres for batches being inducted with effect from January 2009 onwards.

Recruitment of Sailors: Recruitment of sailors in the Navy is carried out after the process of a written examination, physical fitness test and medical examination.

Types of Entries of Sailors: The various entries, for recruitment of sailors, are as follows:-

- (a) Artificer Apprentices (AAs) – 10+2 (PCM).
- (b) Direct Entry (Diploma Holders) [DE (DH)] – Diploma in Mechanical/ Electrical/ Electronics/ Production/ Aeronautical/ Metallurgy/ Shipbuilding.
- (c) Senior Secondary Recruits (SSR) – 10+2 (Sc.).
- (d) Matric Entry Recruits (MR), for recruitment of Cooks, Stewards and Musicians – Matriculation.
- (e) Non Matric Recruit (NMR), for recruitment of Topass Sailors (Safaiwala) – Class VI.
- (f) Direct Entry Petty Officer (Outstanding Sportsmen).

RECRUITMENT IN INDIAN AIR FORCE

Recruitment of Officers through Non- UPSC Entries: Recruitment of Commissioned Officers in the Indian Air Force is mainly done through the Union Public Service Commission (UPSC). For technical branches, women special entry scheme, National Cadet Corps (NCC) special entry scheme, service entries, recruitment is made directly through the Recruiting Directorate for the Indian Air Force.

(a) Recruitment through Service Selection Boards: Recruitment through Service selection Boards/Air Force Selection Boards is made for the Flying (Pilot), Aeronautical Engineering (Electronics), Aeronautical Engineering (Mechanical), Education, Administration, Logistics, Accounts and Meteorology branches of the Air Force.

(b) University Entry Scheme: Final/ pre-Final year students in engineering disciplines are eligible for induction into the technical branches of Air Force as Permanent Commissioned Officers under the University Entry Scheme.

(c) Recruitment of Women Officers: Eligible women are recruited as Short Service Commissioned Officers in the Flying, Aeronautical Engineering (Electronics), Aeronautical Engineering (Mechanical), Education, Administration, Logistics, Accounts and Meteorology branches of the IAF.

(d) Recruitment through National Cadet Corps(NCC): University graduates possessing NCC 'C' Certificate with minimum 'B' grading and 50% marks in graduation are inducted in the IAF as Regular Commissioned Officers by way of selection through the Service Selection Boards.

Recruitment of Personnel Below Officer Ranks (PBORs): The selection of Airmen is carried out through a centralized selection system on all India basis by Central Airmen Selection Board, located at New Delhi with the help of fourteen Selection Centres located all over the country.

NATIONAL CADET CORPS

The National Cadet Corps (NCC) was established under the NCC Act, 1948. It has completed 60 years of existence. The NCC strives to provide the youth of the country opportunities for all round development with a sense of commitment, dedication, self-discipline and moral values, so that they become useful citizens of tomorrow. The total sanctioned strength of NCC cadets is 13 Lakhs. The NCC's presence extends to 606 districts of the country covering 8,454 schools and 5,377 colleges.

Director General, NCC located at New Delhi controls and oversees various activities of the NCC through 16 NCC Directorates spread across the country. There is a Central Advisory Committee for the NCC to provide overall policy guidelines. NCC is manned by the service personnel, Whole Time Lady Officers, teachers/professors and civilians. One lecturer/ teacher in each educational institution is appointed Associate NCC officer.

TRAINING FOR DEFENCE SERVICES

A large number of training institutions in the Defence Sector work in coordination with one another. The important ones are described in the following paragraphs.

Sainik Schools : Sainik Schools were established as a joint venture of the Central and State Governments. These are under the overall governance of Sainik Schools Society. At present there are 24 Sainik Schools located in various parts of the country. Sainik School at Rewari (Haryana) is the latest one started in April 2009.

The objectives of Sainik Schools include bringing quality public school education within the reach of the common man, all-round development of a child's personality and to remove regional imbalance in the officer's cadre of the Armed Forces. The Sainik Schools prepare boys academically, physically and mentally to join Armed Forces through the National Defence Academy (NDA).

Rashtriya Military Schools : The Five Rashtriya Military Schools (earlier known as Military Schools) affiliated to CBSE are functioning at Ajmer, Bangalore, Belgaum, Dholpur and Chail. The Military Schools admit boys in class VI, based on the results of an all India Entrance Examination. While 67% seats are reserved for the wards of JCOs/ORs called 'entitled category', out of 33% non-entitled category seats, 20% are reserved for wards of service officers.

National Defence Academy (NDA) : The National Defence Academy (NDA) is the country's premier inter-service training institution. The three years course at the NDA is covered in six semesters. On conclusion of this training, the cadets proceed to their respective Service Academies for further training before being commissioned as officers in the Armed Forces.

Rashtriya Indian Military College (RIMC) : The Rashtriya Indian Military College (RIMC) was founded on March 3, 1922, with the objective of providing the necessary preliminary training for boys of Indian birth or domicile, wishing to become officers in the Armed Forces of India. The institution now serves as a feeder institute to the National Defence Academy. Selection for RIMC is through a written examination cum viva voce conducted through the State Governments. Seats for respective States are reserved based on population.

Indian Military Academy (IMA): Founded in 1932, Indian Military Academy, Dehradun aims at the fullest development of intellectual, moral and physical qualities of persons joining the Army as officers. The IMA also imparts training to Gentlemen Cadets from friendly countries.

Officer Training Academy (OTA) : The Academy trains cadets for Short Service Commission. With the entry of women officers in the Army since September 21, 1992, around 100 lady officers now get commissioned from OTA every year in Army Service Corps, Army Education Corps, Judge Advocate General's Department, Corps of Engineers, Signals and Electrical and Mechanical Engineers.

College of Military Engineering (CME) : The College of Military Engineering at Pune is a premier technical institution conducting training for personnel of the Corps of Engineers, other Arms and Services, Navy, Air Force, Para Military Forces, Police and Civilians. Besides, personnel from friendly foreign countries are also trained. CME is affiliated to Jawaharlal Nehru University (JNU) for the award of B.Tech and M. Tech degrees.

National Defence College : The National Defence College (NDC) has established a name for itself as a centre of excellence on matters pertaining to national security and strategic studies. The institution endeavours to provide an academic and professional setting that is conducive to higher learning and mental stimulation. The NDC runs a 47-week course every year for selected senior Defence and Civil Services officers from India and Defence officers from friendly foreign countries.

College of Defence Management : The College of Defence Management (CDM) is a Tri-Service category "A" training establishment in existence for over three decades now. It is entrusted with the responsibility of instilling contemporary management thoughts, concepts and practices in the senior leadership of the Armed Forces. Osmania University recognizes the core course of CDM, namely the Higher Defence Management Course for the award of the Master of Management Studies (MMS) degree.

Defence Services Staff College (DSSC) : The Defence Services Staff College (DSSC) is one of the oldest military institutions in India. It imparts training to middle level officers of the three Services besides a few civilian officers and officers from friendly foreign countries.

DEFENCE PRODUCTION

The Department of Defence Production deals with the indigenization, development and production of defence equipment both in the public and private sectors. The Department has Defence Public Sector Undertakings and ordnance factories with a wide-ranging production infrastructure. The products include aircraft and helicopters, warships, submarines, heavy vehicles and earthmovers, missiles, a variety of electronic devices and components for the defence sector, and alloys and special purpose steel. Since independence, the defence production sector has been developing steadily, with the objective of achieving self-reliance.

ORDNANCE FACTORIES

The Ordnance Factories Organisation is the largest and oldest departmentally run production organisation in the country. It is primarily engaged in the manufacture of Defence hardware for the Armed forces. The Ordnance Factories were established with a mandate to ensure self-reliance in manufacturing of Defence hardware.

The pre-independence factories had capacities for production of not only finished stores but also basic and intermediate materials because of inadequate industrial infrastructure in the civil sector. With the gradual development of industrial infrastructure in public and private sectors, the factories set up after independence have been outsourcing their requirements from small and medium industries.

Ordnance Factories continuously upgrade products and the manufacturing technologies, to meet the emerging needs of Defence Forces. As a policy, major thrust

is being given to achieve optimum capacity utilization not only by securing additional workload from the Armed Forces but also by making sustained efforts through diversification to non-defence customers and exports.

DEFENCE UNDERTAKINGS

Hindustan Aeronautics Limited (HAL) is a “Navratna” Defence Public Sector Undertaking. The Company is committed to achieve strategic self reliance in the aerospace sector and provide full support to the Defence Services. HAL’s core business activities include design, development and production of fixed wing aircraft (Fighters, Trainers & Transport) and helicopters, their avionics & accessories, life cycle customer support through Maintenance, Repair & Overhaul (MRO) of aerospace products and Manufacture of Structures and Integrated systems for space launch vehicles and satellites. The Company has produced 11 types of aircraft from in-house R&D and 14 types under license. The Company also plays a major role in the Country’s space programme. Structures & completely integrated assemblies for launch vehicles and satellites are produced by the Aerospace Division dedicated to meet the production requirements of aerospace structures for ISRO.

Bharat Electronics Limited (BEL) is a multi-technology, multi-product company with strong presence in the field of Radars and Sonars, Communication Equipment, Opto-Electronics, Electronic Warfare, Tank Electronics and Strategic Components. BEL supplies Electronic Equipments to the Indian Defence Services, Para-military Forces and other Government users like All India Radio, Doordarshan, BSNL, MTNL, Airport Authority of India, Meteorological Department, Railways etc. BEL also supplies Professional Electronic Components.

Bharat Earth Movers Ltd.(BEML Ltd.) is engaged in the design, manufacturing, marketing and after sales support of a wide range of Mining & Construction equipment, Defence products and Railway & Metro products. The company also serves the various core civil sectors of the economy such as mining, steel, cement, power, irrigation, construction, road building. It also provides e-engineering solutions through its Technology Division and trades non-Company products, components, aggregates and commodities for domestic and international markets through its Trading Division.

BEML manufactures and supplies Ground support equipment such as Tatra based High Mobility trucks, Armoured Recovery vehicles, Heavy Recovery vehicles, Pontoon Bridge System, Vehicles for Missile projects, Tank transportation trailers, Milrail wagons and coaches, Mine ploughs, Crash Fire Tenders, Aircraft Towing tractors, Aircraft weapon loading trolley, Transmission and final drive systems for BMP Combat vehicles, Suspension system for Battle Tanks. The company also supplies Bull Dozers, Excavators and Motor Graders to DGBR and Army for Border road construction/ maintenance, snow clearance and other civil works.

Mazagon Dock Limited (MDL) is a Premier Ship Builder of the Nation, capable of building warships of upto 6,800 tonne displacement and merchant ships of up to 27,000 DWT. MDL is engaged in construction of warships including Destroyers, Corvettes, Submarines, New Generation Stealth Frigates, Offshore Patrol Vessels, construction of various types of merchant ships and repairs/modernisation of warships, submarines and merchant ships. Fabrication of Offshore Platforms and

allied activities for Oil Exploration and general Heavy Engineering jobs were also carried out in the Yard.

The Company has built and delivered to the Indian Navy six Leander Class Frigates, three Godavari Class Frigates, one Cadet Training Ship, three Missile Corvettes, four Missile Boats, three Destroyers and two Submarines as also seven Offshore Patrol Vessels (OPV) to the Coast Guard. MDL has also built and delivered Cargo Ships, Passenger Ships, Supply Vessels, Multi Purpose Support Vessels, Water Tankers and various types of Small Crafts like Tugs, Dredgers, Fishing Trawlers, Barges & BOPS for various customers in India as well as abroad.

Goa Shipyard Ltd (GSL) is one of the leading shipyards, building medium- sized sophisticated vessels for Indian Navy, Indian Coast Guard and others. It commenced functioning with its own Board of Directors since September 29, 1967. Government of India has conferred the status of Mini Ratna, Category-I in March 2007. Goa Shipyard Limited is an ISO- 9001 certified company. The product range of the shipyard comprises of 105m Advanced Offshore Patrol Vessels (AOPV), 105m Naval Offshore Patrol Vessels (NOPV), 90m Offshore Patrol Vessels (90m OPV), Offshore Patrol Vessels (OPV), 50m Fast Patrol Vessels (FPV), Missile Boats (MB), Hydrographic Survey Vessels (HSV), Extra Fast Attack Crafts (XFAC), Sail Training Ship (STS), Landing Craft Utility (LCU), Seaward Defence Boats (SDB), Torpedo Recovery Vessels (TRV), Passenger Vessels (PV), Tugs etc. So far, 182 vessels have been built.

The Company has embarked on a major exercise of diversification into building Glass Reinforced Plastic (GRP) boats to cater for orders from Ministry of Home Affairs. GSL is also venturing into building Shore Based Test Facility (SBTF) for aviation specialization.

Garden Reach Shipbuilders and Engineers Limited (GRSE) has kept pace with the expanding maritime interests of India and is now recognized as a leading shipbuilding yard and manufacturer of high value, high technology, complex engineering items in Eastern India. The Company has been granted the Category-1 Mini Ratna status. The main business activity of GRSE is shipbuilding and ship repair for the Indian Navy and Coast Guard.

Bharat Dynamics Limited (BDL) was established in 1970 for manufacture of Guided Missiles. It is one of the few strategic industries in the world that possesses the capability to produce state-of-the-art missiles. Besides producing indigenously developed Prithvi missile systems under the IGMDP, BDL is engaged in the production of Konkurs-M and Invar (3UBK-20) Anti Guided Missiles in collaboration with Russia. Inhouse developed CMDS (Counter Measures Dispensing System) has been accepted by the Indian Air Force. BDL is working in close association with DRDO for technology absorption/assimilation and extending support by providing missile subsystems/integration of missiles for conducting trials of missiles like Akash, Nag, Article K-15 and Agni Variants (A1, A2 and A3). The Company has ventured into productionising underwater weapon systems such as Advanced Light Weight Torpedo (TAL) and Light Weight Mines in Concurrent Engineering mode.

Mishra Dhatu Nigam Limited (MIDHANI) was incorporated as a Public Sector Undertaking under the Administrative Control of Department of Defence Production & Supplies, Ministry of Defence in 1973 to achieve self-reliance in the manufacture of Superalloys, Titanium alloys and Special Purpose Steels required for strategic

sectors such as Aeronautics, Space, Armaments, Atomic Energy, Navy. Special products such as Molybdenum wires & plates, Titanium and Stainless Steel tubes, alloys for electrical and electronic application such as Soft Magnetic alloys, Controlled expansion alloys and Resistance alloys also form part of the production.

DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION

DRDO is the R&D wing of the Ministry of Defence, with a vision to empower India with cutting-edge defence technologies. Its mission is to achieve self-reliance in critical defence technologies and systems, by indigenisation and innovation, while equipping the armed forces with state-of-the-art weapon systems and equipment. DRDO came into existence in 1958 with the amalgamation of Technical Development Establishment (TDEs) of Indian Army and Directorate of Technical Development & Production (DTD&P) with Defence Science Organisation (DSO), DRDO is headed by the Scientific Advisor to *Raksha Mantri* (SA to RM), who is also the Secretary, Department of Defence R&D and Director General R&D. Dr DS Kothari, the eminent scientist and educationist was the first to head the organisation. The SA to RM is supported by eight Chief Controllers. The corporate headquarter of DRDO is at DRDO Bhawan, an environment friendly building located at Rajaji Marg, New Delhi.

The Organisation has two tier structure. viz, the Corporate HQrs at New Delhi, and laboratories establishments, regional centres, field stations, etc, across the length and breadth of the country. DRDO Hqrs, under the Department of Defence Research & Developmnt, is organized into two sets of Directorates i.e. the Corporate Directorates and the Technical Directorates. The laboratories, based on their core-competence, are classified in to eight clusters. The labs under each cluster are supported by respective technical directorates namely, the directorates of Aeronautics, Armaments, Combat Vehicles and Engineering, Electronics and Computer Sciences, Materials, Missiles, Naval Research and Development and Life Sciences, in terms of obtaining approvals of new projects from the Government, improving their infrastructure, creating new facilities, facilitate in monitoring and review of ongoing projects and also to co-ordinate with other laboratories and directorates. These Directorates act for the labs as 'single window' to the R&D Hq, and the Govt of India. The Centre for Technology Extension and the directorates of Interaction with Services for Business, International Cooperation, Technology Acquisition, Civil Works and Estates and the Technical Examination Cell further supports the labs in matters common to all labs. The Scientific Advisers to Chief of the Army Staff (COAS), Chief of the Air Staff (CAS), Chief of the Naval Staff (CNS) and Deputy Chief of Integrated Defence Staff also act as Technical Directors to render services to their respective Chiefs.

The Corporate Directorates namely, the directorates of Budget Finance & Accounts, Extramural Research & Intellectual Property Rights, Human Resource development, Management Services, Materials Management, Personnel, Planning & Coordination, Public Interface, Rajbhasha and OM, and Vigilance & Security, carry out planning and management of resources and facilitate the linkage with the other Government ministries and departments. They help laboratories in financial mmanagement, inducting manpower, training and career development, planning and coordination of ongoing projects, handling Parliament Questions, image building activities such as disseminating information regarding the programs/ policies/ accomplishment of DRDO to media academic and students community as well as the public at large etc. The Recuritment and Assessment Centre (RAC) undertakes fresh

recruitment of scientists at various levels and conducts assessments for promotions of scientists on periodic basis. The Centre for Personnel Talent Management (CEPTAM) is responsible for induction and training of "Technical and Other Staff" of the organisation.

DRDO has the following responsibilities.

- Design, development and lead to production of state-of-art Sensors, Weapon Systems, Platforms and allied equipment (Strategic systems, Tactical systems, Dual Use Technologies).
- Research in Life Sciences, to optimize combat effectiveness and promote their well being especially in harsh environment.
- Develop infrastructure and highly trained Manpower for strong defence technology base.

DRDO formulates and executes programmes of scientific research, design & development in areas relevant to national security. It also functions as the nodal agency for the execution of major Defence related programme with the national scientific institutions, PSUs and private agencies. It has led to the production of world class weapon systems and equipment in accordance with requirements laid down by the three Services. In addition DRDO assists the Services by rendering technical advice on matters such as formulation of Staff Requirements, evaluation of systems to be acquired. fire & explosive safety, mathematical/statistical analysis of operational problems etc.

The following facts give a glimpse of the structure and dimensions of DRDO.

● Total No. of Labs/Estts:	52
● Training Institutes:	CEPTAM (Delhi), DIAT (Pune), ITM, (Mussoorie)
● Integrated Test Ranges:	2
● Total strength:	28,292
● Scientists:	7,454
● Technical personnel,	10,433
● Others:	10,405
● Def. R&D Expenditure 2008-09 (Rs. in Crore)	7,694.41
● Def. R&D Budget 2009-10 (Rs. in Crores)	8,481.54
● Official webstes;	http://www.drdo.com http://www.drdo.org http://rac.drdo.in
● Official Contact Person	Director - Public Interface Phone: 911123011073 email:dpidrdo@hgr.drdo.

In terms of tangible outputs, DRDO has developed wide range of strategic and tactical weapon systems and complex technologies associated with such systems. The value of production orders placed on DRDO developed systems stands at over Rs. 35,000 crores till date. However, the production value of the DRDO products is by no means the only measure of impact of these development on the nation's defence capabilities. Many of these systems could not be imported to or developed jointly with any other country in the era of embargoes and technology denials. The developed countries with advanced militarily technologies offer licensed production of those systems that are obsolete for them, with barely any technology transfer. Successful indigenous development and production of strategic systems and platforms such as Agni and Prithvi series of missiles, submarine launched ballistic missiles, etc. have given quantum jump to India's military might, generating effective deterrence and providing crucial leverage and marking India's entry into the elite club of countries possessing such technologies.

Major contributions from each cluster of DRDO in terms of Products & Systems Developed/Accepted/Inducted, Technologies, developed and infrastructures facilities established:

The most significant contribution of DRDO is the creation of a system conducive to development of cutting edge technologies by developing partnerships with academic/research institutions and with industries; creating exhaustive infrastructure, both, within the organisation and the partners entities, creating centres of excellence and establishing high quality manpower resource. DRDO today possesses a wide spectrum of Core Competencies which include Systems Design & Integration of Complex Sensors, Weapon Systems & Platforms; Complex High-end Software Packages; Functional Materials; test and Evaluation; Technology Transfer and Absorption etc. In addition, Expertise and Infrastructure have been built up for basic/applied research in relevant areas, Quality Assurance & Safety, Project & Technology Management. The Infrastructural facilities created by DRDO are national assets and include Integrated Instrumented flight Test Range. Structural Dynamics & Vibration Test facility for aircrafts, EW Test ranges, Propulsion and Ballistics Test facilities, EMI/EMC Test Rigs, EMP/Lightning, Antennae Test Range, Instrumentation Ship, Acoustic Research Ship, Underwater Weapon Test Ranges, Test Tracks for land systems etc. The other tangible benefits are the capability in a wide range of military critical and advanced technologies, efforts in ensuring continuity of supply of components, spares in face of changing international scenario, developing a self reliant Defence R&D base and spin-offs into civil industry.

The major partners in our nation building endeavors include the three arms of the Services as the prime users, Defence PSUs, Private Industries, International Collaborators and Academic/Researchers. Inter-Governmental Agreements/MOUs on Defence Cooperation exist with about 35 countries. Training in specialised defence technology-related areas is offered to many developing countries for their scientific/engineering personnel at the Defence Institute of Advanced Technology (A Deemed University), Pune. The DRDO has been actively promoting participation of Indian Industries in defence production and this has resulted in a significant growth of industries both in PSUs and private sector. DRDO has strong interface with the user Services through the Integrated Defence Staff and Service HQrs. Studies of S&T road

Cluster	Products & Systems Developed Accepted/ Inducted	Technologies Developed and Infrastructures Facilities established
Aeronautical Systems	<p>LCA-Tejas India's first indigenously designed, developed and produced Light Combat Aircrafts (seven) have completed 11.50 flights. Induction of squadron of 20 LCAs is scheduled 2010-11. The Naval variant of LCA is also likely to roll out by 2010. The other success stories are Lakshya Pilotless Target Aircraft, Nishant-Unmanned Aerial Vehicle, Electronic Warfare Suites, Radar Warning Receivers including High Accuracy Direction Finding (HADF) RWR Mission computers and avionics upgrades for several fighter aircrafts. Missile Approach warning System and Laser Warning System have been developed and are being fitted on various military aircrafts and helicopters. As spin-offs, variants of Kaveri engine are being developed for propulsion of marine vessels with great advantages.</p>	<p>A wide range of highly complex technologies have been mastered and massive infrastructure created in the process of development of LCA-Tejas, its sub-systems and the Gas Turbine Engine-Kaveri.</p> <p>Unstable Aerodynamics, Flight Control Laws for Unstable Configuration Aircraft, Fly-by-wire Digital Flight Control System, Open Architecture Structure, Hardware and Software for Simulators.</p>
Armament Systems	<p>Large number of armaments designed and developed by DRDO have been inducted in the armed forces. Over a million pieces of 7.62 mm Ishapore Self-Loading Rifle (SLR) developed by DRDO were produced till replaced by 5.56mm INSAS (Indian Small Arms system) was made available in fixed & foldable versions of a Assault Rifle & LMG, all firing the same ammunition and having 70% commonality of parts. Multi-Barrel Rocket System-Pinaka, FSAPDS ammunition, Influence Mines Mk-1, Multimode Grenade Under-Barrel Grenade Launcher, 84 mm light weight launcher, Bund blasting device, Instant fire detection & suppression for BMP-II, 303 inch and 7.62 mm non-lethal bullets are examples of wide range of products.</p>	<p>Hydro-Pneumatic Suspension, Rocket Motor and Thermal Protection. Composite Propellant.</p> <p>Pre-fragmented, Incendiary and Bomblet Warhead.</p> <p>Electric and Electro-hydraulic Launcher</p>
Combat Vehicle and Engineering	<p>Over 50 Main Battle Tank-Arjun including 45 for the 1st Arjun Armored Regiment (45 tanks) and 649 Combat Improved Ajay Tanks equipped with Explosive Reactive Armour (ERA), Global Positioning System (GPS), Integrated Fire Detection & Suppression System (IFDSS) & reconfigured Smoke Grenade Discharger (SGD) have been produced. Other major achievements are BHIM-76. Self Propelled 155 mm gun, Ex-tank-a combination of T-72 (Ajeya) Chassis and the most advanced MBT Arjun Weapon System, Bridge Layer Tank Arjun</p>	<p>Engine Test Facility, Transmission Test Facility, Full Injection Pump Test Rig, Variable Speed Drive Test Facility, Variable Speed Drive Test Facility, Road Wheel Test Rig, Air Cleaner Test Rig, Suspension Test Facility, Hydraulic Test Bench, Universal Gear Tester, Ultrasonic Flaw Detector, Test Facilities for Aircraft Gearbox, Environmental Test Facilities consisting of Low temperature chamber, Driving rain</p>

(capability to convert Arjun Tank to BLT within few hours), Bridge Layer Tank T-72 SARVATRA mobile bridge laying system (up to 75m within 100 minutes), SAKAV 46 m single span bridge system, MLC70 & MLC 40 Modular Bridges, Carrier Command Post Tracked, BMP-II, Armored Amphibious Dozer, Mobile Camouflage System (integrated in MBT Arjun), NBC protected Integrated Field Shelter, Remotely Operated Vehicle (Daksh) a robotic vehicle capable of remotely handling IED, Riot Control Vehicle, Unmanned Ground Vehicle (UGV), Trackway Expedient Mat Ground Surfacing, Armoured Ambulance BMP-II, Carrier Mortar Tracked on BMP-II, Containerized Operation Theatre Complex on wheels, Ground Support Vehicles for various indigenous strategic and tactical missiles, Nishant launcher, Counter Mine Flail (CMF) on T-72 Tank, Snow galleries, Micro-pile foundation for the effective transfer of snow pressure.

Electronic & Computer Systems

Artillery Combat command Control System-ACCCS. Indian Doppler Radar INDRA-I & II. INDRA-I & II. Rajendra - multifunction phased array radar. Super Vision Maritime Patrol Radar (SV-2000 MPAR). Avalanche Victim Detector (AVD), Battle Field Surveillance Radar-BFSR, a man-portable, battlefield and perimeter surveillance radar has been produced in large numbers. Electronic Warfare systems SAMUKTA & SANGRAHA for Army and Navy 3D-CAR (Central Acquisition Radar) medium range Early Warning Sensor - Revathi for Navy. Weapon Locating Radar. EON 51-Electro-optic Fire Control System. Briefcase SATCOM Terminal. Sectel (Secure Telephone). Sujav - a compact Communication Electronic warfare suit. Integrated Weapon System Simulation. Eye Safe Lasers. Laser Designator. PRF Code Recognition Device for decoding the PRF codes of laser target designators. Laser Warning Sensor Palmtop Green Microchip Laser Module. Passive Q-Switching. EOCC-C class Laser System for both antisensor as well dazzling applications with an operational range of 2.5 km. 6.5 KW pulsed X-band and 10kW pulsed Ku band Coupled-Cavities TWT for airborne radars, S-band 130 KW (pulsed) Coupled-cavity TWT.

Life Sciences

Life Support System for Army, Navy and Air Force Personnel. Combat Free Fall system capable to withstand the harsh conditions of free fall from 30,000 ft. NBC Canister. Water Poison Detection Kit. Portable Decontamination Apparatus. NBC Filters/adapted & fast growing Broiler Sheep. Bio

chamber, Water immersion chamber, Dust chamber, Mould growth chamber, Salt spray chamber, Shock test machine and Bump test machine, Test Track Facility, Dry heat chamber and Dump heat for evaluation of structural integrity and performance of electronic and electrical equipment.

Rapid prototyping and Prototype manufacturing facilities.

A National Centre for Automotive Testing (NCAT) at VRDE is equipped with state of the art infrastructure for testing and certification of defence as well as civil vehicles where a modern EMC (electro-magnetic compatibility) test facility, one of the biggest in the world, has been recently added.

Technologies for achieving High Accuracy Direction Finding, High Power Jamming, Voice Recognition and Voice Print Analysis Data/image Fusion, Jam-Resistant Data Link CI Systems, Satellite Communication, Secrecy Systems, Multifunction electronic scanning radars, Parallel processing, I-u CMOS Fabrication Technology.

GsAs Crystal Growth Facility, Molecular Beam Epitaxy System, Ion - Implantation system, Electron Beam Micro Lithography system, MOCVD system, Mask Fabrication Facility, Fab line for fabrication of MMIC UHV Processing Stations, Precision Machining Facilities, Single Point Diamond Turning (SPDT) Micro-machining Facility.

Life Support Technologies. NBC Defence Technologies. Military nutrition - (fresh and processed foods technologies). Military Psychology & Personnel Selection. Man-machine interface. Technology for removal of

diesel production. Cold tolerant hybrid vegetables. Genetically engineered cold tolerant hybrid vegetables. Genetically engineered cold tolerant vegetables. Hyperbaric oxygen therapy Chamber (Samudrasuta). One man High Altitude Pulmonary Oedema (HAPO) chamber. Heating Gloves & Socks for extreme cold conditions. Self-contained self-heating system to warm Ready - to Eat Packed foods at 65°C. Long shelf life ready to eat packaged food Bio-digestor for treatment of human waste for extreme cold also being introduced in Indian Railway Coaches to avoid soiling of tracks. Multi-Insect Repellent DEPA. computerized Pilot Selection System (CPSS). NBC and high altitude medical products.

Materials	<p>AB Class Steel for Naval Applications, Titanium Sponge. High Temperature Titanium Alloys for Aerospace applications. NBC Recce Vehicle. NBC Protective Clothing/Permeable Suits, NBC water purification system. Camouflage Pattern Generation Software. Synthetic Camouflage Net. Mobile medical post for Navy. Extreme cold weather Clothing systems. Blast Protection Suits. Synthetic Life Jacket. Anti Riot Polycarbonate Shield. Anti Riot Helmet. Brake pads for Aircrafts. Heavy alloy Armor Penetrator Rods. Jackal Armor. Kanchan Armor. Hydraulic Pipeline for Submarine Applications. Investment Casting of turbine components etc.</p>	<p>Technologies related to Composite Armor, Special Steels for the Navy, Cast Airfoils for Gas Turbines, Titanium Alloys, Rare Earth Metal-based High Energy Magnets. Armour for Fighting Vehicles, NBC Production, Camouflage and Stealth, Desert Systems and Radiation Instrumentation.</p>
Missile & Strategic Systems:	<p>Surface-to-surface strategic missile systems Agni I (700 km) Agni-II (2000 km) and Agni III (3000 km). Prithvi series of surface-to-surface missiles. Brah Mos Supersonic Cruise Missiles for Army and Navy. Dhanush-ship launched SS missile. Akash - multi-directional, multi-target SAM area defence weapon system. Nag - 3rd generation anti tank missile. Air Defence System against ballistic missiles of up to 2000 km class, both low altitude and high altitude (80 km), RINS - Ring Laser Gyro based INS-GPS-Glonass for long range missiles and Aircrafts. Millimeter Wave Seeker. MINGS-MEMS based Hybrid Navigation System. Computerized war games for Army & Air force.</p>	<p>Technologies for indigenous development, testing & production of Fiber Optics Gyro, Ring Laser Gyro, Accelerometers, Inertial/Autonomous Navigation Systems, MEMS and MEMS based sensors, Directional warheads, Direct Action Trajectory and Altitude Control System, Long range Solid Rocket Motors, Smokeless Propellant, Composite Rocket Motor casings, Carbon Composite Re-entry Vehicles, Composite Radomes, Seals and jet vanes for under water Launch system, Pro-fragmented and Submunition Warheads. Technologies for Command Guidance. Ram Rocket Propulsion, Multi Target Engagements, Twin engine Liquid Propulsion Stabilisation of Launch Platform for Moving Ship.</p> <p>Multi-band Radar Seeker Test facility. Electro-magnetic Pulse facility. Electro-</p>

		hydraulici servo valve Limited Production facility. Solid Propellant Processing facility.
Naval Systems	Ship-borne sonar HUMSA. Air Borne dunking sonar MIHIR. Submarine-sonar USHUS. Torpedo Advanced Light Tal. Torpedoes-Fire Control System and Advanced Experimental. Advanced Panoramic Sonar Hull mounted (APSOH) PACHENDRIYA - integrated submarine sonar and tactical fire control system. Underwater Telephone (UWT) TADPOLE sonobuoy high altitude deployable sonar. Auto-controlled Carbon Dioxide Control System. Impressed Current Cathodic Protection System for Ship hull. Indian Activated Aluminum Galvanic Sacrificial alloy system. Poly-LIST Dockblock- a substitute for teak wood used for dry docking of ships. Heavy duty non-skid paint. 250 Kw Silver Oxide-Zinc Battery. IR Suppression System For Naval Platforms.	Sonar Technology Homing Technology Pumpjet. Propulsion. Signal Processing for Target Classification. The floating labouratory - INS Sagardhwani, Underwater Acoustics Research Facility. Hydrodynamic Test Facilities. High Speed Towing Tank (HSTT). Cavitation Tunnel. Wind Tunnel. Acoustic. Shock, Noise and Vibration Test Facilities. Under Water Ranges. Torpedo Engineering Centre Electrical Propulsion Test Centre Materials and Acoustic Simulated Test (MATS) facility. cluster computing facility to provide system level simulation of sonar systems-DARPAN, Prototype Manu- facturing Facility.

maps of DRDO and the three Services are carried out to identify the products and critical technologies that are required to be established within the country. The technologies are categorised into "Buy. "Make" and "Buy & Make" categories and strategies evolved to establish them in the country by one of the following routes, namely, 'In house development in DRDO', 'Acquisition of Matured Technologies through offset obligations'. DRDO has Foreign Collaborations, MOU/Agreements with 3 countries in area of defence technologies. The major foreign partners are - Russia, USA, France, Israel, Germany, UK, Singapore, Kazhakastan and Kysgystan. DRDO also has Joint Working Groups for collaboration with major foreign partners. Three such groups are Indo-US Joint Technology Group, Indo-Russian R&D Sub Group and Indo-Israel Managing Committee.

The Defence R&D expenditure of Rs. 7,694.41 crore during the FY 2008-09 was just 6.67% of nation's total Defence Services expenditure of Rs. 1,14,600.28 crore. Over 77% of the expenditure was on R&D activities and creation of infrastructure facilities for such activities. Salaries constituted 16% of the expenditure. The Defence R&D Budget for the current (2009-10) FY is Rs. 8,481 crore being 5.98% of the total Defence Services budget of Rs. 1,41,703 crore. 44% of the budget is under the capital head. The strategic systems have been on priority, taking significant share of the Defence R&D budget.

The DRDO, being a knowledge based organisation, has been generating and protecting the intellectual property rights as part of its culture. DRDO has taken more than 416 Indian and 45 foreign patents/designs/copyrights till date, while another 459 Indian and 110 foreign patents are under prosecution. A good number of national and international papers with impact factor are being published by our scientists. The number of PhDs in DRDO under the DRDS category alone today exceeds 640. It is a true 'knowledge bank' for the nation and owner of a vast intellectual

property. DRDO offers to its employees adequate professional ambiance in terms of flexibility of operation, autonomy, financial and managerial responsibilities. Advanced training, career and self-development needs of the scientists are also given due attention. The DRDO employees routinely perform duties that are unique in nature. Several projects in DRDO are mission mode and field oriented. In addition to carrying out field trials for several months at a stretch under harsh environments like deserts and high altitude cold areas, the DRDO scientists are also often posted at Hard Stations like Leh, Tezpur etc. Further, the scientists are also expected to carry extensive airborne and ship borne trials as part of their project responsibilities.

The DRDO has attracted young students to take defence S&T as career option. Competent manpower is inducted into DRDO through several schemes such as All India DRDO Scientists Entry (SET), Annual Campus Talent Search, Selection as Scientist from candidates with fresh PhD under the ROSSA scheme, Online selection for NRIs and selection of scientists under Lateral Entry Scheme.

"Balasya mulam vigyanam" i.e. "The source of strength is Science" is the tag line of DRDO. It is Science that drives the nation in war and peace. DRDO has firm determination to make the nation strong and self reliant in terms of Science and Technology especially in field of military technologies.

RESETTLEMENT OF EX-SERVICEMEN

The Department of Ex-servicemen Welfare (ESW) formulates various policies and programmes for the welfare and resettlement of Ex-servicemen (ESM) in the country. The Department has two Divisions viz., the Resettlement Division and the Pension Division. The resettlement and welfare activities of the Department of Ex-servicemen are carried out through the three organisations namely Directorate General (Resettlement), Kendriya Sainik Board (KSB) and Ex-servicemen Contributory Health Scheme (ECHS). While the KSB, headed by Raksha Mantri as ex-officio President of the Board, lays down general policies for the welfare of ESM and their dependents and also for administration of welfare funds, the office of Directorate General of Resettlement implements various policies/ schemes/ programmes of the Government, for ESM like pre and post retirement training, re-employment, self employment etc.

The main thrust of the Department of Ex-servicemen Welfare is on resettlement/ rehabilitation of ESM and their dependents. Nearly 60,000 armed forces personnel retire or are released from active service every year, most of them being in the comparatively younger age bracket of 35 to 45 years. These personnel need to be utilized for nation building. This is sought to be achieved through the following modalities:- (a) imparting necessary training, to prepare them to take on the new assignments/ jobs; (b) providing employment opportunities in government/ semi government/ public sector organizations; (c) Pro-active action to facilitate reemployment of the ESM in the private Sector; (d) Providing jobs through schemes for self employment; and (e) Assisting in entrepreneurial ventures.

Officers' Training: The Directorate General (Resettlement) organizes Resettlement Training Programmes based on short courses of one to three months duration and a few courses up to six months duration.

Junior Commissioned Officers (JCOs)/ Other Ranks (ORs) Equivalent Training: Resettlement Training Programmes for Personnel Below Officer Rank (PBORs) are conducted in diversified fields for a duration of up to six to nine months in government, semi-government and private institutes spread all over the country.

Ex-Servicemen (ESM) Training: The scheme is primarily meant for those ESM who could not avail the facility of resettlement training while in service. It is also extended to the widow one dependent of ESM.

RE-EMPLOYMENT OF EX-SERVICEMEN

The Central and State Governments provide a number of concessions to ex-servicemen for their reemployment in Central/ State Government Departments. These include reservation of posts/ relaxation in age and educational qualifications, exemption from payment of application/ examination fees and priority in employment to the disabled ESM and dependants of deceased service personnel on compassionate grounds.

Reservation for Ex-Servicemen in Government Jobs: The Central Government has kept the following reservation in services for ESM: (a) 10% in Group 'C' posts, 20% in Group 'D' posts; (b) 14.5% reservation in Group 'C' and 24.5% in Group 'D' posts in PSUs and Nationalized Banks; (c) 10% posts of Assistant Commandants in paramilitary forces; and (d) In Defence Security Corps, 100% vacancies are reserved for ESM.

PLACEMENT THROUGH DGR

Security Agencies: The Directorate General (Resettlement) empanels/ sponsors ESM run private security agencies, companies and corporations for providing security guards to various Central Public Sector Undertakings (PSUs) and industries in the private sector. The scheme offers good self employment opportunities to retired officers and adequate employment opportunity to retired PBOR, in a field, where they have sufficient expertise.

Security of Currency Chests: The Reserve Bank of India has issued instructions to banks that they may avail services of DGR sponsored ESM Security Agencies/ companies/ corporations only for guarding arrangement of currency chests.

SCHEMES FOR SELF-EMPLOYMENT

Government has formulated several Self-employment ventures for rehabilitation and resettlement of Ex-servicemen and their families. The details of some schemes are given in the following paragraphs.

Allotment of Army Surplus Vehicles: Ex-Servicemen and widows of defence personnel, who died while in service, are eligible to apply for allotment of Army Surplus Class V-B Vehicles.

Coal Transportation Scheme: This is a popular scheme in vogue for the last 28 years. The ESM Coal Companies have performed to the total satisfaction of the Coal Subsidiaries and have established themselves as the main work force of Coal India Limited (CIL).

Allotment of Oil Product Agency: Ministry of Petroleum and Natural Gas has reserved 8% of Oil Product Agencies i.e LPG Distributorship, Petrol Pumps and Superior Kerosene Oil Distributorship etc. for the defence category applicants comprise war-time/peace-time widows and disabled soldiers.

Mother Dairy Milk Booths and Fruit & Vegetable (Safal) shops: This is a time tested well paying self employment scheme for ESM PBOR. In consultation with the Mother Dairy, the scheme is now being extended not only to the other cities of NCR viz Gurgaon, Noida and Greater Noida, but to other states too. Jaipur has been included in the scheme in March 2009.

PM's Scholarship Scheme: The aim of PM Scholarship Scheme is to encourage the wards of widows and ex-servicemen to take up higher technical and professional education. Under the scheme the amount of scholarships for boys is Rs. 1250/- per month and for girls Rs. 1500/- per month.

ENTREPRENEUR SCHEMES

The schemes in operation at present are SEMFEX-II and SEMFEX-III comprising ventures in rural areas in agriculture, industry and service sectors. The lending institutions are Nationalised Banks, Cooperative Banks, Regional/Rural Banks etc. Subsidy of 25%-30% is available for these schemes. Application for loan is submitted by ex-servicemen directly to the Bank through concerned Zila Sainik Boards.

SEMFEX-II Scheme : The Scheme was started in 1988 with the assistance of National Bank for Agriculture and (NABARD) for funding the entrepreneurship in agriculture, industry and service sectors in rural areas. Subsidy upto 25% of project cost is provided.

SEMFEX-III : The scheme was started in 1992 with the assistance of Khadi and Village Industries Commission (KVIC) for setting up of textile, village, cottage, tiny and small scale industries in rural areas. Loan up to Rs 25 lakhs and subsidy upto 30% is provided under the scheme.

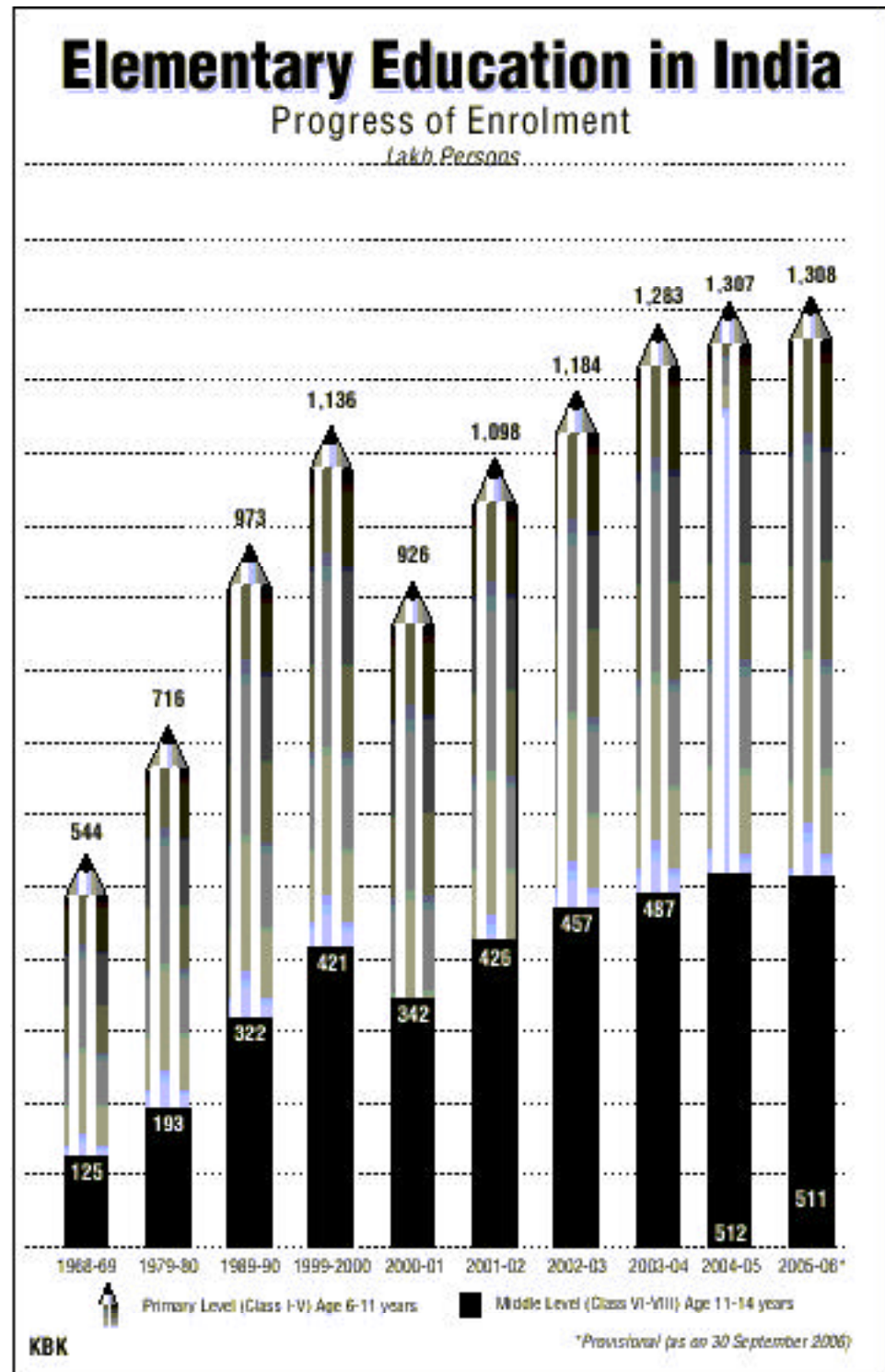
10 Education

BEFORE 1976, education was the exclusive responsibility of the States. The Constitutional Amendment of 1976, which included education in the Concurrent List, was a far-reaching step. The substantive, financial and administrative implication required a new sharing of responsibility between the Union Government and the States. While the role and responsibility of the States in education remained largely unchanged, the Union Government accepted a larger responsibility of reinforcing the national and integrated character of education, maintaining quality and standard including those of the teaching profession at all levels, and the study and monitoring of the educational requirements of the country.

The Central Government continues to play a leading role in the evolution and monitoring of educational policies and programmes, the most notable of which are the National Policy on Education (NPE), 1986 and the Programme of Action (POA), 1986 as updated in 1992. The modified policy envisages a National System of education to bring about uniformity in education, making adult education programmes a mass movement, providing universal access, retention and quality in elementary education, special emphasis on education of girls, establishment of pace-setting schools like *Navodaya Vidyalayas* in each district, vocationalisation of secondary education, synthesis of knowledge and inter-disciplinary research in higher education, starting more Open Universities in the States, strengthening of the All India Council of Technical Education, encouraging sports, physical education, Yoga and adoption of an effective evaluation method, etc. Besides, a decentralised management structure had also been suggested to ensure popular participation in education. The POA lays down a detailed strategy for the implementation of the various policy parameters by the implementing agencies.

The National System of Education as envisaged in the NPE is based on a national curricular framework, which envisages a common core alongwith other flexible and region-specific components. While the policy stresses widening of opportunities for the people, it calls for consolidation of the existing system of higher and technical education. It also emphasises the need for a much higher level of investment in education of at least six per cent of the national income.

The Central Advisory Board of Education (CABE), the highest advisory body to advise the Central and State Governments in the field of education, was first established in 1920 and dissolved in 1923 as a measure of economy. It was revived in 1935 and had continued to exist till 1994. Despite the fact that in the past, important decisions had been taken on the advice of CABE and it had provided a forum for widespread consultation and examination of issues relating to educational and cultural development, it was unfortunately not reconstituted after the expiry of its extended tenure in March 1994. CABE has a particularly important role to play at the present juncture in view of the significant socio-economic and socio-cultural developments taking place in the country and for the review of the National Policy on Education which is also due. It is a matter of importance therefore, that the Central and State Governments, and educationists and people representing all interests, should increase their interaction and evolve a participative process of decision making in education, which enhances the federal structure of our polity. The National Policy on Education, 1986 (as modified in 1992) also envisages that the CABE will play a



pivotal role in reviewing educational development, determining the changes required to improve the system and monitoring implementation, and will function through appropriate mechanisms created to ensure contact with, and coordination among, the various areas of human resource development. Accordingly, the CABE has since been reconstituted by the Government in July 2004 and the first meeting of the reconstituted CABE was held on 10 and 11 August 2004. The Board consists of nominated members representing various interests in addition to elected members from the Lok Sabha and the Rajya Sabha, and the representatives of the Government of India, State Governments and UT Administrations.

In the meeting of the reconstituted CABE held on 10 - 11 August 2004 some critical issues had emerged needing detailed deliberations. Accordingly, seven CABE Committees were set up to examine : (i) Free and Compulsory education Bill and other issues related to Elementary Education, (ii) Girls Education and the Common School System, (iii) Universalisation of Secondary Education, (iv) Autonomy of Higher Education Institutions, (v) Integration of Culture Education in the School Curriculum, (vi) Regulatory Mechanism for the Text Books and parallel text books taught in schools outside the Government system, and (vii) Financing of Higher and Technical Education.

The above mentioned Committees were set up in September 2004. The reports of these Committees were discussed in the 53rd Meeting of the CABE held on 14-15 July 2005 at New Delhi. Necessary steps are being taken to identify the action points emerging from all these reports and to prepare a road map for action on them in a time bound manner. In the meeting it has also been decided, *inter alia*, to constitute three Standing Committees of the CABE, viz., (i) A Standing Committee on Inclusive Education for Children and Youth with Special Needs to oversee the implementation of the new education policy on this subject. (ii) A Standing Committee on Literacy and Adult Education to guide the National Literacy Mission. (iii) A Standing Committee for looking at the integration and coordination of efforts for children's development, taking into account different schemes of education, child development, nutrition and health aspects.

On the recommendations made by the CABE, in its meeting held on 6-7 September 2005, a monitoring committee has been set up to oversee the preparation of syllabus for the textbooks by NCERT. Measures have been taken to reform the functioning of the accrediting and affiliating institutions by introduction of steps to receive and process the applications on-line and also bringing in the reforms in other processes by making things transparent.

Consultation process has been initiated to consider the setting up of a National Commission on Higher Education for overseeing generation of new ideas and monitoring the reforms in the higher education sector.

In order to facilitate donations including smaller amounts from India and abroad for implementing projects/programmes connected with the education sector, the Government has constituted "Bharat Shiksha Kosh" as a Society registered under the Societies Registration Act, 1860. It was launched officially on 9 January 2003 during the celebrations of Pravasi Bharatiya Diwas. The Kosh will receive donations/contributions/endowments from individuals and corporate, Central and State Governments, Non-Resident Indians and People of Indian Origin for various activities across all sectors of education.

EXPENDITURE

In line with the commitment of augmenting resources for education, the allocation for education has, over the years, increased significantly. The Plan outlay on education has increased from Rs 151.20 crore in the First Five-Year Plan to Rs 43,825 crore in the Tenth Five-Year Plan (2002-2007). The expenditure on Education as a percentage of GGP also rose from 0.64 per cent in 1951-52 to 3.74 per cent in 2003-2004 (BE).

The outlay for Education in the Tenth Five-Year Plan of Rs 43,825 crore, is higher than the Ninth Plan outlay of Rs 24,908.38 crore by 1.76 times. Rs 30,000 crore has been provided for the Department of Elementary Education and Literacy and Rs 13,825 crore for the Department of Secondary and Higher Education. The outlay for education during 2005-06 is Rs 12531.76 crore for the Department of Elementary Education and Literacy and Rs 2712.00 crore for the Department of Secondary and Higher Education. The expenditure during the plan periods on the different sectors of education is given in table 10.1.

ELEMENTARY EDUCATION

SARVA SHIKSHA ABHIYAN (SSA)

The Scheme of Sarva Shiksha Abhiyan (SSA) a national flagship programme, is being implemented in all districts of the country. The aim of SSA is to provide useful and relevant elementary education for all children in the 6-14 age group by 2010. The scheme of Sarva Shiksha Abhiyan (SSA) was launched in 2001. The goals of SSA are as follows : (i) All 6-14 age children in school/EGS (Education Guarantee Scheme) centre/Bridge Course by 2005. (ii) Bridge all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010. (iii) Universal retention by 2010. (iv) Focus on elementary education of satisfactory quality with emphasis on education for life.

The assistance under the programme of Sarva Shiksha Abhiyan was on a 85:15 sharing arrangement during the Ninth Plan, 75:25 sharing arrangement during the Tenth Plan, and 50:50 sharing thereafter between the Central Government and the State Government except for 8 NE states, where 15% of the assistance is met by Ministry of DONER for the two years 2005-06 and 2006-07.

The programme covers the entire country with special focus on educational needs of girls, SCs/STs and other children in difficult circumstances. The programme seeks to open new schools in those places which do not have schooling facilities and strengthen existing school infrastructure through provision of additional class rooms, toilets, drinking water, maintenance grant and school improvement grant. The SSA has a special focus on girls and children of weaker sections. A number of initiatives, including distribution of free textbooks, target these children under the programme. The SSA also seeks to provide computer education even in the rural areas.

EDUCATION GUARANTEE SCHEME AND ALTERNATIVE AND INNOVATIVE EDUCATION

Education Guarantee Scheme and Alternative and Innovative Education (EGS and AIE) is an important component of Sarva Shiksha Abhiyan (SSA) to bring out-of-school children in the fold of Elementary Education. The scheme envisages that child-wise planning is undertaken for each out-of-school children.

EGS addresses the inaccessible habitation where there is no formal school within the radius of one km and atleast 15-25 children of 6-14 years age group who are not

going to school are available. In exceptional cases remote habitations in hilly areas even for 10 children an EGS school can be opened.

Alternative Education interventions for specific categories of very deprived children e.g., child labour, street children, migrating children, working children, children living in difficult circumstances and older children in the 9+ age group especially adolescent girls are being supported under EGS and AIE all over the country.

A sizeable number of out-of-school children are in the habitations where schooling facility is available but these children either did not join the school or dropped out before completing their schooling. These children may not fit into the rigid formal system. To bring such children back to school; back to school camp and Bridge Courses strategies have been implemented. Bridge courses and Back to school camps can be residential or non-residential depending upon the need of children.

MID-DAY MEAL SCHEME

Background

With a view to enhancing enrollment, retention and attendance and simultaneously improving nutritional levels among children, the National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched as a Centrally Sponsored Scheme on 15th August 1995, initially in 2408 blocks in the country. By the year 1997-98 the NP-NSPE was introduced in all blocks of the country. It was further extended in 2002 to cover not only children in classes I-V of government, government aided and local body schools, but also children studying in EGS and AIE centres. Central Assistance under the scheme consisted of free supply of food grains @ 100 grams per child per school day, and subsidy for transportation of food grains up to a maximum of Rs 50 per quintal.

In September 2004 the scheme was revised to provide cooked mid day meal with 300 calories and 8-12 grams of protein to all children studying in classes I-V in Government and aided schools and EGS/AIE centres. In addition to free supply of food grains, the revised scheme provided Central Assistance for (a) Cooking cost @ Re 1 per child per school day, (b) Transport subsidy was raised from the earlier maximum of Rs 50 per quintal to Rs. 100 per quintal for special category states, and Rs 75 per quintal for other states, (c) Management, monitoring and evaluation costs @ 2% of the cost of foodgrains, transport subsidy and cooking assistance, (d) Provision of mid day meal during summer vacation in drought affected areas.

In July 2006 the scheme was further revised to provide assistance for cooking cost at the rate of (a) Rs 1.80 per child/school day for States in the North Eastern Region, provided the NER states contribute Rs. 0.20 per child/school day, and (b) Rs 1.50 per child/school day for other States and UTs, provided that these States and UTs contribute Rs 0.50 per child/school day.

Objectives

The objectives of the mid day meal scheme are :

- (i) Improving the nutritional status of children in classes I-V in Government, Local Body and Government aided schools, and EGS and AIE centres.
- (ii) Encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities.
- (iii) Providing nutritional support to children of primary stage in drought affected areas during summer vacation.

Programme Intervention and Coverage

To achieve the above objectives a cooked mid day meal with nutritional content as shown in column 3 of the table below will be provided to all children studying in classes I-V:

Nutritional Content	Norm as per NP-NSPE, 2004	Revised Norm as per NP-NSPE, 2006
Calories	300	450
Protein	8-12	12
Micronutrients	Not Prescribed	Adequate quantities of micronutrients like iron, folic acid, vitamin-A etc.

Components of the revised scheme

The revised scheme provides for the following components:

- (i) Supply of free **food grains** (wheat/rice) @ 100 grams per child per School Day from the nearest FCI godown :
- (ii) Reimbursement of the actual cost incurred in *transportation* of foodgrains from nearest FCI godown to the Primary School subject to the following ceiling :
 - (a) Rs. 100 per quintal for 11 special category States viz. Arunachal Pradesh, Assam, Meghalaya, Mizoram, Manipur, Nagaland, Tripura, Sikkim, J&K, Himachal Pradesh and Uttaranchal, and
 - (b) Rs. 75 per quintal for all other States and UTs
- (iii) Provision of assistance for *cooking cost* at the following rates :
 - (a) **States in North-Eastern Region** : @ Rs. 1.80per child per school day, provided the State Govt. contributes a minimum of 20 paise.
 - (b) **For other States & UTs** : @ Rs. 1.50 per child per school day provided the State Govt./UT admn. contributes a minimum of 50- paise.

State Governments/UT administrations are required to provide the above minimum contribution in order to be eligible for the enhanced rate of Central assistance mentioned above.
- (iv) Provision of assistance for cooked Mid-Day Meal during summer vacations to school children in areas declared by State Governments as "drought-affected".
- (v) Provision of assistance to construct *kitchen-cum-store* in a phased manner up to a maximum of Rs. 60,000 per unit. However, as allocations under MDMS for construction of kitchen-cum-store for all schools in next 2-3 years may not be adequate states would be expected to proactively pursue convergence with other development programmes for this purpose. (Also please see para 2.5 in this regard).
- (vi) Provision of assistance in a phased manner for replacement of *kitchen devices* at an average cost of Rs. 5,000 per school. The States/UT administration will have the flexibility to incur expenditure on the items listed below on the basis of the actual requirements of the school (provided that the overall average for the State/UT administration remains Rs 5000 per school).
 - a. Cooking devices (Stove, Chulha, etc.)

- b. Containers for storage of food grains and other ingredients.
 - c. Utensils for cooking and serving.
- (vii) Provision of assistance to States/UTs for *Management, Monitoring & Evaluation* (MME) at the rate of 1.8% of total assistance on (a) free food grains, (b) transport cost and (c) cooking cost. Another 0.2% of the above amount will be utilized at the Central Government for management, monitoring and evaluation.

Monitoring Mechanism

The Department of School Education and Literacy, Ministry of Human Resource Development has prescribed a comprehensive and elaborate mechanism for monitoring and supervision of the Mid Day Meal Scheme. The monitoring mechanism includes the following :

Arrangements for local level monitoring

Representatives of Gram Panchayats/Gram Sabhas, members of VECs, PTAs, SDMCs as well as Mothers' Committees are required to monitor the (i) regularity and wholesomeness of the mid day meal served to children, (ii) cleanliness in cooking and serving of the mid day meal, (iii) timeliness in procurement of good quality ingredients, fuel, etc. (iv) implementation of varied menu, (v) social and gender equity. This is required to be done on a daily basis.

Display of Information under Right to Information Act

In order to ensure that there is transparency and accountability, all schools and centres where the programme is being implemented are required to display information *suo-moto*. This includes information on :

- i. Quality of foodgrains received, date of receipt.
- ii. Quantity of foodgrains utilized.
- iii. Other ingredients purchased, utilized
- iv. Number of children given mid day meal.
- v. Daily Menu
- vi. Roster of Community Members involved in the programme.

Inspections by State Government Officers

Officers of the State Government/UTs belonging to the Departments of Revenue, Rural Development, Education and other related sectors, such as Women and Child Development, Food, Health are also required to inspect schools and centres where the programme is being implemented. It has been recommended that 25% of primary schools/EGS & AIE centres are visited every quarter.

Responsibility of Food Corporation of India (FCI)

The FCI is responsible for the continuous availability of adequate food grains in its Depots (and in Principal Distribution Centres in the case of North East Region). It allows lifting of food grains for any month/quarter upto one month in advance so that supply chain of food grains remains uninterrupted.

For the NP-NSPE, 2006, the FCI is mandated to issue foodgrains of best available quality, which will in any case be at least of Fair Average Quality (FAQ). The FCI appoints a Nodal Officer for each State to take care of various problems in supply of food grains under the MDM Programme.

The District Collector/CEO of Zila Panchayat ensures that food grains of at least FAQ are issued by FCI after joint inspection by a team consisting of FCI and the nominee of the Collector and/or Chief Executive Officer, District Panchayat, and confirmation by them that the grain conforms to at least FAQ norms.

e. Periodic Returns

The State Government/UT is also required to submit periodic returns to the Department of School Education and Literacy, Government of India to provide information on : (i) coverage of children and institutions, (ii) Progress in utilisation of Central assistance, including cooking costs, transportation, construction of kitchen sheds and procurement of kitchen devices.

f. Monitoring by Institutions of Social Science Research

Forty One Institutions of Social Science Research, identified for monitoring the Sarva Shiksha Abhiyan, are also entrusted with the task of monitoring the Mid Day Scheme.

g. Grievance Redressal

States and Union Territories are required to develop a dedicated mechanism for public grievance redressal, which should be widely publicized and made easily accessible.

Extension to Upper Primary Stage

The Finance Minister has announced in the Union Budget 2007-08 that the Mid-Day Meal Scheme will be extended to cover children in Upper Primary Classes in 3427 Educationally Backwards Blocks (EBBs) in 2007-08. A Budget provision of Rs. 7324 crores has been made for this purpose, representing 37% increase over the budget for 2006-07

DISTRICT PRIMARY EDUCATION PROGRAMME

The Centrally-Sponsored Scheme of District Primary Education Programme (DPEP) was launched in 1994 as a major initiative to revitalise the primary education system and to achieve the objective of universalisation of primary education.

Under the Programme parameters, investment per district is limited to Rs 40 crore over a project period of 5-7 years. There is a ceiling of 33.3 per cent on civil works component and 6 per cent on management cost. The remaining amount is required to be spent on quality improvement activities.

DPEP is an externally aided project. 85 per cent of the project cost is met by the Central Government and the remaining 15 per cent is shared by the concerned State Government. The Central Government share is resourced through external assistance. At present external assistance of about Rs 6,938 crore composing Rs 5,137 as credit from IDA and Rs 1,801 crore as grant from EC/DFID/UNICEF/Netherlands has been tied-up for DPEP.

Presently DPEP is in operation in nine States covering 123 districts. DPEP at its peak was operational in 273 districts in 18 States. However, with the progressive closure of the programme, it is now existing only in 123 districts.

Major Achievements of DPEP : (i) DPEP has so far opened more than 1,60,000 new schools, including almost 84,000 alternative schooling (AS) centres. The AS centres cover nearly 3.5 million children, while another two lakh children are covered by Bridge Courses of different types; (ii) The school infrastructure created under DPEP

has been remarkable. Works either complete or in progress include 52758 school buildings, 58,604 additional classrooms, 16,619 resource centres, 29,307 repair works, 64,592 toilets, and 24,909 drinking water facilities, (iii) The Gross Enrolment Ratio (GER) for Phase-I states was around 93 to 95 per cent for the last three years. After the adjustment for the Alternative Schools/Education Guarantee Centres enrolment, the GER in the 2001-02 works out above 100 per cent. In the districts covered under subsequent phases of DPEP, the GER including enrolment of AS/EGS was above 85 per cent; (iv) The enrolment of girls has shown significant improvement. In DPEP-I districts, the share of girls enrolment in relation to total enrolment has increased from 48 per cent to 49 per cent, while this increase in the subsequent phases of DPEP districts has been from 46 per cent to 47 per cent; (v) The total number of differently-abled children enrolled is now more than 4,20,203 which represents almost 76 per cent of the nearly 5,53,844 differently-abled children identified in the DPEP States; (vi) Village Education Committees/School Management Committees have been set-up in almost all project villages/habitations/schools, (vii) About 1,77,000 teachers, including para-teachers/Shiksha Karmis have been appointed; (viii) About 3,380 resource centres at block level and 29,725 centres at cluster level have been set-up for providing academic support and teacher training facilities.

MAHILA SAMAKHYA SCHEME

Pursuant to the objectives of the NPE, 1986, the Mahila Samakhya Scheme was started in 1989 to translate the goals enshrined in the NPE into a concrete programme for the education and empowerment of women in rural areas particularly those from socially and economically marginalized groups. The MS scheme recognizes the centrality of education in empowering women to achieve equality. The Mahila Sanghas or women's collectives at the village level provide the women a space to meet, reflect, ask questions and articulate their thoughts and needs and make informed choices.

The Mahila Sanghas through various programmes and awareness campaigns have brought about a change in the outlook of rural women and the effects can now be seen in various facets of life at home within the family, the community and at the block and panchayat levels. The programme has also focused on awareness of the need to educate the children, especially girls, to give the equal status and opportunities which has resulted in a direct impact on enrolment and retention of girls in schools.

The Mahila Samakhya Scheme is currently being implemented in nine States viz., Andhra Pradesh, Assam, Bihar, Jharkhand, Karnatka, Kerala, Gujarat, Uttar Pradesh and Uttarakhand spread over 83 districts and covering more than 21,000 villages. From the current financial year the programme is being extended to two new States i.e. Madhya Pradesh and Chhatisgarh. The budgetary allocation for the Scheme for the current financial year i.e. 2007-08 is Rs. 34.00 crores.

TEACHER EDUCATION SCHEME

I. Centrally sponsored scheme of Teacher Education was launched in 1987-88 with, *inter alia*, the following components:

1. Establishment of District Institute of Education & Training (DIETs)-by upgradation of existing Elementary Teacher Education Institutions (ETEIs) wherever possible, and establishment of new DIET where necessary.
2. Upgradation of selected Secondary Teacher Education Institutions (STETIs) into :
 - (a) Colleges of Teacher Education (CTEs) &

- (b) Institutes of Advanced Study in Education (IASEs), and
- 3. Strengthening of State Council of Educational Research and Training (SCERTs).
- II. The Scheme was revised in 2003 and the revised guidelines were issued in January, 2004. the main objectives of the Teacher Education Scheme are as follows:
 - 1. Speedy completion of DIET/CTE/IASE/SCERT projects sanctioned but not completed up to the end of the IX Plan period.
 - 2. Making DIETs, IASEs sanctioned (and SCERTs strengthened) upto the IX Plan period, optimally functional and operational.
 - 3. Sanction and implementation of fresh DIET/CTE/IASE/SCERT projects to the extent necessary.
 - 4. Improvement in the quality of programmes to be undertaken by DIETs, etc. especially those of pre-service and in-service training, so as to enable them to effectively play their nodal role of improving quality of elementary and secondary education in their respective jurisdiction, as measured in terms of levels of learner achievements.
- III. Criteria for setting up of DIETs/District Resource Centre (DRC) are :
 - 1. One DIET for each district having a minimum of 2,500 teachers. If there is an existing Government ETEI in the district, it would be upgraded into a DIET. If no Government ETEI exists in the district, a new institution (DIET) will be established.
 - 2. District Resource Centres in districts with less than 2,500 teachers. If a Government ETEI exists in the district, it would be upgraded into a DRC otherwise, a new DRC would be established in which case it would not conduct pre-service course.
 - 3. If in a district with more than 2,500 teachers, State Government wishes to establish a DRC in preference to a DIET, it would be able to do so.
- IV. In order to make proposals for the 11th Plan for Teacher Education, a sub-group under the chairmanship of Director, NCERT was set-up. Based on the recommendations of the sub-group, in addition to strengthening the existing provisions of the scheme, certain new schemes are proposed to be incorporated during 11th Plan:
 - 1. Augmenting teacher education capacity in SC/ST and minority areas (Block Institutes of Teacher Education)
 - 2. Professional Development of in-service Elementary and Secondary Teachers.
 - a) Training of untrained teachers and para-teachers.
 - b) In-service training and subject knowledge upgradation of practicing teachers.
 - 3. Professional development of teacher educators.
 - a) Refresher courses.
 - b) Fellowship programme.
 - 4. Support to NGOs.
 - 5. Special programme for North-East.
 - 6. Technology in Teacher Education

7. Integrating Elementary Teacher Education with Higher Education.
- V. During the current financial year i.e. 2007-08, a provision of Rs. 500 crores has been made for the Teacher Education Scheme. Out of this, Rs. 50 crores has been earmarked for North Eastern Region.

NATIONAL BAL BHAVAN

The National Bal Bhavan is an autonomous organisation fully funded by the Ministry of Human Resources Development. Department of School Education and Literacy. Since its inception in 1956, the Bal Bhavan as a movement has grown by leaps and bounds throughout the length and breadth of the country and today there are 68 State Bal Bhavans and 10 Bal Kendras that are affiliated to National Bal Bhavan. Through affiliated Bal Bhavans and Bal Kendras, National Bal Bhavan reaches out to school drop-outs, children of socially and economically backward class, street children and also the special children. Several schools of Delhi have also taken up the membership of National Bal Bhavan and this joint and consolidated effort of non-formal institution has indeed made creative enhancement of children a grand success.

National Bal Bhavan is engaged in pursuits for the integrated growth of the child by involving them in various activities in a tension free environment irrespective of their gender, caste, creed, colour etc. To mention a few, the activities are clay modelling, paper mache, music, dance, drama, painting, crafts, museum activities, photography, videography, indoor & outdoor games, home management, traditional art & craft, educational & innovative games/chess, science is fun etc. Some of the special attraction of the National Bal Bhavan are Mini Train, Mini Zoo, Fish Corner, Science Park, Funny Mirrors, Culture Craft Village. It has National Training Resource Centre (NTRC) within its premises which imparts training to teachers on diverse activities. The main aim and focus of this resource centre is to train the teachers in the all round growth and personality development of children as the teacher's community is well versed with the social, economical, emotional, intellectual and psychological needs of children. The workshop of NTRC also aims to make both teaching and learning a joyful experience for teachers and students respectively.

National Bal Bhavan has also launched a scheme to identify, honour and nurture the creative children of India irrespective of their socio-economic status. The rationale behind this scheme - '*The Bal Shree Scheme*', is that creativity is a human potential that directly relates to self-expression and self-development. This scheme seeks to identify creative children within the age group of 9-16 years in four identified areas of creativity i.e. **creative art, creative performance, creative scientific innovations, creative writing**. This scheme was put into effect in 1995 and since then children have been identified and honoured for their creative elegance in their concerned fields. They have received this honour from The President of India at a glittering function organised at the Rashtrapati Bhavan.

In addition National Bal Bhavan organises several Local, National and International Programmes viz., Workshops, Trekking Programmes, Talk Shows, Camps, Observance of various days i.e. Earth Day, Environment Day, International Children's Assembly, Youth Environmentalist Conference, Education for All, All India Chairperson's and Directors Conference under the able guidance of Ministry of Human Resource Development. Besides, National Bal Bhavan also deputed its children from different parts of the country to various countries under the Cultural Exchange Programmes and these children act as a young ambassador of the subcontinent's socio-cultural ethos. Besides, member children of National Bal Bhavan, affiliated Bal

Bhavans across the country and member school/institute of National Bal Bhavan also participate in International Painting Competition on the themes that are of global concern.

NATIONAL COUNCIL FOR TEACHER EDUCATION

The National Council for Teacher Education (NCTE) was established in August 1995 with a view to achieve planned and co-ordinated development of teacher education system throughout the country and for regulation and proper maintenance of norms and standards of teacher education. Some of the major functions of NCTE are laying down norms for various teacher education courses, recognition of teacher education institutions, laying down guidelines in respect of minimum qualifications for appointment of teachers, surveys and studies, research and innovations, prevention of commercialisation of teacher education, etc.

Four Regional Committees of the Council have been set-up at Jaipur, Bangalore, Bhubaneswar and Bhopal for Northern, Southern, Eastern and Western regions respectively. These regional Committees primarily look after recognition of teacher training institutions in their respective regions and are empowered to grant permission to these institutions to run teacher training courses as per the provisions of the National Council for Teacher Education Act. As on 1st January 2007, 7461 teacher training institutions offering 9045 courses have been recognised by NCTE with an approved intake of 7.72 lakh teacher trainees.

The NCTE has issued new norms and standards for various teacher training programmes like C.Ed, D.Ed, B.Ed., DP.Ed, and MP.Ed. The new norms have been introduced to improve the quality of teacher programmes and to strengthen the infrastructure and the facilities in teacher training institutions.

RIGHT TO EDUCATION

The Constitution (86th Amendment) Act, 2002, enacted in December 2002 seeks to make free and compulsory education a Fundamental Right for all children in the age-group 6-14 years by inserting a new Article 21-A in Part III ("Fundamental Right") of the Constitution. Article 21A of the Constitution says that :-

"The State shall provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may, by law, determine."

The Government is committed to facilitate the enactment of an appropriate law that would enable the realization of making education a fundamental right as required by the constitution. Necessary action is being taken to put in place a suitable legislation as envisaged under Article 21A of the Constitution.

PRARAMBHIK SHIKSHA KOSH

A two per cent Education Cess was levied on all major Central taxes through the Finance (No. 2) Act, 2004, to help finance Government's commitment to quality basic education. In order to receive the proceeds of this Education Cess, the creation of a dedicated, non-lapsable fund called PrarambhiK Shiksha Kosh (PSK) in the Public Account was approved by Government on 6-10-2005. Formal orders constituting PSK were issued on 14-11-2005. After presentation of the Union Budget (2006-07) on 28-2-2006, PSK became a separate line item. A provision of Rs. 8746 crores for the initial transfer to the newly created PSK was made in the Union Budget 2006-07 against estimated receipts of Education Cess. Subsequently, in the 3rd batch of Supplementary Demand for Grants, a provision of Rs. 189 crores was made for additional transfer to PSK based on additional estimated collection of education cess

of 2% during 2006-07. The funds available in the PSK were utilized exclusively for Sarva Shiksha Abhiyan (SSA) and National Programme for Nutritional Support of Primary Education (MDM Scheme). The levy of education cess is a concrete step towards providing assured funding for elementary education.

NATIONAL LITERACY MISSION

The National Literacy Mission, set up in May 1988, aims to attain a sustainable threshold level of 75 per cent literacy by 2007 by imparting functional literacy to non-literates in the age group of 15-35 years, which is the productive and reproductive age group and constitutes a major segment of the work force. Apart from pre-determined levels of reading, writing and numeracy with comprehension, functional literacy includes imbibing values of national integration, conservation of environment, women's equality, observance of small family norms, etc. Literacy, as enunciated in NLM, is not an end in itself but has to be an active and potent instrument of change ensuring achievement of these social objectives and creation of a learning society. The acquisition of functional literacy results in empowerment and definite improvement in the quality of life.

The **Total Literacy Campaign** is the principal strategy of NLM for eradication of illiteracy. These campaigns are area-specific, time-bound, participative, cost-effective and outcome oriented. These are implemented through Zilla Saksharata Samitis (district level literacy committees) as independent and autonomous bodies, having due representation of all sections of society. Apart from imparting functional literacy, TLC also disseminates a 'basket' of other socially relevant messages such as need for enrolment and retention of children in schools, immunisation, propagation of small family norms, women's equality and empowerment, peace and communal harmony, etc. These literacy campaigns have also generated a demand for primary education. The basic literacy skills acquired by millions of non-literates are at best fragile. There is a greater possibility of neo-literates regressing into partial or total illiteracy unless special efforts are continued to consolidate, sustain and possibly enhance their literacy levels. The first phase of basic literacy instruction and the second phase of consolidation, remediation and skill upgradation are now being treated as one integrated project, to ensure smooth progression from one stage to another to achieve continuity, efficiency and convergence. The National Literacy Mission aims at ensuring that the Total Literacy Campaigns and the Post-literacy Programmes successfully move on to Continuing Education, which provide life-long learning. At present, TLCs are being implemented in 101 districts and PLPs in 168 districts of the country.

The **Continuing Education** Scheme provides a learning continuum to the efforts of Total Literacy and Post Literacy Programmes in the country. The main thrust is on providing further learning opportunities to neo-literates by setting up of Continuing Education Centres (CECs) which provide area-specific, need-based opportunities for basic literacy, upgradation of literacy skills, pursuit of alternative educational programmes, vocational skill and also promote social and occupational development. The scheme also undertakes a number of important programmes such as - Equivalency Programme facilitating the participants to acquire or upgrade their vocational skills and take up income-generating activities; Quality of Life Improvement Programme to equip learners and the community with essential knowledge, attitude, values and skills to raise their standards of living; and Individual Interest Promotion Programme providing opportunities for learners to participate and learn about their individually

chosen social, health, physical, cultural, and artistic interests. The programmes of residual illiteracy are also being taken up to address the requirements of geographically remote regions and segments of population requiring special focus, particularly SCs/STs/Women. So far, 328 districts have been covered under the Continuing Education Programme.

Non-Governmental Organisations: The National Literacy Mission (NLM) fully recognises the vast potential of NGOs in furthering its objectives and has taken measures to strengthen its partnership with NGOs and has assigned them an active promotional role in the literacy movement. Apart from imparting literacy, the NGOs provide academic and technical resource support through experimental and innovative programmes.

The State Resource Centres (SRCs) managed by NGOs provide academic and technical resource support in the form of training material preparation, extension activities, innovative projects, research studies and evaluation, etc. At present, there are 26 SRCs.

Special interventions for Female literacy: As per Census, 2001, 47 districts in the country have a female literacy rate below 30 per cent. Hence, dealing with low female literacy is of immense concern to the National Literacy Mission and it was decided to target the 47 low female literacy districts for improvement. As most of these districts are concentrated in the States of Uttar Pradesh, Bihar, Orissa and Jharkhand, special innovative programmes have been taken up in these districts for promoting female literacy. The programme in Uttar Pradesh and Bihar has been completed and externally evaluated.

Nine districts in Orissa, which have low female literacy rates, have been covered under Special Project for Accelerated Female Literacy Programme. The programme was assigned to a network of 117 NGOs targeting 10.43 lakh non-literate women in 15-35 age group. The programme is being evaluated by external evaluation agencies.

The special female literacy programme has also been implemented in five low literacy districts of Jharkhand. Around five lakh women illiterates in 15-35 age group have been covered under the programme. The programme has been completed and the external evaluation is awaited from two districts.

Projects for Residual Illiteracy: Although the Total Literacy Campaigns took the form of mass movement and spread throughout the country, in many cases a number of campaigns stagnated due to natural calamities, lack of political will, etc. Despite success of literacy phase, there are still pockets of residual illiteracy and low female literacy. To tackle this problem, Projects for Residual Illiteracy (PRI) have been taken up in 9 Districts of Rajasthan covering about 6.60 lakh learners, 10 districts of Andhra Pradesh covering 22.81 lakh learners, 7 district of Bihar, covering 12.54 lakh learners, 14 districts of Karnataka covering 27.35 lakh learners, 12 districts of Madhya Pradesh covering 7.01 lakh learners, 3 districts of Tripura covering 1.38 lakh learners, 3 district of Jharkhand covering 3.01 lakh learners and 18 districts of Uttar Pradesh covering 36.11 lakh learners, 4 districts of Mizoram covering 0.45 lakh learners, and West Bengal covering 29.54 lakh learners.

Special Literacy Drive: The Council of the NLMA in its meeting held in April 2005 identified 150 districts which have the lowest literacy rates in the country for launching a special literacy drive, with special focus on the minority groups, persons belonging to scheduled castes, scheduled tribes, women and other backward sections of the society by drawing up implementation strategies suited to the specific needs of the

group, sections of the society or region. So far, 134 districts in the States of Arunachal Pradesh (7), Andhra Pradesh (8), Bihar (31), Chhattisgarh (2), Jammu & Kashmir (8), Rajasthan (10), Jharkhand (12), Karnataka (2), Madhya Pradesh (9), Meghalaya (3), Nagaland (2), Orissa (8), Punjab (1), Uttar Pradesh (27) and West Bengal (4) have been covered under the Special Literacy drive.

Jan Shikshan Sansthan : The objective of the Jan Shikshan Sansthan (JSS) is educational, vocational and occupational development of the socio-economically backward and educationally disadvantaged groups of urban/rural population particularly neo-literates, semi-literates, SCs, STs, women and girls, slum dwellers, migrant workers, etc. At present, there are 172 JSSs in the country. Jan Shikshan Sansthans run a number of vocational programmes with varying duration of different skills. More than 250 types of courses and activities are offered by these institutions. The trades/courses for which training is imparted include cutting, tailoring & dress making; knitting and embroidery; beauty culture and health care; handicrafts; art, drawing and painting; repair of electrical software, etc. In the year 2004-05, 13.91 lakh beneficiaries had been covered under various vocational training programmes, activities and other activities conducted by JSSs, out of which around 65 per cent were women.

Some innovative training programmes and activities that have been taken up by some of the JSS are as under :

- Mentally challenged children in Rourkela trained in Hand Embroidery, Hand Wool Knitting and Water Colours for national level competition.
- Special training organised exclusively for deaf and mute in collaboration with an NGO in Mumbai.
- Vocational Training Programmes organised for the members of the SHG groups in collaboration with DRDA and Panchayat Samitis in Aurangabad.
- Vocational Training for selected SC/ST candidates given in collaboration with Tamil Nadu Adidravida Housing Development Corporation (TAHDO).
- Vocational training given to tribals in collaboration with Forest Department in Coimbatore.
- Vocational Programmes organised for slum dwellers and rural youth sponsored by World Vision in Coimbatore.
- Cluster of families in the tribal settlements of Idduki formed SHGs and organised literacy linked vocational training and then set-up production units and marketed the finished products.
- SGH members trained by Jan Shikshan Sansthan in Sivakasi opened basic electronics unit for repair and maintenance of domestic appliances.
- Vocational courses organised for selected women sponsored by Tamil Nadu Corporation for Development of Women.

Directorate of Adult Education : The Central Directorate of Adult Education provides academic and technical resource support to National Literacy Mission. It has been playing an important role in the development of a network of resource support, particularly production of prototype teaching/learning materials/media software and harnessing of all kinds of media for realising the objectives of NLM.

40th International Literacy Day celebration was held at Vigyan Bhawan, New Delhi on 8th, 2006. The Chief Guest for the function was His Excellency Shri Bhairon Singh

TABLE 10.1 : PLAN EXPENDITURE ON DIFFERENT SECTORS OF EDUCATION

Sector	(in Percentage)													
	First Plan Expendt. 1951-56	Second Plan Expendt. 1961-66	Third Plan Holiday Expendt. 1966-69	Fourth Plan Expendt. 1969-74	Fifth Plan Expendt. 1974-79	Sixth Plan Expendt. 1980-85	Seventh Plan Expendt. 1985-90	1990-92 Expendt.	Eighth Plan Expendt. 1992-97	Ninth Plan Outlay (Central Sector)	Ninth Plan Expendt. (Central Sector)	Tenth Plan Outlay (Central Sector)		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Elementary Education	58 (870)	35 (950)	34 (2010)	24 (750)	50 (3743)	52 (5913)	32 (8414)	37 (28494)	37 (17290)	48 (103940)	66 (163696)	65.7 (145233)	65.6 (287500)	
Secondary Education	5 (83)	19 (510)	18 (1030)	16 (530)	@	@	20 (5344)	24 (18315)	22 (10530)	24 (52311)	10 (26035)	10.5 (23227)	9.9 (43250)	
Adult Education					2 (126)	2 (248)	6 (1533)	6 (4696)	9 (4160)	5 (11421)	3 (6304)	2.4 (5204)	2.9 (12500)	
Higher Education	8 (117)	18 (480)	15 (870)	24 (770)	25 (1883)	28 (3188)	21 (5604)	16 (12011)	12 (5880)	10 (20944)	10 (25000)	10.3 (22709)	9.5 (41765)	
Others	15 (227)	10 (300)	12 (730)	11 (370)	13 (936)	9 (1071)	11 (2729)	3 (1980)	2 (1180)	3 (7398)	2 (4314)	1.6 (3492)	1.4 (6235)	
Technical Education	14 (215)	18 (490)	21 (1250)	25 (810)	10 (786)	9 (1015)	10 (2563)	14 (10833)	17 (8230)	10 (21987)	9 (23735)	9.5 (21095)	10.7 (47000)	
Total	100 (1512)	100 (2730)	100 (5890)	100 (3230)	100 (7474)	100 (11435)	100 (26187)	100 (76329)	100 (47270)	100 (218001)	100 (249084)	100 (220960)	100 (438250)	

Source : Five-Year Plan Documents, Planning Commission and Analysis of Budget Expenditure, Ministry of HRD.

Note : 1. Figures in parenthesis in millions of rupees.

2. Figures in col. 2 to col. 11 includes the share of States/UTs.

@ Included under Elementary Education.

Shekhwat, Vice President of India. NLM-UNESCO Awards are given every year in the national function to the selected State Resource Centre, Jan Shikshan Sansthan and University, Department of Adult, Continuing Education and Extension for their outstanding work done in the field of adult and literacy programmes. The award winners were : 1) State Resource Centre, Kolkata 2) Jan Shikshan Sansthan Aurangabad and 3) Department of Continuing Education & Extension, S.V. University, Tirupati.

Satyen Maitra Memorial Award is given every year to selected TLC/PLP/CE districts for their best performing and significant achievements in literacy programmes. The awards for 2006 went to Changlang, Arunachal Pradesh (TLC), Hanumangarh, Rajasthan (PLP), Cuddapah, Andhra Pradesh (CEP), Kollam, Kerala (CEP) Toothukudi, Tamil Nadu (CEP)

UNESCO's Confucius Prize for Literacy has been awarded to Directorate of Literacy & Continuing Education, Government of Rajasthan for its Useful Learning through Literacy and Continuing Education Programme in Rajasthan. The award carries a cash award of US \$ 20,000 and a citation. The theme for award for this year was "Literacy for Sustainable Development". The Directorate of Literacy & Continuing Education of Rajasthan received this award for this literacy programmes specifically targeted at illiterate women.

The State of Rajasthan has undertaken specific initiatives under which the illiterate women were taught IPCL primers and after completion of Primer-III at CE Centres, 15 day special vocational training camps were organized for them in all the districts. Self-Help Groups for neo-literate women have been organized and facilities for marketing the goods prepared by them have also been arranged. The objective was to make the women economically self-sufficient. A Project for Residual illiteracy has also been taken up in 30 districts of the State for the benefit of nearly 10 lakh illiterate persons.

Publication : Publication Unit of Directorate of Adult Education brought out various kinds of publications related to literacy and Adult Education during 2006-07. The books published were in different languages for neo-literates; Guidelines on different aspects of the literacy programmes (Basic Literacy, Post Literacy and Continuing education) for neo-literates; Policy guidelines, annual reports, statistical data books etc. for academicians and social sciences researchers; Special publications for important occasions such as International Literacy Day celebrations and national/international level workshops etc.

Throughout the year a good number of publications were brought out and other associated works like photo-documentation, design artwork making of publications and dispatch of printed materials were carried out. Many publications were distributed free of cost to various levels of users in the country.

On the occasion of the International Literacy Day on 8th September, 2006, Special publication titled "Innovations in Literacy" was released by Vice President of India and a set of 8 books for neo-literates was also presented to the Vice-President.

Evaluation : 393 Total Literacy Campaign districts and 172 Post Literacy Programme districts have been evaluated by the External Evaluation Agencies. Seven Continuing Education Programme districts, i.e., Mandi (Himachal Pradesh), Ajmer (Rajasthan), Idduki Kasargod and Kollam and (Kerala) Uttar Kammad and Davangere (Karnataka) have also been evaluated by external evaluation agencies. Similarly, the activities of

106 JSSs have also been evaluated. Some of the agencies, which conducted evaluation of these programmes, include Indian Institute of Management, Bangalore, XLRI, Jamshedpur, Management Development Institute, Gurgaon, Tata Consultancy Services, Mumbai, Media Research Group, New Delhi, etc.

- The literacy rate in 2001 has been recorded at 64.84 per cent as against 52.21 per cent in 1991. The 12.63 percentage points increase in the literacy rate during the period is the highest increase in any decade.
- 124.27 million persons made literate so far.
- Rate of growth in literacy is more in rural areas than in urban areas.
- The gap in male-female literacy rate has decreased from 24.84 per cent in 1991 to 21.60 per cent in 2001.
- Female literacy increased by 14.38 per cent i.e. from 39.29 per cent to 53.67 per cent whereas male literacy increased by 11.13 per cent i.e. from 64.13 per cent to 75.26 per cent during the last decade.
- Gender equity and women's empowerment is also visible as about 60 per cent of participants and beneficiaries are women.
- The population in 7+ age group increased by 171.6 millions while 203.6 million additional persons became literate during 1991-2001.
- All the States and union territories without exception have shown increase in literacy rates during 1991-2001.
- In all states and union territories, the male literacy rate is now over 60 per cent. Kerala continues to have the highest literacy rate of 90.92 per cent and Bihar has the lowest literacy rate of 47.53 per cent.
- Significant decline in absolute number of non-literates from 328.88 million in 1991 to 304 million in 2001.
- Out of the total 600 districts in the country, 597 districts have been covered by NLM under literacy programme.

EDUCATION OF SCHEDULED CASTES AND SCHEDULED TRIBES

Constitutional provisions : Article 46 of the Constitution states that, "The State shall promote, with special care, the education and economic interests of the weaker sections of the people, and, in particular of the Scheduled Castes and Scheduled Tribes, and shall protect them from social injustice and all forms of social exploitation". Articles 330, 332, 335, 338 to 342 and the entire Fifth and Sixth Schedules of the Constitution deal with special provisions for implementation of the objectives set forth in Article 46. These provisions need to be fully utilised for the benefit of these weaker sections in our society.

Commitment in NCMP : The UPA government has set six basic principles for governance. One of them is "**To provide for full equality of opportunity, particularly in education and employment for scheduled castes, scheduled tribes, OBCs and religious minorities**". Besides, the National Common Minimum Programme (NCMP) of the UPA Government contains following provisions aimed at the welfare and empowerment of these communities : (a) UPA Government will take immediate steps to reverse the trend of communalisation of education that had set in the past five-years. (b) Steps will be taken to remove the communalisation of the school syllabus that has taken place in the past five-years. A review committee of experts will be set

up for this purpose. (c) The UPA will ensure that nobody is denied professional education because he or she is poor. (d) All reservation quotas, including those relating to promotions, will be fulfilled in a time bound manner. To codify all reservations, a Reservation Act will be enacted. (e) The UPA Government is very sensitive to the issue of affirmative action, including reservations, in the private sector.

Special provisions : After independence, the Government of India has taken number of steps to strengthen the educational base of the persons belonging to the Scheduled Castes and Scheduled Tribes. Pursuant to the National Policy on Education-1986 and the Programme of Action (POA)-1992, the following special provisions for SCs and STs have been incorporated in the existing schemes of the Departments of Elementary Education and Literacy and Secondary and Higher Education: (a) relaxed norms for opening of primary/middle schools; a primary school within one km walking distance from habitations of population upto 200 instead of habitations of upto 300 population. (b) Abolition of tuition fee in all States in Government Schools at least upto the upper primary level. In fact, most of the states have abolished tuition fees for SC/ST students up to the senior secondary level. (c) Incentives like free textbooks, uniforms, stationery, school bags, etc., for these students. (d) The **Constitutional (86th Amendment) Bill**, notified on 13 December 2002, provides for free and compulsory elementary education as a Fundamental Right, for all children in the age group of 6-14 years. (e) **Sarva Shiksha Abhiyan (SSA) :** SSA is a historic stride towards achieving the long cherished goal of Universalisation of Elementary Education (UEE) through a time bound integrated approach, in partnership with States. SSA, which promises to change the face of elementary education sector of the country, aims to provide useful and quality elementary education to all children in the 6-14 age group by 2010. The main features of the programme are : (i) Focus on girls, especially belonging to SC/ST communities and minority groups. (ii) Back to school campus for out of school girls. (iii) Free textbooks for girls. (iv) Special coaching remedial classes for girls and a congenial learning environment. (v) Teachers' sensitisation programmes to promote equitable learning opportunities. (vi) Special focus for innovative projects related to girls education. (vii) Recruitment of 50 per cent female teachers.

District Primary Education Programme (DPEP) : The thrust of the scheme is on disadvantaged groups like girls, SCs/STs, working children, urban deprived children, disabled children, etc. There are specific strategies for girls and SCs/STs; however, physical targets are fixed, in an integrated manner including coverage of these groups as well. According to a study by NIEPA, schools in DPEP districts had more than 60 per cent students belonging to SC/ST communities.

Mahila Samakhya (MS) : MS addresses traditional gender imbalances in educational access and achievement. This involves enabling women (especially from socially and economically disadvantaged and marginalised groups) to address and deal with problems of isolation and lack of self-confidence, oppressive social customs and struggle for survival, all of which inhibit their empowerment.

National Programme for Education of Girls at Elementary Level (NPEGEL): The NPEGEL under the existing scheme of Sarva Shiksha Abhiyan (SSA) provides additional components for education of girls under privileged/disadvantaged at the elementary level. The Scheme is being implemented in Educationally Backward Blocks (EBBs) where the level of rural female literacy is less than the national average and the gender gap is above the national average, as well as in blocks of districts that have at least 5 per cent SC/ST population and where SC/ST female literacy is below 10 per cent based on 1991.

Shiksha Karmi Project (SKP) : SKP aims at universalisation and qualitative improvement of primary education in remote, arid and socio-economically backward villages in Rajasthan with primary attention to girls. It is noteworthy that in Shiksha Karmi Schools, most of the students are from SCs, STs and OBCs.

Kasturba Gandhi Balika Vidyalayas : Under the scheme of Kasturba Gandhi Balika Vidyalaya, 750 residential schools are being set up in difficult areas with boarding facilities at elementary level for girls belonging predominantly to the SC, ST, OBC and minorities. The scheme would be applicable only in those identified Educationally Backward Blocks (EBBs) where, as per census data 2001, the rural female literacy is below the national average and gender gap in literacy is more than the national average. Among these blocks, schools may be set up in areas with concentration of tribal population, with low female literacy and / or a large number of girls out of school.

Jan Shikshan Sansthan (JSS) : The Scheme of JSS or Institute of People's Education is a polyvalent or multifaceted adult education programme aimed at improving the vocational skill and quality of life of the beneficiaries. The objective of the scheme is education, vocational and occupational development of the socio-economically backward and educationally disadvantaged groups of urban/rural population particularly neo-literates, semi-illiterates, SCs, STs, women and girls, slum dwellers, migrant workers, etc.

Literacy campaigns have had an enormous impact on other social sectors. The campaigns have served the cause of promoting equity and social justice in society and fostering of a scientific temper and a sense of belonging to India's great composite culture and consciousness of unity in diversity.

Mid-Day Meal scheme : The Mid-Day Meal scheme is a successful incentive programme. It covers all students of primary classes in all government, local body and government aided schools in the country with the aim to improve enrolment, attendance and retention while simultaneously impacting on the nutritional status of the children.

Central Institute of Indian Languages (CIIL) : The Central Institute of Indian Languages, Mysore has a scheme of development of Indian Languages through research, developing manpower and production of materials in modern Indian Languages including tribal languages. The Institute has worked in more than 90 tribal and border languages.

Kendriya Vidyalayas (KVs) : 15 per cent and 7.5 per cent seats are reserved for SCs and STs respectively in fresh admissions. No tuition fee is charged from scheduled Caste and Scheduled Tribe students up to class XII.

Navodaya Vidyalayas (NVs) : Reservation of seats in favour of children belonging to SCs and STs is provided in proportion to their population in the concerned district provided that no such reservation will be less than the national average of 22.5 per cent (15 per cent for SCs and 7.50 per cent for STs) and a maximum of 50 per cent for both the categories (SCs & STs) taken together. These reservations are interchangeable and over and above the students selected under open merit.

National Institute of Open Schooling (NIOS)

Concession in fee to SC/ST candidates

The SC/ST students are given concession in admission fees to the extent of Rs. 450/- for Secondary Courses and Rs. 525/- for Senior Secondary Courses.

Scholarship Scheme for SC/ST candidates

Dr. Ambedkar National Scholarship Scheme for meritorious students, is implemented by Dr. Ambedkar Foundation set up under the aegis of the Ministry of Social Justice and Empowerment in 1992 with a view to recognize, promote and assist meritorious students belonging to Scheduled Caste and Scheduled Tribe for enabling them to pursue higher studies. This is one time cash award and will be given to three students scoring highest marks in the regular class X level examination conducted by the Education Board/Council. This will be separate for SC and ST. In case none of the first three eligible students are girls, the girl students scoring the highest mark will get a special award.

As and when asked by the Ministry of Social Welfare and Justice, NIOS is supposed to send the names of eligible candidates for this scheme.

Under the Scheme of **strengthening of Boarding and Hostel Facilities for Girl Students of Secondary and Higher Secondary Schools** cent percent financial assistance is given to Voluntary Organisations to improve enrolment of adolescent girls belonging to rural areas and weaker sections. Preference is given to educationally backward districts particularly those predominately inhabited by SCs/STs and educationally backward minorities.

Out of 43,000 scholarships at the secondary stage for talented children from rural areas 13,000 scholarships are awarded to SC/ST students subject to fulfillment of criteria laid down.

National Council for Educational Research and Training (NCERT) : NCERT focuses on the development of textbooks, teacher guides, supplementary reading materials, evaluation of textbooks, vocational education, educational technology, examination reforms, support to Sarva Shiksha Abhiyan, education of educationally disadvantaged groups.

NCERT operates the National Talent Search Scheme for pursuing courses in science and social science upto doctoral level and in professional courses like medicine and engineering upto second-degree level subject to fulfillment of the conditions. Out of 1000 scholarships, 150 scholarships are reserved for SC students and 75 scholarships for ST students.

National Institute of Educational Planning and Administration (NIEPA) : Educational development of Scheduled Castes and Scheduled Tribes is an area of major concern of NIEPA. It carries out a number of studies relating to educational programmes and schemes for scheduled castes and scheduled tribes. It has also been generating material relating to educational institutions and development of Scheduled Caste and Scheduled Tribe students.

University Grants Commission (UGC) : UGC provides financial assistance to universities/deemed universities for the establishment of SC/ST cells in Universities to ensure effective implementation of reservation policy for SCs and STs. The UGC has established SC/ST Cells in 113 Universities including Central Universities to ensure proper implementation of the reservation policy. The Standing Committee on SCs/STs monitors and reviews the work undertaken by the universities/colleges.

As per the reservation policy, UGC has earmarked 15 per cent and 7.50 per cent reservation for SCs and STs respectively in appointments, both in teaching and non-teaching posts, admissions, hostel accommodation, etc., in universities/colleges, professional and technical educational institutions administered by the Central

Government. State universities follow reservation policy as prescribed by respective state governments. The commission has been issuing guidelines/directives/instructions from time to time for implementing reservation policy of the Government of India. Apart from reservation, there is also relaxation in the minimum qualifying marks for admission for SC/ST candidates.

UGC has been implementing the programme of Career Orientation to education (vocationalisation of education) to ensure that the graduates have knowledge, skills and attitudes for gainful employment in the wage sector in general, and self-employment in particular for all including SCs/STs. It also provides financial assistance for Remedial Coaching to SC/ST students. It provides financial assistance to the existing coaching centres to prepare SC/ST candidates for the National Eligibility Test (NET) conducted by UGC/CSIR. The Commission provides financial assistance for extension activities. Under the scheme, all groups of the society are covered including SCs/STs.

In order to contribute towards social equity and socio-economic mobility of the under privileged sections of the society, UGC has introduced remedial coaching scheme at UG/PG level. The main objectives of the scheme are: (i) to improve the academic skills and linguistic proficiency of the students in various subjects. (ii) To raise the level of comprehension of basic subjects so as to provide a strong foundation for further academic work. (iii) To strengthen their knowledge, skills and attitudes in the subjects where quantitative and qualitative techniques and laboratory work are involved and (iv) To improve the overall performance of these students in the examination.

The Commission has created a Central Pool Database of eligible SC/ST candidates and recommends their candidature for teaching positions in order to fulfill the prescribed reservation quota in universities and colleges.

Periodic meetings of Registrars of Central Universities are organised to review the implementation of reservation policy in the Central Universities. A Special Monitoring Committee reviews the functioning of existing Cells.

Community Polytechnics : The Scheme of Community Polytechnics undertakes rural/community development activities through application of science and technology in its proximity. It provides platforms for transfer of appropriate technologies to rural masses local communities. Preference is given in training to rural youths, SCs, STs, women, school dropouts and other disadvantaged groups and helps them to obtain need based gainful employment. The scheme of Community Polytechnics has been in operation in selected diploma level institutions since 1978-79. It applies science and technology through skill oriented non-formal training technology transfer and technical support services.

Engineering Colleges : The higher educational institutions administered by the Central Government including IITs, IIMs, National Institutes of Technology etc., provide reservation to the extent of 15 per cent and 7.5 per cent for SC and ST students respectively. Apart from reservation, there is also relaxation in the minimum qualifying marks for admission for SC/ST students. Seats are also reserved in hostels. However, in institutions run by the State Governments, the reservation percentage varies as per the State Government's policy.

SCP & TSP : From the allotted budgets of the Departments of Elementary Education and Literacy and Secondary and Higher Education, 16.20 and 8 per cent are allocated

under the Special Component Plan (SCP) and the Tribal Sub-Plan (TSP) for Scheduled Castes and Scheduled Tribes respectively. The Department of Secondary and Higher Education has earmarked notionally Rs 333.75 crore and 166.88 crore for SCP and TSP respectively out of the plan outlay of Rs 2225 crore for Annual Plan 2004-05. Department of Elementary Education and Literacy has earmarked notionally Rs 900 crore and 450 crore for SCP and TSP respectively out of the plan outlay of Rs 6000 crore for Annual Plan 2004-05.

Literacy Rates : Adult Literacy Schemes of the National Literacy Mission have been implemented in nearly all the districts of the country. Special measures have been initiated to improve female literacy in low female literacy districts (45) through focussed interventions by Zilla Saksharata Samitis, Non-government Organisations, women volunteer teachers and Panchayati Raj functionaries. Emphasis is also being laid on provision of life-long learning opportunities, imparting vocational skills, and improving income generation of neo-literates through the Continuing Education Programme, which is being implemented in 272 districts.

The achievements made in the literacy rates of Scheduled Castes and Scheduled Tribes are also significant compared to those in the 1991 Census, i.e., 37.41 per cent and 29.41 per cent respectively. Besides, the growth in female literacy amongst the Scheduled Castes and Scheduled Tribes is also at a faster rate as compared to male literacy figures.

QUALITY IMPROVEMENT IN SCHOOLS

During the 10th Five Year Plan, "Quality Improvement in Schools" was introduced as a composite centrally sponsored scheme having the following components : (i) National Population Education Project, (ii) Environmental Orientation to School Education, (iii) Improvement of Science Education in Schools, and (iv) Introduction of Yoga in Schools and (v) International Science Olympiads. A decision was taken to transfer four of these components to National Council of Educational Research and Training (NCERT) w.e.f. April 2006, except the component of improvement Science Education in school that was transferred to states.

The 10th plan outlay for this scheme is Rs 115 crore. A budgetary provision of Rs 7 crore was made for the year 2006-07 for four components that have been transferred to National Council of Educational Research and Training.

NATIONAL POPULATION EDUCATION PROJECT

The National Population Education Project was launched in April 1980 with the overarching objective of institutionalizing population education in the school education and teacher education systems to contribute to the attainment of population and development goals of the country. Up to 2002, this was implemented as externally aided Project which was fully funded by the United Nations Population Fund (UNFPA). It was being implemented in the University education and adult education sector as well. In view of the achievements and significance of the Project, Government of India decided to continue to in the X Five Year Plan with a more focused objective of integrating the elements of reconceptualised framework of population education in school curriculum.

Moreover, UNFPA decided to support a concomitant Project focused on adolescent reproductive and sexual health (ARSH) from 2004. For that a budgetary

allocation of 7.29 crore has been made for the period 2004-2007. During 2006-07, the NPEP was implemented as an integral part of Adolescence Education Programme, launched by Ministry of Human Resource Development in 2005 in collaboration with National AIDS Control Organisation (NACO).

ENVIRONMENTAL ORIENTATION TO SCHOOL EDUCATION

The National Policy on Education (NPE)-1986 provides that the protection of environment is a value which, along with certain other values, must form an integral part of curriculum at all stages of education. To operationalise this noble objective, the mind and intellect of the students must be sensitised to the hazards inherent in nature upsetting the ecological balance in nature. This step inculcates awareness and respect among students for basic concepts relating to the conservation of environment.

To this end, a Centrally-sponsored Scheme "Environment Orientation to School Education" was initiated in 1988-89. The scheme envisages assistance to voluntary agencies for conduct of experimental and innovative programmes aimed at promoting integration of educational programmes in schools with local environmental conditions. During the year 2006-2007, voluntary organisations were provided financial assistance to the extent of Rs. 90 lakh for undertaking innovative and experimental projects in the field of environmental education.

IMPROVEMENT OF SCIENCE EDUCATION IN SCHOOLS

To improve the quality of science education and to promote the scientific temper. As envisaged in the National Policy on Education, 1986, a Centrally sponsored Scheme; "Improvement of Science Education in Schools" was initiated during 1987-88. Under the scheme financial assistance was being provided to States/UTs and voluntary agencies. While voluntary agencies were provided assistance for conducting experimental and innovative programmes States/Union Territories were assisted for provision of science kits to Upper Primary Schools, setting up/upgradation of science laboratories in Secondary/Senior Secondary, Schools, Library facilities in Secondary/Senior Secondary Schools and Training of Science and Mathematics teachers.

One of the important components of this scheme was participation of Indian Students at school level in the International Science Olympiads, viz., International Mathematical Olympiad (since 1989), International Physics Olympiad (since 1998), International Chemistry Olympiad (since 1999) and International Biology Olympiad (since 2000).

INTRODUCTION OF YOGA IN SCHOOLS

Introduction of Yoga in Schools was launched as a Centrally Sponsored Scheme during 1989-90 to provide financial assistance to States/Union Territories/Non-Governmental Organisations. It aimed at giving central assistance for training and research, enrichment of library and construction/expansion of hostels for teacher trainees. It was being implemented through the concerned Departments of Education of States/UTs. It was transferred to NCERT w.e.f. April 2007. NCERT has initiated to review the Scheme in the light of National Curriculum Framework 2005.

During 2006-07, financial assistance (both non-plan and plan) has been provided to NGOs. An amount of Rs. 65 lakh has been given as non-plan grant to one agency and Rs. 26,38,000 to 13 agencies for conducting training and library related activities.

INTERNATIONAL SCIENCE OLYMPIADS

With an aim to identify and nurture talents in Mathematics, Physics, Chemistry and Biology at school level, and International Mathematical Olympiad (IMO), International Physics Olympiad (IPhO), International Chemistry Olympiad (IChO) and International Biology Olympiad (IBO) are held every year. India has been participating in these Olympiads since 1989, 1998, 1999 and 2000, respectively. Each participating country is required to send a team comprising not more than 6 secondary students contestants to IMO, 5 secondary student contestants at IPhO, 4 contestants to IChO and 4 contestants to IBO apart from a Team Leader and a Deputy Team Leader. Since 2002 Indian team is also participating in international Olympiad in informatics.

As per the existing financial pattern, the host country pay for the boarding and loading and transportation of teams during their stay in the next country, while the International travel cost is borne by the participating countries. The Indian teams in the last Olympiads were jointly sponsored by the Department of Secondary Education and Bhabha Centre for Science Education (HBCSE)/Bangalore Association for Science Education (BASE)/Indian Association for Research in Computing Science (IARCS) and Central Board of Secondary Education (CBSE). The cost of international travel is paid by the Department of Secondary and Higher Education while all other expenses of selected students' internal travel or incidental are borne by NBHM/HBCSE/IARCS.

At IChO-2005 held at Taipei, Taiwan during July 2005 the Indian Team won 3 silver and 1 Bronze medals. At IPhO-2005 held at Salamanca, Spain during July 2005, the Indian team won 2 gold, 2 silver and 1 bronze medals. At IBO 2005 held at Beijing, China during July 2005 the Indian Team won 1 gold and 3 bronze medals. At IMO-2005 held at Mendota, Mexico in July 2005, the Indian Team won 1 silver and one bronze medals and 3 honorable mentions. India had also participated in International Olympiad in Informatics (IOI-2005) held in Nowy Sacz, Poland during August 2005.

At IPhO-2006 held at Singapore from July 8-17, 2006 the Indian team won two gold and three bronze medals. At IChO-2006 held at Gyeongsangbuk, Korea from July 2-12, 2006 and Indian team won one gold, two silver and one bronze medals. In the IMO-2006 held at Lubljana, Slovenia from July 6-18, 2006 the Indian team won five bronze medals and one honourable mention. At IBO-2006 held at Jordoba, Argentina from July 9-16, 2006 the Indian team won three silver and a bronze medal.

NAVODAYA VIDYALAYA SAMITI

The National Policy on Education – 1986 envisaged setting up of model school, one in each district of the Country. Accordingly, a scheme was formulated under which it was decided to set-up co-educational residential schools (now called Jawahar Navodaya Vidyalayas).

Navodaya Vidyalayas are fully residential co-educational institutions providing education up to senior secondary stage. The scheme, which started with only two schools on experimental basis in 1985-86, has grown to 565 schools (as on 31 March 2007) covering as many districts in 34 States/UTs, with over 1.93 lakh students on rolls as on 31 March 2007. More than 30,000 new students are admitted every year.

The Vidyalayas envisaged a new style of growth with identification and development of talented, bright and gifted children predominantly from rural areas

who may otherwise be denied good educational opportunities. Efforts are made to ensure that at least 33 per cent of the students enrolled are girls.

Migration is a unique feature of Navodaya Vidyalaya scheme whereby 30 per cent of students of Class IX from a Vidyalaya located in Hindi speaking area spend one academic year in a Vidyalaya located in Non-Hindi speaking area and vice-versa to promote national integration through understanding of the diversity and plurality of country's people, their language and culture.

KENDRIYA VIDYALAYA SANGATHAN

The Government approved the scheme of Kendriya Vidyalaya Sangathan in 1962, on the recommendations of the Second Pay Commission. Initially, 20 regimental schools in different States were taken over as Central Schools. In 1965, an Autonomous Body called Kendriya Vidyalaya Sangathan was established with the primary objective of setting-up and monitoring Kendriya Vidyalayas to cater to the educational needs of the children of transferable Central Government Employees including Defence Personnel and Para-Military forces by providing common programme of education. At present, there are 931 Kendriya Vidyalayas (as on 17 June 2005) out of which three Kendriya Vidyalayas are based abroad i.e., one each in Kathmandu, Moscow and Tehran. All Kendriya Vidyalayas follow a uniform syllabus.

INTEGRATED EDUCATION FOR DISABLED CHILDREN

The Centrally sponsored scheme of Integrated Education for Disabled Children (IEDC) was launched in 1974 by the then Department of Social Welfare and was later transferred to the Department of Education in 1982-83. The Scheme was last revised in 1992. The Scheme provides educational opportunities for disabled children in common schools to facilitate their integration and ultimate retention in the general school system. Under IEDC, 100 per cent assistance is being provided to various components for education of children suffering from mild to moderate disabilities in common schools. The components include educational aids, supporting equipments, salaries for special teachers and facilities for children with disability.

By the end of 2005, a total of approximately two lakh disabled children have been covered in nearly 85,000 schools. The total budgetary provision during the Tenth Plan is Rs. 200 crore and during the year 2005-06, Rs. 45 crore has been allocated for the implementation of the scheme.

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

The National Council of Educational Research and Training (NCERT) is an apex institution which provides technical resource support for school education. The NCERT charter envisages a special place for designing curriculum. NCERT is expected to review school curriculum as a regular activity ensuring the higher standards in education. The National Policy of Education, (NPE) 1986, and the Programme of Action (PoA), 1992 assign a special role to NCERT in preparing and promoting a National Curriculum Framework. The NPE views such a task as a means of establishing a national system of education, characterised by certain core values and goals relevant to changing needs of children and society and within the constitutional framework of the country.

National Curriculum Framework : The National Curriculum Framework (NCF) 2005 was the outcome of wide ranging deliberations and collective endeavours. A National Steering Committee was set up under the chairpersonship of Prof. Yash Pal, eminent scientist and scholar. The committee comprised 35 members including scholars from

different disciplines, principals and teachers, representatives of well-known NGOs and members of the NCERT. Its work was supported by 21 National Focus Groups, covering major areas of the curriculum, national concerns and systemic issues. Consultations were held across the length and breadth of the country. In addition, NCERT held consultations with rural teachers, State Education Secretaries and Principals of private schools. Regional seminars were organised at the Regional Institutes of Education in Ajmer, Bhopal, Bhubaneswar, Mysore and Shillong.

PROMOTION OF LANGUAGES

Language being the most important medium of communication and education, its development occupies an important place in the 'National Policy on Education and Programme of Action'. Therefore, the promotion and development of Hindi and other Languages listed in the Constitution of India have received due attention.

HINDI

In order to assist non-Hindi speaking States/UTs to effectively implement the three-language formula, support for teaching of Hindi in these States/UTs is provided by sanctioning financial assistance to appoint Hindi teachers in schools under a Centrally-sponsored scheme. Assistance is also given to Voluntary Organisations for enabling them to hold Hindi-teaching classes. Through the Kendriya Hindi Sansthan, the Government promotes development of improved methodology for teaching Hindi to non-Hindi speaking students. A special course for teaching Hindi to foreigners is being conducted by the Sansthan, on regular basis annually.

The Central Hindi Directorate runs programmes relating to purchase and publication of books and its free distribution to non-Hindi speaking States and to Indian missions. It extends financial support to NGOs engaged in development and promotion of Hindi.

The Commission for Scientific and Technical Terminology, New Delhi, prepares and publishes definition dictionaries and terminology in various disciplines in Hindi and in other languages,

MODERN INDIAN LANGUAGES

Financial assistance is given to voluntary organisations and individuals to bring out publications like encyclopedias, dictionaries, books of knowledge, original writing on linguistics, literacy, ideological, social anthropological and cultural themes, critical edition of old manuscripts, etc., for the development of Modern Indian Languages. States are given special help for the production of University-level books in regional languages. The National Council for Promotion of Urdu Language (NCPUL) has been functioning since April 1996 as an autonomous body for the promotion of Urdu language and also Arabic and Persian languages. One of the outstanding areas of operation of NCPUL has been transfer of information of Urdu speaking population into productive human resource and making them part of the employable technological workforce in the emerging information technological scenario and penetration of computer education to the grass-root level in minority concentration blocks. The Government has also set-up National Council for Promotion of Sindhi.

The Government also provides facilities for study of all Indian languages. For this the Central Institute of Indian Languages (CIIL), Mysore conducts research in the areas of language analysis, languages, pedagogy, language technology and language use. It runs Regional Language Centres to help in meeting the demand for training of teachers to implement the three-language formula. The Regional Language Centre

also provides training for mother- tongue teachers in different Indian languages at various levels.

ENGLISH AND FOREIGN LANGUAGES

The Central Institute of English and Foreign Languages (CIEFL), Hyderabad is an Institution of Higher learning deemed to be a University is an autonomous organisation under this Ministry, which undertakes teacher education programme to improve the professional competence of teachers of English at the secondary language. It offers several courses like post-graduate certificate and diploma courses in teaching of English and Ph.D courses in English through the distance mode. It also offers teaching of major foreign languages like Arabic, French, German, Japanese, Russian and Spanish. It has regional centres at Shillong and Lucknow. The CIEFL also implements two Government of India schemes of English Language Teaching Institute (ELTI) and District Centres for English to bring about substantial improvements in the standard of teaching/learning of English in the country for which grants are given by CIEFL to various State Governments.

STRENGTHENING OF CULTURE AND VALUES IN EDUCATION

The National Policy on Education, 1986 (revised in 1992) and its Programme of Action-1992 has laid considerable emphasis on value education by highlighting the need to make education a forceful tool for social and moral values.

To fulfill the objectives of the National Policy on Education, a Central Sector Scheme of Assistance for Strengthening of Culture and Values in Education is being implemented. Under this Scheme, financial assistance is given to Governmental and non-Governmental organisations, Panchayati Raj Institutions, etc., to the extent of 100 per cent of grant for the project proposals approved subject to a ceiling of rupees ten lakh for strengthening cultural and value education from pre-primary education system to higher education including technical and management education.

SANSKRIT DIVISION

Sanskrit has played a vital role in the development of all Indian Languages and in the preservation of the cultural heritage of India. The Government of India gives 100 per cent financial assistance through State Governments for: a) Eminent Sanskrit scholars in Indigent Circumstances; b) Modernisation of Sanskrit Pathshalas; c) Providing facilities for teaching Sanskrit in High/Higher Secondary Schools; d) Scholarships to students studying Sanskrit in High and Higher Secondary schools; e) Various schemes for the promotion of Sanskrit; and f) improving the methodology of teaching Sanskrit in schools, Sanskrit Colleges/Vidyapeeths. Presently the Scheme is under revision.

Presidential Award of the Certificate of Honour is conferred on eminent scholars of Sanskrit, Pali, Arabic, and Persian in recognition of their lifetime outstanding contribution towards the propagation of these languages, every year on Independence Day. Maharshi Badrayan Vyas Samman has also been introduced for young scholars in the age group of 30-40 years who have made a break through in inter disciplinary studies involving contribution of Sanskrit or ancient Indian wisdom, to the process of synergy between modernity and tradition.

The Maharshi Sandipani Rashtriya Veda Vidya Prathisthan, Ujjain is an autonomous organisation, which promotes. a) Preservation, conservation and development of the oral tradition of Vedic studies; b) Study of the Vedas through Pathashalas as well as

through other means and institutions; c) Creation and promotion of research facilities; d) Creation of infrastructure and other conditions for the collection of information and storage of relevant material.

Rashtriya Sanskrit Sansthan, New Delhi is an autonomous organisation established by the Government of India in the year 1970. It is the nodal agency for the propagation, promotion and development of Sanskrit Education in the country. It is fully funded by the Government of India in the Ministry of Human Resource Development, Department of Secondary and Higher Education. Rashtriya Sanskrit Sansthan has been granted the status of a Deemed to be University.

Rashtriya Sanskrit Vidyapeetha, Tirupati, provides courses of study from Prashasti (Intermediate) to Vidya Vardhi (Ph.D.) , The Vidyapeetha has upgraded the Department of Pedagogy to an Institute of Advanced Studies in Education (IASE).

Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha, New Delhi provides courses of study from Shastri to Vidya Vachaspati (D.Lit.). From 1997-98 the Vidyapeetha started diploma in vedic and refresher courses, two degrees, namely, Vidya Vardhi (Ph.D) and Manad Upaadhi (Honorary D.Lit.) are also given by Vidyapeetha.

SCHOLARSHIPS

The Ministry of Human Resource Development operates a Centrally Sponsored Plan Scheme viz., National Merit Scholarship Scheme through States/UTs, under which 100 per cent financial assistance is provided to meritorious students from rural areas studying in classes IX and X. Besides, scholarship is also provided to all the meritorious students on state-wise merit, including students from rural areas, studying from the post-metric to the post-graduate level. The rate of scholarship varies from Rs 250 to Rs 750, depending on course of study. Under the Scheme of Scholarship to Students from Non-Hindi Speaking States for Post-Matric Studies in Hindi, the rate of scholarship ranges from Rs 300 to 1000 per month.

The Government provides scholarships to Indian scholar for Post Graduate/ Research/Post Doctoral studies abroad on the basis of offers received from foreign Government under the various Cultural/Educational Exchange Programme. The details of offers and other conditions are given wide publicity in the leading newspapers while inviting applications for scholarship and are available on Department's website www.education.nic.in. The amount and other facilities provided by foreign governments varies from country to country and time to time.

EDUCATIONAL DEVELOPMENT IN NORTH EASTERN REGION

The NE Region comprising eight States has a high literacy level and is rich in ethnic cultural heritage with linguistic diversity. However, the region lacks infrastructure and facilities in educational institutions across sectors and there is a need to improve the quality of education imparted. The NE States have been provided grants under the Non Lapsable Central Pool of Resources (NLCPR) to improve their infrastructure facilities. The Empowered Committee administering NLCPR has, since its inception in 1998-99, approved proposals worth Rs 480.68 crore for the development of educational infrastructure in the NER. Funds amounting to Rs 392.81 crore have also been released as on 30 November 2005. Out of this, Rs 14.84 crore was released in 2005-06.

In the Central sector, the proposals mainly relate to infrastructure development of Central Institutions like the five central universities in the North East which include

construction of staff quarters, academic buildings, library buildings, administrative buildings and purchase of lab equipments, books, etc. These projects are in various stages of implementation. The important Central Sector Institutions in the North East Region are IIT, Guwahati; NERIST, Itanagar; NIT, Silchar; Regional Centres of IGNOU; Central Universities of Assam, Tezpur, Mizoram, Nagaland and NEHU.

In addition to the funds released under NLCPR, the Department of Secondary and Higher Education also released Rs 40.42 crore during 2003-04 from its own budget for meeting the committed liability under NLCPR for infrastructure projects of Assam University, Tezpur University, NEHU and JNU (for NER students' hostel).

A provision of Rs 261.05 crore and Rs 1053 crore has been kept for NER under BE 2005-06 for the Department of Secondary and Higher Education and Elementary Education and Literacy respectively. Out of this an amount of Rs 187.57 crore and Rs 501.60 crore has been certified for expenditure on various schemes of the Department of Secondary and Higher Education and Elementary Education and Literacy till 31 January 2006.

The Kendriya Vidyalaya Sangathan are running 86 schools in the North East Region.

The Navodaya Vidyalaya Samiti are trying to achieve their goal of opening one JNV in each of the 78 districts of the North Eastern States. Presently 76 JNVs have been sanctioned for the NE Region.

During 2003-04, the Department of Secondary and Higher Education was able to spend over 10 per cent of its RE in the North Eastern States.

UNIVERSITY AND HIGHER EDUCATION

Universities and university-level institutions in India include 20 Central Universities, 215 State Universities, 100 Deemed Universities, 5 institutions established under State Act and 13 institutes of national importance apart from around 17,000 colleges including 1800 womens colleges.

UNIVERSITY GRANTS COMMISSION

The University Grants Commission (UGC) which came into existence on 28 December 1953, became a statutory organisation by an Act of Parliament in 1956. It is a national body for the coordination, determination and maintenance of standards of university education. It serves as a coordinating body between the Union and State Governments and the institutions of higher learning. It also acts as an advisory body to these Governments and institutions on issues relating to higher education.

Section 12 of the UGC Act provides that the Commission shall, in consultation with the universities concerned, take all such steps as it may think fit for the promotion and coordination of university education and for the maintenance of standards in teaching, examination and research. To teaching and research, extension was added as the third dimension of education by the Commission. For the purpose of performing its functions, the Commission may allocate and disburse, out of the Fund of the Commission, grants to universities and colleges for their maintenance and development; advise the Union Government, State Governments and Institutions of higher learning on the measures necessary for the promotion of university education and make Rules and Regulations consistent with the Act, etc.

The Commission consists of the Chairman, Vice-Chairman and 10 other members appointed by the Government of India. The executive head is Secretary.

The University Grants Commission has its Regional Offices at Hyderabad, Pune, Bhopal, Kolkata, Guwahati and Bangalore. The Northern Regional Office which was earlier located at Ghaziabad has now been functioning from the UGC Head Quarters as Northern Regional Colleges Bureau (NRCB). The UGC has taken up some new initiatives, viz.

- Promotion of Entrepreneurship and knowledge based enterprises.
- Protection of Intellectual Property Rights.
- Promotion of Indian Higher Education abroad.
- Training and development of Academic Administrators.
- Comprehensive Computerisation Initiative.

AUTONOMOUS RESEARCH ORGANISATIONS

The Indian Council of Historical Research (ICHR), New Delhi, set-up in 1972, reviews the progress of historical research and encourages scientific writing of history. It operates research projects, finances research projects by individual scholars, awards fellowships and undertakes publication and translation work.

The Indian Council of Philosophical Research (ICPR), functioning from 1977 with offices in New Delhi and Lucknow, reviews the progress, sponsors or assists projects and programmes of research in philosophy, and gives financial assistance to institutions and individuals to conduct research in philosophy and allied disciplines.

The Indian Institute of Advanced Study (IIAS), Shimla set up in 1965 is a residential centre for advanced research in humanities, social sciences and natural sciences. It is a community of scholars engaged in exploring new frontiers of knowledge aimed at conceptual development and offering interdisciplinary perspectives on questions of contemporary relevance.

The Indian Council of Social Science Research (ICSSR), New Delhi, is an autonomous body for promoting and coordinating social science research. Its main functioning are to review the progress of social science research, give advice on research activities in government or outside, sponsor research programmes and give grants to institutions and individuals for research in social sciences.

The National Council of Rural Institute (NCRI) was set up in 1995 as a autonomous organisation fully funded by the Central Government to promote rural higher education on the lines of Mahatma Gandhi's revolutionary and voluntary agencies in accordance with Gandhian Philosophy of education and promote research as tool of social and rural development.

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

The Indira Gandhi National Open University (IGNOU) established in September 1985, is responsible for the promotion of Open University and distance education system in the educational pattern of the country and for coordination and determination of standards in such systems. The major objectives of the University include widening access to higher education to larger segments of the population, organising programmes of continuing education and initiating special programmes of higher education for specific target groups like women, physically challenged and people living in backward regions and hilly areas, such as NE, KBK, and those predominantly inhabited by tribals and SCs.

The IGNOU provides an innovative system for tertiary education and training. The system is flexible and open in regard to methods and pace of learning, combination

of courses, eligibility for enrolment, age of entry, method of evaluation, etc. The University has adopted an integrated multimedia instructional strategy consisting of printed materials, audio-visual aids, educational radio and TV, teleconferencing and video conferencing supported by face-to-face counseling sessions through a network of study centres throughout the country. It conducts both continuous evaluation as well as term-end examinations.

The IGNOU introduced its programmes in 1987 and has so far launched 117 programmes consisting of more than 900 courses consisting of Ph.D., Master's Degree Programmes, Advanced/Post Graduate Diploma, Diploma Programmes and Certificate Programmes, etc. During 2005 over 4.60 lakh students were registered for various programmes of study.

The University has established an extensive student support services network consisting of 60 regional centres, 7 sub-regional centres and 1298 study centres situated in different parts of the country. IGNOU has established 269 study centres for women, SC/ST and physically challenged persons. On 26 January 2001, IGNOU launched an education channel *Gyandarshan* which is now a 24-hour channel and has capacity for six simultaneous telecasts. In November 2001, IGNOU launched FM Radio Network for providing additional student support. As of now, 17 FM radio stations are functional and this number should increase to 40 FM stations in course of time. The launch of an exclusive educational satellite *Edusat* is an historic opportunity for the growth and development of distance education to create Educated India and meet the aspirations of our people and empower them through quality education. In the year 2005, the university established 100 *Edusat* supported Satellite Interactive Terminals (SITs) in its regional/study centres all over the country. Distance Education Council, established by the University as a statutory authority, is an apex body for coordination and determination of standards in distance education in the country.

MINORITY EDUCATION

The National Policy on Education 1986, updated in 1992 envisages paying greater attention to the education of the educationally backward minorities in the interest of equity and social justice. In pursuance of the revised Programme of Action (POA) 1992, two new Centrally-sponsored schemes, i.e., (i) Scheme of Area Intensive Programme for Educationally Backward Minorities; and (ii) Scheme of Financial Assistance for Modernisation of Madarsa Education were launched during 1993-94.

Over a time, it has been felt that all these schemes need to be implemented in an integrated way so as to have wider coverage, greater thrust and visibility of minority education programme. In the Tenth Plan the aforesaid two schemes have been merged to form the Area Intensive and Madarsa Modernisation Programme.

The National Commission for Minority Educational Institutions 2004 has been set-up by an Act of Parliament under which minority education institutions can seek affiliation to Scheduled Universities. University of Delhi, North Eastern Hill University; Pondicherry University; Assam University; Nagaland University and Mizoram University are at present in the Schedule.

TECHNICAL EDUCATION

The Technical Education System in the country covers courses in engineering, technology, management, architecture, pharmacy, etc. The Ministry of Human Resource Development caters to programmes at undergraduate, postgraduate and

research levels. The technical education system at the central level comprises, among others, the following : a) The All India Council for Technical Education (AICTE), which is the statutory body for proper planning and coordinated development of the technical education system; b) Seven Indian Institutes of Technology (IITs); c) Six Indian Institutes of Management (IIMs); d) Indian Institute of Science (IISc), Bangalore; e) Indian Institute of Information Technology and Management (IIITM), Gwalior; Indian Institute of Information Technology (IIIT), Allahabad; and its Extension Campus at Amethi; and Indian Institute of Information Technology, Design and Manufacturing, (IIITDM) Jabalpur; and f) Eighteen National Institutes of Technology (NITs) (converted from RECs with 100 per cent Central funding).

Initiatives have been taken to promote research and education in basic sciences in the country. The IIS, Bangalore was sanctioned a special grant of Rs 100 crore to upgrade its infrastructure facilities, including laboratories. On the recommendation of the Scientific Advisory Council to the Prime Minister, two Indian Institutes of Science Education and Research have been approved at Pune and Kolkata. These Institutes will combine education in basic sciences at undergraduate and postgraduate level, with world class research facilities.

To enhance research productivity in Science and Technology Education and to improve quality of education, access to electronic journals and databases is being provided to all technical institutions. To benefit from lower costs, AICTE and Indian National Digital Library for Science and Technology (INDEST) have joined hands to form a combined AICTE-INDEST consortium.

During the 10th Plan, there has been a significant increase in the number of Technical Education institutions and total intake of students. Of the 10th Plan outlay of Rs 13,825 crore for the Department of Secondary and Higher Education, Rs 4700 crore was earmarked for 16 programmes of Technical Education. Of this, the major share goes to the World Bank-aided Technical Education Quality Improvement Programme (TEQIP) with an outlay of Rs 900 crore; AICTE with an outlay of Rs 600 crore and IITs with an outlay of Rs 612 crore. The outlay for Annual Plan 2004-05 for Technical Education was Rs 750 crore and expenditure Rs 615.85 crore.

INDIAN NATIONAL COMMISSION FOR CO-OPERATION WITH UNESCO (INCCU)

India has been a member of the United Nations' Educational, Scientific and Cultural Organisation (UNESCO) since 1946. The Government set up an interim Indian National Commission for Cooperation with UNESCO (INCCU) in 1949, which was later put on a permanent footing in 1951. The Commission consists of five Sub-Commissions namely, Education, Natural Science, Social Sciences, Culture and Communication.

The main objective of the Commission is to advise the Government in matters falling in the domain of UNESCO and to play a role in UNESCO's work, particularly in the formulation and execution of its programmes. The Minister for Human Resource Development is the President of the Commission and the Secretary of the Government of India in the Department of Secondary and Higher Education is its Secretary General. The membership of the Commission is of two categories; (i) Individual and (ii) institutional members distributed among its five Sub-Commissions.

The National Commission acts as an advisory, coordinating and liaison agency at the national level in respect of all matters within the competence of UNESCO. It

also collaborates with the National Commissions of the Region and with UNESCO's Regional Offices, for fostering regional, sub-regional and bilateral co-operation in education, science, culture and information.

BOOK PROMOTION

National Book Trust, India: The National Book Trust, India an autonomous organisation under the Ministry of Human Resource Development, was established in 1957. The activities of the NBT are : (i) publishing, (ii) promotion of books and reading, (iii) promotion of Indian books abroad, (iv) assistance to authors and publishers, and (v) promotion of children's literature. It produces books in Hindi, English and fifteen other major Indian languages under its various series and in Braille. Every alternate year, NBT organises the World Book Fair in New Delhi, which is the largest book fair in Asia and Africa. The Trust also observes 14-20 November every year as National Book Week.

The 17th New Delhi World Book Fair was held from 27 January - 4 February 2006. Around 1300 participants including 37 from 18 foreign countries and international bodies, viz., ILO, WHO, UNICEF and EU among others attended the fair.

Frankfurt Book Fair 2006 – India Guest of Honour : On the invitation of the Frankfurt Book Fair authorities, India was the Guest of Honour at the 58th Frankfurt Book Fair-2006. The NBT was the Nodal Agency for organising and implementing various activities.

COPYRIGHT

Administering the Copyright Act, 1957, one of the several legislations in India in the area of Intellectual Property Rights (IPRs), is the responsibility of the Union Ministry of Human Resource Development, Department of Secondary and Higher Education. The Copyright Office was established in January 1958 to register copyright of works under different categories. As per Section 33 of the Copyright Act, the Central Government also registers copyright societies for doing copyright business. The Indian Copyright Act, 1957 was comprehensively amended in 1994 taking into account the technological developments. The amended Act was brought into force on 10 May 1995. The Act as further amended in 1999, came into force on 15 January 2000. Under the provisions of Section 11 of the Copyright Act, 1957, the Government of India has constituted a Board to be called the Copyright Board. The Copyright Board is a quasi-judicial body consisting of a Chairman and not less than two or more than fourteen other members. The Chairman and other members of the Board are appointed for a term of five years. The Copyright Board was reconstituted for a term of five years with effect from 22 February 2001. The Board hears cases regarding rectification of copyright registration, disputes in respect of assignment of copyright and granting licenses in works withheld from public.

Copyright Enforcement in India : The Indian Copyright Act, 1957, provides penalties for the offences committed under the Copyright Act and empowers the police to take necessary action. The actual enforcement of the law is the concern of the State Governments. However, during the last few years, the Central Government has taken various steps to improve the enforcement of the Copyright Act to curb piracy. These measures include the setting up of a Copyright Enforcement Advisory Council (CEAC), which has as its members from all concerned departments and representatives of industry to regularly review the implementation of the Copyright Act including

the provisions regarding anti-piracy. Several other measures taken by the Central Government include, persuading the State Government for (i) the setting up of Special Cells in State Governments for enforcement of Copyright Laws; (ii) appointment of nodal officers in the States for facilitating proper coordination between the industry organisations and enforcement agencies; (iii) holding of seminars/workshops, etc., for sensitising the public about Copyright Laws; (iv) Collective Administration by Copyright Societies.

Cooperation with WIPO : India is a member of the World Intellectual Property Organisation (WIPO), a specialised agency of the United Nations which deals with copyright and other intellectual property rights and plays an important role in all its deliberations.

As per recent amendments in the Government of India (Allocation of Business) Rules, 1961 the work relating to coordination with WITO has been transferred to Ministry of Commerce and Industry, Department of Industrial Policy and Promotion.

General Agreement on Trade in Services (GATS) : The last round of General Agreement on Tariffs and Trade (GATT) in 1994 gave rise to multilateral agreement on Trade under the World Trade Organisation (WTO). Prior to emergence of the WTO, there was no multilateral agreement on services. The WTO came into existence on 1 January 1995. The next round of negotiations in 1996 led to a comprehensive agreement on international trade in services. The objective of the agreement is the progressive liberalisation of trade in services. It is to provide secure and more open market in services in a manner similar as the GATT has done for trade in goods. Education is one of the twelve services, which are to be negotiated under the General Agreement on Trade in Services (GATS). Education has been divided into five categories for the purposes of Negotiations: Higher Education, Secondary Education, Primary Education, Adult Education and Other Education.

GATS prescribes the following four modes of Trade in Services including Education Services: (i) Cross-Border Supply of a service includes any type of course that is provided through distance education or the internet, any type of testing service, and educational materials which can cross national boundaries; (ii) Consumption Abroad mainly involves availing services abroad, i.e., students going abroad and is the most common form of trade in educational services; (iii) Commercial Presence refers to the actual presence of foreign investors in a host country. This would include foreign universities setting up courses or entire institutions in another country; and (iv) Presence of Natural Persons refers to the ability of people to move between countries to provide educational services.

Under Education Services the Indian revised offer was to open up the Higher Education Sector with the condition that Higher Education Institutions can be permitted to charge fees to be fixed by an appropriate authority provided such fees do not lead to charging capitation fees or to profiteering. The provision of the Higher Education Services would also be subject to such regulations, already in place or to be prescribed by the appropriate regulatory authority.

11 Energy

ENERGY is an essential input for economic development and improving the quality of life. Development of conventional forms of energy for meeting the growing energy needs of society at a reasonable cost is the responsibility of the Government. Development and promotion of non-conventional/alternate/new and renewable sources of energy such as solar, wind and bio-energy, etc., are also getting sustained attention. Nuclear energy development is being geared up to contribute significantly to the overall energy availability in the country.

POWER

Power development in India commenced at the end of the 19th century with the commissioning of electricity supply in Darjeeling during 1897, followed by the commissioning of a hydropower station at Sivasamudram in Karnataka during 1902. In the pre-Independence era, the power supply was mainly in the private sector that too restricted to the urban areas. With the formation of State Electricity Boards during Five-Year Plans, a significant step was taken in bringing about a systematic growth of power supply industry all over the country. A number of multi-purpose projects came into being and with the setting up of thermal, hydro and nuclear power stations, power generation started increasing significantly.

The Ministry of Power is primarily responsible for the development of electrical energy in the country. The Ministry is concerned with perspective planning, policy formulation, processing of projects for investment decisions, monitoring of the implementation of power projects, training and man-power development and the administration and enactment of legislation with regard to thermal and hydro power generation, transmission and distribution. In all technical matters, the Ministry of Power is assisted by the Central Electricity Authority (CEA).

The construction and operation of generation and transmission projects in the Central sector are entrusted to Central Sector Power Corporations, viz., the National Thermal Power Corporation (NTPC), the National Hydroelectric Power Corporation (NHPC), the North-Eastern Electric Power Corporation (NEEPCO), and the Power Grid Corporation of India Limited (PGCIL). The Power Grid is responsible for all the existing and future transmission projects in the Central Sector and also for the formation of the National Power Grid. Two joint-venture power corporations, namely, Satluj Jal Vidyut Nigam (SJVN) (formerly known as NJPC) and Tehri Hydro Development Corporation (THDC) are responsible for the execution of the Nathpa Jhakri Power Project in Himachal Pradesh and Projects of Tehri Hydro Power Complex in Uttaranchal respectively. Three statutory bodies, i.e., the Damodar Valley Corporation (DVC), the Bhakra-Beas Management Board (BBMB) and Bureau of Energy Efficiency (BEE), are also under the administrative control of the Ministry of Power. Programmes of rural electrification are provided financial assistance by the Rural Electrification Corporation (REC). The Power Finance Corporation (PFC) provides term-finance to projects in the power sector. The autonomous bodies (societies), namely, Central Power Research Institute (CPRI) and the National Power Training Institute (NPTI) are also under the administrative control of the Ministry of

Power. A Power Trading Corporation has also been incorporated primarily to support the Mega Power Projects in private sector by acting as a single entity to enter into power Purchase Agreements (PPAs).

Capacity Addition: To meet the projected power requirement by 2012, an additional capacity of 1,00,000 MW is required during the 10th and 11th Five-Year Plans. The capacity addition achieved during 10th Plan is 21,180 MW. The addition proposed during 11th Plan by Planning Commission is 78,700 MW comprising 15,627 MW hydro, 59,693 MW thermal and 3,380 MW nuclear. The Central Sector would contribute 36,874 MW (Thermal 24,840 MW), the State Sector 26,783 MW (Thermal 23,301 MW) and Private Sector 15,043 MW (Thermal 11, 552 MW) in the 11th Plan.

The installed power generation capacity in the country has increased from 1,400 MW in 1947 to 1,50,574 MW as on 31.07.2009 comprising 36,917 MW hydro, 96,295 MW thermal including gas & diesel, 4,120 MW nuclear based power plants and 13,242 MW from renewable energy sources including wind.

Power generation : Power generation during 2008-09 was 723.55 BUs comprising 589.91 BUs thermal, 113.03 BUs hydro, 14.71 BUs nuclear and 5.90 BUs import from Bhutan. The target of power generation for 2009-10 has been fixed at 789.51 BUs. The plant load factor (PLF) has shown a steady improvement over the years and has improved from 52.8% in 1990-91 to 77.19% in 2008-09.

50,000 MW Hydro Electric Initiative: Under the 50,000 MW initiative launched by the Government in 2003-04, 162 hydro electric projects spreading in 16 states for the purpose of preparation of Preliminary Feasibility Reports (PFRs) were taken up by CEA as nodal agency. The PFRs were completed in September 2004 for all these projects with an installation of 47,930 MW.

As a follow up preparation of PFRs implementation/ preparation of DPRs for attractive schemes selected from PFR schemes has already been taken up thereby providing a shelf of projects for execution in the near future. At the first instance, based on their preliminary techno-economic analysis, 77 schemes (33951 MW) whose first year tariff works out below Rs. 2.50 /Kwh have been considered as low tariff H.E. schemes and have been selected for taking up of detailed survey and investigation and preparation of DPR/implementation.

Out of these, DPRs of 20 schemes (7793 MW/Revised capacity 7296 MW) have already been prepared.

During the year 2008-09 concurrence was accorded to 4nos. Hydro Electric schemes with aggregate installed capacity of 860 MW.

Development National Grid : A national power grid in the country is being developed in phased manner. By now, all the regional grids have already been inter-connected and total transmission capacity of inter-regional transmission system, as on 30.06.2009 was 20750 MW. At present, except Southern Region, all the other four regions are inter-connected in synchronous mode and are operating in parallel.

Initially, a set of inter-regional links were developed under the Centrally sponsored programme for facilitating exchange of operational surpluses among the various regions in a limited manner. Because the Regional Grids operated independently and had different operational frequencies and the power exchanges on these inter-regional links took place only in radial mode. In 1992, the Eastern Region and the North-Eastern Region were connected by a 220 kV double circuit transmission line, and are operating in synchronism since then. Total inter-regional transmission capacity by the end of 9th Plan was 5750 MW.

During 10th Plan i.e. 2002-07, a total of 8300 MW of inter-regional capacities were added. In this effect, major achievements were - addition of Talcher-Kolar HVDC Bipole, second module of HVDC back-to-back system between SR and ER at Gazuwaka, HVDC back-to-back system between NR and ER at Sasaram, synchronous inter-connection of NER/ER grid with WR grid by Rourkela-Raipur 400k V D/C line, synchronous inter-connection of NER/ER/WR grid with NR grid 400kV D/C (quad) line and Agra-Malanpur 765kV transmission line (operated at 400kV). Total inter-regional transmission capacity by the end of 10th Plan was 14050 MW.

During 11th Plan i.e. 2007-12, inter-regional transmission systems of 24600 MW capacity have been planned and it is expected that, by the end of 11th Plan, total inter-regional transmission capacity of the National power grid would be increased to 38650 MW. Out of the programme for 11th Plan, 2400 MW capacity was added during 2007-08, 3300 MW during 2008-09 and 1000 MW is being added during 2009-10 (up to June'2009). Thus a capacity addition of 6700 MW has already been added in 11th Plan up to 30.06.2009.

During 12th Plan i.e. 2012-17, inter-regional transmission systems of about 37000 MW capacity are being planned which would increase the total inter-regional transmission capacity of the National Grid to about 75000 MW by end of 12th Plan.

CENTRAL ELECTRICITY AUTHORITY

Central Electricity Authority (CEA), a statutory organisation constituted under Section 3(1) of the Electricity Supply Act, 1948 which has been superseded by Section 70 (1) of Electricity Act, 2003, plays an important role in formulating policies and programmes for power development in the country and in planning and coordinating various development activities in the Power Sector. The CEA advises the Central Government on matters relating to the National Electricity Policy, formulates short-term and perspective plans for development of the electricity system and coordinates the activities of the planning agencies for the optimal utilisation of resources to subserve the interests of the national economy and to provide reliable and affordable electricity for all consumers.

Under the Electricity Act, 2003, the CEA makes regulations/standards on matters such as construction of electrical plants, electric lines and connectivity to the grid, installation and operation of meters, concurrence of hydro-electric schemes, safety and grid standards. It also specifies measures relating to safety with respect to electricity supply. This will inculcate higher efficiency in all fields of the power sector.

The CEA is responsible for the concurrence of hydro power development schemes of the Central, State and Private sectors taking into consideration the best ultimate development of the river or its tributaries for power generation, consistent with the requirement of drinking water, irrigation, navigation, flood control or for other public purposes. It also makes studies for the optimum location of dams and other river works keeping in view the norms regarding dam design and safety.

It promotes and assists in the timely completion of schemes and projects for improving and augmenting the electricity system by carrying out a close monitoring of the construction of generation and transmission projects to ensure their timely completion by identifying bottlenecks and problem areas and initiating remedial

measures/actions. It lays stress on improving the performance of existing power stations through better O&M practices, renovation and modernisation and life extension programmes. It is also charged with the responsibility of monitoring Schemes/Projects for their timely completion.

Collection and recording the data concerning the generation, transmission, trading, distribution and utilisation of electricity and carrying out studies relating to cost, efficiency, competitiveness, etc., are important functions of the CEA. It makes public from time to time information secured under the Electricity Act, 2003 and provides for the publication of reports and investigations.

The CEA advises Central Government, State governments and Regulatory Commissions on all technical matters relating to generation, transmission and distribution of electricity. It also advises State Governments, licensees or generating companies on such matters which shall enable them to operate and maintain the electricity system under their ownership or control in an improved manner and where necessary, in coordination with any other Government, licensee or the generating company owning or controlling another electricity system.

The CEA plays a lead role in promoting an integrated operation of Regional Grid systems and the evolution of a National Grid. The Eastern, North-Eastern and Western regions have been integrated and are operating in a synchronous mode. The Eastern Region is connected with the Northern as well as the Southern Region through HVDC back to back links. Similarly, the Western Region is also connected with the Northern and the Southern Regions through the same arrangements. The CEA facilitates exchange of power within the country from surplus to deficit regions and with neighbouring countries for mutual benefits.

It promotes research in matters affecting the generation, transmission, distribution and trading of electricity; carries out, or causes to be carried out, any investigation for the purposes of generating or transmitting or distributing electricity and promotes measures for advancing the skills of persons engaged in the electricity industry. It actively participates in power supply restoration process in case of occurrence of unfortunate incidents of destruction caused due to drought/cyclone/floods/tsunami, etc., in various parts of the country.

The CEA makes a significant contribution to a number of professional fora in India as well as abroad like the Conference International Des Grands Research Electriques (CIGRE), the Bureau of Indian Standards (BIS), the Central Board of Irrigation and Power (CBI&P), etc. The CEA renders consultancy services in the planning and design of hydro, thermal and transmission projects.

THE ELECTRICITY ACT, 2003

The Electricity Act, 2003 has been enacted and the provisions of this Act have been brought into force with effect from the 10 June 2003 (with this, the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998 stand repealed). The main features of the Act are as follows:

- (i) Generation has been delicensed and captive generation freely permitted. Hydro projects would, however, need concurrence from the Central Electricity Authority.
- (ii) No license required for generation and distribution in rural areas.
- (iii) Transmission Utility at the Central as well as State level, to be a government

company – with responsibility for planned and coordinated development of the transmission network. Provision for private licensees in transmission.

- (iv) Open access in transmission with provision for surcharge for taking care of current level of cross subsidy with the surcharge being gradually phased out.
- (v) Distributing licensees would be free to undertake generation and generating companies would be free to take up distribution.
- (vi) The State Governments are required to unbundle the SEBs. However, they may continue with them as distribution licensees and State Transmission Utilities.
- (vii) Setting up of the State Electricity Regulatory Commission (SERC's) made mandatory.
- (viii) An Appellate Tribunal to hear appeals against the decision of the CERC and SERCs.
- (ix) The SERCs are required to permit open access in distribution in phases with surcharge for current level of cross subsidy to be gradually phased out along with cross subsidies and obligation to supply.
- (x) Metering of electricity supplied, made mandatory.
- (xi) Provisions relating to theft of electricity made more stringent.
- (xii) Trading as, a distinct activity recognised with the safeguard of the Regulatory Commissions being authorised to fix ceilings on trading margins, if necessary.
- (xiii) For rural and remote areas stand alone systems for generation and distribution permitted.
- (xiv) Thrust to complete rural electrification and provide for management of rural distribution by panchayats, cooperative societies, non-government organizations, franchises, etc.
- (xv) The Central Government to prepare a National Electricity Policy and Tariff Policy.
- (xvi) The Central Electricity Authority to prepare a National Electricity Plan.

Formulation of Rules and Regulations by the Central Electricity Authority: Section 177 of the Electricity Act, 2003 requires the Central Electricity Authority to make regulations consistent with the Act and rules to carry out provisions of this Act. The following four regulations have already been notified:-

- 1) Central Electricity Authority (Installation of Operations & Meters) Regulations, 2006 Under Section 177 (2-c) read with Section 55.
- 2) Central Electricity Authority (Procedure for Transaction of Business) Regulations, 2006 Under Section 177 (2-d) read with sub-Section (9) of Section 70.
- 3) Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2007 Under Section 177 (2-e) with Clause (b) of Section 73.
- 4) Central Electricity Authority (Furnishing of Statistics, Returns & Information) Regulations, 2007 Under Section 177 (2-f) read with Section 74.

The following four regulations are under the final stages of notification:

- 1) Central Electricity Authority (Grid Standards) Regulations, 2009 Under Section 177 (2-a) read with Section 34.
- 2) Central Electricity Authority (Measures relating to Safety & Electric Supply) Regulations, 2009 Under Section 177 (2-b) read with Section 53.
- 3) Central Electricity Authority (Safety Requirements for Construction, Operation & Maintenance of Electrical Plants & Electric Lines) - under Section 73 (c)
- 4) Central Electricity Authority (Technical Standards for Construction of Electrical Plants & Electric Lines) Regulations, 2009 Under Section 177.

Appellate Tribunal for electricity: The Central Government has established Appellate Tribunal for Electricity under Section 110 of the Electricity Act, 2003 on 7 April 2004. The headquarters of the Appellate Tribunal is at Delhi. The Appellate Tribunal will hear appeals against orders of the Regulatory Commissions/ Adjudicating Officers.

National Electricity Policy: The National Electricity Policy has been notified by the Government under the Act. Competitive bidding guidelines have been issued by the Government. The Tariff Policy has been notified.

National Electricity Plan : The draft National Electricity Plan has been prepared and sent to MOP for approval.

Anti-theft legislation : The States of Andhra Pradesh, Karnataka, Madhya Pradesh, Uttar Pradesh, West Bengal, Maharashtra, Kerala, Gujarat, Bihar, and Punjab have passed/drafted anti-theft laws.

As per the provisions of Section 153 of the Electricity act, 2003, Special courts dealing with Power theft have been set up in the States of Assam, Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Manipur, Nagaland, Orissa, Pubjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarkhand, West Bengal & Delhi.

Redressal of grievances of Consumers and appointment of an Ombudsman: As per the provision of the Electricity Act, 2003, every distribution licensee shall have to establish a forum for redressal of grievances of the Consumers in accordance with the guidelines as specified by the State Electricity Regulatory Commission. Consumer Grievances Redressal Forum have been established in 22 States by the Distribution Companies as per Section 42 (5) of the Act. Every State Electricity Regulatory Commission shall appoint or designate an Ombudsman as per Section 42(6) of the Act. Any consumer who is aggrieved by the non-redressal of his grievances may make a representation for the redressal of his grievances to the Ombudsman. So far, 22 State Electricity Regulatory Commissions have appointed or designated an Ombudsman.

ACCELERATED POWER DEVELOPMENT AND REFORMS PROGRAMME

In order to improve sub-transmission and distribution system including reduction of Transmission & Distribution losses, Central Government had given support in the 10th plan in the form of APDRP scheme. There were two components of the scheme- investment component to support capital investment and an incentive component for actual cash loss reduction. Up to November 2009, total investment component of

Rs. 7675.51 crore and total incentive component of Rs. 2879.73 has been released under APDRP.

In the 11th Plan, the scheme has been restructured with emphasis on actual demonstrable performance in terms of sustained loss reduction. Accordingly, all the scheme under APDEP have been short-closed. The target under Restructured APDRP (R-APDRRP) is to achieve AT & C losses at 15% on sustained basis in the project areas. Projects under R-APDRP shall be taken up in two parts. Part-A shall include the projects for establishment of baseline data and its applications for energy accounting/auditing & IT based consumer service centres. Part-B shall include renovation, modernization and strengthening of 11 KV level substations. Transformers/Transformer Centres, re-conductoring of lines at 11 KV level and below, load bifurcation, feeder separation, load balancing, HVDS (11KV), aerial bunched conductoring in dense areas, replacement of electromagnetic energy meter with tamper proof electronic meters, installation of capacitor banks and mobile service centres etc. A provision of Rs 10,000 crore and Rs. 40,000 crore has been made for Part-A and Part-B of the scheme respectively.

Selection of sites for Thermal Power Projects : In the context of the need to set up additional thermal power stations to meet the power requirements of the country up to the year 2012 AD and beyond, the CEA had in September 2001 constituted a committee under the Chairmanship of Member (Thermal) and consisting of members from different Ministries/Deptts./SEBs, etc., for selection of sites for large coastal/Pithead and other Thermal Power Stations. As the process of selection of sites is of continuous nature, the above mentioned Committee has been converted into a Standing Committee. Teams consisting of the members of the Committee from the CEA, Planning Commission, MoE&F, CMPDI, Railways, etc., are being constituted for visiting from time to time the sites tentatively identified by the State agencies. These teams also interact with various States/Central departments for assessing the availability of various inputs like land, water, fuel, etc. The Scheme has been approved for continuation in 11th Plan also by Planning Commission.

Based on the site visits of the Site Selection Committee and also reports obtained by CEA with assistance of CMPDI/NRSA through satellite mapping, a large shelf of potential sites has been created. Many sites from this shelf have been identified for benefits during the 11th Plan. The reports of CMPDI & NRSA have been forwarded to concerned State Govts/NTPC for development of the identified sites. The NRSA reports for coastal sites have also been given to the site selection committee of Nuclear Power Plants. CEA has awarded additional study to M/s CMPDI on 26th March 2007 for identification of coal based potential pithead site using remote sensing techniques near 12 coal blocks located in South Karanpura, Wardha Valley and Talcher coalfields. The study is completed and the final report of the study identifying 28 new pithead sites in the states of Jharkhand, Orissa & Chattisgarh has been submitted by CMPDI. Potential sites were visited by the team of engineers in the states of Jharkhand (7 sites), Orissa & Chattisgarh (14 sites). Final report of the study submitted by CMPDI in February, 2009 and the sites are available for developments.

The study regarding restoration of MDDL of Rihand Reservoir to the designed level, its implication on the existing power plants & additional water availability has been awarded to IIT, Roorkee. One more study was awarded to CMPDI in February 2009 for consultancy service for siting of coal based power stations near load centre.

Visits were made to Suratgarh in Rajasthan, Solapur in Maharashtra for selection of sites for TPPs. Sites identified are taken up for installation of projects.

Setting up of Ultra Mega Power Projects: The Government of India, Ministry of Power has taken initiative for development of following nine (9) Ultra Mega Power Projects (UMPP) each of 4000 MW capacity in different states:

- i) Sasan Ultra Mega Power Project in M.P-coal pithead-6x600 MW
- ii) Mundra Ultra Mega Power Project in Gujarat - coastal - 5x800 MW
- iii) Krishnapatnam Ultra Mega Power Project in A.P. - coastal - 5x800 MW
- iv) Ultra Mega Power Project in Jharkhand-coal pithead-4000 MW and
- v) Ultra Mega Power Project in Chhattisgarh-coal pithead-4000 MW
- vi) Ultra Mega Power Project in Orissa - coal pithead - 4000 MW
- vii) Ultra Mega Power Project in Tamil Nadu - coastal - 4000 MW
- viii) Ultra Mega Power Project in Maharashtra - coastal - 4000 MW
- ix) Ultra Mega Power Project in Karnataka - coastal-4000 MW

The above mentioned UMPPs are to be awarded through tariff based international competitive bidding. Out of above nine (9) UMPPs, four UMPPs namely Sasan in M.P., Mundra in Gujarat, Krishnapatnam in Andhra Pradesh and Talaiya in Jharkhand have been awarded and transferred to the developers selected through tariff based competitive bidding. Award for main plant has been placed in respect of Mundra UMPP & Sasan UMPP which are under construction. First two units of 800 MW each of Mundra UMPP and first two units of 660 MW each of Sasan UMPP are expected to be commissioned in 11th Plan.

In regard to three UMPPs, namely UMPP in Chhattisgarh, Orissa and Tamil Nadu, the sites have been identified and various site related studies are underway. The process of selection of developers for these three UMPPs will start shortly. The sites for UMPPs in Maharashtra and Karnataka are yet to be finalized.

In addition to nine UMPPs originally identified, request has come from some of the state governments for installation of additional UMPPs in their states. These are given below:

- i) Two Additional UMPPs of 4000 MW each in Orissa
- ii) Second UMPP in Gujarat - 4000 MW
- iii) Second UMPP in Andhra Pradesh - 4000 MW

The site for second UMPP in Andhra Pradesh has been finalized and approved by Government of Andhra Pradesh. The sites for additional UMPPs in Gujarat and Orissa are yet to be finalized.

Private Sector Participation in Hydro Power Projects : The Central Government announced a policy in 1991 which allowed private sector participation in power generation schemes. It was decided in February 1995 that no private power project proposal would be considered by the Central Electricity Authority (CEA), if the project was not awarded through the international competitive bidding (ICB) route after a cut-off date of 18 February, 1995. Since 1991, 38 nos. thermal power projects aggregating to 8049.46 MW have so far been commissioned and 19 nos. Thermal power projects aggregating to 17780 MW are under construction in private sector.

Electricity Act, 2003 was enacted which has reduced the barriers to entry to different segments of the sector. Thermal generation has been delicensed. Captive generation is freely permitted. Transmission, distribution and trading of electricity are licensed activities. To facilitate the growth of all India electricity market, open

access in transmission has been put in place. Open access in distribution is to be introduced in phases. The law also permits more than one distribution licensee in the same area.

As per Hydro Power Policy - 2008, exemption from tariff based bidding up to January 2011, is also extended to private sector hydroelectric projects, which obtain CEA's concurrence, sign PPAs with distribution licensees and achieve financial closure before January, 2011. In order to enable the project developer to recover the costs incurred by him in obtaining the project site, he would be allowed a special incentive by way of merchant sales of up to a maximum of 40% of the saleable energy. This incentive would be reduced in steps for delay in commissioning. The project authorities would involve themselves in the implementation of the RGGVY Scheme within a certain radius/surface distance from the Power House/Dam site as per requirement. The within a certain radius/surface distance from the Power House/Dam site as per requirement. The project authorities should bear the state Governments' share of 10% of the RGGVY within this surface distance of the Power House/Dam.

Ministry of Power has been closely monitoring the power projects in the private sector which are considered possible for early financial closure. An Inter-Institutional Group (IIG) comprising senior representatives from the lenders and Ministry of Power has been constituted to jointly appraise such projects and facilitate financial sanction in a time bound fashion. 16 Nos. thermal projects with a total capacity of 11272 MW have since achieved financial closure and 3 more thermal projects with a total capacity of 6508 MW are being pursued for early financial closure.

PUBLIC SECTOR UNDERTAKINGS AND OTHER ORGANISATIONS

NATIONAL HYDROELECTRIC POWER CORPORATION LTD.

The National Hydroelectric Power Corporation Ltd., is a Schedule 'A' Enterprise of the Government of India with an authorised share capital of Rs. 1,50,000 million and an investment base of over Rs. 2, 22,000 million. Established in 1975, in its existence of about 31 years, the NHPC has become the major organisation for hydropower development in India, with capabilities to undertake all the activities from "concept to commissioning" in relation to setting up of hydro projects. The NHPC has ISO-9001 certification for its quality management system and ISO-14001 for an environment standard in Corporate Office.

The NHPC has completed 9 hydro electric projects with an installed capacity of 2,755 MW on its own and one project, i.e., Indira Sagar (1,000 MW) in MP which is a joint venture with the Government of M.P. 10 projects of the NHPC with an installed capacity of 5,103 MW and one project in joint venture with Government of MP, i.e., Omkareshwar (520 MW) is under active construction stage. In addition the NHPC has also completed the 14.1 MW Devighat Hydropower Project in Nepal, 60 MW Kurichu Hydro Power Project in Bhutan and 5.25 MW Kalpong Hydro Power Project in the Andaman and Nicobar Islands on deposit work basis. Power generated at these Power Stations is supplied to 24 States/Union Territories.

The NHPC has signed a Memorandum of Understanding with the Uttarakhand Government for the implementation of a 240 MW Chungar Chal, 630 MW Garba Tawaghat and 55 MW Karmoli Lumti Tulli Projects in Uttarakhand. Power Purchase agreements have been signed for Kishanganga, Nimmo Bazgo, Chutak, Uri-II, Dul

Hasti, Chamera-III and Teesta Low Dam Project Stage-IV with the concerned beneficiaries. The NHPC has signed agreements with the Government of Sikkim for the execution of the 495 MW Teesta Stage-IV and 210 MW Lachen Hydroelectric Projects in Sikkim on BOOM basis.

The Organisation has launched a major initiative to implement Enterprise Resource Planning (ERP) software solution framework for integrating major business processes to achieve quality of work, improved profitability and performance.

NATIONAL THERMAL POWER CORPORATION LIMITED

The NTPC Ltd. (formerly National Thermal Power Corporation Ltd.) was incorporated in November 1975 with the objective of planning, promoting and organising an integrated development of thermal power in the country. The company has now been renamed as NTPC Ltd. In line with the changes taking place in the business portfolio of the company that transformed the company into an integrated Power Company it has now a presence across the entire energy value chain.

Ratnagiri Gas and Power Private Ltd. was formed on 08 July 2005 as a joint venture between NTPC, GAIL, MSEB holding company and Indian Financial Institutions with a view to take over the assets of the erstwhile Dabhol Power Company Ltd., complete the project and operationalise it. NTPC has invested Rs. 500 crores as 28.33 per cent equity in this project.

The NTPC is implementing its first hydro project, the 800MW Koldam Hydroelectric Power Project (HEPP) in Himachal Pradesh. Further, NTPC has signed the Implementation Agreements for execution of Loharinag Pala HEPP (600 MW), Tapovan-Vishnugad HEPP (520 MW) and Rupsiabagar Khasiyabara HEPP(260 MW). Moreover, NTPCs subsidiary NTPC Hydro Ltd. (NHL) has signed the Implementation Agreements for execution of Lata-Tapovan (171MW) HEPP and Rammam-III (120 MW) HEPP.

During the year, a consortium comprising NTPC Ltd., Canoro Resources Ltd and Geo Petrol International has been allotted an oil exploration block in Arunachal Pradesh. A Production Sharing Contract (PSC) for the block has been signed between the Government of India and the Consortium.

The NTPC was allotted Pakri Barwadih coal mining blocks by the Government of India and action have been initiated by the NTPC for its development. Further, the NTPC has been allotted 7 more captive coal mining blocks by the Government. These blocks are expected to produce 50 million tonnes of coal per annum. Of these 2 mine blocks at Brahmini and Chichro Patsimal in Orissa are to be developed through a 50:50 joint venture between the NTPC and Coal India Limited.

As part of its diversification drives, the NTPC has formed several joint venture companies such as : NTPC - SAIL Power Supply Company (P) Ltd. (NSPSCL) for operating the Captive Power Plants of Durgapur and Rourkela Steel Plants having total capacity of 240 MW, the Bhilai Electric Supply Company Ltd. (BESCL), for operating Captive Power plant (74 MW) at Bhilai Steel Plant of SAIL. The Company is also implementing : (1) expansion of 500 MW (2x250 MW) (2) Bhilai Captive Power Project, NTPC Alstom Power Services Limited (NASL) for taking up renovation of domestic and international agencies and sanction loans to the State Electricity Boards, State Governments, Power utilities, Rural Electric Cooperatives, Non-

Government Organisations (NGOs) and private developers. (3) To optimise the rate of economic and financial returns for its operations while fulfilling the corporate goals viz. (i) laying of power infrastructure; (ii) power load development; (iii) rapid socio-economic development of rural and urban areas, and (iv) technology upgradation. (5) To ensure client satisfaction and safeguard customers' interests through mutual trust and self respect within the organisation as well as with business partners by effecting continuous improvement in operations and providing the requisite services. (6) To assist State Electricity Boards/Power Utilities/State Governments, Rural Electric Cooperatives and other loanees by providing technical guidance, consultancy services and training facilities for formulation of economically/financially viable schemes and for accelerating the growth of rural and urban areas.

RAJIV GANDHI GRAMEEN VIDYUTIKARAN YOJANA

A scheme "Rajiv Gandhi Grameen Vidyutikaran Yojana" for Rural Electricity Infrastructure and Household Electrification was launched in April 2005 for the attainment of the National Common Minimum Programme of providing access to electricity to all Rural Household in five years.

Under this scheme 90% capital subsidy would be provided for projects for:

- (i) Creation of Rural Electricity Distribution Backbone (REDB) with 33/11 KV (or 66/11 KV) substation in every block appropriately linked to the State Transmission System.
- (ii) Creation of Village Electricity Infrastructure (VEI) for electrification of all unelectrified villages/habitations and provision of distribution transformer(s) of appropriate capacity in every village/habitation.
- (iii) Decentralized Distribution Infrastructure for Supply System from conventional sources for Villages/Habitations where grid supply is not cost effective and where Ministry of Non-Conventional Energy Sources would not be providing electricity through their programme (s).

The scheme *inter alia* provides for financing of electrification of all un-electrified Below Poverty Line (BPL) households in the country with 100% capital subsidy as per norms of Kutir Jyoti Programme in all rural habitations.

For projects to be eligible for capital subsidy under this scheme prior commitment of the States would be taken before sanction of the projects for—

- (a) deployment of franchisees for the management of rural distribution in projects financed under this Scheme.
- (b) Provision of requisite revenue subsidy to the State utilities as required under the Electricity Act, 2003.

The State would also be required to make adequate arrangements for supply of electricity and there should be no discrimination in the hours of supply between rural and urban households.

The Scheme covers the entire country and the funds would be released on the basis of sanction of the projects submitted. It is estimated that Rs. 16,000 crore would be required for the entire scheme. For Phase-I of the scheme approved for implementation during the 10th Five Year Plan Period Rs. 5,000 crores has been provided by the Central Government as capital subsidy.

The Government of India has approved the continuation of the scheme in 11th Plan for attaining the goal of providing access to electricity to all households, electrification of about 1.15 lakh unelectrified villages and electricity connections to 2.34 crore BPL households by 2009 with a capital subsidy of Rs. 28,000 crores.

As per MIS of RGGVY, as on 31.03.08, 613 project proposals were received by REC out of which 551 projects (including 235 projects in Xth Plan) at an estimated cost of Rs. 25275.63 crores were approved. The approved projects cover 114747 unelectrified villages and 402.26 lakhs rural households including 242.17 lakhs BPL households. Rs. 8660.15 crores have been released to States under the scheme.

As on 31.3.2008, 47826 unelectrified villages and 27.72 lakhs rural households including 22.93 lakhs BPL households have been electrified under the scheme.

POWERGRID had diversified into Telecom by installing Optical Ground Wire (OPGW) on transmission towers, leveraging its country wide transmission infrastructure. POWERGRID has already established a network of over 20,000 kms and connectivity has been provided to all major cities viz. Delhi, Mumbai, Chennai, Kolkata, Bangalore, Hyderabad etc. as well as to remote areas including Jammu & Kashmir and North-Eastern States. POWERGRID has acquired infrastructure Provider Category - II (IP-II license), Internet Services Provider (ISP) Category A & National Long Distance Operator (NLDO) licences to offer a wide variety of services to various customers.

Under APDRP, POWERGRID is acting as Advisor-Cum-Consultant (AcC) to lend its managerial and technical expertise for improvement of distribution system in 177 distribution circles/towns/schemes spread over 18 States at an estimated cost of about Rs. 6,600 crore. Most of these schemes have been commissioned. Further, POWERGRID is also implementing some of these schemes on deposit work basis under bilateral arrangement in the States of Bihar, Goa, Meghalaya, Uttar Pradesh, Tripura and Gujarat at a cost of about Rs. 1,100 crore, most of these are nearing completion.

Under RGGVY, POWERGRID had entered into a quadripartite agreement with Rural Electrification Corporation (REC), State Government and State Power utility, for undertaking rural electrification works in the country. POWERGRID has been assigned the job for execution of rural electrification works in 68 districts in the country covering around 74,000 villages at an estimated cost of about Rs. 6,400 crore. As part of this, POWERGRID has already established infrastructure for electrification of about 30,000 villages till Mar'09 out of 31,566 villages sanctioned during X Plan. Balance are expected to be completed by March, 2010. For 43,670 villages spread over 33 districts, sanctioned recently for XI Plan, implementation of projects in most of the districts has already commenced.

RURAL ELECTRIFICATION CORPORATION LIMITED

The Rural Electrification Corporation Limited (REC) was incorporated as a Company under Companies Act, 1956 in 1969 with the main objective of financing rural electrification schemes in the country. The current mission of REC is to facilitate availability of electricity for accelerated growth and for enrichment of quality of life of rural and semi-urban population and to act as a competitive, client-friendly and development oriented organisation for financing and promoting projects covering power generation, power conservation, power transmission and power distribution network in the country.

Objectives : (1) To promote and finance projects aimed at integrated system improvement, power generation, promotion of decentralised and non-conventional energy sources, energy conservation, renovation and maintenance, power distribution with focus on pump-set energisation, the implementation of Government of India scheme for the electrification of all villages and all households by 2009 and other related works in rural and urban areas. (2) To expand and diversify into other related areas and activities like financing of decentralised power generation projects, use of new and renewable energy sources, consultancy services, transmission, sub-transmission and distribution systems, renovation, maintenance and modernisation, etc., for optimisation of reliability of power supply to rural and urban areas, including remote, hill, desert, tribal, riverine and other difficult/ remote areas. (3) To mobilise funds from different sources including raising of funds from and modernisation (R&M) assignments of power plants in India and abroad; Utility Powertech Limited (UPL) for taking up assignments of construction, erection and project management in power and other sectors; NTPC Tamil Nadu Energy Company Limited (NTECL) to set up a coal based power station of 1000 MW capacity, at Ennore in Tamilnadu, using Ennore Port infrastructure facilities, Ratnagiri Gas and Power Private Ltd. (RGPL) for revival/restart of Ratnagiri Project (erstwhile Dabhol Project)

The NTPC has also formed several wholly owned subsidiaries such as : NTPC Vdiyut Vyapar Nigam Limited (NVVN) for trading in Power. NVVN is also engaged in facilitating the development of power exchange in India; NTPC Electric Supply company Ltd. (NESCL) to take up the power distribution business; NTPC Hydro Limited (NHL) for development of small and medium hydro power projects of capacity less than 250 MW; Pipavav Power Development Company Ltd. (PPDCL) for processing of setting up a 1000 MW thermal power project at Pipavav.

The NTPC has extended benefits of its success and experience by providing services for the development of Indian Power Sector. The NTPC has participated in several programmes of Subsidiaries, such as:

- (i) **Accelerated Rural Electrification Programme” (AREP)**, later merged with the programme of Electrification of Rural Villages & Households under the name of “Rajiv Gandhi Grameen Vidyutikaran Yojana(RGGVY)”, under which the NTPC is involved in the turnkey execution of rural electrification work in 40,000 villages in 6 states.
- (ii) **Distribution, Reforms and Upgradation Management (DRUM)**- a collaborative effort of Ministry of Power and USAID, with NTPC Power Management Institute (PMI) as a leading partner in delivering training programmes on the distribution business.
- (iii) **APDRP (Distribution)**- The NTPC has been identified as the lead Advisor cum Consultant(AcC) for implementation of the APDRP programme targeted at improvement of the distribution sector in 12 states, out of which 6 states are directly assigned to NTPC and the balance 6 are through field AcC-CPRI and MECON.
- (iv) **Partnership in Excellence** – The CEA has identified 26 stations which are operating at a PLF of less than 40 per cent. These stations would have a “Partnership in Excellence” with better performing utilities, so as to achieve an improvement in performance in the shortest possible time. The NTPC has been entrusted the responsibility of 14 stations out of the identified 26.

- (v) **R&M of SEB stations** - The 10th Plan had envisaged R&M of an installed capacity of 11.055 MW with a target of achieving 75-80 per cent PLF and 20 years of life extension. NTPC has taken up consultancy services for a few of these stations.

POWER GRID CORPORATION OF INDIA LIMITED

The Power Grid Corporation of India Limited (POWERGRID) was incorporated as a Government enterprise on 23rd October 1989 for establishment of operation of regional and national power grids to facilitate transfer of power within and across the regions with reliability, security and economy and on sound commercial principles. POWERGRID was notified as the Central Transmission Utility (CTU) of the country w.e.f. 1998. Further, Government of India conferred the status of 'Navratna' to POWERGRID w.e.f. 1st May, 2008.

As on 31 March 2009, POWERGRID is operating about 71,500 ckt kms of transmission lines consisting of 2,396 ckt kms. of 765 KV, 4,368 ckt kms of HVDC system, 54,428 ckt kms of 400KV, 7,977 ckt, kms of 220 KV and 2, 241 ckt kms. of 132 KV and 37 ckt kms. of 66 KV lines along with 120 sub-stations and transformation capacity of about 79,500 MVA. The transmission system availability is maintained consistently over 99 per cent by deploying the best operation and maintenance practices which is comparable with best international standards. Presently, about 45 per cent of total power generated in the country is being transferred over POWERGRID transmission network.

With a view to operate, monitor and control the Regional Power Grids in a unified, well coordinated and integrated manner, POWERGRID has already modernised RLDCs with Unified Load Dispatch and Communication (ULDC) schemes in all the regional power grid of India, namely, Northern, Southern, North-Eastern, Eastern and Western regions. Further, for overall co-ordination at national level, National Load Despatch Centre (NLDC) at Delhi with back up at Kolkata, has been commissioned in Feb.'09. NLDC is the apex body to ensure integrated operation of the national power system.

NATIONAL GRID

National Grid in country is being developed in a phased manner commensurate with generation/load growth to ensure optimum utilization of generating resources and bringing security & reliability in power system operation. In line with the plan, various inter-regional transmission schemes have been commissioned/undertaken for implementation/planned by POWERGRID. National Grid with inter-regional power transfer capacity of about 20,800 MW has been established at the end of FY 2008-09. Presently, the Northern, Western, Eastern and North-Eastern regions are operating as one synchronous grid and Southern Region is connected to this system in asynchronous mode.

Further, strengthening of this National Grid is being undertaken through implementation of various inter-regional links. The inter-regional power transfer capacity of National Grid is envisaged to be enhanced to more than 38,000 MW by year 2012.

POWERGRID's strong transmission network and modernised RLDSs have facilitated manifold growth in inter-regional power exchanges across the country on real-time basis. During FY 2008-09, about 46,000 MUs of inter-regional energy transfer was facilitated across the country. The increased inter-regional power exchanges have

helped in meeting more demand in energy deficit regions besides achieving overall economy. Thus POWERGRID is facilitating flow of power across the country effectively utilising the available transmission capacities.

POWER FINANCE CORPORATION LIMITED (PFC)

The Power Finance Corporation Limited (PFC) is a leading Power Sector Financial Institution and a Non-Banking Financial Company, providing fund and non fund based support for the development of the Indian Power Sector. Occupying a key position in the Government of India's plan for the power sector, PFC performs a major role in channelizing investment into the power sector and functions as a dedicated agency for its development. PFC is a Schedule-A, Navratna CPSE in the Financial Services Sector, under the administrative control of the Ministry of Power, with 89.78% shareholding of the Government of India. Its Registered and Corporate Offices are at New Delhi. PFC was incorporated on July 16, 1986, under the Companies Act, 1956, as part of Government of India's initiative to enhance funding of power projects in India, with an objective to provide financial resources and encourage flow of investments to the power and associated sectors, to work as a catalyst to bring about institutional improvements in streamlining the functions of its borrowers in financial, technical and managerial areas to ensure optimum utilization of available resources, to mobilize various resources from domestic and international sources at competitive rates, to strive for up gradation of skills for effective and efficient growth of the sector, and to maximize the rate of return through efficient operations and introduction of innovative financial instruments and services for the power sector.

PFC draws upon its vast knowledge of the power sector and its financing expertise to provide tailor made products and services to its clients. In addition, PFC provides technical, management advisory and consultancy services related activities through its subsidiary company, namely, PFC Consulting Limited. PFC's clients include the Power Utilities of State, Central and Private Sector. These clients are involved in various aspects of the Power Sector in India, including, generation, transmission and distribution, and other related activities.

PFC's priorities include not only accelerating the pace of existing business of funding generation, transmission and distribution projects, but also to exploit the new opportunities available in the sector. With this philosophy, PFC has around half-a-dozen strategic business units, focusing on different business segments - conventional lending to generation, transmission and distribution projects; consortium lending to generation, transmission and distribution projects; lending to power equipment manufacturers and fuel producers and suppliers, renewable energy and CDM, equity funding through Power Equity Capital Advisor Pvt Ltd. (PECAP).

PFC's long term borrowings programme has been rated at 'Baa3' by Moody's, 'BBB-by Standard & Poor's and 'BBB-' by FITCH. which is at par with India's Sovereign Rating Further, CRISIL and ICRA have assigned 'AAA' and LAAA' rating respectively to PFC.

PERFORMANCE HIGHLIGHTS

Since its inception, PFC has shown consistent growth in assets and is currently a leading player in the power sector with cumulative sanctions of Rs. 2,33,715 crore, disbursements of Rs. 1,13,120 crore with a loan asset base of Rs. 64,3299 crore and network of Rs. 64,429 crore and networth of Rs. 9605 crore as on March 31,2009.

NODAL AGENCY FOR GOVERNMENT SCHEMES

PFC is a key agency in various Government of India Power Sector schemes and programmes and has implemented and/or is implementing schemes like Restructured Accelerated Power Development & Reform Program (R-APDRP), Accelerated Generation & Supply Programme (AG&SP), Distribution Reform, Upgrades and Management (DRUM) and Delivery through decentralized Management (DDM) in addition, Government of India has designated PFC as the nodal agency to develop Ultra Mega Power Projects (UMPPs) based on tariff based competitive bidding process, each project having a capacity of around 4000 MW and requiring an investment of about Rs 20,000 crore. In this regard, PFC has successfully awarded 4 UMPPs through tariff based competitive bidding process.

PFC has also been designated as the nodal agency for development of Independent Transmission Project (ITP) based on tariff based competitive bidding process and is presently handling on ITP.

POWER LENDERS' CLUB

PFC has also established the 'Power Lenders' Club'. which consists of 18 banks and includes major financial institutions, like HUDCO and LIC.

POWER EXCHANGE

PFC is participating in the equity of Power Exchange India Limited (PXI), a company promoted by NSE and NCDEX. The share of PFC in equity of PXI will be up to 7% of the Share Capital of PXI which shall not exceed Rs. 1.75 crore. PFC has become Professional Clearing Member (PCM) of Power Exchange to support the activities of Trading Members.

Apart from the above PFC, NTPC, NHPC and TCS have promoted 'National Power Exchange Limited' a company incorporated under The Companies Act, 1956, with an authorized capital of Rs. 50 crore. PFC shall hold 16.66% of the share capital. The Company is yet to start its operation.

The Power Exchange will have a nationwide presence in the form of electronic exchange for trading in power. Apart from power trading, transmission clearance will also be taken care of by power exchange simultaneously. It will provide its members a transparent, neutral and efficient electronic platform for power trading.

SATLUJ JAL VIDYUT NIGAM LTD.**About SJVN**

The Satluj Jal Vidyut Nigam Limited-SJVN (formerly NJPC) was established on 24th May, 1988 as a joint venture of the Government of India (GOI) and the Government of Himachal Pradesh (GOHP) with equity participation in the ratio of 75.25 respectively, to plan, investigate, organize, execute, operate and maintain Hydro-electric power projects. SJVN is a "Schedule-A" Mini Ratna company. The present authorized share capital of SJVN is Rs. 4500 crores.

SJVN is committed for generating reliable and eco friendly power by means of state -of-the-art technology, excellence in engineering and continued improvement in quality management. SJVN, an IT savvy Corporation, has established and is following sound business, financial and regulatory policies.

SJVN having commissioned the 1500 MW Nathpa Jhakri HE Project, is endowed not only with the state-of-the-art technology and know how to tackle the Himalayan Geology but has also developed the requisite knowledge and capability to conceptualize, optimize and develop the power potential of Hydro-power development scheme of all sizes.

In pursuit to expansion of the Corporation by acquiring new projects for development, the Corporation expanded its base from a single project to a multi project and thereafter from presence in a single state to a pan-Indian Corporation and established its footprint in the neighboring countries of Nepal & Bhutan.

The Project profile of SJVN is tabulated as hereunder:

Sr.No.	Project Details	Capacity (MW)
A.	Under Operation	
1	Nathpa Jhakri Hydro Power Station	H.P. 1500
B	Under Construction	
1	Rampur Hydro Electric Project **	H.P. 412
C	Under Survey & Investigation	
(C-1)	Projects in India	
1	Luhri Hydro Electric Project **	H.P. 775
2	Khab Hydro Electric Project	H.P. 1020
3	Devsari Hydro Electric Project (Stage-1) **	Uttarakhand 252
4	Naitwar Mori Hydro Electric Project **	Uttarkhand 59
5	Jakhol Sankri Hydro Electric Project **	Uttarkhand 45
6	Dhulasidh Hydro Electric Project **	H.P. 40
(C-2)	Projects Secured Through Competitive Bidding in Nepal	
1	Arun - 3 Hydro Electric Project #	Nepal 402
(C-3)	Projects Allotted by GOI in Bhutan for DPR Preparation	
1	Kolongchu Hydro Electric Project	Bhutan 486
2	Wangchu Hydro Electric Project	Bhutan 900
Sub- Total (B + C)		4391

** Project allocated to SJVN for execution on BOOM Basis.

Project allocated to SJVN on BOOT Basis.

Generation from 1500 MW NJHPS

SJVN presently is operating 1500 MW Nathpa Jhakri Hydro Power Station (NJHPS)

The details of energy generated from NJHPS during the last five years is as hereunder:

Sl.No.	Year	Gross Energy Generation in Million Units.
1	2004-05	5147.342
2	2005-06	4104.422
3	2006-07	6014.480
4	2007-08	6448.970
5	2008-09	6608.693

The above generation of electricity has been possible by tackling the problem of heavy ingress of silt in River Satluj by adopting hard coating of the underwater parts of the hydro machines and adopting other innovative measures such as reservoir flushing, provisions of blanking panels at the intake, etc.

The financial performance of SJVNL, for the last 5 years, is as under:

Rs. in crores

S. No.	Description	2004-05	2005-06	2006-07	2007-08	2008-09
1	Total income	1120.99	1391.79	1665.76	1582.21	1825.83*
2	Net Profit	298.43	498.21	732.71	764.51	946.96*
3	Dividend paid to GOI & GoHP	143.16	159.43	235.00	244.00	110

* Unaudited

SJVN on a lower Carbon Emission Path through execution of Rampur HE Project

The corporation proposes to develop Rampur HE Project as CDM Project for obtaining Carbon Finance, the preliminary estimates shows that the execution of this Project shall result into Emission Reductions (ERs) of 1.4 Millions per annum resulting in saving of 1.4 million tones of CO₂ per year.

SJVN concern for Environment and Relief & Rehabilitation

SJVN has been fully aware of the importance of both environmental, resettlement & rehabilitation issues. SJVN has adopted an environment, resettlement & rehabilitation policy which reiterates company's commitment to sustainable development which is within the carrying capacity of the eco-system and which also promotes the improvement of the quality of life.

For its outstanding contribution to environment protection SJVN has been awarded with Green Tech Award and Golden Peacock Eco Innovation Awards etc.

CONSULTANCY SERVICES

SJVN has experience of corporate and project planning, design, engineering, construction management, erection and commissioning, contracts management, project management, human resource management financial management and commercial management of India's largest hydro-electric project. To effectively utilize the in-house expertise and the experience gained, a dedicated consultancy division has been established for providing consultancy services to national and international organizations.

NATIONAL POWER TRAINING INSTITUTE

National Power Training Institute (NPTI), a registered society under Ministry of Power, Government of India is committed to the development of Human Resources in Power Sector for the past four decades.

NPTI with its corporate centre at Faridabad operates eight institutes all over the country. It has five regional institutes located at Neyveli (Tamil Nadu), Durgapur (West Bengal), Badarpur (New Delhi), Nagpur (Maharashtra) and Guwahati (Assam) and two specialized centres viz., Power Systems Training Institute (PSTI) & Hot Line Training Centre (HLTC) at Bengaluru, Centre for Advanced Management and Power Studies (CAMPS) at Faridabad (Haryana). NPTI (NE-R) is at present operating from temporary site at Narangi complex of ASEB, Guwahati and the full-fledged training institute, as sanctioned by the Government of India at a cost of Rs. 18.29 crores, is in the advanced stage of completion at Kahilipara, Guwahati. The Government of India has also sanctioned a scheme for setting up of Hydro Power Training Centre at Nangal at an estimated cost of Rs. 14.75 crores which is under implementation.

The Institutes of NPTI are will equipped with Hi-Tech infrastructural facilities for conducting different courses on technical as well as management subjects covering the needs of Thermal hydro and Nuclear Power Plants Transmission & Distribution Systems, and Energy related fields of the Indian Power and allied Energy Sectors. It has high fidelity, real-time full scope 500 MW & 210 MW Fossil Fuel Fired Power Plant Training Simulators at its various institutes imparting off-job specialized skills to operation personnel across the country. Also a 430 MW CCGT Replica Simulator has been commissioned at NPTI Corporate Office, Faridabad.

A Geographical Information System (GIS) Resource Centre for training and consultancy in the areas of GIS based electricity Distribution Network Planning and Management has been set up at NPTI Corporate Office, Faridabad.

A facility has been created at NPTI's Hot Line Training Centre, Bengaluru for Live Line Maintenance of Transmission Lines upto 400 KV (first of its kind in Asia) which enables trained personnel to attend to maintenance requirements without power interruptions.

Several long-term and short-term training programs in the areas of thermal, hydro, transmission & distribution and management etc. are being conducted in the various institutes of NPTI. Besides conducting refresher training for working engineers/supervisors, NPTI conducts a large number of job-oriented educational programs also such as MBA in Power Management, B.Tech (Power) and Post Graduate Diploma in Thermal power Plant Engineering. Since its inception NPTI has shared its engineering and technology expertise with more than 1,50,000 power professionals at various levels across the country.

CENTRAL POWER RESEARCH INSTITUTE

The Central Power Research Institute (CPRI), a Society registered under the Societies Registration Act under the Ministry of Power serves as National Laboratory to carry out applied research in Electrical Power Engineering. It also functions as an independent National Testing and Certification Authority for Electrical Equipment for ensuring their reliability.

The Institute, with its existence of over four decades has built sophisticated facilities, both in the areas of research and testing. The important facilities include

2500 MVA Short Circuit Testing with Synthetic Testing Facility at Bengaluru, Ultra High Voltage Research Laboratory at Hyderabad, Short Circuit Testing Facility at Bhopal, Thermal Research Centre at Koradi, Nagpur and Regional Testing Laboratory at Noida, Kolkata & Guwahati.

Over the years, CPRI has built up expertise in the areas of transmission and distribution systems, power quality, energy metering, energy auditing, transmission line, tower design, conductor vibration studies, power systems studies, energy conservation studies, transformer oil reclamation and testing, diagnostic & condition monitoring and estimation of remaining life of equipment, new material for power system application, Ultra High Voltage testing, short circuit testing, High Voltage testing and other related fields. The Institute has set up and commissioned the state-of-the-art seismic testing facility and a Real Time Digital Simulation facility. CPRI offers consultancy services in these areas.

The CPRI's laboratories are accredited under the National Accreditation Board for Testing and Calibration of Laboratories (NABL), which is the national body for accreditation of laboratories. CPRI has been given the Membership status in the group of Short Circuit Testing Liaison (STL) of Europe. CPRI laboratories are approved for certain products like communication cables, LT capacitors etc., by Underwriters Laboratories & Canadian Standard Association. The Institute has been accredited by INTERTEKASTA, UK for testing of Low Voltage & Medium Voltage equipments, Power Transformers & Power Cables.

The Research and Consultancy activities have been certified for ISO-9001-2000 by NVT, KEMA. CPRI Laboratories have been recognized as Approved Test House by Electrical Directorate, Kingdom of Bahrain and Saudi Arabia. The certification is widely accepted in the countries of Middle-East, South-East, Far-East Asia and countries of Africa.

The Institute works as a nodal agency for national level power system research. Among the new ventures of the CPRI, the Centre for Collaborative and Advanced Research (CCAR) has been established for creating infrastructure for the visiting Scientists/Technologists to carry out research in the areas related to power sector. A centre has been set up for utilization of industrial solid wastes to useful value added products for the benefit of industry.

The Institute has established Regional Testing Laboratories at Kolkata & Guwahati to cater to testing requirements in the Eastern and North Eastern States of the country. The Institute has also established the Refrigerator & Air Conditioners testing laboratory under the Standards & Labelling Programme.

CPRI has served as Advisor-cum-Consultant under APDRP-I for three southern states viz., Karnataka, Kerala & Andhra Pradesh. Pioneering work has been done for total of 9 distribution circles and 256 towns in three states. CPRI is now empanelled as IT consultant for R - APDRP and is also Third Party Inspection Agency for Karnataka and Kerala under the Rajiv Gandhi Grameen Vidyuthikaran Yojana Scheme (RGGVY).

The Institute also offers Third Party Inspection Services and customized Training Programmes to utilities & Industry.

NORTH-EASTERN ELECTRIC POWER CORPORATION LIMITED

With a need to develop the huge power potential, the North Eastern Electric Power Corporation (NEEPCO) was incorporated on 2 April 1976 as a wholly owned Government Enterprise under the Ministry of Power to plan, promote, investigate, survey, design, construct, generate, operate and maintain power stations in the N.E. Region. The authorised share capital of the Corporation presently stands at Rs. 3,500 crores. The installed capacity of the NEEPCO is 1,130 MW comprising 755 MW of Hydro Power and 375 MW of Gas Based Power. The Corporation currently meets more than 60% of the energy requirement of the North Eastern Region. It is an ISO:9001:2000(Quality) ISO 14001:1996(Environment) and OHSAS-18001:1999 (Safety) Company with its Corporate Office at Shillong.

The Corporation plans to add power of 107,50 MW during 11th Five Year Plan. Presently, two hydro projects of 710 MW (Kameng 600 MW & Pare 110 MW) and one gas based project (Tripura gas based power Project, 100 MW nominal 20%) are under execution by NEEPCO.

BHAKRA BEAS MANAGEMENT BOARD

Bhakra-Nangal Project was taken up as a joint venture of the states of erstwhile Punjab and Rajasthan. On re-organisation of erstwhile Punjab State in 1966 'Bhakra Management Board' was constituted on 1st October, 1967 under Section 79 of Punjab Re-Organisation Act, 1966 for the administration, maintenance and operation of Bhakra Nangal Project. Beas Construction Board was constituted under the Punjab Re-Organisation Act, 1966 for construction of Beas Project.' 'Bhakra Management Board' was renamed as 'Bhakra Beas Management Board' (BBMB) w.e.f. 15th May 1976 after transfer of Beas Project on its completion by Beas Construction Board.

Main functions of BBMB are as under:-

- i) The regulation of the supply of water for irrigation from Bhakra Nangal and Beas Projects to the States of Punjab, Haryana and Rajasthan and also drinking water supply to Delhi and Chandigarh.
- ii) The regulation of the supply of power generated at BBMB Power Houses to Punjab, Haryana, Rajasthan, HP, Chandigarh and some Common Pool Consumers like old HP, National Fertilizers Limited, Nangal etc.
- iii) In the year 1999 BBMB has been entrusted with additional function of providing and performing engineering and related technical and consultancy services to states and other utilities.

The installed capacity of BBMB Power Plants is 2864.73 MW. The power generation of BBMB Power Houses is being evacuated through BBMB power evacuation system running into 3706 km length of 400 KV, 220 KV, 132 KV and 66 KV transmission lines and 24 EHV sub-stations.

BUREAU OF ENERGY EFFICIENCY

The BEE set up under the Energy Conservation Act, 2001 has drawn up various energy conservation programmes and formulated an action plan, which was released to the nation by the Prime Minister in August 2002. The mission of Bureau of Energy

Efficiency (BEE) is to develop policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act (EC Act), 2001 with the primary objective of reducing energy intensity of the Indian economy. This will be achieved with the active participation of all stakeholders, resulting in accelerated and sustained adoption of energy efficiency in all sectors.

The Energy Conservation Act came into force in March 2002. The setting up of Bureau of Energy Efficiency (BEE) provides a legal framework for energy efficiency initiatives in the country. The Act has many mandatory and promotional initiatives which broadly relate to:

- Ž Designated consumers, which are basically energy intensive industries, commercial buildings and establishments
- Ž Energy consumption standards and labeling programme for equipment and appliances
- Ž Energy conservation building codes for efficient use of energy and its conservation in the buildings and building complex
- Ž Promotion of R&D, energy efficiency in buildings and establishments, awareness creation among educational institutions etc.

BEE has initiated various programmes and activities during the XI plan period to promote energy efficiency:-

- (i) **Bachat Lamp Yojana (BLY)** - The Bachat Lamp Yojana under the Clean Development Mechanism (CDM) of the United Nations Framework Convention on Climate Change (UNFCCC) was launched on 28th May, 2008. Under the Bachat Lamp Yojana (BLY) scheme high quality CFLs would be provided to domestic consumers for about Rs. 15 per lamp. i.e. at a rate comparable to that of incandescent bulbs. This would remove the barrier of high CFL price (which is currently Rs. 80 to 100 per lamp) which is constraining its penetration into households. It targets replacement of about 400-million incandescent bulbs in use in the country, leading to a possible reduction of about 6,000 MW of electricity demand, and a reduction of about 24 million tonnes of CO₂ emissions every year. The price reduction would be achieved by utilizing the Clean Development Mechanism (CDM) of the Kyoto Protocol through which the CFL supplies would earn Certified Emissions Reductions (CERs) on the basis of the CO₂ emissions reductions that would occur because of the low electricity consumption of CFLs compared to incandescent bulbs.
- (ii) **Standards & Labeling Scheme** - The Ministry of Power, Government of India announced the Standards and Labelling programme on 18th May 2006 initially on a voluntary basis to lay down minimum energy performance standards. Frost free, direct cool refrigerators, tubular fluorescent lamps and air conditioners were introduced in the initial phase of the voluntary scheme. The scheme has been extended to cover air-conditioners, distribution transformers and three phase squirrel cage induction motors as well. 80% of refrigerator, 90% of TFL manufactures and 80% of the air-conditioner manufacturers have been covered till date. An avoided capacity addition of 264 MW was achieved through BEE labelled refrigerations, 26 MW through air conditioners and 35 MW through TFLS. The net capacity addition avoided stands at 325 MW.

(iii) **Energy Efficiency in Buildings**

- (a) **Energy Conservation Building Code (ECBC)** - The Energy Conservation Building Code (ECBC) was launched by the Government of India on 27th May 2007. This code is intended for new commercial buildings having a connected load of more than 500 kW and has initially been launched on voluntary basis. The ECBC defines norms of energy performance and takes into consideration the climatic regions of the country where the building is located. Under section 14 (p) of the Energy Conservation Act, 2001, Central Government has powers to prescribe ECBC for commercial buildings having a connected load of 500 KW or contract demand of 600 kVA and above for efficient use of energy and its conservation. The state governments have the flexibility to modify ECBC to suit local or regional needs. The Central Government is also empowered to include such commercial buildings in the list of designated consumers under section 14(e). 312 buildings are under construction that will result in an avoided capacity addition of 300 MW on completion.
- (b) **Existing Buildings:** There is vast scope for energy efficiency improvement in buildings. Energy Audit studies conducted in several office buildings, hotels and hospitals indicate energy saving potential of 23% to 46% in end uses such as lighting, cooling ventilation, refrigeration etc. Under the 1st phase of Energy Efficiency in Government Building Programme, 9 Government Buildings were covered and results of the energy audit undertaken have been very encouraging. In Phase - 2 of the programme, 17 Government buildings have been covered. The coverage of government buildings includes large buildings which are visible and can have a demonstrative impact like large municipal or local body buildings, hospitals etc. Retrofitting in commercial buildings is being promoted through Energy Service Companies (ESCOs). 35 ESCOs have been accredited by ICRA and CRISIL.
- (iv) **Agriculture DSM (Ag DSM)** - Agriculture accounts for about 27% of electricity consumption in country, and this is increasing because of increasing rural electrification. This electricity is largely used in agricultural pump set energization. Ag DSM promises immense opportunity in reducing the overall power consumption, improving efficiencies of ground water extraction and reducing the subsidy burden of the states without sacrificing the service obligation to this sector. It also presents a promising prospect of targeting subsidy to the beneficiary farmer. In terms of electricity saved, given that most of the pilot projects as well as other studies project potential savings of 45-50% by mere replacement of inefficient pumps, the overall electricity savings (from 20 million pumps) is estimated at 62.1 billion units annually.
- (v) **Municipal DSM (Mu DSM)** - Mu DSM also assumes significance given that the municipalities consume 10% of energy overall and the cost input of energy is as high as 60% of the costs incurred by the municipalities. Energy costs constitute up to 60-70 per cent of an Indian municipality's total cost of pumping water to its residents. This financial constraint, coupled with inadequate or antiquated infrastructure and the lack of adequate managerial and technical capacities, greatly limits the ability of municipalities to improve water services while allowing inefficient usage of electricity. The electricity bills of the

municipalities account for a significant part of its expenditure, given that an estimated 10% of electricity is consumed for urban water pumping. The targeted avoided capacity addition for both Ag DSM and Mu DSM is expected to be 200 MW.

- (vi) **Operationalizing EC Act by Strengthening Institutional Capacity of State Designated Agencies (SDAs)** - State Designated Agencies (SDAs) are statutory bodies set up under section 15 of the Energy Conservation Act (EC Act), 2001 at the state level to implement the Act. The scheme seeks to build institutional capacity of the newly created SDAs to perform their regulatory, enforcement and facilitative functions in the respective states.
- (vii) **Energy Efficiency in Small and Medium Enterprises (SMEs) Scheme**-The proposed scheme seeks to promote Energy Efficiency in SMEs during the XI plan. Many energy intensive SMEs clusters located in various states of the country have large potential for energy savings. In quantitative terms, there is little reliable information and data available with respect to their energy consumption and energy saving opportunities. BEE in consultation with Designated State Agencies, will initiate diagnostic studies in 25 SME cluster in the country and develop cluster specific Energy Efficiency manuals/booklets and other documents to enhance energy conservation in SMEs.

VERIFIABLE SAVINGS

1. The Standards and Labeling (S&L) programme have resulted in Electricity saving of 1425.87 million units, equivalent to avoided capacity generation of 260.4 MW.
2. The National Energy Conservation Award Programme has resulted in electricity saving of 1612.3 million units, equivalent to avoided capacity generation of 236 MW. Apart from this, these programmes were able to reduce 2,205,623 MTOE of thermal energy.
3. The Energy Conservation & Demand Side Management (DSM) programmes at state level have resulted in electricity saving of 693 Million units, equivalent to avoided capacity generation of 126.7 MW. Apart from this, these programmes were able to reduce 68429 MTOE of thermal energy.
4. The ECBC programmes has stimulated construction of commercial buildings with a potential saving of about 316MW on completion.

RE-STRUCTURED APDRP

Cabinet Committee on Economic Affairs (CCEA) approved the "Re-structured APDRP" for XI Plan as a Central Sector Scheme in its meeting held on 31.07.08. The focus of the programme is on actual, demonstrable performance in terms of AT&C loss reduction. Projects under the scheme would be taken up in two parts in urban areas-towns and cities with population of more than 30,000 (10,000 in case of special category states). Projects execution under the scheme to be taken up in two parts-Part-A shall include the projects for establishment of baseline data and IT applications for energy accounting/auditing & IT based consumer service centers. Part-B shall include regular distribution strengthening projects. The activities to be covered under each part are as follows:

- Ž Part-A: Preparation of Base-line data for the project area covering Consumer Indexing, GIS Mapping, Metering of Distribution-Transformers and Feeders, and Automatic Data Logging for all Distribution. Transformers and Feeders and SCADA / DMS system for big cities only. It would include Asset Mapping of the entire distribution network at and below the 11 KV transformers and include the Distribution Transformers and Feeders, Low Tension lines, poles and other distribution network equipment. It will also include adoption of IT applications for meter reading, billing & collection, energy accounting & auditing, redressal of consumer grievances, establishment of IT enabled consumer service centers etc. The base line data shall be verified by an independent agency appointed by the Ministry of Power.
- Ž Part - B: Renovation, modernization and strengthening of 11KV level Substations, Transformers/Transformer Centers, Re-conductoring of lines at 11 KV level and below, Load Bifurcation, Load Balancing, HVDS, installation of capacitor banks and mobile service centers etc, In exceptional cases, where subtransmission system is weak, strengthening at 33 KV or 66 KV levels may also be considered.
- Ž Expected investment in Part-A (Baseline System) shall be Rs. 10,000 crore and that in Part-B shall be Rs. 40,000 crore.
- Ž Initially 100% funds for Part A and 25% (90% for special category states) funds for Part B projects shall be provided through loan from the Government of India. The balance funds for Part B projects shall be raised from financial institutions.
- Ž The entire amount of loan for Part-A projects shall be converted into grant once the establishment of the required Base-line data system is achieved and verified by an independent agency appointed by MoP.
- Ž Upto 50% (90% for special category States) of the project cost of Part-B projects shall be converted into grant in five equal tranches on achieving the 15% AT&C loss in the project area on a sustainable basis for a period of five years. In addition, utility level loss reduction (AT&C losses) @ 3% per annum for utilities with baseline loss levels exceeding 30% and @ 1.5% for utilities with baseline loss levels less than 30% have to be achieved.
- Ž Part-C: Part C of the programme is an enabling component for the implementation of APDRP. Provision of Rs. 1,177 crore through GBS has been provided in the scheme. This part is to be implemented by Ministry of Power / Nodal Agency. PFC has been appointed as nodal agency for operationalising the programme.
- Ž Part - D: Under Part D of the scheme, there is provision for incentive for utility staff in towns where AT&C loss levels are brought below the base line levels. An amount equivalent to 2% of the grant for Part-B projects (Rs. 400 crore) is proposed as incentive of utility staff in project areas where AT&C loss levels are brought below 15%.

Steering Committee till now has approved 599 Projects under Part 'A', at the cost of Rs. 1947.70 crore for 13 States. The details are as follows:

Sl. No	State	No.of Projects Sanctioned	Sanctioned Project Cost (Rs. Cr.)
1	Andhra Pradesh	113	388.02
2	Bihar	10	81.18
3	Goa	4	104.89
4	Gujarat	17	47.37
5	Haryana	36	146.04
6	Jharkhand	5	8.82
7	Karnataka	94	384.09
8	Madhya Pradesh	82	228.08
9	Maharashtra	107	162.18
10	Rajasthan	87	315.94
11	Tamil Nadu	27	70.04
12	Uttarakhand	12	8.55
13	Uttar Pradesh	5	2.50
Total		599	1947.70

PETROLEUM AND NATURAL GAS

The Ministry of Petroleum and Natural Gas is entrusted with the responsibility of exploration and production of oil and natural gas including import of Liquefied Natural Gas (LNG), and the refining, marketing, distribution, import, export and conservation of petroleum products.

India is a member of the International Energy Forum (IEF) which provides a platform for biennial meetings of the Ministers from the energy producing and consuming countries. This forum was earlier known as "Producer-Consumer Dialogue" between the oil producing and consuming countries. The permanent secretariat of the IEF is in Riyadh. The mission of the secretariat is to further strengthen and enhance the process of global dialogue on energy at the political level.

CRUDE OIL AND NATURAL GAS PRODUCTION

Oil and Natural Gas Corporation Limited (ONGC) and Oil India Limited (OIL), the two National Oil Companies (NOCs) and private and joint venture companies are engaged in the Exploration and Production (E&P) of oil and natural gas in the country.

In the last five years, the Government has made concerted efforts for enhancing "Energy Security". The Tenth Five-Year Plan formulated thereunder represented a paradigm shift over earlier plans in as much as exploration areas were decided to be awarded through international competitive bidding in a deregulated scenario. Since 1991, the Government of India has been inviting bids on a regular basis with several rounds of bidding carried out till operationalisation of New Exploration Licensing Policy (NELP).

COAL BED METHANE

Coal Bed Methane is an environment-friendly clean fuel similar to conventional natural gas. In order to explore and produce new sources of natural gas from coal bearing areas, the Government had formulated a CBM policy providing attractive fiscal and contractual framework for exploration and production of CBM in the country. The Government has also offered 10 blocks under CBM-III for exploration and production of CBM. The Government has so far signed 16 contracts for exploration and production of CBM.

OIL AND NATURAL GAS CORPORATION LIMITED

The Oil and Natural Gas Commission was established on 14 August 1956 as a statutory body under Oil and Natural Gas Commission Act for the development of petroleum resources and sale of petroleum products. As per the decision of the Government, the ONGC was converted into a Public Limited Company under the Companies Act, 1956 and named as "Oil and Natural Gas Corporation Limited" from 1 February 1994. In March 2004, the Government has disinvested around 10 per cent of the equity shares of ONGC through a public offer in the domestic capital market at Rs. 750 per share.

ONGC VIDESH LIMITED

'Hydrocarbons India Limited' formed in 1965 as a subsidiary of ONGC was Shri K. D. Malaviya's brainchild to give India succour by getting oil from abroad. It was renamed as OVL (ONGC Videsh Limited) in 1989. Today it participates in 21 projects in 13 countries, namely, Vietnam, Russia, Sudan, Iran, Iraq, Libya, Myanmar, Syria, Qatar, Cuba, Egypt, Brazil and Nigeria. OVL has a 25 per cent interest in the Greater Nile Oil Project in Sudan, which is an onshore crude oil production area, consisting of three blocks. The ONGC Videsh Limited (OVL) is currently producing Oil & Gas from its Sudan (Greater Nile Oil Project), Vietnam, Syria and Russia (Sakhalin-1) assets. OVL's investment commitment overseas stands at USD 4.5 billion. This makes OVL the biggest Indian multinational corporate. Now OVL has become the 2nd largest E&P Company in India, after ONGC.

OVL's efforts have been supported wholeheartedly by the Government of India, which has allowed OVL exclusive empowerment by providing a single window clearance for overseas upstream projects. OVL has been designated as the Indian Nodal Agency for overseas petroleum business and is maintained as a permanent participant in all bilateral interactions and Joint Working Groups of the Ministry of Petroleum and Natural Gas.

OIL INDIA LIMITED

Oil India Limited (OIL), under the administrative set-up of the Ministry of Petroleum and Natural Gas, is a National Oil Company engaged in the exploration, production and transportation of crude oil and natural gas in the country. OIL was incorporated in 1959 as a company with a two-third shares of Burmah OIL Company and one-third share of Government of India. In 1961, OIL became a joint venture company with equal share of Government of India and Burmah OIL company. On 14 October 1981, OIL became a Government of India enterprise, a wholly-owned Public Sector Undertaking. OIL has operational areas in the States of Assam, Arunachal Pradesh, Orissa, Uttar Pradesh, Uttarakhand and Rajasthan.

OIL was awarded a total of 14 NELP blocks in I to V rounds of bidding- as operator in 6 blocks and with Participating Interests in the balance 8 blocks. Majority of these blocks are in the Phase-I of exploration, while in 2 blocks with OIL as operator, Phase-II works are in progress. Drilling of one well in NELP-III Block No. RJ-ONN-2001/1 in Rajasthan has since been completed by OIL. So far, discovery of hydrocarbons has not been made in any of these 14 NELP blocks.

GAIL INDIA LIMITED

GAIL (India) limited, a 'Navratana' enterprise was established in the year 1984 and is India's principal nature gas transmission and marketing company with activities expanding to Gas processing for fractionating LPG, Propane, SBP Solvent and Pentane: transmission of Liquefied Petroleum Gas (LPG): Petrochemicals like HDPE and LLDPE; leasing bandwidth in Telecommunications. The company has extended its presence in Power, Liquefied Natural Gas (LNG) re-gasification, City Gas Distribution and Exploration and Production through equity and joint ventures participations. The current holding of Government of India in GAIL, is 57.35 per cent.

The GAIL owns and operates a network of over 5,340 km of natural gas high pressure trunk pipeline with a capacity to carry 118 MMSCMD of natural gas across the country. It has a capacity to transport 3.8 MTPA of LPG.

Its gas-based integrated petrochemicals plant at Pata, Uttar Pradesh has a capacity of producing 4,00,000 TPA of Ethylene and 3,10,000 TPA of Polymers, i.e., HDPE and LDPE. It is also involved in setting up a gas distribution network in the cities for supply of natural gas to households, commercial users and for the transport sectors. GAIL has also been operating its state-of-the-art telecommunication network. GAIL's telecom business unit- 'GAILTEL' which has approximately 13,000 km network, offers highly dependable bandwidth for telecom service providers in the states of Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Uttar Pradesh, Andhra Pradesh, Haryana, Punjab and Delhi. The first to become operational is the Delhi-Mumbai route. GAILTEL has become a formidable force today. It's North-West-Central network corridor accounts for 65 per cent of India's long distance traffic. Currently, the company is involved in exploration activities over an average of over 83,600 sq kms and plans to invest approximately Rs 800 crore in E&P activities over the next three years.

The GAIL now holds a participating interest between 10 to 80 per cent in 16 exploration blocks. Of these, 7 are on-land blocks and 9 are offshore blocks. In India, there are 13 blocks which are in basins such as Mahanadi, Bengal, Gujarat-Saurashtra, Mumbai, Cambay, Assam- Akaran and Cauvery. Further more, GAIL has also got a stake in the A-1 and A-3 blocks in Myanmar and block no. 56 in Oman. The various consortium partners of the company in the 16 blocks are ONGC, GSPC, Gazprom, Oil, IOC, Hardy Exploration and Production, Enpro Finance Private Ltd., ENI India Limited, Jubilant, GGR Canada, Daewoo, OVL, Korea Gas Corporation, Oliex, Videocon, BPCL and HPCL.

Apart from its globalisation programme, the GAIL has already obtained equity participation in three retail gas companies in Egypt, viz, Fayum Gas Company, NATGAS and Shell CNG, Egypt and also acquired 7.5 per cent equity in China. GAIL has a participating interest in 2 blocks in Myanmar and in one onland block in Oman. GAIL (Singapore) Pvt. Ltd. in Singapore is looking after GAIL's overseas ventures.

CONSERVATION OF PETROLEUM PRODUCTS

After coal, petroleum products remain the primary energy source in India, with their consumption increasing at a very steep rate. For faster development, the role of energy sector is of paramount importance. India is at present one of the least energy efficient countries in the world with an identified scope of reducing energy consumption by 20-30 per cent in all major sectors through conservation measures. The spiralling prices of crude oil in the recent past have made all the developing economies adopt a cautious approach for the judicious utilisation of the already strained resources. The Petroleum Conservation Research Association (PCRA) set up as a registered society under the Ministry of Petroleum and Natural Gas in 1978 has been given the mandate to promote conservation of petroleum products in the major sectors of economy like transport, industry, households and agriculture through direct technical assistance, R&D, educational and training programmes, and mass awareness campaigns. The PCRA's activities cover conservation of all energy sources, development, evaluation and commercialisation of efficient equipment and additives, popularising petrocrop cultivation and production of bio-fuels, environment protection, etc. Under the new initiatives/ thrust areas PCRA has taken up the promotion of bio-fuels, and urban energy management. Initiatives were also taken for the production of Jatropha based diesel in the rural sector.

REFINING

The refining capacity in the country as on 1 April 2006 was 132.468 million metric tonnes per annum (MMTPA). At present, there are 18 refineries operating in the country (17 in the Public Sector and one in the Private Sector). Out of 17 Public Sector refineries, 7 are owned by Indian Oil Corporation Ltd. (IOCL), two each by Chennai Petroleum Corporation Limited (a subsidiary of IOCL), Hindustan Petroleum Corporation Limited and Oil & Natural Gas Corporation Ltd., one each by Bharat Petroleum Corporation Ltd.(BPCL), Kochi Refineries Limited (a subsidiary of BPCL), Numaligarh Refinery Limited (a subsidiary of BPCL), and Bongaigaon Refinery and Petrochemicals Ltd. (a subsidiary of IOCL). The private sector refinery belongs to Reliance Industries Limited.

COAL

Coal is the main source of energy in the country and accounts for about 67 per cent of the country's commercial requirement. It is also an essential input in steel and carboc-chemical industries.

COAL RESERVES

As a result of exploration carried out down to a depth of 1200m by the Geological Survey of India and other agencies, a cumulative total of 2,53,300 million tonnes of coal resources have been estimated in the country as on 1 January 2006.

PROJECTS AND PLANNING

The coal projects costing up to Rs 100 crore can be sanctioned by the Board of Directors of Coal India Limited (CIL), and coal projects costing up to Rs 50 crore can be sanctioned by the Board of Directors of Northern Coalfields Limited (NCL), Western Coalfields Limited (WCL), South Eastern Coalfields Limited (SECL), and Mahanadi Coalfields Limited (MCL) subject to certain conditions.

COAL CONSERVATION

Conservation of coal enjoins maximum recovery of *in-situ* reserves of coal. The aspect of conservation of coal is taken into account right from the planning stage and maximum recovery is ensured during the implementation stage.

Mechanised opencast mining is presently the commonly adopted technology for extraction of thick seams at a shallow depth. This is also important from the conservation point of view since the percentage recovery by this technology is much higher. The dominance of this technology can be understood from the fact that it now contributes more than 80 per cent of the total coal production. This trend is likely to continue in the near future too. Further, the thick seams, which were earlier developed by Board and Pillar method or other methods of underground mining and had been standing on pillars for long in the absence of a suitable technology for extraction, have now in many cases become extractable by opencast method of mining with HEMM equipment of a suitable type in some mines of WCL, BCCL, CCL and ECL under shallow cover.

In case of underground mining, the introduction of mechanisation has resulted in an increased percentage of extraction thereby leading to better conservation of coal.

Longwall and continuous mining technology yields higher percentage of recovery (70 per cent to 80 per cent) with higher rate of output compared with other methods of underground mining. These methods have been implemented in some mines of Coal India Limited as well as of SCCL. However, due to difficult geo-mining conditions prevalent in India, a large-scale adoption of longwall technology has not been possible.

With the improvement in roof support technology using mechanised bolting with resin bolts, it has been possible to maintain a wider gallery span and extract seams under bad roof conditions more efficiently resulting in improved conservation of coal.

The Coal Conservation and Development Act, 1974 provides for the imposition of excise duty on coal despatches for meeting the needs of activities like conservation of coal, development and development of coal mines, execution of stowing and other operations for the safety in coal mines and research work connected with conservation and utilisation of coal, etc and assistance in mining operation.

SAFETY AND WELFARE

Special efforts to improve the standard of safety in the coal industry have brought down the rate of fatalities per million tonne of output in Coal India Limited. A Standing Committee on Safety regularly reviews safety standards in coal mines.

Since the nationalisation of coal-mines, welfare of coal miners by way of providing facilities like housing, water supply, medical care, education, etc., is being given greater attention.

LIGNITE

Lignite reserves in India have been estimated at around 36,009 million tonnes as on 1 January 2004. Out of this, 4,150 million tonnes is in the Neyveli area of the Cuddalore

district in Tamil Nadu of which about 2,360 million tonnes has been proved. Geological reserves of about 1,168 million tonnes of lignite have been identified in Jayamkondacholapuram of the Trichy district in Tamil Nadu. In Mannargudi and East of Veeranam (Tamil Nadu) geological reserves of around 22,661.62 million tonnes and 1,342.45 million tonnes of lignite have been estimated respectively. Lignite reserves have been identified in Rajasthan, Gujarat, Jammu and Kashmir and Kerala to the extent of 3485 million tonnes, 1816 million tonnes, 128 million tonnes and 108 million tonnes respectively.

Lignite reserves at Neyveli are exploited by Neyveli Lignite Corporation Limited (NLC). Incorporated as a private limited company in 1956, NLC was wholly owned by the Government and converted into a public limited company with effect from 7 March 1986. Over the years, it has acquired considerable expertise and has established itself as a premier organisation in the field of lignite-mining and lignite based power generation. The NLC is an integrated complex consisting of three lignite mines and three thermal power stations.

NON-CONVENTIONAL ENERGY SOURCES

India is blessed with plenty of reposable energy sources such as solar, wind, hydro and biomass. The importance of renewable energy was recognised in the country in the early 1970s. India has today many large programmes for renewable energy. Several renewable energy systems and devices are now commercially available. The Ministry of Non-conventional Energy Sources (MNES) is the nodal Ministry of the Government for all matters relating to new and renewable energy systems and devices. The renewable energy programmes cover the entire gamut of technologies, including biogas plants, biomass gasifiers, solar thermal and solar photovoltaic systems, wind mills, co-generation, small hydro plants, energy recovery from urban/municipal and industrial wastes, geothermal energy, hydrogen energy, electric vehicles and bio-fuels among others. Marketing outlets, namely, "Akshay Urja Shops" have been set up in 104 major cities and towns with a view to promote sales, servicing and repair of these systems and devices. Over 12,800 MW of grid-connected renewable power capacity (upto 2008) has been installed mainly through wind, small hydro and bio-energy which account for around 8 per cent of the total installed capacity in the country. In addition, over one million solar lighting systems, one million sq. m collector area of solar water heating systems, 4.0 million biogas plants and several other renewable energy systems and devices have been deployed all over the country.

The need to boost the efforts for further development and promotion of renewable energy sources has been felt world over in light of high prices of crude oil. The Prime Minister released the National Action Plan on Climate Change (NAPCC) on 30th June, 2008. The Plan proposes to start 8 missions, amongst which one is the National Solar Mission. The NAPCC also mentions that other sources of renewable energy would be promoted. Specific action points that have been mentioned include promoting deployment, innovation and basic research in renewable energy technologies, resolving the barriers to development and commercial deployment of biomass, hydro power, solar and wind technologies, promoting straight (direct) biomass combustion and biomass gasification technologies, promoting the development and manufacture of small wind electric generators, and enhancing the regulatory/tariff regime in order to mainstream renewable energy sources in the national power system.

Earlier, on 27th June, 2008, the Prime Minister had chaired the meeting of the Energy Coordination Committee. It was then decided that MNRE will prepare a comprehensive Plan of Action which would include State specific issues and thrust areas; up-scaling of outcome/generation based initiatives in renewables with specific focus on solar; concerns of various stakeholders like utilities etc. and strategies to address them and a national roadmap to increase the percentage of power from renewable energy sources, presently around 8%.

Over the last two decades, considerable expertise has been gained by different stake-holders such as State Nodal Agencies, State Electricity Boards, NGOs and industries, etc., in planning and implementation of renewable energy projects. However, a lot more needs to be done to make available renewable energy at an affordable price to the common man. It is imperative to take further steps to make the people aware about the potential of renewable energy and availability of various systems and devices to make them less dependent on fossil oils. A White Paper on “*Transitioning to a Renewable Energy Future*” prepared by the International Solar Energy Society has stated the following:

“The renewable energy transition will happen city-by-city, region-by-region, country-by-country. It will be a process generated in each locale when a “critical mass” of the application of renewable resources has been reached. These turning points happen when people, governments, regulators, utilities, and the financial community have all become familiar with the technology. The renewable energy transition must start now or it will be too late. Governments, cities, companies and people must cooperate in moving it”.

A manufacturing infrastructure has emerged for the manufacture and supply of non-conventional energy equipments. These include small-scale and medium/large-scale industries, both in the public as well as the private sectors. Technical guidance and help has been provided to some developing countries for the construction of biogas plants. Products, which are being exported, mainly include solar photovoltaic modules and systems. Wind turbine components have been exported to Europe, Australia and the USA. A Swiss company has used Indian designs for the manufacture of small gasifiers.

ACHIEVEMENTS

During the last two decades, several renewable energy technologies have been deployed in rural and urban areas. Some of the achievements are given in Table 11.3 along with the estimated potential:

TABLE 11.3 : RENEWABLE ENERGY POTENTIAL AND ACHIEVEMENTS

Sl. No.	Source/System	Estimated Potential	Achievements (as on 31 March 2006)
A. Power from Renewables			
1.	Solar Photovoltaic Power	5,000 MW	2.74 MW
2.	Wind Power	45,000 MW	5,310.40 MW
3.	Small Hydro Power (up to 25 MW)	15,000 MW	1,826.43.63 MW
4.	Biomass/ Power Cogeneration	66,000 MW*	912.53 MW

5. Biomass Gasifier	-	1.00 MW
6. Energy Recovery from Wastes	7,000 MW	34.95 MW
Power from Renewables (Total)	1,83,000 MW	8,088.05 MW

B. Decentralised Energy Systems

7. Family-Type Biogas plants	120 lakhs	3.84 million
8. Solar Photovoltaic Systems	20 MW/sq km	
i. Solar Street Lighting Systems	-	54,795 Nos.
ii. Home Lighting Systems	-	3,42,607 Nos.
iii. Solar Lanterns	-	4,78,058 Nos.
iv. SPV Power Plants	-	1566 kWp
9. Solar Water Heating Systems	140 million sq m	1.5 million sq m
	Collector area	Collector area
10. Solar Cookers	-	6 lakhs
11. Solar PV Pumps	-	7015 Nos.
12. Wind Pumps	-	1111 Nos.
13. Hybrid Systems	-	484.68 kW
14. Battery Operated Vehicles	-	212 Nos.

sq km = Square Kilometer

Sq m = Square Meter

MW = Mega-watt

KW = Kilowatt

kWp = Kilo watt peak

*Including Biomass Gasifier

RURAL ENERGY

Nearly 73 per cent of India's population lives in nearly 6 lakh villages and hamlets. The Ministry has been supporting programmes for the use of renewable energy products and devices such as biogas plants, solar thermal systems, photovoltaic devices, biomass gasifiers. Programmes introduced during the 10th Plan period, such as Remote Village Electrification, Village Energy Security Test Projects and Biogas Power Generation, continue to be implemented during the 11th Plan.

National Biogas Programme : Biogas is an alternate source of fuel derived mainly from organic wastes available abundantly in various forms. Biogas obtained from the biogas plants through anaerobic digestion contains a mixture of methane (55 – 65 per cent), carbon dioxide (35-40 per cent) and traces of other gases. The National Biogas Programme was initiated in 1981-82 for the promotion of family size biogas plants with the aim of providing a clean and cheap source of energy along with other benefits such as enriched organic manure, improved sanitation and hygiene and reduction in drudgery for women. Three types of biogas designs, namely, the floating drum type or KVIC design, fixed dome type and bag type portable digester made of rubberised nylon fabric are being propagated under this programme. Biogas can be offered as an excellent fuel for many energy applications, i.e., cooking, lighting and motive power among others.

The biogas programme is implemented through the State Governments and administrations, corporate/registered bodies, KVIC and non-governmental organisations. Technical Back-up Units (TBUs) set-up at nine locations are providing technical and training support in a decentralised mode. Commercial and co-operative banks are providing loans for the setting up of biogas plants. The programmes aim to

bring down the cost of biogas plants as also to develop technology for use in cold climatic regions of the country. Another R&D initiative taken is converting biogas into natural gas removing CO₂ from it and bottling for easy transportation and use in a decentralized manner.

Over 4.00 million family size biogas plants have been installed so far. India is second only to China in biogas plants. In addition, enriched organic manure is produced from biogas plants to supplement and complement environmentally degrading chemical fertilizers.

Integrated Rural Energy Programme : The Integrated Rural Energy Programme (IREP) aims at undertaking energy planning for meeting the energy needs of cluster of villages through a blend of conventional and non-conventional sources of energy. Earlier, the programme was implemented by taking the Block as a unit of planning and 860 Blocks were covered till 2002-03. The programme was modified in 2003-04. Now it envisages preparation of energy plans for a cluster of villages, district and the State, besides implementation in the selected cluster of villages. As on March 2006, the modified IREP Programme is being implemented in 21 States/UTs and 312 districts have been covered under the programme. Five Regional Training Centres set up under the programme at Delhi, Lucknow, Amrol (Gujarat), Bangalore and Shillong meet the training requirements of different target groups involved in planning and implementation of IREP.

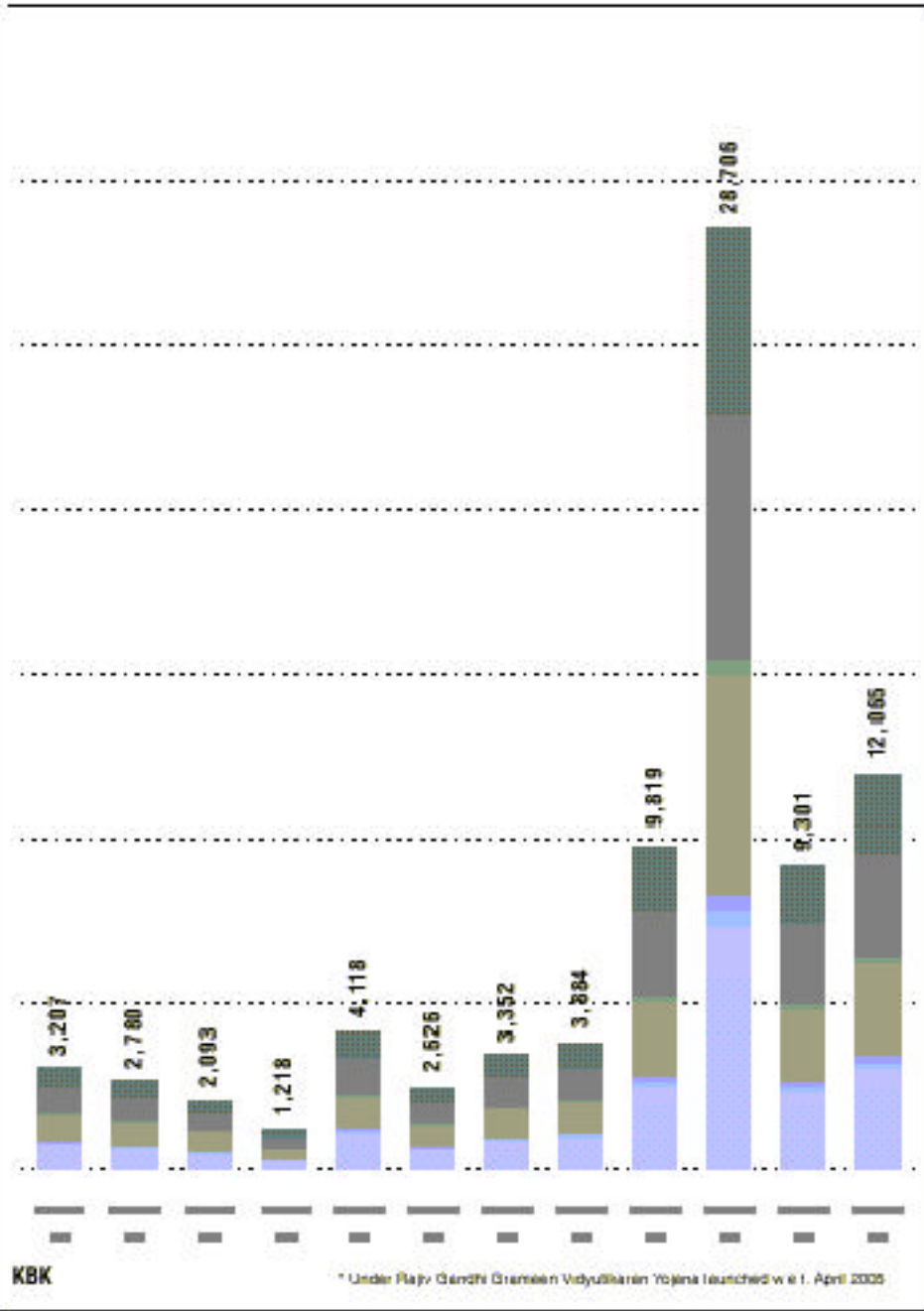
Remote Village Electrification : The Remote Village Electrification programme of the Ministry, since 2001-02, has aimed at providing basic lighting/electricity/facility through renewable energy options in remote villages/hamlets which are not likely to receive grid connectivity under the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) as certified by the REC, owing to non-feasibility or non-cost effectiveness. However, as decided in the ECC June, 2008 meeting, provision of lighting by solar devices can only be an interim measure and would not jeopardize the eligibility of a village so covered to get grid connectivity. In view of this, MNRE proposes to enhance the scope of coverage of the programme to all unelectrified villages/hamlets below population of 100. Small hydro Power Generation systems, biomass gasification based electrified generation systems, solar photovoltaic power plants, etc., in distributed power generation mode may be used depending upon the availability of resources for generation of required electricity. Based on experience so far, over 90% coverage is envisaged through solar photovoltaic lighting systems that will centralized charging stations. Other options will be micro/mini hydel plants, biomass gasifiers and aerogenerators/hybrid systems. A target of covering around 1 million households in 10,000 remote villages/hamlets is envisaged by 2012.

Central Financial Assistance of up to 90% of the project costs, subject to pre-specified maximum amounts for each technology, is provided for approved projects for electrification of remote unelectrified census villages/hamlets through Non-conventional Energy Sources. In addition to the support for installation of renewable energy systems, financial assistance is also provided for creation of awareness, training specific surveys etc.

The programme is implemented in States by state identified implementing agencies such as the state nodal agencies for renewable energy, Power Departments, or the Forest Departments. During 2007-08, projects for electrification of 1648 remote unelectrified villages and 344 remote unelectrified hamlets have been sanctioned under the Programme. The cumulative numbers of villages and hamlets taken under

Progress of Rural Electrification

Villages Electrified
(CUMULATIVE)



the Programme since its inception reached 6907 villages and 1812 hamlets, out of which 3985 villages and 1142 hamlets have been reported to be completed.

Village Energy Security Programme : The Ministry had evolved a concept of providing energy security in villages mainly through biomass, and an Outline Plan on Village Energy Security is being taken up in remote villages and hamlets that are not likely to be electrified through conventional means, with emphasis on forest fringe and tribal villages, so as to demonstrate the techno-economic parameters, provide operational experience, mobilise local communities and firm up the institutional arrangements as projected in the Outline Plan.

The objective of the village energy security test projects is to go beyond electrification per se by meeting the total energy requirements of villages including cooking, lighting and motive power, with full participation of the local communities, including women. The projects would be environment-friendly and create avenues for local employment, thus improving the quality of life and leading to overall sustainable development.

A limited number of 200 test projects on village energy security are being taken up to demonstrate the techno-economic parameters, provide operational experience, mobilize local communities and firm up the institutional arrangements. At present 65 projects are under implementation in nine states, 29 of which have so far been commissioned. All 200 projects are expected to be completed by March 2010. The Ministry has received a grant of US\$ 998,700 from World Bank for a Technical Assistance Project that will support activities for the pilot phase of Village Energy Security Test Projects for a period of two years. The purpose of the grant is to identify and test scaleable models for designing and implementing community-driven programmes for meeting comprehensive village energy needs.

SOLAR ENERGY

India lies in the sunny belt of the world. It receives solar energy equivalent to over 5,000 trillion kWh (kilo watt hours) per year. The daily average solar energy incident varies from 4-7 kWh per square meter depending upon the location. The annual average global solar radiation on horizontal surface, incident over India, is about 5.5 kWh per square meter per day. There are about 300 clear sunny days in most parts of the country. The highest annual radiation is received in Ladakh, western Rajasthan and parts of Gujarat, while the north-eastern region of the country receives relatively lower annual radiation.

Two routes to harness Solar Energy : Solar energy experienced as light and heat can be harnessed through two routes, namely solar photovoltaic and solar thermal, by direct conversion to electricity and heat energy respectively.

SOLAR THERMAL ENERGY PROGRAMME

Solar thermal devices are being utilised for water heating, space heating, cooking, drying and can be utilised for space heating, water desalination, industrial process, steam generation for industrial and power generation applications, operation of refrigeration systems, etc. Low-grade solar thermal devices (for temperature range 100-300 degree C) like solar water heaters, air heaters, solar-cookers, solar dryers, etc., have been developed and deployed in the country. Solar water heaters of capacity ranging from 50 litre per day to 20,000 litre per day for domestic, commercial and industrial applications have been installed in the country. Over 2.3 million sq m. of

collector area has so far been installed in domestic, industrial and commercial sectors. The manufacturing base of water heaters is now well established in the country with 62 BIS approved manufacturers of Flat plate Collector based solar water heating system and 44 MNRE approved suppliers of Evacuated Tube Collector based system.

Around 6.34 lakh solar cookers were also deployed. Solar concentrating collectors were installed for generating steam and the world's largest solar steam cooking system for cooking food for 15,000 people per day was installed at Tirumala, in Andhra Pradesh. Dish Solar Cookers were also promoted in the villages, which are electrified or to be electrified with conventional grid for faster outdoor cooking for about 10 people.

SOLAR PHOTOVOLTAIC PROGRAMME

India receives high solar radiations over most parts of the country. Therefore, the country has very high potential for utilizing solar energy through solar photovoltaic systems, which directly converts sunlight in to electricity. Solar photovoltaic systems are becoming increasingly attractive source for decentralized electricity generation, especially in remote and energy deficient areas for meeting the essential requirements such as lighting, water pumping, powering primary health centers, community centers, schools and other similar requirements. Solar photovoltaic systems are most reliable power source for unmanned applications such as T.V. transmitters, battery charging etc. In order to encourage megawatt size grid power generation in the country during 2007-08 the Ministry has announced a new demonstration programme under which generation based incentive is provided to project developers, who set up solar power plants under 'build' own and operate basis, on fulfillment of the guidelines issued by the Ministry in this regard. More than 130 industries are involved in the manufacturing of SPV systems and above 21 industries are involved in the production of PV modules. During the year 2007-08, solar photovoltaic modules of about 80 MWp have been produced; out of which 55 MWp have been exported. So far more than 1.5 million SPV systems are powering a variety of applications in the country. The cumulative production of photovoltaic modules in the country as on 31st March, 2008 was more than 460 MW of which 325 MW was exported to Europe, USA and various other countries.

GRID-INTERACTIVE RENEWABLE POWER

A total grid interactive power-generating capacity of 12,800 MW has been added from renewables, mainly wind, small hydro, biomass and solar energy. Most of this capacity has come through commercial projects.

Wind Power : While the gross wind power potential is estimated at around 45,000 in the country, a capacity of 8,757 MW up to 31 March 2008 has so far been added through wind, which places India in the fifth position globally after Germany, Spain and USA.

Solar Power : Under the Solar Photovoltaic Programme, about 6.70 lakh Solar Lanterns, 4.03 lakh Solar Home Lighting Systems, 70,500 Solar Street Lighting Systems, 7148 Solar Water Pumping systems, Stand alone Power Plants of cumulative capacity 2.2 MW and Grid Interactive Power Plants cumulative to 2.2 MW have been installed in the country till March, 2008. In addition to the above, 3985 remote village and 1142 hamlets have also been electrified using solar photovoltaic systems.

Biomass Power : The Biomass Power Programme especially through Cogeneration Projects aims at utilisation of a variety of biomass materials, agro industrial residues, energy plantations besides agro residues for power generation through the adoption of conversion technologies like combustion, pyrolysis, gasification, etc. The plants utilise gas/steam engines or combination thereof, either for generation of power alone or cogeneration of power and steam for either captive use or sale to the grid.

Capacity addition of around 266 MW was done in the country during 2007-08 through the technologies of biomass power and bagasse cogeneration in sugar mills. The country now has more than 1500 MW of capacity based on these two technologies. In bagasse cogeneration more than 100 sugar mills are now meriting a surplus electricity of 950 MW for feeding into the grids. The technology and the equipment for these projects have been sourced indigenously. The 90 biomass power projects aggregating to 610 MW capacity have also been beneficial to the country through creation of a large number of employment and income generation opportunities—especially in rural areas.

The potential of Biomass power in the country has been estimated at about 19,500 MW, including surplus power generation potential of around 3,500 MW from bagasse-based cogeneration from existing sugar mills in the country. So far, a total capacity of 912 MW biomass based power-generating systems has been installed in the country. Projects of a capacity of 1180 MW are under installation.

Small Hydro Power : The potential for Small Hydro Power (SHP) has been assessed at around 15,000 MW. By 31 March 2008, a total of 2180 MW capacity had been set up. In addition, projects aggregating to 638 MW capacity are under various stages of implementation.

RENEWABLE ENERGY FOR URBAN, INDUSTRIAL AND COMMERCIAL APPLICATIONS

In an effort to mitigate the energy problems of cities and towns and to provide alternative energy solutions for industrial and commercial establishments, various systems/ devices working on solar energy, energy recovery from urban and industrial wastes, biomass energy and co-generation (non-bagasse) in industry, etc., are being promoted by the Ministry.

Solar Energy : An accelerated programme for development and deployment of solar water heating systems aimed at installation of one million sq.m. of collector area is being implemented by the Ministry. Around 1.5 million sq.ms of collector area has been installed so far in the country, which includes 4.0 lakh sq.m. installed during 2005-06. Interest subsidy is now provided by the Ministry so that loans are available from banks/Fls at effective interest ranging from 2 per cent to 5 per cent. The network of participating banks/Fls has also been expanded. Supportive measures e.g. amendment in building bye-laws for making the use of systems mandatory, providing rebates in electricity tariff and property tax to the users, persuading builders and developers to construct buildings and housing complexes integrated with solar water heaters etc. are being taken up to accelerate the deployment.

Solar Air Heating/Steam Generating Systems are being promoted in industries and institutions for the purpose of drying, cooking and process heat applications. About 10,000 sq.m. of collector area for solar drying and 12 solar steam generating

systems of different capacities for various applications have been installed so far. Solar buildings based on solar passive architecture design are being promoted with a view to provide comfortable living and working conditions, both in winters and in summers, while conserving conventional electricity.

As per the 2001 census, the Urban Indian population residing in 5161 cities and towns is 285 million. Urban areas in India are estimated to be generating about 50 million tonnes of solid waste (1.4 lakh tonnes per day) and 6000 million cubic meters of liquid waste per year. This translates into a potential for generation of over 2900 MW of power from urban wastes, which is likely to increase over 5600 MW by 2017.

Eight projects with an aggregate capacity of 22.50 MW based on urban waste such as municipal solid and liquid wastes, cattle manure, vegetable market and slaughterhouse wastes, etc. have been installed so far in the country. These projects are based on both biomethanation as well as RDF combustion technologies. This also includes a 3 MW projects for generation of 1 MW power from biogas produced at each of the three Sewage Treatment Plants in Surat completed during 2007-08

Energy Recovery from Urban Wastes : A potential for the generation of about 1300 MW power from industrial wastes has been estimated for the country. There are about 200 distilleries in the country which have installed the wastewater treatment plants and are generating a large quantity of biogas having a potential of generating about 200 MW power. Similarly the projects for the generation of biogas/power are being set up in other industrial sectors such as food processing, poultries, tanneries, pulp and paper, oil extraction and pharmaceuticals, etc.

23 industrial Waste-to-Energy projects with a total capacity about 35 MWeq have been installed in the country. With this, a total of 39 industrial Waste-to-Energy projects with a cumulative capacity of about 59 Mweq have been installed in the country upto 31.03.2008. In addition, 8 projects with a total capacity of about 13 MWeq are under installation.

Biomass Energy and Co-generation in Industry : The Ministry has been implementing Biomass Co-generation (non-bagasse) in industry. 19 projects with a capacity of 95 MW have been installed in various industries like paper mills, rice mills and ferrous mills, etc. for meeting their total captive energy requirement of heat and power. In addition, 20 projects with a total capacity of about 40 MW are under installation and likely to be completed during the year 2008-09.

Similarly a programme on Biomass Gasifier Systems is also being implemented in industries for meeting their captive heat and power requirement. 100 biomass-gasifier systems with a total capacity of about 27 MWeq have been installed upto 31.03.2008 and about 30 biomass gasifier systems with a total capacity of about 12 MWeq are under installation in various industries and likely to be completed during 2008-09.

NEW TECHNOLOGIES

Hydrogen Energy : A programme covering research and development pertaining to production of hydrogen, its storage, safety, applications, etc., has been undertaken in the country with a view to create an alternate source of energy. A National Hydrogen Energy Board has been set up to guide and oversee the preparation of a Hydrogen

Energy Road Map and its implementation through a National Programme on Hydrogen Energy. The National Hydrogen Energy Board, set up a Steering Group for preparation of the National Hydrogen Energy Road Map. The Road Map prepared by the Steering Group was approved by the National Hydrogen Energy Board in its meeting held in January 2006. The Road Map envisages taking up of Research, Development and Demonstration activities in various sectors of hydrogen energy technologies. It has visualised goals of one million hydrogen-fuelled vehicles and 1,000 MW aggregate hydrogen based power generation capacity to be set up in the country by 2020. Hydrogen-powered two wheelers, three wheelers, catalytic combustors, and power generating sets have been developed and demonstrated in the country.

Fuel Cells : Research and Development Projects for development of different types of fuel cells like Proton Exchange Membrane Fuel Cells (PEMFC), Phosphoric Acid Fuel Cells (PAFC), Solid Oxide Fuel Cells (SOFC), Direct Methanol Fuel Cell (DMFC), Direct Ethanol Fuel Cells (DEFC) and Molten Carbonate Fuel Cells (MCFC) alongwith components and materials for fuel cells including control and instrumentation system are being supported. BHEL developed a 3 kW (3 x 1 kW) automated Proton Exchange Membrane fuel Cell Power Pack and demonstrated the same for the Stationary Applications. Under a project the Indian Institute of Chemical Technology, Hyderabad will integrate already developed 10 kW methanol reformer with a 10 kW fuel cell to run it for 1000 hours. The Institute will also complete the development of 50 kW methanol reformer system for technology demonstration. Projects on the development of direct alcohol fuel cell & test protocols and on solid oxide fuel cells that operate directly on hydrocarbon feedstock have been sanctioned to Indian Institute of Technology, Delhi. A project on the development of high performance intermediate temperature solid oxide fuel cells (IT-SOFC) by low cost ceramic processing techniques was sanctioned to the institute of Minerals and Materials Technology, Bhubaneswar.

Geothermal Energy : Magnetotelluric studies carried out by National Geophysical Research Institute (NGRI), Hyderabad have shown existence of potential geothermal sites in Surajkhand, in Jharkhand and in Tapovan in Uttarakhand. In order to confirm the potential for power generation at Puga Geothermal Fields in Ladakh, J&K and prepare an action plan for setting up of a power plant at Puga, an Export Group was constituted in September, 2007 under the Chairmanship of Member (Planning), CEA. The Report has been submitted and the Ministry is following up the recommendations.

Ocean Energy : The various forms of ocean energy are waves, ocean energy thermal conversion, currents and tides. Of these, tidal energy has the potential for being harnessed for power generation, in the medium term. A project for setting up of a 3.75 MW capacity demonstration tidal power project at Durgaduani Creek in the Sundarbans area of West Bengal Renewable Energy Development Agency (WBREDA) in February, 2008. The total cost of the project is Rs 48.00 crore. The Ministry would provide 90% support for the project, while the balance 10% cost would be met by the State Government. The project would be completed within 33 months. The main objective of the project is to supply power to 11 remote villages in Gosaba and Bali Bijaynagar islands located in South 24 Parganas District of West Bengal. The project will be executed by the NHPC.

Bio Fuels : Several R&D projects have been taken up in the country to develop technologies to convert different non-edible vegetable oils to bio-diesel. The

performance of stationary diesel engines using different non-edible oils for generation of power on decentralised basis is being studied under Bio-fuel pilot-demonstration project. Field trials with ethanol blends in petrol and diesel have also been taken up in the country under several projects financed by the Ministry.

Battery Operated Vehicles : R&D projects on development of high energy density batteries such as nickel-metal-hydride, lithium-ion and lithium polymer electrolyte batteries and super capacitors for BOVs are being supported. Prototypes of nickel-metal-hydride batteries developed have been demonstrated for operating an electric auto-wheeler.

SPECIALISED TECHNICAL INSTITUTIONS

The Ministry has established the following institutions for R&D and related applications:

Solar Energy Centre : The Solar Energy Centre, which was set-up in 1982, is an integral part of the Ministry of Non-Conventional Energy Sources for development and promotion of solar energy technologies. The main objectives of the Centre are : (i) (a) To act as a national test and standardisation centre for solar energy materials, components and systems, (b) To pursue collaborative R&D with industry and academics, (c) To evaluate new technologies, (d) To provide advisory and consultancy services, (e) To work on human resource development and dissemination of information. (ii) The R&D campus of the Centre is located on the Gurgaon-Faridabad Road at the outskirts of Delhi. The campus houses the national test facility for solar thermal and solar photovoltaic systems and components, laboratories for system design and engineering, demonstration units on solar electric generating systems for their long-term performance evaluation, seminar hall and auditorium for training and workshops, a library for reference on renewable energy topics and a small guest house for visitors. Essentially, it functions as an effective interface of the Government, institutions, industry and user organisations. (iii) Right from its inception, the Centre has been playing a crucial role in promotion of solar energy technologies in the country. The Centre has been working closely with the solar energy group of the Ministry to provide technical back-up and carry out various activities including R&D, testing and demonstration, training and information dissemination. The Centre contributed significantly in bringing out several National Standards on solar technologies. (iv) A large area sun simulator has been installed at SEC for testing and evaluation of large size (200 cm x 200 cm) solar photovoltaic modules (upto 600 W) capacity. Another advanced facility of 1.2 kWp capacity PV Concentrator Module Test Bed Facility has been established in collaboration with M/s Moser Baer Photovoltaic Limited. A project for preparation of the updated version of solar radiation data for the country has jointly been taken up with India Meteorological Department. Work on establishment of an "Automatic Weather Station" in the campus of the Centre has been initiated. A handbook on energy conscious architecture, prepared jointly with IIT Bombay, has recently been finalised.

Centre for Wind Energy Technology : A Centre for Wind Energy Technology (C-WET) has been set up at Chennai, Tamil Nadu, its wind turbines test station located at Kayathar in district Thoothukudi, Tamil Nadu. C-WET's mission is to make domestically-owned wind industry internationally competitive through demonstration and commercialisation of products and services at par with

international standards, specifications and performance parameters. C-WET comprises five units, namely, Research and Development, Wind Resources Assessment, Wind Turbine Testing, Standards and Certification, and Information, Training and Commercial Services. These units offer integrated solutions in keeping with its mission to facilitate development, demonstration and commercial aspect of megawatt scale wind electric generators for on-shore and off-shore applications, to carry out Wind mapping for the country in order to determine areas and sites most suitable for Wind Electric Generators (WEGs) deployment; to ensure manufacturing and deploying of WEG by conducting their type approval tests at par with international standards, specifications and performance parameters, and to serve as the technical focal point for wind power development in India, for promotion and accelerating the pace of utilization of wind energy and support the growing wind power sector in the country.

Small wind turbine testing has been initiated for developing test procedure in accordance with IEC stipulations. A 5 kW wind-solar-battery-diesel hybrid system with microprocessor control and remote monitoring through GPRS/internet at C-WET campus is being installed to serve as a pilot-cum-demonstration plant. Preparation of Indian Wind Atlas is under progress. Pilot study is carried out for 15 sites from southern, central and western zones (5 from each zones) and sent to Risoe National Laboratory, Denmark for validation with meso-scale model (KAMM). Wind Resource Assessment unit has installed 25 wind monitoring stations during the year and 64 are under operation. A total number of 29 consultancy projects have been taken up and 9 are completed. This includes micro-survey, micro-siting and due-diligence studies. Two *in-situ* type wind turbine testing assignments were completed, two are in progress and agreement for one has been signed. Standards and Certification Unit has completed Provisional Type Certification of one wind turbine model and Provisional Type Certification of nine wind turbine models is under progress.

Sardar Swaran Singh National Institute of Renewable Energy (SSS-NIRE) : The Ministry is establishing an autonomous institution named as 'Sardar Swaran Singh National Institute of Renewable Energy (SSS-NIRE)' Wadala Kalan, Distt. Kapurthala, Punjab. The institute would conduct research, development and demonstration activities in the area of bio-energy, bio-fuels, synthetic fuels in all their forms for stationary and transport applications.

PUBLICITY AND AWARENESS CREATION

Initiatives have been taken to create greater awareness on new and renewable energy in order to facilitate greater acceptability both in rural and urban areas and industrial and commercial sectors.

Rajiv Gandhi Akshay Urja Diwas : An effective and far reaching mass awareness campaign about renewable energy is being organised to commemorate the birth anniversary of former Prime Minister, late Shri Rajiv Gandhi as "Rajiv Gandhi Akshay Urja Diwas" on 20 August every year since 2004 all over the country. Public Awareness Programmes are organised on a mass scale on this day at the National, State, District and Block/Taluka levels through mass rallies, formation of human chains, organisation of essay, quiz, slogan-writing and painting competitions, and debates, seminars and group discussions, etc., among others. More than 50 lakh children participate in these activities throughout the country. These activities have helped

create the much needed awareness on the use of renewable energy systems/devices in daily life.

In the year 2007, Rajiv Gandhi Akshay Urja Diwas was held at Hyderabad. Late Y.S. Rajshekhar Reddy, the then Chief Minister of Andhra Pradesh administered the renewable energy pledge to over 9,000 school students and other participants and gave away prizes to winners of marathon, essay writing, painting and other competitions held on the occasion.

The 'Special Day—Rajiv Gandhi Akshay Urja Diwas-2008' was observed all over the country in a befitting manner. The National Function on the Special Day was held at Panchkula, Haryana. Renewable Energy pledge was administered by Hon'ble Chief Minister, Haryana to over 18,000 school children and students who came from the tri-city i.e. Chandigarh, Mohali and Panchkula. The other events at the National Function included Akshay Urja half-marathon (21 kms.) and Renewable Energy display was also organized in which over 30 manufacturers of Renewable Energy based systems and devices from all over the country participated to display and demonstrate their systems and devices. Painting and slogan writing competitions in schools, on the theme of Renewable Energy, were also organized on the occasion.

State level function of Delhi on the occasion was held at National Bal Bhawan. Over 3000 school children from large number of schools and hundreds of college students participated in the event.

State level functions were also held in other States and Union Territories throughout the country. The 'Special Day' was observed in all districts of the country with active participation of large number of school children. An all India Quiz programme in Hindi/English on Renewable Energy and four State level quiz programme on Renewable Energy in regional languages (Kannad, Tamil, Marathi and Bangla) for students of class IX to XII were launched in the country on the occasion of the 'Special Day'.

District Advisory Committees : District Advisory Committees (DACs) have been set-up in every district with the Collector/Deputy Commissioner as its Chairman in order to create awareness on renewable energy at the district level. 540 DACs have been set-up so far in the country, which have given a much-needed fillip to the development of renewable energy. Among others, district officials, representatives of Members of Parliament, Doctors, Engineers, Lawyers, representatives of NGOs, Rotary/Lion Clubs are DAC members of which 6 are women. These DACs are required to convene at least once every quarter. These committees which have led to the creation of an effective renewable energy promotion network at the grass root level will also help integrate renewable energy schemes with those of other developmental departments.

Special Area Demonstration Programme : The Special Area Demonstration programme (SADP) aims at demonstration renewable/non-conventional energy systems and devices in all parts of the country with a view to create awareness and give publicity amongst students, teachers and the public. 27 State level and 477 district level energy parts have been set up till March, 2008.

Akshay Urja Shops : With a view to create the outreach of renewable systems/devices, Akshay Urja Shops are being set up to cover every district in the country to ensure easy availability of such systems/devices apart from catering to repair and

maintenance needs. With the setting up of these shops and other related initiatives, it is expected that the public will embrace renewable energy technologies in a big way for augmenting energy needs of cooking, lighting and motive power. Solar photovoltaic systems/devices e.g. streetlight control systems, street/public garden lights, illuminated hoardings, road studs, blinkers, traffic, signals, BIPV systems and power packs are made available at these shops. Besides promoting the renewable devices, they also help in creating awareness about the benefits of using these devices and reducing the burden on conventional electricity in cities/towns. So far 269 Akshay Urja Shops have been opened.

Other activities of public awareness include :

- Over 100 exhibitions and over 150 mobile exhibitions on Renewable Energy have been organized for display and demonstrating renewable energy systems and devices.
- 521 Renewable Energy Clubs have so far been set up in various AICTE approved engineering colleges and other technical institutes of the country.
- A ten episode series of "TERAVIEW", a TV programme on Renewable Energy, has been successfully telecast on DD News channel in association with TERI.
- Two Radio Sponsored Programmes on Renewable Energy titled "Nayee Dishayen Nayee Aashayen" and "Roshan Rahe Zamana" have been broadcast on AIR and 16 FM stations in 17 regional languages including Hindi.
- Renewable Energy Quiz competition has been organized for the vernacular medium schools in four States of Assam, Gujarat, Andhra Pradesh and Kerala.
- On account of completion of 25 years in the service of the nation, the Ministry celebrated its Silver Jubilee function at Vigyan Bhawan on 22nd November, 2007. On the occasion, Hon'ble President of India, Smt. Pratibha Devisingh Patil released four commemorative postage stamps on renewable energy, launched a new website of the Ministry, released a compendium titled "25 years of Renewable Energy in India" and gave away National Awards on Renewable Energy to State Nodal Agencies, banks and manufacturers for outstanding performance.
- An attractive exhibition on Renewable Energy, covering an indoor area of 500 square meters and outdoor area of 300 square meters was set up at Pragati Maidan during Indian International Trade Fair, 2007 from 14-27 November, 2007. Various renewable energy devices such as solar cookers, solar water heaters, solar lanterns, solar investors, solar water pumps, solar garden lights, solar torches, solar-run street and home lighting were displayed and demonstrated by manufacturers from all over the country.
- Four orientation-cum-training programmes have been organized for District Advisory Committee members at Lucknow, Bhubaneswar, Jaipur and Hyderabad.
- A media visit was organized to Solar Energy Centre and State level Energy Park in Gurgaon to appraise media persons about developments in the field of Renewable Energy.

12 Environment

INTRODUCTION/ROLE OF THE MINISTRY

THE primary concerns of the Ministry of Environment & Forests relate to implementation of policies and programmes on conservation of the country's natural resources including lakes and rivers, its biodiversity, forests and wildlife, ensuring the welfare of animals and prevention and abatement of pollution. While implementing these policies and programmes, the Ministry is guided by the principle of sustainable development and enhancement of human well-being. The Ministry also serves as the nodal agency in the country for the United Nations Environment Programme (UNEP), south Asia Co-operative Environment Programme (SACEP), International Centre for Integrated Mountain Development (ICIMOD) and for the follow-up of the United Nations Conference on Environment and Development (UNCED). The Ministry is also entrusted with the issues relating to multilateral bodies such as the Commission on Sustainable Development (CSD), Global Environment Facility (GEF) and of regional bodies like Economic and Social Council for Asia and Pacific (ESCAP) and South Asian Association for Regional Co-operation (SAARC) on matters pertaining to environment.

The broad objectives of the Ministry are:

- Conservation and survey of flora, fauna, forests and wildlife,
- Prevention and control of pollution,
- Afforestation and regeneration of degraded areas,
- Protection of the environment and
- Ensuring the welfare of animals.

These objectives are well supported by a set of legislative and regulatory measures, aimed at the preservation, conservation and protection of the environment. Besides the legislative measures, a Natural Conservation Strategy and Policy Statement on Environment and Development, 1992, National Forest Policy, 1988, a Policy Statement on Abatement of Pollution, 1992 and a National Environment Policy 2006 have also been evolved.

NATURAL RESOURCES-SURVEY AND EXPLORATION

SURVEY OF FLORA

BOTANICAL SURVEY OF INDIA

The Botanical Survey of India (BSI) was established on 13th February, 1890 with the basic objective to explore the plant resources of the country and to identify the plant species with economic virtues. The Headquarters of BSI is located at Kolkata and its 10 circle offices have been set up at various places of the country. During the successive plan periods, the functional base of Botanical Survey of India was expanded to include various new areas such as inventorising endemic rare and threatened plant species, evolving conservation strategies; studies on fragile ecosystems and protected areas like sanctuaries, national parks and biosphere reserves; monitoring of changes in floristic components; conservation, multiplication and maintenance of germplasm of plant genetic resources, endemic and threatened species, wild ornamentals etc. in

Botanic Gardens and Orchidaria; ethnobotanical and geobotanical studies and development of National Data base on Herbarium (including type specimens) and live collections, plant genetic resources, plant distribution and nomenclature.

- Thirty-eight field/exploration/live plant collection/EIA Study tours were undertaken by different circle offices and units of BSI covering wildlife sanctuaries, catchment areas, wetlands, mangrove areas, etc. of several districts of various States like Arunachal Pradesh, Mizoram, Sikkim, Uttar Pradesh, Uttarakhand, Karnataka, Orissa, Tamilnadu, Kerala, West Bengal, etc.
- During the field/ exploration/collection tours, more than 5,500 specimens were collected including lower groups of plants viz. Algae, Fungi, Lichens, Bryophytes and Pteridophytes. About 3,000 specimens belonging to 900 species were identified by different circles and units of Botanical Survey of India.
- Ten herbarium consultation tours/study tours were undertaken in connection with the revisionary and floristic studies under National/State/Regional/District Flora.
- The BSI undertook documentation of phytodiversity of various national flora, regional flora and state flora. Indigenous knowledge of several plant resources was also documented by the BSI
- Eleven new species/variety, sixteen new records for India and eight new records for states were discovered so far by the BSI. Four species were also collected by the BSI during 2007-08 after 50 years or more.

SURVEY OF FAUNA

ZOOLOGICAL SURVEY OF INDIA

The Zoological Survey of India (ZSI), a premier institute under the Ministry, has been undertaking survey, exploration and research leading to the advancement of our knowledge on the exceptionally rich faunal diversity of the country. Since its inception in 1916, with its Headquarters at Kolkata and 16 Regional Stations located in different parts of the country, ZSI in recent years, has reoriented its plan of work by grouping the survey and studies under six major programmes viz. Fauna of States, Fauna of Conservation areas, Fauna of Important Ecosystems, Status survey of endangered species and Ecological Studies/Environment Impact Assessment Survey and Identification of Wildlife Seized material related to Wildlife (Protection) Act. 1972. Besides, the on-going Fauna of India Programme was also continued.

- One hundred and one extensive faunal surveys were undertaken in different States/Union Territories including important ecosystems and some selected conservation/ protected areas. Five status surveys were also carried out. One Environment Impact Assessment survey at Rowghat of Bhilai Steel Plant in Chhattisgarh was carried out. Besides, several short duration intensive surveys for ecological studies were also undertaken. Detailed taxonomic studies were carried out on the material collected during these as well as earlier surveys.
- The National Zoological Collection was further enriched by the addition of 13016 identified specimens belonging to 1165 species. In addition to above major activities, Identification and Advisory Services were rendered to 96 individuals or institutions in India and abroad.

- Faunal exploration and surveys of various eco-systems, conservation areas, ecological status surveys, etc. were undertaken by the ZSI and its regional offices during the year 2007-08.
- The book on Faunal diversity of Tiger of India Reserves was released by the Hon'ble Prime Minister of India during the meeting of the National Board for Wild Life.
- Website of Zoological Survey of India was launched during November 2007. The website can be viewed at <http://www.zsi.gov.in>.

FOREST RESOURCES AND SURVEY

FOREST SURVEY OF INDIA, DEHRADUN

Forests are renewable resources and contribute substantially to economic development. They play a major role in enhancing the quality of environment. Forest Survey of India (FSI), a premier national organization for forest resource assessment is for collection of data on scientific lines through countrywide comprehensive forest resources survey at regular intervals. The FSI with its Headquarters at Dehradun and four Regional Offices at Shimla, Kolkata, Nagpur and Bangaluru, work in close coordination to carry out various activities of FSI. Besides administration as well as technical control, the major activity at the Headquarters is forest cover mapping data processing and conducting training. The zonal offices are mainly engaged in the inventory of forests and trees outside forests and supporting Headquarters in other activities as and when assigned.

- Forest Survey of India (FSI) assesses forest cover of the country by interpretation of remote sensing satellite data and publishes the results in a biennial report called 'State of Forest Report (SFR). Nine SFRs have been brought out so far, and the 10th SFR has now been published. Starting with data of US Remote Sensing Satellite Landsat for SFR 1987, FSI shifted over to the data of the indigenous satellites Indian Remote Sensing (IRS) in 1995. In the current cycle (i.e. for FSI) has used satellite data for IRS P6 Resource sat LISS III.
- The forest cover maps on different scales are kept in public domain and sold to the State Forest Departments and other user agencies at nominal price. Since 2001, the latest tree cover maps are available in hard copy and also in digital form.
- After the creation of the FSI the field inventory remained the primary activity with a modified design covering the whole country. The total forest area inventoried until the year 2000 was about 69.2 million which included some areas inventoried twice. Thus, more than 80 per cent forest area of the country was inventoried comprehensively in a period of 35 years.
- According to State of Forests Report 2005, the total forest cover of the country as per 2005 assessment is 677.088 km² and this constitutes 20.60 per cent of the total geographic area of the country. Of this, 54,569 km² (1.66%) is very dense forest, 332.647 km² (10.12%) is moderately dense forest, while 289.872 km² (8.82%) is open forest cover. The scrub accounts for 38,475 km²(1.17%)
- While computing the percentage of forest cover of the country, the total geographic area of 2,287.263 km² is taken. A closer analysis of this reveals that a sizeable part of the country's area lies in high altitude mountainous region under permanent snow/glaciers, steep slopes and rocks which are not available

for free planting due to climatic and physical reasons. As per recent study of FSI, about 1,83, 135 km² area in the states of Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir, Sikkim and Uttarakhand have been found above 4,000 m. altitude where climatic and edaphic conditions limit growth. If this part of the geographic area of the country is excluded for the purpose of forest cover analysis, the forest cover of the country in terms of percentage to the geographic area comes to 21.81%.

- The State/UT wise forest cover in the country shows that Madhya Pradesh with 76,013 km² has the largest area under forest cover, followed by Arunachal Pradesh (67,777 km²), Chhattisgarh (55,863 km²). Considering the proportion of geographic area under forest cover, Mizoram has the maximum percentage of 88.63% followed by Nagaland (82.75%), Arunachal Pradesh (80.93%) and Andaman & Nicobar Islands (80.36%). Andhra Pradesh has the largest area under scrub (9,862 km²).
- The latest assessment shows that mangrove cover in India is 4,445 km², which is 0.14% of the country's total geographic area. The very dense mangrove comprises 1,147 km² (25.8% of mangrove cover), moderately dense mangrove is 1,629 (36.6%) while open mangrove covers an area of 1,669 km² (37.6%).
- Tree cover estimate comprises tree patches outside the recorded forest cover which are not captured by remote sensing satellite during forest cover assessment. This area is less than the minimum mappable area (1 ha) and comprises block & linear patches having area up to 0.1 ha and scattered trees. All areas more than one ha. in extent and having tree canopy density of 10 % and above are included under forest cover. However, there are many small patches of trees less than 1.0 ha. in extent, such as trees in small scale plantation woodlots or scattered trees on farms, homestead and urban areas or trees along linear features such as roads, canals, bunds etc. are not being captured by satellite sensors under forest cover due to technological limitations.
- The total tree cover of India has been estimated to be 91,663 km², which constitutes 2.79% of the country's geographic area. The tree cover for each physiographic zone has been estimated. It is observed that the tree cover is the maximum in East Deccan (11,293 km²), followed by Northern Plains (10,747 km²) and West Coast (8,307 km²). However, West Coast has maximum percentage of tree cover (6.85%) with respect to geographic area followed by Western Ghats (5.37%) and East Coast (4.84%) Eastern Himalayas, has the lowest tree cover of 255 km², as the area is full of forest.
- A new National Forest Institute (NFI) has been designed and adopted by FSI since 2002. The country has been divided into 14 physiographic zones and 60 districts randomly selected from these zones on probability proportional to size are inventoried in two years. About 8,000 sample plots are laid in forest areas distributed over the country in each cycle for field inventory. It has now been possible to generate a national estimate of growing stock on a two-year cycle.
- The Ministry constituted a National Working Group/Governing Body to frame the policy guidelines on 'Forest Certification' for timber and NTFPs. The National Working Group / Governing Body also finalized the 'Terms of Reference (TOR)' for the following three committees:

- Committee for 'Certification Criteria'
- Committee for 'Certification Processes'
- Committee for 'Accreditation Criteria and Processes'

With the objective to prepare the road map and the necessary criteria and processes for the National Certification of forests, timber and non-timber forest products etc. in the country at par with the international standards.

- The Ministry of Environment and Forests constituted a Core Group to study the applied rates and the import duties which play a significant role for import of commodities including forestry products and in the multi-lateral/bilateral trade negotiations so that various alternatives may be discussed alongwith objectives and constraints and correct specifications of the models encompassing the timber and other forestry products in raw, semi-finished and finished form, can be formulated.
- The Ministry constituted an Expert/Advisory/ Working Group with an aim to support the implementation of an integrated National Forestry Database Management System (NFDMS) in a comprehensive manner including strengthening of the technological, institutional and human capabilities to ensure continuing and effective dissemination and use of forest statistics.
- On the occasion of World Forestry Day on 21st March, 2007, Hon'ble Minister of Environment & Forests, Government of India released the book 'National Forestry Database Management System - A Vision' which is a compilation of the presentations in the meetings by the Expert Group constituted by the Ministry to guide the development and implementation of the National Forestry Database Management System (NFDMS).

CONSERVATION

MANGROVES AND CORAL REEFS

- The Ministry is at the forefront in regard to conservation and management of mangroves and coral reefs and accords high priority to the conservation and management of Mangroves and coral reefs in the country. The Coastal Regulation Zone Notification (1991) under the Environmental Protection Act (1986) recognizes the mangrove and coral reefs areas as ecologically sensitive and categorizes them as CRZ-I (i) which implies that these areas are accorded protection of the highest order. Under the promotional measures, the Government has identified 28 mangrove areas and four coral reefs areas on a country-wide basis for intensive conservation and management. The National Policy, 2006 recognizes that mangroves and coral reefs are important coastal environmental resources which provide habitats for marine species; protection from extreme weather events; and a resource base for sustainable tourism. The Policy also recognizes that mangroves, as indeed the other coastal resources like coral reefs and coastal forests, face threats from various quarters.
- Mangroves in India account for about 5 per cent of the world's mangrove vegetation and are spread over an area of about 4500 km² along the coastal States/UTs of the country. Sunderbans in West Bengal account for a little less than half of the total area under mangroves in India. The Forest Survey of India is assessing the vegetation cover of the country including mangroves using remote sensing since 1987. West Bengal has maximum of mangrove cover in the

country followed by Gujarat and Andaman & Nicobar Islands. India is home to some of the best mangroves in the world. The Ministry has established a National Mangrove Genetic Resources Centre in Orissa.

CORAL REEFS

The four major coral reefs areas identified for intensive conservation and management are:

- Gulf of Mannar
- Gulf of Kachchh
- Lakshadweep and
- Andaman and Nicobar Islands.
- The Indian reef area is estimated to be 2,375 km². Recognizing that the year 2008 was the International Year of Coral Reefs, the Ministry sponsored a workshop entitled 'Status of Coral Reefs in India' jointly organized by UT Administration of Lakshadweep and National Institute of Oceanography, Goa from 21-23 January, 2008 at Kadamat Islands, Lakshadweep.
- Two tier system at national and State levels are in operation for effective coordination to implement the Scheme on Mangroves and Coral Reefs.

BIOSPHERE RESERVES

Biosphere Reserves are areas of terrestrial and coastal ecosystems which are internationally recognized within the framework of UNESCO's Man and Biosphere (MAB) programme. These Reserves are required to meet a minimal set of criteria and adhere to a minimal set of conditions before being admitted to the World Network of Biosphere Reserves designated by UNESCO. These Reserves are rich in biological and cultural diversity and encompass unique features of exceptionally pristine nature. The goal is to facilitate conservation of representative landscapes and their immense biological diversity and cultural heritage, foster economic and human development which is culturally and ecologically sustainable and to provide support for research, monitoring education and information exchange. The scheme is a pioneering effort at pursuing the increasingly difficult yet urgent task of conserving ecological diversity under mounting pressures. India has been divided into ten Bio-geographic zones and these zones together consist of twenty five bio-geographic provinces. The aim is to designate one representative site as Biosphere Reserve in each bio-geographic province for long term conservation.

- The Ministry has provided financial assistance to the respective State Governments for conservation and management of fourteen Biosphere Reserves designated so far. In addition, Kachchh Biosphere Reserve in Gujarat has been designated as 15th Biosphere Reserve in the country on 29th January, 2008.
- Out of the Fifteen Biosphere Reserves designated nationally, four Biosphere Reserves namely Sunderbans (West Bengal), Gulf of Mannar (Tamilnadu), Nilgiri (Tamilnadu, Kerala and Karnataka) and Nanda Devi, (Uttarakhand) have been included in the World Network of Biosphere Reserves so far. The proposals in respect of Kanchenjunga (Sikkim), Manas (Assam), Simlipal (Orissa) and Pachmarhi (Madhya Pradesh) are in active consideration of the UNESCO for their recognition on the world network. Efforts are being made for

getting remaining Biosphere Reserves included in the World Network of Biosphere Reserves.

- The core areas of the Biosphere Reserves continue to be protected under the Wildlife (Protection) Act, 1972 and Indian Forest Act, 1927 and Forest Conservation Act, 1980. However, separate Regulation within the framework of existing Environment (Protection) Act, 1986 is being firmed up to regulate activities within Buffer Zone of the Biosphere Reserves. Entities of Incomparable Value (EIVs) within Buffer Zones, as defined in the National Environmental Policy, 2008 shall be identified under new regulation.

BIODIVERSITY CONSERVATION

Biodiversity is the variability among living organisms and ecological complexes of which they are part, including diversity within and between species and ecosystems. Biodiversity has direct consumptive value in food, agriculture, medicine and industry. A scheme on biodiversity conservation was initiated earlier to ensure coordination among various agencies dealing with the issues related to conservation of biodiversity and to review, monitor and evolve adequate policy instruments for the same.

- The Convention on Biological Diversity (CBD), one of the key agreements adopted during the Earth Summit held in Rio de Janeiro in 1992, is the first comprehensive global agreement which addresses all aspects relating to biodiversity. The CBD, which has near universal membership with 190 countries as its Parties, sets out commitments for maintaining the world's ecological underpinnings, while pursuing economic development. The Convention, while reaffirming sovereign rights of nations over their biological resources, establishes three main goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources. India is a party to the CBD.
- Eight meetings of the Conference of the Parties (CoP) to the CBD have been held so far. The eighth meeting of CoP was held in Curitiba, Brazil from 20-31 March, 2008.
- Pursuant to a decision of CoP-8, India hosted the Sub-Regional workshop on the Review of and Capacity Building for CBD programme of work on protected areas for South and West Asia regions. The workshop was organized through the Wildlife Institute of India in Dehradun from 2-4 April, 2007.
- In pursuance of CoP-8 decision, four international meetings under CBD have been held so far. These include twelfth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA-12) held in Paris, France from 2-6 July, 2007; second meeting of the Adhoc open-ended Working Group on Review of Implementation of the Convention (WGRI-2) held in Paris, France from 9-13 July, 2007; fifth meeting of Open Ended Working Group on Access and Benefit Sharing (ABSWG-5) held in Montreal, Canada from 8-12 October, 2007; and fifth meeting of Adhoc Open Ended Working Group on Article 8j and related provisions (WG 8j-5) held in Montreal, Canada from 15-19 Oct. 2007.
- Subsequent to the approval of the National Environment Policy (NEP) by the Cabinet in 2006, preparation of a draft NBAP in consonance with the NEP and using the final technical report of the UNDP/GEF project on national Biodiversity Strategy and Action Plan (NBSAP) has been undertaken.

- The National Biodiversity Authority (NBA) set up at Chennai on 1st October, 2003 as per the provisions of the Biological Diversity Act, 2002 is mandated to facilitate implementation of the Act. The Authority has held 3 meetings during the year and taken a number of important decisions including prescribing format of "agreements" to be signed between NBA and other parties seeking access to Genetic Resources And Associated Knowledge and Notification of guidelines on collaborative research. The Authority organized a number of seminars, symposia involving various stake holders to educate and create awareness in regard to provisions of the Act. The NBA has also considered a number of applications relating to access of Biological Resource and related matters.

GENETIC ENGINEERING APPROVAL COMMITTEE

The Ministry under the Environment Protection Act (1986), has notified the "Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Micro Organisms/ Genetically engineered Organisms or Cells 1989" (known as Rules, 1989). The Genetic Engineering Approval Committee, the apex body under the Rules, 1989 has the mandate to approve the large scale trials and commercial release of Living Modified Organisms (LMOs) and ensure that research and development and testing of LMOs prior to release are conducted in a safe and scientific manner. The rules also cover the application of hazardous micro organisms which may not be genetically modified. Hazardous micro organisms include those which are pathogenic to animals as well as plants.

- The Bt technology was deployed in cotton crop through genetic engineering techniques for control of bollworms the major pest thereby reducing the risk of crop failures and use of pesticides. Bt cotton producing a natural insecticide that comes from the ubiquitous soil bacterium known as *Bacillus Thuringiensis* was approved by the Genetic Engineering Approval Committee (GEAC) for introduction in India in 2002 after extensive biosafety and agronomic testing. As of date, the GEAC has approved 135 Bt cotton hybrids expressing Cry 1 Ac gene (MON 531 event) and stacked genes Cry1 Ac and Cry 2Ab (MON 15985 event)-BG-II developed by M/s Mahyco, encoding fusion genes (cry 1Ab+Cry Ac) 'GFM developed by M/s Nath Seeds and cry 1Ac gene (Event-1) developed by M/s J.K. Agrigenetics Ltd. of which 73 Bt cotton hybrids were approved for commercial release in the nine cotton growing states namely Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan and Tamilnadu.
- The Ministry has set up a sub-committee, to review the need for case by case regulation of Bt cotton expressing cry 1Ac (MON 531 event) which has been commercialized and is extensively being cultivated in majority of the cotton growing area since, 2002.

CARTAGENA BIOSAFETY PROTOCOL

The Cartagena Protocol on Biosafety, the first international regulatory framework for safe transfer, handling and use of Living Modified Organisms (LMOs) was negotiated under the aegis of the Convention on Biological Diversity (CBD). The Protocol was adopted on 29th January, 2000. One hundred and forty three countries have signed the Protocol. India has acceded the Biosafety Protocol on 17th January 2003. The Protocol has come into force on 11th September, 2003. As of date, 143 countries are parties to the Protocol.

- The fifth Meeting of the Adhoc Open Ended Working Group on Liability and Redress is scheduled for 12-19 march 2008 at Cartagena, Colombia. India's country position and negotiating text has been prepared based on a consultative approach. The negotiating text has been extensively discussed in the meetings of the Consultative Group on Biodiversity and Biosafety and the Expert Advisory Group on Liability and Redress. The Ministry had also organized a "National Consultation of Liability and Redress" on 14.1.2008 at New Delhi.
- The GEF world Bank Capacity Building Project on Biosafety (June 2004 to June 2007) to implement the Cartagena Protocol has been successfully completed.

The achievements and the success indicators of the Project are as follows :

- Component 1: Strengthening of institutional and legal framework to improve capacity and coordination in decision-making within and across Ministries.
- Component 2: Improved capacity for risk evaluation and management
- Component 3: Strengthening of laboratories/Institutions for analytical detection of LMOs
- component 4: Biosafety Clearing House (BCH) and Enhanced information sharing and public awareness.

ALL INDIA COORDINATED PROJECT ON CAPACITY BUILDING IN TAXONOMY (AICOPTAX)

Taxonomy is the science which helps in exploration, identification and description of living organisms. However, the scope of taxonomy does not end with this. A sound taxonomic base is a pre-requisite for environmental assessment, ecological research, effective conservation, management and sustainable use of biological resources.

- About 90,000 species of animals and 47,000 species of plants have been identified and described so far. A large number of animals and plants are yet to be explored, identified and described.
- As a signatory to the Convention on Biological Diversity (CBD) held in Rio de Janeiro in 1992, India has committed itself to capacity building in taxonomy and taken up exploration and preparation of an inventory of living organisms. The Ministry has set up an All India Coordinated Project on Taxonomy. The Project has organized specialist groups drawn from Universities, Botanical and Zoological Surveys of India to take up taxonomic work on animal viruses, bacteria and archaea, algae, fungi, lichens, bryophytes, pteridophytes, gymnosperms, palms, grasses, bamboos, orchids, helminthes and nematodes, Microlepidoptera and Mollusca.

BOTANIC GARDEN OF THE INDIAN REPUBLIC (BGIR), NOIDA

The BGIR was *inter-alia* set up to facilitate *ex situ* conservation and propagation of rare and threatened indigenous plants of the country, serve as a 'Centre of Excellence' for research and training and thereby cater to the need for conservation of endangered species in the region, and build public awareness on the conservation needs through education on conservation of plant diversity. The BGIR is presently carrying out the basic scientific/technical work to facilitate project execution in context of research/field operations.

- The Programme continued with about 350 plants being introduced in the south eastern section of the woodland to develop a Red Sander Mixed Forests, about

375 plants species being introduced in the northern section of the woodlands for development of Dry Deciduous Gangetic forest subtype, and about 20 species being introduced in the Ficus Arboretum in the western section of the woodland.

UNDP-GOI CCF II Project on promoting Conservation of Medicinal Plants and Traditional Knowledge for enhancing Health and Livelihood Security

The project was initiated in 2005-06 at an estimated cost of Rs. 12.00 crores and is being implemented in nine States. The Foundation for Revitalization of Local Health Tradition (FRLHT), Bangaluru is coordinating the project. The States namely Andhra Pradesh, Kerala, Tamilnadu, Madhya Pradesh, Rajasthan, Orissa, West Bengal, Karnataka and Maharashtra are participating in the project.

- A high Level Project Management Board (PMB) to oversee and facilitate the interdepartmental coordination and an Empowered Project Steering Committee (EPSC) to guide the implementation of the Project have been constituted. The Technical coordination and implementation of the project is being done by the Foundation for Revitalization of Local Health Traditions, Bangaluru. The field level project components are being implemented by the respective State Forest Departments and selected NGOs.
- The Project States have constituted Project Steering Committees and have prepared work plans for their respective components. The process of identification of sites for establishing Medicinal Plants Conservation Areas (MPCAs) in four states, establishment of sustainable harvest of NTFPS and medicinal Plants in three states, need assessment for central seed centers in four states, capacity building for establishing Home Herbal Gardens (HHGs) has started. Rapid Threat Assessment exercises called Conservation Area of Medicinal Plants (CAMP) workshops, as per IUCN guidelines for prioritized medicinal Plants species, are being organized in three states viz; Orissa, Rajasthan and West Bengal.

ASSISTANCE TO BOTANIC GARDENS

The scheme on Assistance to Botanic Gardens and Centers for *ex-situ* conservation was initiated in 1992 to augment *ex-situ* conservation of rare endemic plants. One time financial assistance is provided to the Botanic Gardens and Centres of *ex-situ* Conservation, for improvement of their infrastructural facilities to facilities *ex-situ* conservation of rare endemic plants. The achievements made in these Botanic Gardens are periodically monitored with the help of Botanical Survey of India.

- The Ministry has constituted an Expert Group to identify and recommend proposals received under the scheme. The Botanical Survey of India helps in identification of rare endemic plants requiring *ex-situ* conservation. During the year seven proposals for Botanical Gardens have been approved for funding.
- The revised guidelines for the scheme were circulated to various states for submission of suitable proposals. The Revised Guidelines envisage establishment and promotion of Lead Gardens in each phyto-geographic zone. Based on the criteria prescribed in the guidelines, three proposals have been received for development of 'Lead Gardens' in different phyto geographic zones of the country. These Lead Gardens shall provide necessary expertise for smaller gardens, and shall be equipped with modern facilities.

FOREST CONSERVATION

The mandate of the Forest Conservation Division is to implement the Forest (Conservation) Act, 1980, which was enacted on 25 October, 1980. This Act deals with grant of forestry clearances for diversion of forest lands for non-forestry purposes in respect of development projects like power, roads, railways, irrigation, mining, schools, defence, drinking water, resettlement, rehabilitation of people etc.

- Since its enactment in 1980 till 31st December, 2007, about 16,939 developmental projects involving 11.56 lakh hectares forest area have been granted forestry clearance. These include the projects for power generation, irrigation, construction of roads, railway lines, transmission lines, drinking water supply projects, village electricity, schools, hospitals etc. Out of these, 2244 developmental projects of various categories involving 84275.55 hectares of forest land, have been granted forestry clearance under the Forest (Conservation) Act, 1980 during the year (upto 31st December, 2007)
- Further, to boost the development of underdeveloped area, one time clearance has been granted under Forest (Conservation) Act, 1980 for public utility developmental projects involving not more than one hectare of forest land, to be executed by Government Department namely, schools, dispensary/hospital, electric and telecommunication lines, drinking water, water/rainwater harvesting structures, minor irrigation canal, non-conventional sources of energy, skill upgradation/vocational training centre, power substations, communication posts and police establishments like police stations/outposts/watch towers, in sensitive areas. The Validity of general approval has been further extended upto 31.12.2008
- In tribal areas, general approval under Section-2 of the Forest (Conservation) Act, 1980 has been accorded for underground laying of electric cable and wires to individual household, drinking water supply/water pipelines, telephone lines which involve felling of trees not exceeding 50 numbers per project and are outside the National Parks and Sanctuaries and are laid along the road and validity of general approval has been extended up to 31.12.2008.
- To provide better living conditions to the tribal and rural people, Central government has issued general approval under forest (Conservation) Act, 1980 to permit the right holders recognized under Indian Forest Act, 1927, to collect the stones/slates/boulders etc. from forest areas for their bonafide domestic use subject to certain conditions. No commercial use is permitted under this dispensation.
- Government also issued directions to the State/UT Governments not to evict the tribal and forest dwellers, other than ineligible encroachers, from forest lands till the process of verification of their rights is complete. Fresh guidelines for verification/recognition of rights of tribal forest dwellers on forest land for settlement of disputed claims have also been issued on 3 November, 2005. These guidelines provide for constitution of village level, block level and district level Committees, procedure to be followed, nature of admissible evidence and criteria for accepting claims for settlement of rights.

REGIONAL OFFICES

The Ministry has six Regional Offices located at Bangaluru, Bhopal, Bhubaneswar, Lucknow, Shillong and Chandigarh with its Headquarters in the Ministry at New

Delhi. The primary function of the Regional Offices are to monitor and evaluate the ongoing forestry projects and schemes with specific emphasis on conservation of forests and follow up action on the implementation of conditions and safeguards laid down by the Ministry which granting clearance to development projects under FCA, 1980 and EPA, 1986.

INTEGRATED FOREST PROTECTION SCHEME

Integrated Forest Protection Scheme (IFPS) was being implemented during the 10th Five Year Plan and is being continued during 11th Plan. The Planning Commission has suggested to rename the Scheme as "Intensification of Forest Management" during 11th Five Year Plan. It is proposed to broadbase the scheme by including following two new components in addition to the existing components of IFPS i.e. Infrastructure Development & Forest Fire Control Management.

NEW COMPONENTS

- Conservation and Restoration of unique vegetation and Eco-systems.
- Protection and Conservation of Sacred Groves.
- Joint Forest Management (JFM) - the conceptual frame work for JFM emphasizes development of partnerships with forest fringe people. Guidelines on JFM have been updated from time to time focusing on the management and utilization of NTFPs in coordination with PRIs at various levels. Presently there are 1,06,479 JFMCs managing on extent of 22.02 mha. involving 21.99 million people of forest area.

Management of Gregarious Flowering of Muli Bamboos in North-Eastern States of India

The Scheme has been finally approved on 30 March, 2006 by the Planning Commission and the Ministry of Finance for implementation from 2005-06 to 2008-09 with a total project outlay of Rs. 85.00 crore. A total of seven NE states are implementing the project along with ICFRE.

FOREST POLICY

Non-Legally Binding International Instrument for sustainable development of all types of forests has been agreed to as Global Forest Policy by all member countries of the United Nations and adopted by General Assembly. The Government of India has assigned the ownership of minor forest produce to the people living in and around forests for the purpose of collection, processing, trade and marketing through a national level legislation named as the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest rights) Act, 2006. This will help the forest dependent people to improve their economy, and will also enhance contribution of forests towards achievement of Millennium Development Goals (MDGs).

- National Forest Commission (NFC) is the first of its kind ever. Constituted earlier, it submitted its report on 28 March, 2006. The Commission took a view for long term betterment of Forests and wildlife in India as well as safeguarding the interest of forest dependant communities and also maintained the national commitment for ecological security of the country as mandated in National Forest Policy.
- The report examined the current status of forests, review of forest policy, legal framework, institution and administrative structure of forestry sector. The goals and constraints of the forestry sector, approach to forests, wildlife and nature

conservation, farm and agro-forestry, centre-state relations, forest and local communities have been considered in depth. The report also examined forest related international instruments, forestry research, relation between forestry and industry, forests and local communities in depth.

- A National Level Consultation on the implementation of Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 was convened on 25 June, 2007 with state/UT Governments and other central Ministries on the implementation of this legislation. Forest Secretaries, PCCFs and Chief Wildlife Wardens of the State/UT Governments participated and expressed their views.

WILDLIFE CONSERVATION

The Indian Constitution entails the subject of forest and wildlife in the Concurrent list. The Federal Ministry acts as a guiding torch dealing with policies and planning on wildlife conservation while the State Forest Departments have been vested with the responsibility of implementation of national policies and plans. To combat wildlife related crimes, a Wildlife Crime Control Bureau under the Director, Wildlife Preservation has been constituted with five Regional Offices viz., Delhi, Mumbai, Kolkata, Chennai and Jabalpur and three Sub-regional offices at Amritsar, Guwahati and Cochin. The Ministry provides necessary technical and financial support to the State Governments for wildlife conservation under various Centrally Sponsored Schemes (CSS) which include schemes for Development of National Parks and Sanctuaries. Project Elephant, Central Sector Scheme on Strengthening of Wildlife Division, and through Grants in Aid to the Central Zoo Authority and the National Tiger Conservation Authority (NTCA).

- The Protected Area network in India includes 99 National Parks and 513 Wildlife Sanctuaries, 41 Conservation Reserves and four Community Reserves. Realizing the gigantic task of managing our protected areas, the National Wildlife Action Plan (2002-2016) was adopted in 2002, emphasizing the peoples participation and their support for wildlife conservation.
- The Ministry had undertaken an independent evaluation of National Parks and Wildlife Sanctuaries in the country by a group of experts to ascertain how effectively the Protected Area (PA) network in the country performs in realizing the conservation objectives as well as the social objectives for effective wildlife management. Five regional committees of experts have also been constituted for the purpose. During the first phase, 30 Protected Areas were evaluated.
- Government of India has formulated an Action Plan for Vulture Conservation which is being implemented in collaboration of States/UTs to stem the decline and put the vulture population on growth path. The Government has supported breeding centres at Pinjore in Haryana, Buxa in West Bengal and Rani Forest in Assam. Captive breeding centres in four zoos at Bhopal, Bhubaneswar, Junagarh and Hyderabad have also been setup through CZA. The Plan at these centres are at various stages of implementation.
- The Wildlife Crime Control Bureau has been constituted through amendment of the Wildlife (Protection) Act, 1972 in 2008. The powers and function of the bureau have been defined under Section 38z of the Act.

- With the creation of the bureau, the four regional offices have been integrated with it along with their sub regional offices. A new regional office at Jabalpur has also been constituted.
- The fourth meeting of the National Board for Wildlife was held on 1st November, 2007 under the Chairmanship of Hon'ble Prime Minister. The important decisions taken during the meeting include setting up of a sub-committee for recovery programme of endangered terrestrial species and for conservation of marine species.
- The Standing Committee of National Board for Wildlife was re-constituted vide order dated 9th July, 2007 and the meeting of the re-constituted Committee was convened on 10th September, 2007 under the chairmanship of Hon'ble Minister for State for Forests & Wildlife.
- The Ministry is the nodal agency for the various international conventions related to climate change, bio-diversity, wildlife conservation etc. India is a party to five major international conventions related to wildlife conservation, viz. Convention of International Trade in Endangered Species of wild fauna and flora (CITES). International Union for Conservation of Nature and Natural Resources (IUCN). International Whaling Commission (IWC), United Nations Educational, Scientific & Cultural Organization-World Heritage Committee (UNESCO-WHC) and the Convention on Migratory Species (CMS).
- The 14th Conference of Parties to the CITES was held at The Hague, Netherlands from 3-15 June, 2007. A delegation from India had participated in the conference. The Hon'ble Minister for Environment & Forests, also participated in the Ministerial Round Table held on 13th June, 2007 in connection with the COP 14. The Indian delegation actively participated and intervened in various agenda, particularly, in those which were of national interest or indirectly affected country's conservation efforts. India's initiatives in conservation of Asian Big Cats and Tibetan Antelope were much appreciated. The COP also acknowledged with appreciation, the establishment of Wildlife Crime Control Bureau by India. India informed the convention regarding various initiatives taken by the country to strengthen the conservation of tigers. This included, *inter alia*, the 2006 amendment to Wildlife (Protection) Act for creation of National Tiger Conservation Authority and wildlife Crime Control Bureau. India further appealed to the international community to desist from any proposed move to go for commercial breeding of tigers as it can have devastating impacts on tiger population. There after, India, China, Nepal, Russian Federation and USA moved a joint resolution for strengthening tiger conservation that was adopted by the convention.
- India is a member of World Heritage Convention responsible for listing of World Heritage Sites, which include both cultural and natural sites. Wildlife wing of the Ministry is associated with conservation of the Natural World Heritage sites.
- Considering the importance of World Natural Sites in India, an externally aided project has been undertaken titled "World Heritage Bio-diversity Programme for India: Building Partnerships to support UNESCO's World Heritage Programme". This project is an outcome of planning grant received from the UNESCO & United Nation Foundation (UNF) and was developed under the

guidance of a Project Steering Committee chaired by the Addl. Director General of Forests (WL), of the Ministry.

- Under the auspices of Convention on the Conservation of Migratory Species of wild animals (CMS), the 6th Meeting of the Range States for Conservation of Siberian Cranes was held at Almaty, Kazakhstan. During the meeting, Keoladeo National Park, Rajasthan has been accorded as a potential wintering site for Siberian Cranes. Two more potential sites, viz, Etawah-Mainpuri Wetlands in Uttar Pradesh and Banni Grasslands in Gujarat, are also under consideration for conservation of Siberian Cranes.
- The 59th Annual meeting of the International Whaling Commission was held at Anchorage, Alaska from 28-31 May, 2007. An Indian delegation attended the meeting. India had played a proactive role during the meeting in its efforts to conserve the whale population in the world.
- India has joined hands with United States of America and other partners against the illegal wildlife crime/trafficking by joining Coalition Against Wildlife Trafficking (CWAT). First meeting of the Ministerial partners of the coalition was held in Nairobi on 10th Feb, 2007. Hon'ble Minister of Environment and Forests attended this meeting. It was a follow up of the preparatory meeting held in London on 20-21 November, 2006, which was also attended by India.
- Established in 1982, Wildlife Institute of India (WII) is an autonomous institution under the administrative control of the Ministry and has been recognized as a country's premier training and research institution in the field of wildlife conservation. The Institute was awarded the Rajiv Gandhi Wildlife Conservation Award in 1999 in the institutional category by the MoEF for its outstanding performance and activities.

CENTRAL ZOO AUTHORITY

The Central Zoo Authority (CZA), established by the Government of India in the year 1992 through an amendment in the Wild Life (Protection) Act, 1972 oversees the functioning of Zoos and enforces minimum standards and norms for upkeep and health care of animals in Indian Zoos and restrains mushrooming of unplanned and illconceived Zoos that were cropping up as adjuncts to public parks, industrial complexes and waysides. The Central Zoo Authority has been reconstituted sixth time in the month of September, 2007 with Minister of State, Environment and Forests (Forests & Wildlife) as the Chairman. The Central Zoo Authority is a 12 member body headed by the Chairman. The Member Secretary is the Chief Executive Officer of the Authority. There is a 15 member contingent in the office of the Central Zoo Authority for discharge of its mandated functions.

- Thirty nine different Zoos and Rescue Centres have been evaluated during the year. Out of which, 33 Zoos/Rescue Centres have been given conditional recognition. Six Mini Zoos/Rescue Centres have been de-recognized during the period.
- Sixty one different critically endangered wild animal species have been identified for coordinated conservation breeding programme in Indian Zoos. This has been done after a series of meetings with Chief Wild Life Wardens and Zoo Directors of the concerned States. Meetings at Guwahati (for the endemic species of North East), New Delhi (for high altitude Himalayan species) and Ooty (for endemic species of Western Ghats) were organized for the purpose.

- Funds for creation of off-display conservation breeding centres for Vultures (Junagarh, Bhopal, Hyderabad and Bhubaneswar), Painted roof turtle (Kukril) Blyth's tragopan (Rangapahar), Hume's pheasant (Aizawl) and Pangolin (Bhubaneswar) were released during the year.
- A Memorandum of Understanding (MoU) has been signed with Wildlife Institute of India, Dehradun for establishment of National Studbook Cell for maintaining National Studbooks of all the endangered wild animal species taken up for coordinated conservation breeding.
- Eleven proposals for exchange of animals between Indian Zoos and seven such proposals between Indian and foreign Zoos were approved by the Central Zoo Authority during the year.
- Hands on trainings for Zoo Veterinarians on control of avian influenza were organized at New Delhi (Northern region) and Chennai (for rest of India). One day workshop on Conservation of bustards was organized at New Delhi involving Chief Wild Life Wardens from the concerned States and other experts.

PROJECT TIGER (NATIONAL TIGER CONSERVATION AUTHORITY)

The Centrally Sponsored Scheme 'Project Tiger' was launched in April, 1973 with the objective "to ensure maintenance of the viable population of Tigers in India for scientific, economic, aesthetic, cultural and ecological values, and to preserve for all times, areas of biological importance as a national heritage for the benefit, education and enjoyment of the people".

- Amendment of the Wild Life (protection) Act, 1972 for providing enabling provisions for constitution of the National Tiger Conservation Authority and the Tiger and other Endangered Species Crime Control Bureau. The punishment in cases of offence within a tiger reserve has been enhanced. The Act also provides for forfeiture of any equipment, vehicle or weapon that has been used for committing any wild life offence.
- 100% Central Assistance provided to 17 Tiger Reserves as an additionality for deployment of Tiger Protection Force, comprising of ex-army personnel and local workforce.
- Constitution of the National Tiger conservation Authority with effect from 4.09.2006, for strengthening tiger conservation by, *inter alia*, ensuring normative standards in tiger reserve management, preparation of reserve specific tiger conservation plan, laying down annual/audit report before Parliament, constituting State Level Steering Committees under the Chairmanship of Chief Ministers and establishment of Tiger Conservation Foundation.
- Constitution of a multidisciplinary Tiger and Other Endangered Species Crime Control Bureau (Wildlife Crime Control Bureau) with effect from 6.6.2007 comprising of officers from Police, Forest, Customs and other enforcement agencies to effectively control illegal trade in wildlife.
- Approval accorded for declaring eight new Tiger Reserves.
- The revised Project Tiger guidelines have been issued to States for strengthening tiger conservation, which apart from ongoing activities, *inter alia*, include funding support to States for enhanced village relocation/rehabilitation package for people living in core or critical tiger habitats (from Rs.1 lakh/family to Rs.10 lakhs/family, rehabilitation/resettlement of communities involved in traditional hunting and mainstreaming livelihood and wildlife concerns in forests outside

tiger reserves and fostering corridor conservation through restorative strategy to arrest habitat fragmentation.

- A scientific methodology for estimating tiger (including co-predators, prey animals and assessment of habitat status) has been evolved and mainstreamed. According to the refined methodology, an estimated land of 93697 km² has been observed as tiger habitat. The estimated number of tigers is 1411 (with an upper limit 1657 & lower limit 1165 as per the refined scientific methodology). The findings of this estimation/assessment are bench marks for future tiger conservation strategy.
- India has a Memorandum of Understanding with Nepal on controlling transboundary illegal trade in wildlife and conservation, apart from a protocol on tiger conservation with China.
- A Global Tiger Forum of Tiger Range Countries has been created for addressing international issues related to tiger conservation.

PROJECT ELEPHANT

Project Elephant was launched in February, 1992 to assist States having free ranging populations of wild elephants to ensure long term survival of identified viable populations of elephants in their natural habitats. The Project is being implemented in States, viz Andhra Pradesh, Arunachal Pradesh, Assam, Jharkhand, Karnataka, Kerala, Meghalaya, Nagaland, Orissa, Tamilnadu, Uttarakhand, Uttar Pradesh and West Bengal. States are being given financial as well as technical assistance in achieving the objectives of the Project. Help is also provided to other States with small populations of elephants for the purpose of census, training of field staff and mitigation of human elephant conflict.

- Assistance was provided to Haryana for creation of first elephant rehabilitation centre in the country.
- All India estimation of elephant was carried out in May 2007 all over India except the North East states where it will be done in winter due to climatic conditions. The preliminary reports indicate increase in population compared to 2002 census.
- Permission was given for creation of three more Elephant reserves - two in Chhattisgarh namely - Lemru & Badalkhod and; Deomali in Arunachal Pradesh.

ANIMAL WELFARE

The Animal Welfare Division is entrusted with the implementation of the provisions of the Prevention of Cruelty to Animals Act, 1960 (59 of 1960). Plan Schemes are in operation for implementation of the statutory obligations under this Act. Two statutory organizations viz. Animal Welfare Board of India (AWBI) and committee for the Purpose of Supervision and Control of Experiments on Animals (CPCSEA) have also been set up under this Act. The mandate of the Animal Welfare Division is to prevent the infliction of unnecessary pain or suffering on animals.

- Under the scheme for shelter houses for looking after the animals grant is provided to establish and maintain shelter houses for distressed animals in the country. Primarily, Non-Governmental Organisations (NGOs) and Society for Prevention of Cruelty to Animals (SPCAs) are given grants of upto Rs. 22.50 lakhs for construction of boundary walls, shelters, water tank, drains, in-house

dispensary, medical equipment, contingencies etc. In the current financial year, 13 shelter houses have been constructed up to November 2007.

- In the current financial year, under the Scheme for Birth Control and Immunization of Stray Dogs, 33,222 animal birth control operations have been conducted upto November 2007.
- Under Scheme for Provision of Ambulance Services to Animals in Distress, 22 ambulances have been given to Animal Welfare Organisations (AWOs) upto November , 2007
- The Animal Welfare Board of India (AWBI) has granted recognition to 55 newly established Animal Welfare organizations (AWOs) during the year.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

Environmental Impact Assessment is a process by which the developmental activities are appraised by the Ministry. This is to ensure that environment concerns are integrated in the developmental activities in order to achieve sustainable development. The process of EIA which was started in 1978-79 with river valley projects has now extended to about 39 activities. The major statutory regulations governing EIA are EIA Notification of 2006 and Coastal Regulation Zone (CRZ) Notification. 1991.

- The EIA notification of 2006 has been in operation during the year along with the EIA notification of 1994. A total number of 1412 proposals were accorded in Environmental Clearance during 2007-2008 (April-December). The sector wise clearance accorded was as follows:

S. No.	Activity	No. of proposals Accorded Environment Clearance
1.	Industry	371
2.	Thermal Power	77
3.	River Valley and Hydroelectric	22
4.	Mining	335
5.	Infrastructure and Miscellaneous	107
6.	Construction Projects	500
Total		1412

- The Ministry has sought assistance from the World Bank for implementation of Integrated Coastal Zone Management which includes vulnerability line mapping all along the coast, mapping of coastal ecological sensitive areas, institutional strengthening and capacity building etc. For demarcation of vulnerability line on pilot scale six sites have been identified.
- For ensuring compliances to the environmental clearances in various sectors, Monitoring is undertaken by the six Regional Offices alongwith the State/UT and Central Pollution Control Board. Based on the monitoring reports suggestions are made for improvement in environmental management practices

in addition, interactive meetings were also organized during the year with proponents at Bhubaneswar, Lucknow, Mumbai, Jaipur etc., to facilitate understanding of cross sectoral issues related to implementation of environmental project.

ABATEMENT OF POLLUTION

CONTROL OF POLLUTION

The Concern for environmental quality has become the utmost issue in the present scenario of increasing urbanization, industrial and vehicular pollution as well as pollution of water courses due to discharge of effluents without conforming to the environmental norms and standards. Realizing this trend of pollution in various environmental media like air, water, soil etc., the Ministry adopted policy for abatement of pollution, which provides multi-pronged strategies in the form of regulations, Legislations, agreements, fiscal incentives and other measures to prevent and abate pollution. The give effect to various measures and policies for pollution control, various steps have been initiated which include stringent regulations, development of environmental standards, control of vehicular pollution, spatial environmental planning etc.

- The monitored ambient air quality data indicates that the levels of Sulphur Dioxide and Oxides of Nitrogen are within the notified ambient air quality norms. However, on certain occasions, the values of Suspended particulate Matter (SPM) are exceeding the prescribed norms due to the meteorological conditions.
- During the 10th Plan period, financial assistance of Rs. 24.98 crore was provided under the scheme, assistance for Abatement of Pollution, against the approved outlay of Rs. 24.5 crore to various State Pollution Control Boards/UT Pollution Control Committees, Environment Departments, Central/State Research Institutions and other government agencies/organizations with the aim of strengthening their technical capabilities to achieve the objectives of the Policy Statement, salary support to North-Eastern Pollution Control Boards and Committees as well as for undertaking projects for abatement of pollution.
- To evaluate contribution from various sources to air quality, Source Apportionment Study (SAS) has been initiated for six cities namely, Delhi, Bangaluru, Chennai, Mumbai, Pune and Kanpur involving the Institutions like National Environmental Engineering Research Institute (NEERI), Nagpur. The Energy and Resources Institute (TERI), New Delhi, Indian Institute of Technology (IIT), Chennai, Automotive Research Association of India (ARAI), Pune and Indian Institute of Technology (IIT), Kanpur, For appraisal and guidance during the Survey and study, a National level Steering Committee under the chairmanship of Secretary (E&F) has been constituted. In order to provide technical assistance and guidance during data collection, use of appropriate model etc., a Technical Committee has also been constituted under the chairmanship of Chairman, Central Pollution Control Board (CPCB) and members drawn from various technical institutions and organizations.

- During the year 2007-08, standards in respect of following category of industry have been evolved and are being finalized for notification:
- Petroleum Oil Refinery;
 - Sulphuric Acid Plant;
 - Common Hazardous Waste Incinerator;
 - Sponge Iron Plant; and
 - Coffee Industry;
- The noise limits for Diesel Generator (DG) sets up to 1000 KVA were notified in May, 2002 and are under implementation since 1st January, 2005. The Ministry has issued a draft notification in November, 2007 inviting suggestions for amending the said notification on 'Noise Limit For Generator Sets Run with Diesel' under Environment (Protection) rules, 1986 so as to make the definition of 'manufacture' broad based by including assemblers of DG sets and to facilitate transportation of DG sets above 250 KVA capacity without comprising with emission and noise norms.
- The tenure of the Loss of Ecology (Prevention and Payments of Compensation) Authority for the State of Tamilnadu has been extended upto December 28, 2008 vide IV S.O. 2228 (E) dated 31-12-2007.
- During the year 2007-08, eleven Laboratories have been recognized by the Central Government under E (P)A, 1986 (till February, 2008).
- A total of 118 Waste Minimization Circles (WMCs) have been established in 41 industrial sectors through which 600 small and medium industries have been benefited. In this process, 39, WMC Facilitator Organizations have taken an initiative in establishing WMCs under the guidance of National Productivity Council. The WMC training programmes are integral part of the activity for which the Government of India funding under the scheme is utilized. The participating organizations facilitate NPC in conducting the training programme by providing necessary logistic assistance.
- During the year 2007-08, an amount of Rs. 167.33 crore were collected by SPCBs/PCCs and Rs. 76.52 crore were reimbursed to different SPCBs and PCCs by the Central Government.
- An Experts' Committee on Noise Pollution Control has been exploring the idea of formulating suitable legislations in the country on aircraft/airport noise. As a first step, a 'Draft Procedure for Monitoring Ambient Noise Level due to Aircrafts' has been prepared considering prevalent noise monitoring procedure practiced internationally and also based on the results of the detailed noise monitoring conducted in an around IGI International airport. The objective of this document is to specify suitable requirements and procedures for airport authorities to carry out monitoring ambient noise level due to aircrafts around airports.
- Central Pollution Control Board (CPCB) coordinated with the Ministry in preparation of 'National Policy Document on Management of Hazardous Waste' and revision of Schedule 3 (list of wastes applicable for import & export for reprocessing, Schedule 4 (list of wastes, the reprocessing of which need

registration from Central Pollution Control Board) and Schedule 8 (list of wastes prohibited for import and export of hazardous wastes) of the Hazardous Waste (Management & handling) Rules, 1989 as amended in 2003. The final draft of 'National Policy Document on Management of Hazardous Waste' and proposed draft amendments to Schedule 3, Schedule 4 and Schedule 8 of the Hazardous Waste (Management & Handling) Rules has already been forwarded for consideration.

- Common Biomedical Waste Treatment Facilities (CBWTF) have been set up in various cities for treatment of Bio-medical waste generated in various hospitals, nursing homes. In North Zone 28 CBWTF have been established. Out of these, 8 common facilities were inspected. In central zone, 18 CBWTFs have been established. Out of these, 15 common facilities were inspected. In South Zone 10 CBWTFs facilities were inspected. In West Zone 31 CBWTF have been established and out of these, nine common facilities were inspected.
- Nationwide water quality is monitored regularly under National Water Quality Monitoring Programme (NWMP) through a network of water quality monitoring comprising 1019 stations in 27 States and six Union Territories is being operated by CPCB in collaboration with concerned SPCBs/PCCs. The monitoring network covers 592 monitoring stations on 200 rivers, 65 monitoring stations on 60 lakes, 5 monitoring stations on each on five tanks, three monitoring stations on three ponds, three monitoring stations on three creeks, 13 stations on 13 canals, 17 stations on 17 drains and 321 stations on 321 wells. The monitoring is undertaken on monthly or quarterly basis in surface waters and on half yearly basis in case of ground water.
- Nationwide air quality is monitored regularly under National Air Quality Monitoring Programme (NAMQP) through a network of water quality monitoring comprising 332 operating stations at 121 cities/towns in 25 States and four Union Territories of the country are being operated. Under NAMQP, four air pollutants viz., Sulphur Dioxide (SO_2), Oxides of Nitrogen as NO_2 and Suspended Particulate Matter (SPM) and Respirable Suspended Particulate Matter (RSPM or PM_{10}), have been identified for regular monitoring at all the locations. The monitoring of meteorological parameters such as wind speed and direction, relative humidity and temperature also been integrated with the monitoring of air quality. The monitoring of pollutants are carried out for 24 hours (4-hourly sampling for gaseous pollutants and 8-hourly sampling for particulate matter) with frequency of twice a week, to have 104 observations in a year.
- Analysis of National mean concentration with 90th percentile and 10th percentile for SO_2 , NO_2 , RSPM and SPM has revealed that National mean SO_2 concentration has decreased over the years indicating that there has been a decline in SO_2 levels. National mean NO_2 and RSPM concentration has remained stable over the years despite increase in emission sources such as vehicles. The reason for this may be various intervention measures that have taken place such as improvement in vehicle technology and other vehicular pollution control

measures like alternate fuel etc. National mean SPM concentration has been fluctuating over the years.

MANAGEMENT OF HAZARDOUS SUBSTANCES

The major functions of the Hazardous Substances Management Division (HSMD) include regulatory activities for framing necessary Rules relating to environmentally sound management of hazardous wastes/chemicals, plastics and municipal solid wastes under the Environment (Protection) Act, 1986 and promotional activities by providing necessary financial support to the concerned agencies for their implementation. The Division is also responsible for planning, overseeing and implementation of the policies and programmes on the management of chemical emergencies and hazardous substances including hazardous wastes. The mandate of this Division is to promote safety in the management and use of hazardous substances including hazardous chemicals and hazardous wastes with an objective to prevent and mitigate damage to health and environment due to hazardous chemicals and wastes.

- A fresh draft Notification of Hazardous Waste Management Rules has been published on 28th September, 2007 for seeking public comments. The title of the proposed Rules is 'Hazardous materials (Management, Handling & Transboundary Movement) Rules, 2007. The time for providing objections/suggestions on the said Draft Rules was over on 28th November 2007. The proposed Draft Rules would repeal the Hazardous Waste (Management & Handling) Rules, 1989 and amendments thereof. The comments on the draft Notification have been received from various organization and are being examined.
- Financial assistance for conducting training programmes on Emergency Preparedness and Accident Prevention has been provided to National Safety Councils, Associated Chambers of Commerce and Industry and other state run institutions. The main objective of the programme is to effectively prepare, prevent and mitigate emergencies arising due to chemicals and to impress upon the concerned people regarding the necessity of emergency preparedness and response.
- A Red Book containing duties to be performed during emergency, names, addresses and telephone numbers of key functionaries of the Ministry, State Governments, State Pollution Control Boards, Chief Inspectorate of Factories, and Experts/Institutions is published and circulated.
- Global Environment fund (GEF) has sanctioned the grant for the preparation of India's National Implementation Plan of the Stockholm Convention on Persistent Organic Pollutants (POPs).
- An Inter-Ministerial delegation from India participated in the Open-ended Adhoc Working Group on Non-compliance and the 2nd Conferences of Parties of the Stockholm Convention on Persistent Organic Pollutants from 25th -27th April, 2007 and 30th April - 4th May, 2007 in Dakar, Senegal.
- Training workshops for stakeholders on Bio-medical Waste Management for effective implementation of Bio-Medical Waste (Management & Handling) Rules, 1998 as amended in 2000 and 2003, were conducted in the States of Gujarat,

Uttar Pradesh & Chandigarh and Andhra Pradesh by M/s Safety Action Group (Vadodara), Advanced Management Institute (Delhi) and M/s C.P.R. Environmental Education Centre (Chennai), respectively during the year.

CONSERVATION OF WATER BODIES

NATIONAL RIVER CONSERVATION DIRECTORATE (NRCD)

The National River Conservation Directorate, functioning under the Ministry is engaged in implementing the River and Lake Action Plans under the National Lake Conservation Plan (NLCP) & National River Conservation Plan (NRCP) by providing assistance to the State Governments.

- The objective of NRCP is to improve the water quality of the rivers, which are the major water sources in the country, through the implementation of pollution abatement works, to the level of designated best use. So far a total of 35 rivers have been covered under the programme.
- Major works being taken up under the NRCP include interception and diversion works to capture the raw sewage flowing into the river through open drains and divert them for treatment, setting up sewage treatment plants for treating the diverted sewage, construction of low cost sanitation toilets, construction of electric crematoria and improved wood crematoria to conserve the use of wood, river front development, afforestation on the river banks, public participation & awareness etc.
- Works under Ganga Action Plan Phase-II (presently part of National River Conservation Plan) are taken up in 59 towns along the main stream of river Ganga at an approved cost of Rs. 663 crore.
- The Ministry of Environment and Forests have received financial assistance of Yen 13.33 billion from the Japan Bank for International Cooperation (JBIC) for implementation of Yamuna Action Plan (YAP) Phase II, which is part of the National River Conservation Plan (NRCP).
- Under the Gomti Action Plan Phase-I, out of 31 sanctioned schemes, 26 schemes have been completed. A total of 42 mid STPs capacity had already been created under this Plan.
- Besides the river Ganga and its tributaries covered under GAP-I and GAP-II the NRCD has taken up the pollution abatement projects of 14 other States covering 30 rivers and 68 towns.
- The water quality of river Ganga is being monitored at 27 locations from Rishikesh in Uttarakhand to Uluberia in West Bengal by institutions such as Pollution Control Research Institute (Haridwar), CPCB Zonal Office Lucknow, Indian Institute of Technology, Kanpur, Patna University and Bidhan Chandra Krishi Vishwavidyalaya, Kalyani. As a result of the projects completed under Ganga Action Plan, the water quality of river Ganga has shown a general improvement despite tremendous population growth along the river banks.
- The water quality monitoring has also been undertaken for rivers namely, Yamuna, Western Yamuna Canal, Gomti, Hindon, Satluj (Punjab), Cauvery (Tamilnadu), Tunga, Bhadra, Tungbhadara in Karnataka and waterways of Chennai. The number of monitoring stations presently are 158 in 10 rivers

which include 27 stations set up in the upper reaches of Ganga and 32 stations of Chennai waterways.

- A total of 33 projects for conservation of 49 lakes have been sanctioned in 13 States at a total estimated cost of Rs. 632.62 crore. Conservation works for 11 lakes have been completed so far whereas in some cases the project implementation is in last stages of completion. Funding pattern under NLCP (w.e.f. February, 2002) is on a 70:30 cost sharing between the Central and the State Governments.
- The 12th World Lake Conference (Taal 2007), a biennial event under the aegis of International Lake Environment Committee (ILEC) Foundation, was organized by the Ministry, at Jaipur, Rajasthan from 28th October to 2nd November, 2007. The State Govt of Rajasthan was the co-host for this mega event. The central theme of the Conference was 'Conserving Lakes & Wetlands for Future'. Other main objectives included identifying the issues concerning lakes and wetlands along with restoration approaches under different conditions adopted by different countries.
- The Conference was inaugurated by Hon'ble President of India, Smt. Pratibha Devisingh Patil on 29th October, 2007 in the presence of other dignitaries including Hon'ble Governor and Chief Minister of Rajasthan. As many as 600 delegates comprising nearly 150 overseas delegates from different parts of the world, attended the Conference with their oral or poster presentations on their studies pertaining to the subject matter. The Jaipur Declaration was adopted at the Valedictory session, to work upon as a follow up action of the Conference.

NATIONAL WETLANDS CONSERVATION PROGRAMME

The scheme on conservation and management of Wetlands was initiated in 1987 to lay down policy guidelines for implementing programmes of conservation and management of wetlands in the country, to undertake priority wetlands for intensive conservation measures to monitor implementation of the programme of conservation, management and research, and to prepare an inventory of Indian wetlands.

- Number of wetlands under Wetland Conservation Programme increased from 27 in 2004 to 71 in 2005 and to 103 in January 2008.
- A brochure on 'National Wetland Conservation—An approach and Guidelines' was released on the eve of 2nd February, 2007 which has now been published and circulated to all the user agencies.
- Management Action Plans (MAPs) of 36 wetlands have been approved and financial assistance sanctioned. Cases of 10 more M.A.Ps, for newly identified wetlands are being taken up.
- Twenty five sites have already been designated as Ramsar sites in India till date;
- India has been nominated on Board of Directors of Wetland International and on request from India. Meeting of Board of Directors of Wetland International was held in New Delhi at Manesar during 19-20 October, 2005, About 23 countries participated. India chaired one of the sessions and efforts made by India in wetland conservation were highly applauded by all the participating countries.

REGENERATION AND ECO-DEVELOPMENT

NATIONAL AFFORESTATION AND ECO-DEVELOPMENT BOARD

In order to promote afforestation, tree planting ecological restoration and eco-development activities in the country, the National Afforestation and Eco-development Board (NAEB) was set up in August 1992. Special attention is also being given by the NAEB for the regeneration of degraded forest areas and lands adjoining forest areas, national parks, sanctuaries and other protected areas as well as the ecologically fragile areas like the Western Himalayas, Aravallis, Western Ghats etc.

- Seven hundred forty three FDAs have been operationalised so far, since the launch of the FDA mechanism in 2000-01, at a cost of R. 1,920.69 crores to treat a total area of 12.31 lakh ha. (as on 19.11.2007). Bamboo Plantation, Medicinal Plants and Biofuel have been given adequate focus under NAP during the Tenth Plan period. Rehabilitation of shifting cultivation lands have been given specific focus under the programme, and so far 25 Jhum projects have been sanctioned in NE States and in Orissa. Rs. 193.23 crore was released to FDA's during the year 2007-08 for implementation of National Afforestation Programme (NAP) (As on 19.11.2007)
- Financial assistance to the tune of Rs. 2.56 crores was released during the current financial year 2007-08 (upto 27.12.2007) to 58 implementing agencies out of which 56 are voluntary agencies for tree plantation and two State Forest Departments for setting up of High Tech Nursery.
- Four Eco Task Force (ETP) Battalions are being supported under the Eco Development Forces (EDF) Scheme. These battalions are located at Pithoragarh, Samba, Bikaner, and Dehradun. Two new battalions have been approved in Assam.
- All ETF Battalions have undertaken works like raising nursery, and plantation and protection measures to protect the plantation area. They have also constructed stone dam as also other soil and moisture conservation works. Besides, the battalions also take up maintenance of old plantations.
- Under UN Convention to Combat Desertification (UNCCD), a pilot project was taken up to finalize the indicators of desertification and also to evolve and standardize national level classification and methodology for desertification. Degradation Status Map (DSM) for the entire country has been prepared using Indian Remote Sensing (IRS), AWIFS images on 1,500.000 scale. This map is useful in planning for activities to reverse and arrest land degradation and also for periodic monitoring.
- India participated in the 5th Meeting of the Committee to Review Implementation of the Convention (CRIC) of UNCCD held at Buenos Aires, Argentina from 12-21 March 2007.
- India participated in the 8th Meeting of Conference of Parties (COP), UNCCD from 3-14 September, 2007 at Madrid, Spain. The CDP approved the Ten Year Strategic Plan (2008-2018) of UNCCD. The new plan restructures the working of the Committee on Science & Technology (CST), the Committee for the review of implementation of the Convention (CRIC) and the Global Mechanism in terms of priorities and reporting procedures.

- India participated in the Regional Implementation mechanism meeting for Asia-Pacific region for Commission on Sustainable Development (CSD) on 25-28 November, 2007 at Jakarta, Indonesia. A common strategy for Asia Pacific region relating to the progress on the thematic issues and challenges therein were deliberated in the meeting.

RESEARCH

ENVIRONMENTAL RESEARCH

Research in multi-disciplinary aspects for environmental and ecosystems protection, conservation and management at various universities, institutions of higher learning, national research institutes and non-governmental organizations in identified thrust areas under its Research & Development (R&D) programme continued to be funded by the Ministry. It is a Central Plan Scheme for supporting research in environment since 1985. The objectives of the scheme are to generate information required to develop strategies, technologies and methodologies for better environmental management. It also aims at attempting solutions to the practical problems of resource management, conservation of natural resources and eco-regeneration of degraded areas. Further, the scheme also aims at strengthening infrastructure to facilitate research and scientific manpower development.

- During the year 2007-08, Ministry brought out new guidelines for supporting research clearly indicating the order of priority and broad research themes in the identified thrust areas. Six Thematic Expert Groups have been constituted by merging various research funding programmes of the Ministry during the year.
- Under the Thematic Group Prevention, Abatement and Control of Pollution three programmes/schemes are covered namely i) Environment Research ii) National River Conservation and iii) Climate Change /Clean Technologies, During the year four meetings of the Thematic group were held to consider the new / revised proposals & review / monitor the ongoing / completed projects Sixty nine new projects were considered by the Expert Group. Based on the recommendations of the Expert Group 28 new projects have been sanctioned (Annexure-III) during the period. Progress of 46 ongoing projects was reviewed and monitored during the year. The Expert Group also reviewed the FTR of 17 completed projects during the period.
- During the year 2007-08 under Ecosystem Research Scheme five new projects were initiated, 14 studies were completed and 33 projects were reviewed and monitored for their progress.
- During the year 2007-08, under Ecosystem Research Scheme six new projects were initiated and four studies were completed.
- The Ministry constituted new Thematic Group 'Economic & SocialIssues' during the year. Though no specific programme will be covered under this Thematic Group, the group would consider all proposals related to Cost Benefit analysis, Socio-economic issues and other miscellaneous issues. One meeting of the Thematic Group was held to consider the new / revised proposals & review / monitor the ongoing / completed (FTR) projects. Four new and one revised projects were considered by the Expert Group. Based on the recommendations of the Expert Group one new project has been sanctioned during the period.

Progress of two ongoing projects was reviewed and monitored. The Expert group also reviewed the one FTR of Completed project.

NATIONAL NATURAL RESOURCE MANAGEMENT SYSTEM (NNRMS)

- The Scheme of National Natural Resource Management System (NNRMS) involves utilization of remote sensing technology for accurate inventory of resources such as land water forests, minerals oceans. etc. and to utilize this information for monitoring changes in ecological system. A standing Committee of Bio-resources and Environment (SC-B) has been constituted by the Planning Commission under the Chairmanship of Secy. (E&F). This Standing Committee on Bio-resources and Environment (SC-B) constituted by the Planning Commission advises on the methods of using the remote sensing technology for optional use and management of natural resources in the country. In order to streamline the projects. The SC-B has constituted to technical & financial Sub-Committee to scrutinize/review all the proposals submitted for funding under NNRMS SC-B from the technical and financial angle. One of those proposals recommended by the Technical and Financial Sub-Committee are taken up by NNRMS SC-B for financial assistance. The Committee also oversees and monitors the progress of sanctioned projects.
- National projects on Snow and Glaciers, Mapping of Wildlife Sanctuaries/ National Parks, Forest Type Mapping, and Coastal/mangroves/coral reef studies have been initiated after peer review.
- About 30 projects were approved by SC-B during xth plan and are under various stages of implementation in the broad areas of Forestry & Wildlife, Wetlands Desertification, Environmental impact of developmental activities, landslides and forest fire etc.

G.B. Pant Institute of Himalayan Environment and Development, Kosi-Katarmal, Almora

G.B. Pant Institute of Himalayan Environment and Development (GBPIHED) was established in August 1988 by the Ministry as an autonomous Institute with a mandate of achieving sustainable development and environmental conservation in the Indian Himalayan Region (IHR). The Institute executes the mandate through its Headquarter located at Kosi-Katarmal, Almora (Uttarakhand), and its four regional Units located at Kullu (Himachal Pradesh), Srinagar (Uttarakhand), Pangthang (Sikkim) and Itanagar (Arunachal Pradesh). The Institute designs and implements R&D activities on priority environmental problems; develops and demonstrates best practices and delivers technology packages for improved livelihood of the people of the IHR.

- Microbiological studies on 21 species of *Penicillium* isolated from the soil collected from IHR for their phosphate solubilizing activity revealed that seven species of *Penicillium* brought maximum solubilization after 15 days of incubation. Isolation of micro organisms in the fermented foods (a wheat based starter culture, balam) used by Bhotiya community recorded 32 microbial isolates. While the spore forming bacterial species belonged to genus *Bacillus*, the yeast isolates were identified as *Sacharomycopsis fibuligera*, *Kluyveomyces maxianus*, and *Sacharomyces spp.*

- Under a programme entitled, 'Institutionalizing Technology Backstopping and Capacity Enhancement within the Tribal Areas of North East', Seven Partner NGOs from different states of the NE region established technology demonstration parks in their respective areas for demonstration and dissemination of relevant technologies.
- Demonstration on restoration of degraded wastelands were implemented through restoration of village community degraded land (3 ha) at Kolidhaik village (Distt. Champawat, Uttarkhand), plantation of fodder trees (>10,000 saplings of 15 species) in village wastelands (approx 40 has) for silvi-pasture development, and collaborative programme on Bhimtal lake catchment restoration (Distt. Nainital).

RESEARCH ON WETLANDS, MANGROVES AND CORAL REEFS

WETLANDS

A Research Sub-Committee on Wetlands has been constituted to identify more Wetlands of national importance and to supplement Management Action Plan (MAP) for intensive conservation on thrust areas of research.

- Nineteen on-going research projects on various aspects in the field of wetland conservation are operational under Wetland Conservation Programme which are at various stages of execution. Three search projects have been completed during the year 2007-08.

MANGROVES AND CORAL REEFS

Based on the need for a separate, dedicated institute for targeted R&D studies on Sunderbans in view of their uniqueness and importance on more than one works for Sunderbans may be desirable. While Sunderbans would be at the centrestage of work of the envisioned institute, it may also do research in related areas of coastal & marine biodiversity of the entire country, and cater to capacity-building & education, awareness programmes in the region.

- The Ministry has decided that the proposed research institute may be titled 'National Institute for Research in Mangroves and Coastal Bioresources' and may be located in West Bengal in proximity to the Sundarbans.
- Four research Projects in the area of Mangroves and Coral Reefs, are recommended by the Expert Group B on 'Conservation & Sustainable Utilization of Natural Resources' are being sanctioned by the Ministry during the year 2007-08.

RESEARCH ON BIOSPHERE RESERVES

Research and development projects are also supported in the designated reserves and potential sites of the Biosphere Reserves. While a number of research projects have been sanctioned during the year, a good number of projects were also completed, which provided baseline data helpful in the scientific management of these reserves.

FORESTRY RESEARCH

The Indian Council of Forestry Research and Education (ICFRE) is the apex body in the national forestry research system mandated to develop a holistic forestry research

strategy through appropriate planning, coordination, execution and promotion nation-wise presence through its network of eight Research Institutes located in different agro-ecological zones of the country, viz., at Dehradun, Shimla, Ranchi, Jorhat, Jabalpur, Jodhpur, Bangalore and Coimbatore and four Centres, one each at Allahabad, Chhindwara, Hyderabad and Aizawl.

- Gall insect problem in Eucalyptus caused by *Leptocybe invasa*, a wasp, was recorded for the first time in India, and strategy and extension plan to control the pest was evolved.
- ICFRE has been granted ISO 9001:2000 certification.
- Design of solar heated kiln has been developed and standardized for accelerated seasoning compared to air drying, and to substitute the thermal energy requirement for drying in steam heated kilns by solar heating. About 200 commercial units have so far been installed.
- Forest Research Institute developed a wide range of panel products through its work on plywood research by using ligno cellulosic material.
- Seventy fascinating shades of eco-friendly dyes were prepared from Poplar, Eucalyptus, Lantana, Parthenium etc.
- Bamboo Propagation Macroproliferation technique was developed for multiplication from 1 to 64 plantlets in one year.
- Indian Plywood Industries Research and Training Institute (IPIRTI) has demonstrated the feasibility of creating affordable, safe, secure and durable shelter using bamboo in conjunction with other locally available materials. This type of housing system could be ideal for earthquake and other disaster prone areas.
- A tannin extended resin formulation was developed by IPIRTI to manufacture Boiling Water Proof (BWP) grade plywood and the same was successfully demonstrated on industrial scale for commercialization.
- A 4 ply moulded ridge cap was developed to enhance the strength properties for Bamboo Mat Corrugated Sheets. In this connection Moulding Dies for ridge cap were fabricated, installed and commissioned in the existing Hydraulic hot press.
- While the Indian Institute of Forest Management (IIFM), Bhopal completed 14 research projects and eight consultancy assignments, 21 research projects were being continued during the year.
- The study conducted by IIFM on rehabilitation of lepers in Chhattisgarh state found that income generating activities through natural resource management particularly sericulture, floriculture, bamboo plantation and marketing, lac cultivation, farm forestry and nursery management are most effective and successful in rehabilitating the lepers.

WILDLIFE RESEARCH

Increasing human induced changes are posing new threats to conservation of wilderness resources today. The forests harboring wild animals are deteriorating in terms of quality and quantity (fragmentation) thereby threatening survival of species particularly mega/endangered species like elephants, tigers, rhinos, etc. As habitats

shrink and populations become increasingly isolated, factors like poaching, disease, population structure (sex-ratio) and stochastic events like droughts, fire and floods which once were part of natural processes causing manageable oscillations are now becoming limiting and critical factors. The situation is throwing enormous challenges to managers and policy makers alike particularly in managing the wildlife of the country.

- The Wildlife Institute of India (WII) so far completed 128 research projects undertaken in different bio-geographic zones of the country. The Institute also continued 55 projects at present.

EDUCATION AND AWARENESS

ENVIRONMENTAL EDUCATION, AWARENESS AND TRAINING

The environmental damage already inflicted due to alarming on-going population explosion, rapid movement towards urbanisation and industrialisation, increasing needs of energy and fast scientific and technological advancement cannot be reversed unless there is collective thinking, will and effort. These call for public awareness and participation for bringing about an attitudinal change and finally restricting further damage to the environment. Effective implementation of environmental management and conservation programmes depends on education, awareness raising and training in the relevant areas. Without an understanding of how to conserve natural resources and the compelling need to do so, few people would be motivated to participate actively in programmes on environmental conservation. Environmental education and awareness thus assume critical importance. The 'Environmental Education, Awareness and Training' is an important scheme of the Ministry for enhancing the understanding of people at all levels about the relationship between human beings and the environment and to develop capabilities/skills to improve and protect the environment.

- During the year 2007-08 (up-to 31.12.07), 83372 eco-clubs were supported across the country. NGC Programme is implemented throughout the country through State Nodal Agencies.
- Training of the Master Trainers has already been launched in current financial year. Among the conventional modes of mass communication, radio is the most potent medium to reach out to largest number of target groups with information and messages concerning their lives and environment. Considering the coverage of the radio, which is more than 80% of the geographical area and population of the country, the Ministry has decided to produce and broadcast through Directorate of Advertising and Visual Publicity, two sponsored weekly radio programmes of half an hour and 15 minute duration over CBS stations and FM stations respectively of All India Radio.
- In 2007-08, 9938 organizations were associated with National Environment awareness campaign and were provided financial assistance under the scheme through concerned Regional Resource Agencies. In this campaign, NGOs, schools, colleges, universities, research, institutions, women and youth organisations, army units, government departments etc. from all over the country got associated in organising and conducting awareness raising activities followed by action oriented activities.

- Under Mass Awareness Programme, telecast of 22 episodes of 'Bhoomi' including 'Best of Bhoomi' a half an hour weekly environmental television magazine on Doordarshan National Channel was supported.
- Vatavaran-2007-4th Competitive Environment & Wildlife Film Festival was held at India Habitat Centre, New Delhi from 12-16 September 2007 with a total of 275 entries including 54 entries from 18 foreign countries. Thirty one awards were given in 18 different categories (12 for Indian Section and 6 for International Section). The 'Young Environment Journalist. In Print and Broadcast' award as well as awards for Technical excellence for camera, story telling and editing were also introduced for the first time.
- In order to provide interested individuals an opportunity to learn in detail about specific environmental issues, a course module has been developed by Indira Gandhi National Open University (IGNOU)—Environmental Appreciation Courses. These courses have already started through distance education at IGNOU regional centres.
- So far about 1800 GLOBE trained teachers in the country, had included Global learning and Observations to Benefit the Environment (GLOBE) programme under the 'Environment Education in School system'(EESS) programme for Hands-on activities. The programme was launched and a component of the EESS project in the 16 States namely Andhra Pradesh, Assam, Goa, Jammu & Kashmir, Maharashtra, Orissa, Punjab, Uttarkhand, Chhattisgarh, Himachal Pradesh, Karnataka, Kerala, Sikkim, Tamilnadu, Tripura and West Bengal. Teachers of 100 schools in each State have been trained in the protocols for conducting the experiments in four broad environmental parameters - Hydrology, Soil, Land Cover and Atmospheric Temperature/Rainfall under this project.

NATIONAL MUSEUM OF NATURAL HISTORY

The National Museum of National History (NMNH), a subordinate organization of the Ministry, was opened to public in 1978 to create public awareness in preservation and conservation of environment and nature. Over the years, the Museum has extended its activities in different regions of the country and set up three Regional Museums one each at Mysore (Karnataka), Bhopal (Madhya Pradesh) and Bhubaneswar (Orissa). These museums have been established to depict flora, fauna, forests, wildlife and other environmental aspects of the respective regions.

- A month long exhibition of the Models was held in the temporary exhibition hall of NMNH, New Delhi. The Models were prepared by the school students for 'Model Making Competition" held on 29.10.07 on the occasion of "International Day for the Preservation of Ozone Layer".
- The travelling exhibition on the theme "Forest Wealth" was taken to eight schools at different districts of Orissa. The exhibition was accompanied by screening of films on nature & wildlife. About 7,800 students participated in the exhibition and the film show.
- An exhibition on theme "Extinct and Threatened Animals of India" was organised during 17-18, November, 2007 at Indira Gandhi Rashtriya Manav

Sangrahalaya, Bhopal on the occasion of "National Ban Rang". More than 10,000 students and teachers visited this exhibition.

- The World Environment Day and NMNH Foundation Day celebrations were organised by NMNH in India Habitat Centre, Lodhi Road, New Delhi on 5th June, 2007. Hon'ble Minister for External Affairs inaugurated the function as Chief Guest. A small skit on environmental problems based on this years UNEP theme "Melting Ice - A Hot Topic" was presented by the participants of Summer Programme 2007.
- Possession of a piece of land measuring 7.42 Acres has been taken over from the State Government of Rajasthan for Rajiv Gandhi Regional Museum of Natural History (RG-RMNH), Sawai Madhopur, Rajasthan. The foundation stone laying ceremony was held on 23rd December by the Hon'ble Vice President of India Shri M.. Hamid Ansari.
- The Ministry has approved the proposal for setting up the fifth Regional Museum of Natural History at Gangtok, Sikkim and it is included in the 11th Five Year Plan. This museum will cover the North Eastern region which is a hot spot of biodiversity.

FORESTRY EDUCATION, TRAINING AND EXTENSION

The present system of forestry education and training is tailored to produce skilled forest managers so as to manage, protect and conserve the forests in consonance with National Forest Policy, 1988, National Forestry Action Programme, 1999 etc. The activities related to forestry education, training and extension are performed by the different institute of the Ministry like Indira Gandhi National Forest Academy (IGNFA), Dehradun, Directorate of Forest Education (DFE), Dehradun, Indian Council of Forestry Reserarch and Education (ICFRE), Dehradun, Forest Survey of India (FSI), Dehradun; Indian Institute of Forest Management (IIFM), Bhopal and Indian Plywood Industries Research and Training Institute (IPIRTI), Bangaluru etc.

- Twenty one IFS Probationers and two Foreign Trainees from Bhutan of 2004-2007 course and twenty nine IFS Probationers and two Foreign Trainees from Bhutan of 2005-2007 course have passed from the Indira Gandhi National Forest Academy, Dehradun after completing their training. So far twenty two batches of IFS officers have undergone training in this academy since 1987.
- Twenty four IFS Probationers and two Foreign Trainees of 2007-2009 course joined the Academy on December 1, 2007 for Professional Training after completing the Foundation Course at the Lal Bahadur Shastri National Academy of Administration, Mussoorie.
- XX Skill Upgradation Course during August - October, 2007 was conducted, in which 62 officers of various cadres participated.
- Eight advanced Forest Management (AFM) courses for the IFS officers of the 1997, 1990 and 1986 batches have been organized.
- One-week refresher training programme on 'Policy and Legal Issues' was organized during October, 2007 in which 24 IFS officers from various states participated.
- Induction training in the form of 'Two years diploma and certificate courses' for

the newly recruited SFS and “Eighteen months certificate course” for Range Forest Officers have been undertaken by Directorate of Forest Education.

WILDLIFE EDUCATION AND TRAINING

Wildlife education and training is primarily looked after by the Wildlife Institute of India, an autonomous institute of the Ministry for imparting training to government and non-government personnel to carry out research and training activities and advice on matters of conservation and management of wildlife resources.

- Institute runs three regular courses viz., 2-year M.Sc, degree programme in Wildlife Sciences, 9-month Post Graduate Diploma in Wildlife Management, and 3-month Certificate Course in Wildlife Management.
- The Institute has trained 457 Indian and 77 foreign nationals in 28 Diploma courses while 351 and 52 foreign nationals in 27 Certificate Courses.
- The Institute conducts master's Degree Programme in Wildlife Sciences every alternate year and 84 students have enrolled in 10 courses conducted so far.

CENTERS OF EXCELLENCE

The Ministry started the scheme in 1983 to strengthen awareness, research and training in priority areas of Environmental science and management.

Nine Centres of Excellence have been set up so far by the Ministry with a view to strengthening awareness, research and training in priority area of environmental science and management are as under:

- Centre for Environment Education (CEE), Ahmedabad
- CPR Environmental Education Centre (CPREEC), Chennai
- Centre for Ecological Sciences (CES) Bangaluru
- Centre of Mining Environment (CME) Dhanbad
- Salim Ali Centre for Ornithology and Natural History (SACON), Coimbatore
- Centre for Environment Management of Degraded Ecosystem (CEMDE), Delhi
- Centre of Excellence in Environmental Economics at Madras School of Economics, Chennai.
- Foundation for Revitalization of Local Health Traditions (FRLHT), Bangaluru.
- The Tropical Botanic Garden and Research Institute (TBGRI), Thiruvananthapuram.
- Centre for Environment Education (CEE) hosted the 4th International Conference on Environmental Education (ICEE), organised by Government of India and co-sponsore by UNESCO and UNEP, from 24 to 28 November, 2007 at Ahmedabad. A particular significance was attached to this Conference in light of it being held in the third of the on-going United Nations Decade of Education for Sustainable Development (DESD 2005-2014). Towards this, the Conference was organized with the objective to review the status of EE in the context of DESD, reformulate EE to support Education for Sustainable Development (ESD) and help bridge gaps, share good practices and experiences in ESD, and develop strategies for progressing ESD in the world. The Conference had over 1500

participants, of which about 650 were women and 150 were youth, from 97 countries across the globe.

- CEE has been the Resource Agency (RA) in 15 states and two UTs and covers around 40,000 schools through this countrywide awareness programme initiated and funded by Ministry. National Green Corps (NGC) aims at spreading environmental awareness among school children through eco-club activities, and through children in society at large. Various activities including training of master trainers, developing and distributing educational material, observing environment days, conducting workshops and celebrating events like *Eco-Balmela* and *Mowgli Utsav* were undertaken.
- During 2007-08, C.P.R.Environmental Education Centre (CPREEC) focused its training programmes to the specific needs of stakeholders. Training programmes on Disaster Management were conducted for coastal community and NGOs. These programmes were conducted in the southern state of Tamilnadu, Andhra Pradesh, Karnataka and Kerala. Other training programmes organized were Training Programmes on Waste Management and Training programmes for teachers, advocates and students.
- In order to make the environment programmes more effective, women were trained on health-care and nutrition, vermi-composting techniques, construction of smokeless chulha, etc. Seeds and saplings were distributed to women's groups for developing kitchen garden. The programmes were conducted in collaboration with NGOs in the states of Andhra Pradesh, Karnataka Tamilnadu and Puducherry.
- The Centre for Ecological Science (CES), Indian Institute of Science Bangalore carried out 30 research projects during the year under the broad themes of Biodiversity and Conservation, Behaviour and Evolution, Climate Change and its impact, and Eco-development. In addition, it offered several courses to Ph.D. students, hosted visiting scientists and students from other institutions, and conducted several workshops/training programmes for stakeholders, particularly for the Forest Department.
- CES has initiated new programmes in the field of molecular ecology. This includes a study of the molecular phylogeny and a survey of *Hanuman langur* morphotypes and genetics in Karnataka. One interesting result that has emerged from these studies is that large mammal populations in the Western Ghats show genetic differentiation across the Palghat Gap that has acted as a biogeographic barrier.
- A new shrub-frog taxon related to the anuran family Rahacophoridae was described from the Sharavathi River basin of central Western Ghats. The new frog possesses the characteristic features of rhacophorids (dilated digit tips with differentiated pads circumscribed by a complete groove, intercalary cartilages on digits, T-shaped terminal phalanges and granular belly, the adaptive characters for arboreal life forms). But also a suite of unique features that distinguish it from all known congeners in the Central Western Ghats region.
- The Centre of Mining Environment (CME), completed three research and development projects and continued six on-going projects during the year.

- The avian species specific studies undertaken by Salim Ali Centre for Ornithology and Natural History (SACON), include a study to identify and map Lesser Florican breeding sites to develop a fodder-producing grassland network in western India', 'Ecology and Conservation of the Spot-billed Pelican in Andhra Pradesh', and study of Ecology of Indian Grey Hombill (*Ocyrceros Birostris*) with special reference to its role in southern Eastern Ghats'.
- The grassland developed by Centre for Environmental Management of Degraded Ecosystems (CEMDE) at the Fine Ore Dump (Deposit 5,10, 11A) of the Bailadilla Iron Ore Project of National Mineral Development Corporation at Bachelhi has 90% grass cover and the substrate is enriched with litter and organic matter and microbial activity. The grassland developed has not only enhanced the biological productivity but also processed the habitat. The grassland also harbour plantlets of woody species such as *Alstonia scholaris*, *Macaranga*, *Trema*, *Wild Mangifera*, *Woodfordia* and *Atylosia* - The early successional species of native moist semi evergreen forest.
- Botanical surveys were carried out in different regions of the country namely Manipur, Himachal Pradesh, Rajasthan, Orissa, Tamilnadu and Karnataka by Foundation for Revitalisation of Local Health Traditions. (FRLHT). More than 2100 plant specimen have been collected during these botanical expeditions. A total of around 200 plant species will get added to the accessions of the Herbarium after the processing and final identification of the specimen.
- More than 800 Medicinal Plant species have been planted in the garden of Centre of Excellence located at the FRLHT campus. During the year, 60 additional medicinal plant species have been added to this garden and the layout of the garden has been improved with the addition of four new themes which include wild edible and medicinal flowers as well as sacred medicinal plants.

FELLOWSHIPS AND AWARDS

INDIRA GANDHI PARYAVARAN PURASKAR (IGPP)

- The awardees for the Indira Gandhi Paryavaran Puraskar for the Year 2003 and 2004 were selected by the Prize Committee under the Chairmanship of Hon'ble Vice President of India. The awards were given away in the Award ceremony held on 5th June 2007.

INDIRA PRIYADARSHINI VRIKSHA MITRA (IPVM) AWARDS

- The Awards up to the year 2005 have been conferred. It is proposed to restructure the Awards to significantly improve the profile of the awardees so that they become long-time role models, which is required in view of longer management cycle of tree plantation activity.

PITAMBER PANT NATIONAL ENVIRONMENT FELLOWSHIP

- Fellowship for the year 2006 was being processed. During the year, guidelines & norms for award of fellowship were revised; restricting the age of the applicant to 60 years.

B.P. PAL NATIONAL ENVIRONMENT FELLOWSHIP FOR BIODIVERSITY

- Fellowship for the year 2005 was awarded to Dr. R. Sukumar, Centre for Ecological Science, Indian Institute of Science (IISc), Bangalore and fellowship for the year 2006 was awarded to Dr. K.S. Bangarva from the CCS, Agricultural University, Hisar, Haryana.

MEDINI PURASKAR YOJANA

- The entries received for the award year 2006 are being evaluated by the Evaluation Committee of the Ministry.

ENVIRONMENTAL INFORMATION**ENVIRONMENTAL INFORMATION SYSTEM (ENVIS)**

Environmental information plays a paramount role not only in formulating environmental management policies, but also in the decision-making process aiming at environmental protection and sustaining good quality of life for the living beings. Realizing the need of appropriate environmental information, the Ministry has set up an Environmental Information System (ENVIS) as a plan programme and as a comprehensive network in environmental information collection, collation, storage, retrieval and dissemination to varying users, which include decision-makers, researchers, academicians, policy planners, research scientists, etc. ENVIS network at present consists of a chain of 76 network partners out of which 45 are on subject-specific and 30 are on State related issues. These network partners are called ENVIS Centres and are located in the notable organizations/institutions/State/UT Government Department/Universities throughout the country. The Focal Point of ENVIS is located in the Ministry and coordinates the activities of all the ENVIS partners to make ENVIS a web-enabled comprehensive information system.

- The ENVIS network continued its information-related activities, database development, publication of requisite information packages through newsletters, abstracting services, etc and the Query-Response-Services during the year.
- ENVIS Focal Point in the Ministry is responsible for maintenance and upgradation of the website of the Ministry (URL. <http://envfor.nic.in>) and disseminating information through the website to all concerned. The website recorded approximately 1.75 lakh hits per month reflecting the usage of website by various national and international users.
- The ENVIS focal point and all its partners responded to more than 17,800 queries during 2007-08 and provided substantive information as far as possible.
- The activities of all the ENVIS Network Partners were monitored and evaluated by various 'Expert Evaluation Committees' through Regional Evaluation Workshops held during the year at Lucknow, Mumbai, Kolkata Dehradun; and Hyderabad respectively.
- ENVIS Focal Point published a directory of Environmental Experts in India titled "Database of Environmental Experts in India. 2007". The database was developed to provide comprehensive profile of environmental experts/professionals in several disciplines in environmental sciences in the country so as to utilize the services of these experts for research projects, for their evaluation and to associate them as members of different committees etc.

- A Directory of Environmental NGOs in India - 2007 was published by the ENVIS Centre at WWF India in consultation with the Ministry during the year. This directory, takes into account NGOs in all the States and Union Territories working towards environmental protection, conservation and awareness.
- In order to share views amongst stakeholders in preparation of SoE Reports, the Ministry organized a National workshop at Delhi on 29th August 2007 to deliberate on various concerned issues of SOE Reporting.

LEGISLATION AND INSTITUTIONAL SUPPORT

- The National Environment Policy has been widely circulated and is available on Ministry's website www.envfor.nic.in the Ministry has written to Central Ministries/Departments and State Governments/UT Administrations to ensure that the environment concerns expressed in NEP 2006 are appropriately integrated and mainstreamed in the Sectoral/State development plans during the 11th Plan period.
- The Ministry has decided to implement the recommendation of the Law Commission given in its 186th report and the draft proposal has been sent to Legislative Department, Ministry of Law & Justice for formulation of Bill.
- The Eco-Mark Scheme is presently under review in order to expand the coverage of products and its adoption and for popularizing the same among the consumers and manufacturers.

INTERNATIONAL CO-OPERATION AND SUSTAINABLE DEVELOPMENT

The Ministry of Environment and Forest is the nodal Ministry in the Government of India for all Multilateral Environmental Agreements. These include Vienna Convention for the Protection of the Ozone Layer, Montreal Protocol on substances that deplete the Ozone Layer, UN Conventions on Biological Diversity, UN Framework convention on Climate Change, UN Convention to Combat Desertification, Kyoto Protocol, the Basel Convention on Trans-boundary Movement of Hazardous Substances, Stockholm Convention on Persistent Organic Pollutants, Rotterdam Conventions, Ramsar Convention etc. International Co-operation & Sustainable Development Division is the nodal point within the Ministry to coordinate all international environmental cooperation and sustainable development issues. It is the nodal Division for United National Environment Programme (UNEP), UNCP, World Bank, UNIDO, UN Commission for Sustainable Development (CSD), Global Environment Facility (GEF) and regional bodies like Economic & Social Commission for Asia & Pacific ((ESCAP), South Asian Association for Regional Cooperation (SAARC), South Asia Cooperative Environment Programme (SACEP), ADB and European Union (EU). The Division also handles bilateral country to country co-operation in the areas of environment protection and sustainable development.

- The Fifteenth session of the Commission on Sustainable Development (CSD) was held from April 30 to May 11, 2007 in New York, which considered the thematic areas of energy for sustainable development, climate change, air pollution, atmosphere and industrial development.
- The 10th Special Session of UNEP's Governing Council/Global Ministerial Environmental Forum was held on 20-22 February, 2008 in Monaco. The session

focused on issues like Globalization and the Environment, 'Mobilizing Finance to meet challenges' and developing UNEP's Medium-term Strategy. The Indian delegation was led by Hon'ble Minister of State (Environment).

- The 8th Delhi Sustainable Development Summit organized by TERI from 7-9 February, 2008 at Vigyan Bhawan, New Delhi was inaugurated by the Prime Minister of India. This time 'Sustainable Development and Climate Change' has been taken up as the theme of the event with an aim to make a significant contribution to the global debate on climate change and sustainable development issues.
- Secretary, Ministry of Environment & Forests is the South Asia Cooperative Environment Programme (SACEP) Focal Point for India. The SACEP holds its Governing Council (GC) meetings, which concentrate on current regional issues as well as global concerns. The 10th Governing council of SACEP was held on 25th January, 2007 in Kathmandu. The meeting deliberated on institutional matters, project status and work programme.
- One of the important achievements during 2007-08 is the establishment of South Asian Association for Regional cooperation (SAARC) Forestry Centre in Bhutan. India is the current Chair of SAARC and is taking a lead in operationalising the declarations of various SAARC forums and proposing regional cooperation projects in capacity building and technical support.

CLIMATE CHANGE

Climate Change is one of the most important global environmental problems. The Fourth Assessment Report of inter-governmental Panel on Climate Change brought out in 2007, has projected a serious picture of the earth's future. The Report has stated that global warming may have a devastating impact on the climate of the earth. It is very likely that climate change can slow down the pace of progress towards sustainable development either directly through increased exposure to adverse impact or indirectly through erosion of the capacity to adapt. To give more concrete action plan to combat climate change, Parties to the United National Frame Work Convention on Climate Change in 1997 adopted the Kyoto Protocol in recognition of necessity for strengthening developed country commitments under the convention in furtherance to the objectives of the Convention. The Kyoto Protocol commits the developed countries, including economies in transition, to reduce emissions of greenhouse gases by an average of 5.2% below 1990 levels during 2008-2012. The Kyoto Protocol came into force on 16 February 2005. India is a party to the Kyoto Protocol.

- Meetings of National Clean Development Mechanism (CDM) Authority were held periodically to consider the CDM Projects for grant of Host Country approval. Till December 2007, the National CDM authority had approved 772 projects in the field of Biomass based Cogeneration, Energy Efficiency, Municipal Solid Waster, Renewable such as Wind, Small Hydro projects etc. These projects would generate 433 million certified emission reductions (CERs) by the year 2012, if all these projects successfully get registered with the CDM Executive Board.
- In pursuance of the announcement made by the Hon'ble Finance Minister while presenting the Union Budget 2007-08, the Government set up the Expert

Committee on Impacts of Climate Change on 7th of May 2007 under the Chairmanship of Dr. R. Chidambaram, Principal Scientific Adviser to Government of India. The Terms of Reference of the committee are to study the impacts of anthropogenic climate change on India and to identify the measures that we may have to take in the future in relation to address vulnerability to anthropogenic climate change impacts. The Expert Committee includes eminent persons from academia, science and also from various Ministries and Departments concerned.

- A coordination committee chaired by Prime Minister called Prime Minister's Council on Climate change was constituted in June, 2007 to coordinate national action for assessment, adaptation and mitigation of climate change. The first meeting of the Council was held in July, 2007 and the second meeting of the Council was held in November 2007. One of the important decisions, among many other decisions, has been to prepare a National Document compiling action taken by India for addressing the challenge of climate change and the action that it proposes to take, be prepared as India's National Report on Climate Change.
- The Inter-governmental Panel on climate change (IPCC) has brought out the Fourth Assessment Report on climate Change in November 2007. It is based on the three working group reports released during the year; the first on science of climate change, the second on Impacts, Adaptation and Vulnerability to Climate and the third on mitigation of climate change.
- The Phase-II of Indo-UK collaborative research on climate change under the aegis of Structured Dialogue on Climate change was initiated. The Ministry of Environment and Forests (MOEF), India and the UK Department of Environment, Food and Rural Affairs (DEFRA) have jointly devised a three year research programme on the impacts and adaptation to climate change in India. The project has been built on India's existing expertise to assess the sectoral impacts of climate change; reduce the uncertainties in current climate change prediction models; and contribute to the science of climate change.

OZONE LAYER PROTECTION

The Government of India has entrusted the work relating the ozone layer protection and implementation of Montreal Protocol to the Ministry. The Ministry has set up the Ozone Cell as a National Unit to look after and to render necessary services to implement the Protocol and its (ODS) phase-out programme in India. The Ministry has established an Empowered Steering Committee (ESC) chaired by the Secretary (E & F) which is supported by the Standing Committees. These Committees are responsible for the implementation of the Montreal Protocol provisions. Review of various policy and implementation options, project approvals and project monitoring.

India has met the following compliance dates as per the control schedule of the Montreal Protocol:-

- Freeze of CFC production and consumption in July, 1999 at 22588 ODP tons and 6681 ODP tons respectively
- Freeze of halon production and consumption on 1.1.2002
- Total phase-out of halon production and consumption in 2003.

- 50% reduction of CFC production and consumption in 2005 (production from 22588 MT to 11240 MT and consumption from 6681 MT to 1640 MT)
- 85% reduction of CTC production and consumption in 2005 (production from 11525 MT to 1508 MT and consumption from 11537 MT to 1493 MT)
- The Thirteenth International Day for the Preservation of the Ozone Layer was celebrated in Delhi on 16th September, 2007. The theme of this year's International Ozone Day was 'Celebrating 20 Years of Progress'. Around 500 school children attended the function organized at Sri Satya Sai Auditorium, New Delhi. On this occasion poster, painting, skit competitions were organized among school children. Prizes for best 3 in each competition were given. Ozone Cell publication 'Montreal Protocol India's Success Story', was released and distributed to the participants.

13 Finance

THE Ministry of Finance is responsible for administration of finances of the Government. It is concerned with all economic and financial matters affecting the country as a whole including mobilisation of resources for development and other purposes. It regulates expenditure of the Government including transfer of resources to the states. This Ministry comprises four departments, namely, (i) Economic Affairs, (ii) Expenditure, (iii) Revenue, and (iv) Disinvestment.

ECONOMIC AFFAIRS

The main divisions of the Department of Economic Affairs (DEA) are viz., (i) Finance Division, (ii) Budget Division, (iii) Banking and Insurance Division, (iv) Capital Market, (v) Bilateral Co-operation, (vi) Foreign Trade, (vii) Fund Bank Division, (viii) Fiscal Responsibility and Budget Management (FRBM) and Administration, (ix) Controller of Aid, Accounts and Audit, (x) Economic Division. The Department *inter alia* monitors current economic trends and advises the Government on all matters having bearing on internal and external aspects of economic management including, prices, credit, fiscal and monetary policy and investment regulations. This Department also supervises policies relating to Nationalised Banks, Life and General Insurance besides managing Government of India Mints, Currency Presses, Security Presses and Security Paper Mills. All the external financial and technical assistance received by India, except through specialised International organisations like FAO, ILO, UNIDO and except under international/bilateral specific agreement in the field of science and technology, culture and education are also monitored by this Department. The DEA is also responsible for preparation and presentation to the Parliament of Central Budget and the Budgets for the State Governments under President's Rule and Union Territory Administrations.

Recent Developments: The Budget (2005-06) highlights the need to maintain a growth rate of 7 to 8 per cent per annum as mandated by the National Common Minimum Programme (NCMP). The major initiative to reduce poverty and unemployment include higher allocation for National Rural Employment Guarantee Scheme (previously National Food for Work Programme) and increasing the coverage to 2.5 crore families under the Antyodaya Anna Yojana. The major areas identified for greater thrust include higher allocation for midday meal scheme, higher allocation to a non-lapsable fund called Prarambhik Shiksha Kosh created for funding the Sarva Shiksha Abhiyan programme, improving facilities for drinking water and sanitation, roadmap for agricultural diversification, development/strengthening of agricultural marketing infrastructure, continuation of National Agricultural Insurance Scheme (NAIS) for *kharif* and *rabi* 2005-06 and enhanced target under micro-finance for credit-linking from two lakh Self Help Groups (SHGs) to 2.5 lakh SHGs.

The budget redesignating the Micro Finance Development Fund as the "Micro Finance Development and Equity Fund" provides for an increased corpus of Rs 200 crore. The National Project for the repair, renovation and restoration of water bodies would include pilot project for 16 districts in nine States to cover nearly 700 water bodies, 20,000 hectares of additional land to be brought under irrigation, outlay of

Rs 180 crore in 2005-06 for flood management and erosion control in the Ganga basin, Brahmaputra and Barak valleys and Rs 52 crore for the Farakka Barrage Project.

Recognising the need for greater manufacturing thrust, the budget proposed to launch a "Manufacturing Competitiveness Programme" to help small and medium enterprises. Higher allocation for Technology Upgradation Fund for the textile sector and increasing the coverage under rural electrification are other significant initiatives. The allocation for Indira Awas Yojana has been increased to Rs 2,750 crore in 2005-06 and about 15 lakh houses are proposed to be constructed during the year.

The Budget 2005-06 stressing the need for overall development of the country has conceived 'Bharat Nirman' to be implemented over a period of four years.

The goals of Bharat Nirman are: (a) to bring an additional one crore hectares under assured irrigation; (b) to provide road connectivity to all villages that have a population of 1000 (or 500 in hilly/tribal areas); (c) to construct 60 lakh additional houses for the poor; (d) to provide drinking water to the uncovered remaining 74,000 habitations; (e) to ensure electricity to the remaining 1,25,000 villages and electricity connection to 2.3 crore households; and (f) to give telephone connectivity to the remaining 66,822 villages.

The implementation of Bharat Nirman has gathered pace. It was therefore decided to extend larger budgetary support of this programme. Including the North East component, as against Rs 12,160 crore provided in 2005-06, the corresponding budgetary provision for the programme was placed at Rs 18696 for 2006-2007, an increase of 54 per cent.

The Budget 2006-07 mentioned that assured irrigation credit, diversification and creating a market for agricultural products are the thrust areas for the agriculture sector.

The programme for repair, renovation and restoration of water bodies is being implemented through pilot projects in various States. The design of the programme has been finalised in consultation with the States. In the first phase of the project 20,000 water bodies with a command area of 1.47 million hectares have been identified. The Budget 2006-07 also announced that the National Agricultural Insurance Scheme will be continued for *kharif* and *rabi* 2006-07. The public-private partnership model will be employed to set up model terminal markets in different parts of the country. The budget provided a sum of Rs 150 crore for 2006-07 under the National Horticulture Mission.

SOCIAL SECTOR PROGRAMMES

During 2006-07, enhanced outlays have been provided for a number of initiatives/programmes in the social sectors. The bulk of the enhanced resources for the social sectors were earmarked for the UPA Government's eight flagship programmes: Sarva Siksha Abhiyan, Mid-day Meal Scheme, Rajiv Gandhi Drinking Water Mission, Total Sanitation Campaign, National Rural Health Mission, Integrated Child Development Services, National Rural Employment Guarantee Scheme and Jawaharlal Nehru National Urban Renewal Mission.

Education and health continued to enjoy primacy. For 2006-2007, the allocation for education has been enhanced by 31.5 per cent to Rs 24115 crore and for health and family welfare by 22.0 per cent to Rs 2546 crore.

On the eight flagship programmes, the total allocation in 2005-2006 was Rs 34,927 crore. In the fiscal year 2006-07, the total allocation has been placed at Rs 50,015 crore, representing an additionality of Rs 15088 crore or 43.2 per cent.

Sarva Siksha Abhiyan (SSA) : Recognising good performance, outlay for SSA has been increased from Rs 7156 crore in 2005-06 to Rs 1004 crore in 2006-07. Target is to construct 500,000 additional class rooms and to appoint 1,50,000 more teachers.

During 2006-07, it has been decided to transfer Rs 8746 crore to the Prarambhik Siksha Kosh from the revenues raised through the education cess.

Mid-day Meal Scheme : 12 crore children are so far covered under the Mid-day Meal Scheme, which is the largest school lunch programme in the world. Allocation for this programme has been enhanced from Rs 3010 crore to Rs 4813 crore in 2006-2007.

Drinking Water and Sanitation : A provision has been made for non-recurring assistance of Rs 213 crore in 2006-07 for setting up district-level water testing laboratories and field-level water testing kits. For Rajiv Gandhi National Drinking Water Mission the allocation has gone up from Rs 3645 crore in the previous year to Rs. 4680 crore in the current year. Provision for the Rural Sanitation Campaign has also gone up from Rs 630 crore in the last year to Rs 720 crore in 2006-2007.

National Rural Health Mission : The National Rural Health Mission was launched on 12 April 2005. In 2006-07, more than 200,000 Associated Social Health Activists (ASHA) are likely to be fully functional and over 1000 Block level community health centres are expected to provide round-the-clock services. The allocation for NRHM has been enhanced from Rs 6553 crore in 2005-06 to Rs 8207 crore for the current year.

Integrated Child Development Services (ICDS) : The total allocation for ICDS has been increased from Rs 3315 crore to Rs 4087 crore.

National Rural Employment Guarantee Scheme : The Rural Employment Scheme is the primary instrument of the Government to combat rural unemployment and hunger poverty. For 2006-07, the total allocation for rural employment is of the order of and Rs 14300 crore. Of this, Rs 11300 crore (including NER component) will be under NREG Act and Rs 3000 crore (including NER component) will be under SGRY. Since there is a legal guarantee for employment under the NREG Act, more funds will be provided based on actual need.

Jawaharlal Nehru National Urban Renewal Mission : The Jawaharlal Nehru National Urban Renewal Mission launched on 3 December 2005 has been provided a grant of Rs. 4595 crore. Apart from the four projects, including Mumbai metro rail and Bangalore metro rail, the projects under active consideration include projects in Maharashtra, Madhya Pradesh and Gujarat.

Planned urbanisation can act as a spur to growth, employment and better quality of life. The Government will actively promote the establishment of new towns, preferably on a specific industry, for example Information Technology, or a specific theme, for example education or health.

National Social Assistance Programme : Old age pensions are granted under the National Social Assistance Programme (NSAP) to destitute persons above the age of 65 years. Rs 75 per month provided earlier was highly inadequate. The quantum of assistance has been enhanced to Rs 200 per month. Rs 1430 crore has been provided for 2006-2007.

Women and Children : Gender Budgeting Cells have been set up in 32 Ministries and Departments so far.

Scheduled Castes and Scheduled Tribes : Keeping in view the commitment of the Government to the welfare of SCs and STs, the allocations for schemes benefiting only SCs and STs have been enhanced by 14.5 per cent during 2006-07 to Rs 2902 crore as compared to the previous year. Allocations for schemes with at least 20 per cent allocation for SCs and STs have been enhanced by 13.9 per cent to Rs 9690 crore.

The equity contribution to the National SC Finance and Development Corporation has been increased to Rs 37 crore and to the National Safai Karamchari Finance and Development Corporation to Rs 80 crore in 2006-2007.

Twelfth Finance Commission: The Twelfth Finance Commission was constituted by the President on 1 November 2002 to give recommendations on specified aspects of Centre - State fiscal relations during 2005-10. The Commission submitted its Report covering all aspects of its mandate on 17 December 2004.

The Commission has recommended a scheme of fiscal transfers that can serve the objectives of equity and efficiency within a framework of fiscal consolidation. The effort needed to achieve fiscal consolidation should be seen as the joint responsibility of the central and state governments. For achieving vertical and horizontal balance, consistent with the responsibilities of the two levels of governments in respect of providing public and merit goods and services, both the centre and the states need to raise the levels of revenues relative to their respective revenue bases, and exercise restraint in undertaking unwarranted expenditure commitments.

For the period of five years commencing from 1 April 2005, the Commission has recommended that the share of the states in the net proceeds of shareable central taxes shall be 30.5 per cent. For this purpose, additional excise duties in lieu of sales tax are treated as a part of the general pool of central taxes. If the tax rental arrangement is terminated and the states are allowed to levy sales tax (or VAT) on these commodities without any prescribed limit, the share of the states in the net proceeds of shareable central taxes shall be reduced to 29.5 per cent. If any legislation is enacted in respect of service tax after the Eighty-Eighth Constitutional Amendment is notified, it must be ensured that the revenue accruing to a State under the legislation should not be less than the share that would accrue to it, had the entire service tax proceeds been part of the shareable pool.

SOURCES OF REVENUE

The main sources of the Union Tax revenue are customs duties , Union excise duties, service tax, corporate and income taxes. Non-tax revenues largely comprise interest receipts, including interest paid by the Railways, dividend and profits. The main heads of revenue in States are taxes and duties levied by the respective State Governments, share of taxes levied by the Union and grants received from the Union. Property taxes, octroi and terminal taxes are the mainstay of local finance.

TRANSFER OF RESOURCES

Devolution of resources from the Union to the States is a salient feature of the system of federal finance of India. Apart from their share of taxes and duties, State Governments receive statutory and other grants as well as loans for various development and non-development purposes. The total amount of resources directly transferred to the states during 2001-02 onwards and estimates for 2004-05 and 2005-06 are shown in table 13.1. In addition, resources are also transferred by Central Government to the implementing agencies under various schemes without routing it through State budgets.

TABLE 13.1 : RESOURCES TRANSFERRED TO STATES

(Rs in crore)

Period	Taxes and Duties	Grants	Loans (Gross)	Total
2001-02	52,841	41,493	24,154	1,18,488
2002-03	56,122	42,136	27,720	1,25,978
2003-04	65,766	47,320	25,061	1,38,147
2004-2005 (BE)	78,617	51,485	27,108	1,57,210
2005-06 (RE)	94,959	77,274	1,179	1,73,412

With effect from 1 April 2002, a new system of transferring the entire net collections of small savings to States and Union Territories as loans from the Public Account is in vogue.

ANNUAL BUDGET

An estimate of all anticipated receipts and expenditure of the Union for the ensuing financial year is laid before the Parliament. This is known as 'Annual Financial Statement' or 'Budget' and covers Central Government's transactions of all kinds, in and outside India, occurring during the preceding year, the year in which the Statement is prepared as well as ensuing year or the 'Budget Year' as it is known.

The presentation of Budget is followed by a general discussion on it in both the Houses of Parliament. Estimates of expenditure from the Consolidated Fund of India are placed before the Lok Sabha in the form of 'Demands for Grants'. All withdrawals of money from the Consolidated Fund are thereafter authorised by an Appropriation Act passed by the Parliament every year. Tax proposals of Budget are embodied in a Bill which is passed as the 'Finance Act' of the year. Estimates of receipts and expenditure are similarly presented by the State Governments in their legislatures before the beginning of the financial year and legislative sanction for expenditure is secured through similar procedure. Budgetary position of the Union from 2001-02 onwards is shown in table 13.2.

TABLE 13.2 : BUDGETARY POSITION

(Rs in crore)

		2001-02 Actual	2002-03 Actual#	2003-04 Actual#	2004-05 Revised Estimates	2005-06 Budget Estimates
1.	Revenue Receipts	2,01,306	2,30,834	2,63,878	3,00,904	3,51,200
2.	Revenue Expenditure	3,01,468	3,38,713	3,62,140	3,86,068	4,46,513
3.	Revenue Deficit	1,00,162	1,07,879	98,262	85,164	95,313
4.	Capital Receipts	1,62,500	1,80,531	2,07,490	1,83,862 \$	1,60,004\$
5.	Recoveries of Loans	20,049	37,342*	84,218*	65,656*	12,000
	Other Receipts					
6.	Borrowings and other liabilities	1,42,451	1,43,189	1,23,272	1,18,206	1,48,004
7.	Capital Expenditure	60,842	74,535**	1,09,228**	1,19,723**	67,831
8.	Total Receipts	3,63,806	4,11,365	4,71,368	4,84,766	5,11,204
9.	Total Expenditure	3,62,310	4,13,248	4,71,368	5,05,791	5,14,344

10. Draw down of cash balance	-1,496	1,883	0	21,025	3,140
11. Fiscal Deficit [(1+5)-9=6+10]	1,40,955	1,45,072	1,23,272	1,39,231	1,51,144

Note: The figures are exclusive of transfer of States' share in small savings collections.

Based on provisional Actuals for 2002-03 and 2003-04.

* Includes receipts from States on account of debt swap scheme.

** Includes repayment to National Small Savings Fund

§ Does not include Rs 65,481 crore in RE 2004-05 and Rs 80,500 crore in BE 2005-06 in respect of Market Stabilization Scheme, which will remain in the cash balance of the Central Government and will not be used for expenditure.

PUBLIC DEBT

Public debt includes internal debt comprising borrowings inside the country like market loans, compensations and other bonds, treasury bills issued to finance State Governments, commercial banks and other parties as well as non-negotiable non-interest bearing rupees securities issued to the international financial institutions and external debt comprising loans from foreign countries, international financial institutions, etc. Table 13.3 gives an analysis of public debt and "other liabilities" at the end of selected years. The "other liabilities" include outstandings against the various small saving schemes, provident funds, securities issued to Industrial Development Bank of India, Unit Trust of India and nationalised banks, deposits under the special deposit schemes, reserve funds and deposits.

TABLE 13.3 : PUBLIC DEBT AND OTHER LIABILITIES
OF GOVERNMENT OF INDIA
(As at the end of March)

Item	2001-02	2002-03	2003-04		2005-06
			RE	BE	BE
(Rs in crore)					
A Public Debt					
1. Internal Debt (i to vii)	9,13,061	10,20,689	11,41,706	12,70,272	14,06,525
i Market Loan	5,16,517	6,19,105	7,07,965	7,58,999	8,70,836
ii Other (include spl. Bearer Bonds)	61,635	1,14,375	1,93,551	2,77,213	2,98,375
iii 91 Days Treasury Bills	5,047	9,673	7,184	7,184	7,184
iv Special Securities issued to the RBI in conversion of Treasury Bills	1,01,818	61,818	0	0	0
v Special floating and other loans	22,551	23,617	22,139	21,388	21,631
vi Other special securities issued to RBI	3,222	3,596	3,596	1,867	1,868
vii Securities against small savings	2,02,271	1,88,505	2,02,271	2,03,621	2,06,631
2 External Debt*	71,546	59,612	46,124	54,359	63,215
Total Public Debt (1+2)	9,84,607	10,80,301	11,87,830	13,24,631	14,69,740
3 Other Liabilities @	3,81,801	4,78,900	5,48,848	6,56,883	7,62,146
Total Public Debt and Other Liabilities	13,66,408	15,59,201	17,36,678	19,81,514	22,31,886

* These represent mainly non-negotiable, no interest bearing securities issued to international financial institutions like International Monetary Fund, International Bank for Reconstruction and Development and Asian Development Bank.

@ Comprises accruals under National Small Savings Fund, Provident Funds, special deposits on Non-Government provident funds and other reserve funds and deposits.

Note: External debt is at book value

RE : Revised Estimates

BE : Budget Estimates

NEW INITIATIVES IN FISCAL MANAGEMENT

The persistent fiscal deficit and concomitant growth in the public debt burden have been identified as the most difficult challenges affecting the country's economic growth prospects. To check the potentially damaging impact of fiscal indiscipline on macro-economic parameters, the Parliament had passed the Fiscal Responsibility and Budget Management (FRBM) Act, 2003 which came into force in July 2004. The FRBM Act, *inter alia*, mandates the Government to eliminate the revenue deficit by 2007-08. Through an amendment in 2004, the target year has been shifted to 2008-09. The FRBM Rules prescribe a minimum annual reduction in the revenue deficit by 0.5 per cent of GDP.

Other obligations of the Government under the FRBM Act, 2003 and FRBM Rules 2004; include : (i) To reduce the fiscal deficit by at least 0.3 per cent of the GDP, so that the deficit is less than three per cent of GDP by the end of 2007-08. (ii) To limit Government guarantees to at most 0.5 per cent of the GDP in any financial year (iii) To limit additional liabilities (including external debt at current exchange rate) to 9 per cent of GDP in 2004-05, 8 per cent of GDP in 2005-06, 7 per cent of GDP in 2006-07, 6 per cent of GDP in 2007-08. (iv) Not to borrow directly from the Reserve Bank of India with effect from 1 April 2006 (v) To present three statements before the Parliament along with the annual budget viz., Macroeconomic Framework Statement, Fiscal Policy Strategy Statement and Medium-term Fiscal Policy Statement. (vi) To move towards greater fiscal transparency and start disclosing specified information such as areas of unrealised revenue, guarantees and asset latest by 2006-07.

The deficit targets in Budget 2005-06 are as follows:

S.No.	Item	Revised 2004-05	Estimates 2005-06	Budget 2005-06	Estimates 2006-07	Targets for 2007-08
1.	Revenue Deficit as percentage of GDP	2.7	2.7@	2.0	1.1	
2.	Fiscal Deficit as percentage of GDP	4.5@@	4.3	3.8	3.1	
3.	Tax revenue as percentage of GDP	9.8	10.6	11.1	12.6	
4.	Total outstanding liabilities as percentage of GDP	68.8	68.6	68.2	67.3	

@ The Budget 2005-06 includes a provision of Rs. 5,000 crore as compensation to States on account of shortfall in revenue that may arise due to implementation of State Level Value Added Tax w.e.f. 01.04.2005. But for the inclusion of this estimated expenditure, which the Central Government feels will not be required to be incurred and is being included as measure of assurance to the States, Revenue Deficit would have been 2.6 percent of GDP.

@@ This would have been 4.6 per cent of GDP, had the disinvestment proceeds not have been taken as a resource for financing the Fiscal Deficit.

EXTERNAL ASSISTANCE

The Department of Economic Affairs (DEA) is the nodal department for procuring and coordinating external assistance from multilateral/ bilateral agencies. The State Governments and other government agencies who wish to avail themselves of external assistance can forward their proposals to the DEA through the Central sectoral Ministry. The Ministry/Department recommends the proposals/schemes for foreign assistance to the DEA after ensuring the plan priorities, budgetary clearance, administrative clearance, including clearances from Planning Commission at an appropriate stage. In this regard DEA has issued new guidelines for posing, implementation and monitoring of externally aided projects in May 2005.

For all externally aided projects, the loan agreements with the multilateral/ bilateral agencies are signed by the DEA (as the nodal department in the Central Government) since this is a subject on the Union list. The DEA is also responsible for all policy issues pertaining to external aid received by Government.

From FY 2005-06, the external assistance received in the form of grants from various multilateral and bilateral agencies is to be passed on to the States on back-to-back basis i.e., on the same terms and conditions on which it is received from the external funding agency.

During 2004-05 the total aid utilisation on Government and Non-Government account stands at Rs 17137.43 crore against Rs 17355.68 crore during 2003-04. As Additional Central Assistance to the States, Rs 8716.69 crore have been released during financial year 2004-05 as against Rs. 9324.36 crore during 2003-04.

Under the new policy announced on 20 September 2004 by DEA, bilateral development assistance will be accepted from all G-8 countries, namely, Japan, United Kingdom, United States of America, Canada, Germany, Italy, France, Russian Federation as well as from the European Commission. Further, such assistance will also be accepted from non G-8 European Union countries providing a minimum bilateral aid package of US \$ 25 million per annum to India. A simplified mechanism to process the project proposals of the NGOs, autonomous institutions and universities submitted through bilateral development partners expeditiously has been put in place.

INDO-US BILATERAL RELATIONS

The US development assistance to India started in 1951 and till May 2004, the total assistance to India has been around US \$ 14 billion. The assistance mainly comprises of development projects, food commodities and technical assistance. The US assistance is mainly administered through the US agency for International Development (USAID). The assistance extended by USAID at present is entirely in the form of grants.

Initially, the main thrust of US assistance to India was on projects, which were designed to strengthen key institutions and transfer of resources for infrastructure programmes in agriculture and social forestry. Since mid-1980s, the priority has been diversified to include science and technology dimensions focusing specifically on the commercialisation of technology. The current four priority areas of development assistance are: economic growth including financial market reforms and state fiscal reforms, health, environment and energy disaster management. There are 11 ongoing projects supported by USAID in these areas.

INDO-JAPAN BILATERAL RELATIONS

India has received a commitment from Government of Japan for Official Development Assistance (ODA) loan of Yen 134,466 million (Rs. 5600 crore approximately) for FY 2004-05. This is by far the largest ODA loan commitment of Government of Japan to India in a single financial year. This is 19.2 per cent of Japanese global ODA commitments for FY 2004-05. With this, the cumulative ODA loan from Government of Japan has reached Yen 2193.67 billion (Rs. 89406 crore approx. @ Yen 100 = Rs. 40.7) on commitment basis, till 31 March 2005. Notes were exchanged between Government of India and Government of Japan on 29 March 2005 for Japanese ODA loan of Yen 134,466 million (Rs. 5600 crore approximately) for eight projects as per the following details:

Project	Amount in Million Yen
Delhi Mass Rapid Transport System Project (VI)	19,292
North Karanpura Super Thermal Power Project (I)	15,916
Rajasthan Minor Irrigation Improvement Project	11,555
Tamil Nadu Afforestation Project (II)	9,818
Karnataka Sustainable Forest Management and Biodiversity Conservation Project	15,209
Ganga Action Plan Project (Varanasi)	11,184
Bangalore Water Supply and Sewerage Project Phase (II-I)	41,997
Uttar Pradesh Buddhist Circuit Development Project	9,495

The loan agreements for the above projects have also been signed on 31 March 2005.

In order to realise the full potential of their global partnership, the two countries decided on an eight-fold initiative and decided to make their utmost effort to implement this initiative, which comprises of measures for cooperation in eight key areas of interaction, namely: (i) enhanced and upgraded dialogue architecture, including strengthening of the momentum of high-level exchanges, launching of a High Level Strategic Dialogue and full utilisation of the existing dialogue mechanism; (ii) comprehensive economic engagement, through expansion of trade in goods and services, investment flows and other areas of economic cooperation, and exploration of an India-Japan economic partnership agreement; (iii) enhanced security dialogue and cooperation; (iv) science and technology initiative; (v) cultural and academic initiative and strengthening of people-to-people contacts to raise the visibility and profile of one country in the other; (vi) cooperation in ushering a new Asian era; (vii) cooperation in United Nations and other international organisations, including cooperation for the early realisation of U.N. reforms, particularly Security Council reform; and (viii) cooperation in responding to global challenges and opportunities.

The Japanese Grant Aid Programme got resumed with the signing of Exchange of Notes for the project "Improvement of Medical Equipment for Sir JJ Hospital and Cama and Albless Hospitals in Mumbai" on 28 August 2003 for JY 759,000,000. Another Exchange of Notes for JY 2,134,000,000 for the project for "Construction of Diarrheal Research and Control Centre at NICED, Kolkata" was signed on 25 June 2004.

INDIA-UNITED KINGDOM BILATERAL RELATIONS

The United Kingdom has been providing bilateral development assistance to India since 1958. Their assistance to India, which is all in the form of grant, is extended through the Department for International Development (DFID). UK is currently India's largest bilateral development cooperation partner in terms of grants. In March 1999 it was decided that the grant assistance from UK would be passed on as grants to the recipient states for new projects in the areas of poverty alleviation. DFID's priority States in India are Andhra Pradesh, Madhya Pradesh, Orissa and West Bengal. However, DFID is also providing assistance to other states like UP, Bihar, Chhattisgarh and Maharashtra, etc., through projects implemented by NGOs.

The UK assistance is available in the form of Financial Assistance (routed through GoI budget) and Technical cooperation (TC), which includes direct payment by DIFD for consultancy services, experts, training, etc. In March 2004, DFID launched its new Country Plan in India for 2004-08, entitled "India Country Plan-Partnership for Development". DFID's development cooperation assistance flows to mutually agreed projects in various sectors such as education, slum improvement, health and family welfare, forestry, etc. There are 28 on-going projects under implementation with DFID assistance in this areas that includes Centrally Sponsored Schemes (CSS) such as Sarva Siksha Abhiyan and National AIDS Control Programme (NACP). They will also be involved in another Centrally Sponsored Scheme, i.e., Reproductive and Child Health (RCH)-II.

INDO-EUROPEAN COMMISSION BILATERAL RELATIONS

The European Commission (EC) has been extending assistance to India since 1976. The EC assistance to India is entirely in the form of grant and is currently focused on the areas of environment, public health and education.

A description of the various development co-operation programmes being implemented by the EC in India are as under:

- 1. Sarva Shiksha Abhiyan:** Education sector has the largest outlay in EC's development assistance to India. The District Primary Education Programme (DPEP), implemented partly with EC assistance of Euro 150 million, came to an end in December 2002. As an extension of this programme, EC has made a commitment of Euro 200 million to the Sarva Shiksha Abhiyan being implemented by the Government of India for the development of primary education covering 42 districts in the country. First Tranche of Euro 30 million has already been utilised under the programme. Second Tranche of Euro 24 million has been approved by the EC during February, 2005. The other development partners, viz., IDA/World Bank and DFID, UK are also providing assistance of Euro 390 million and Euro 270 million respectively for this programme.
- 2. Support to Health and Family Welfare Sector Development:** The EC supported Health and Family Welfare Sector Development Programme, under their Sector Investment Programme (SIP), is being implemented with the aim of reforming the health care system in India focusing primary health care services. The SIP is an integral part of the Government of India's National Family Welfare Programme together with Reproductive and Child Health (RCH) and Safe Motherhood and other schemes. EC's assistance for this project is Euro 240 million.

3. **State Partnership Programme:** EC has now shifted its development co-operation strategy from sector based approach to a partnership approach with one or two Indian States in order to deploy bulk of their resources in these States for health, education and environment programmes. Accordingly, the States of Chhattisgarh and Rajasthan have been mutually identified by the EC and Government of India for EC's State Partnership Programme, for which EC has committed Euro 160 million.
4. **The European Union (EU)-India Scholarship Programme :** ERASMUS MUNDUS- A Financing Agreement for Euro 33 million has been signed with the EC for EU-India Scholarship Programme which will be utilised to fund around 1,000 scholarships to pursue higher education (masters courses) in various universities of the EU by the Indian students during the period of 2005-09.

INDIA-SWITZERLAND BILATERAL RELATIONS

Swiss assistance has been in the form of grants and has been provided for local costs as well as technical assistance. In the past, Switzerland has also provided mixed credit comprising 40 per cent grant and 60 per cent loan for power sector project.

The Neriya Mangalam Hydro Electricity Project of Kerala State Electricity Board (KSEB) has been implemented under the Swiss Mixed Credit Agreement dated 25 June 1991. Presently, Swiss assistance in India is mainly directed towards NGO projects. During the last year Switzerland has supported several NGO projects in India.

INDO-ITALY BILATERAL RELATIONS

Italy has been providing concessional assistance to India since 1981. During the Indo-Italian Cooperation meeting held on 5 June 1996, the Italian side committed 100 billion Italian Lira under this commitment. The following two projects are covered under this commitment:

(i) Credit Line to NSIC : 50 billion Lira of the committed sum of Lira 100 billion was allocated for establishing an open credit line for financing supplies of capital goods and related technical assistance for the development of the Indian Small and Medium Enterprises and was provided to National Small Industries Corporation Ltd. (NSIC). The NSIC signed the Financial Convention for the first tranche of 10 billion Lire on 21 March 2000. Regarding the balance of 40 billion Lira (second tranche), it was decided not to avail of the balance in view of the Government of India's policy prevailing prior to September 2004 not to take any development assistance from smaller bilateral partners, including Italy.

(ii) Water Supply and Solid Waste Management Project in West Bengal: Lire 50 billion is proposed to be used for financing for which DEA has exchanged a Note Verbale on 5 February 2003 with Embassy of Italy. As per revised proposal, the Italian loan for this project would be available at an interest rate of 0.1 per cent per annum with repayment period of 38 years, including a grace period of 17 years.

The Government has since revised the policy on bilateral development assistance. In view of the revised policy of GOI to accept assistance from Italy, NSIC has requested DEA to reconsider the proposal to avail of the balance amount of Lire 40 billion.

INDO-FRANCE BILATERAL RELATIONS

Aid policy with bilateral partners was reviewed. French aid is tied to imports of French goods and services. French commitments are made for specific projects where contracts are awarded to French companies. Local costs are not financed under French aid.

The policy announcement of 20 September 2004 has included France (by virtue of being a G-8 country) in the list of countries from which development assistance would be acceptable to India. However, while India welcomes development assistance from France, it would still not receive tied aid. It has been clarified to France that it may not be possible for India to accept tied aid; even if it is bundled in a package with an untied component.

INDO-DENMARK BILATERAL RELATIONS

As per Government of India's new policy on external assistance, there will be no further bilateral development cooperation at Government level with Denmark. The Government of Denmark has also decided to phase out its assistance even from the ongoing projects by the end of 2005. The Government of India has concurred with this decision. Consequently, no further disbursements on Indo-Danish projects are foreseen after 31 December 2005. India has re-paid all Danish loans and India has no further debt liabilities in respect of Denmark.

INDO-GERMAN BILATERAL RELATIONS

The Federal Republic of Germany is one of the largest European donor and providing both financial and technical assistance to India since 1958. Financial assistance has been provided mainly as soft loan, composite loan (soft loan combined with commercial loan) as well as grants routed through KfW, German Government's Development Bank. There are 32 Financial Cooperation (FC) and 18 Technical Cooperation (TC) ongoing projects. Total assistance involved in the ongoing FC and TC projects is Euro 987.349 million and Euro 49.98 million respectively. There are 18 FC and 31 TC committed pipeline projects and total assistance involved is Euro 661.23 million and Euro 63.755 million respectively.

The Indo-German Annual Negotiations-2004 was held in July 2004, in which commitment of Euro 123.53 million was made (including Euro 15.53 million from the reprogrammed funds). The following Financing/ Loan Agreements have been signed with KfW (Germany) under Indo-German Bilateral Development Cooperation during the year 2004-05:

S.No	Project	Amount in Million Euro
1	Pulse polio programme (5th, 6th and 7th phase)	26.7 (grant)
2	Karnataka Secondary Level Hospital Phase - II	14.3 (grant)
3	Vijayawada Power Project in Andhra Pradesh	281.057

An agreement between Government of Federal Republic of Germany and the Government of India regarding Technical Cooperation was signed in respect of the commitments made by Germans for the year 2004 worth Euro 22.905 million.

BANKING

The first bank of limited liability managed by Indians was Oudh Commercial Bank founded in 1881. Subsequently, Punjab National Bank was established in 1894.

Swadeshi movement, which began in 1906, encouraged the formation of a number of commercial banks. Banking crisis during 1913 -1917 and failure of 588 banks in various States during the decade ended 1949 underlined the need for regulating and controlling commercial banks. The Banking Companies Act was passed in February 1949, which was subsequently amended to read as Banking Regulation Act, 1949. This Act provided the legal framework for regulation of the banking system by RBI.

The largest bank - Imperial Bank of India - was nationalised in 1955 and rechristened as State Bank of India, followed by formation of its 7 Associate Banks in 1959. With a view to bringing commercial banks into the mainstream of economic development with definite social obligations and objectives, the Government issued an ordinance on 19 July 1969 acquiring ownership and control of 14 major banks in the country. Six more commercial banks were nationalised from 15 April 1980.

As certain rigidities and weaknesses were found to have developed in the banking system during the late eighties, the Government of India felt that these had to be addressed to enable the financial system to play its role in ushering in a more efficient and competitive economy. Accordingly, a high-level Committee on the Financial System (CFS) was set up on 14 August 1991 to examine all aspects relating to the structure, organisation, functions and procedures of the financial systems. Based on the recommendations of the Committee (Chairman: Shri M.Narasimham), a comprehensive reform of the banking system was introduced in 1992-93.

A high-level Committee, under the Chairmanship of Shri M.Narasimham was constituted by the Government of India in December 1997 to review the record of implementation of financial system reforms recommended in 1991 by the Committee on Financial System and chart the reforms necessary in the years ahead. The Committee submitted its report to the Government in April 1998. Some of the recommendations of the Committee, on prudential accounting norms, particularly in the areas of Capital Adequacy Ratio, classification of government guaranteed advances, provisioning requirements on standard advances and more disclosures in the Balance Sheets of banks were accepted and implemented. Recent major initiatives undertaken for strengthening the financial sector in pursuance to the recommendations of the above Committee relate to guidelines to banks on Asset-Liability Management and integrated risk management systems, compliance with Accounting Standards, consolidated accounting and supervision, fine-tuning of prudential norms for income recognition, asset classification and provisioning for NPAs, etc. The guidelines on setting-up of Off-shore Banking Units in Special Economic Zones, Fair Practices Code for Lenders, Corporate Governance, Anti-Money Laundering measures, etc., are other important developments in the banking sector. The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 is expected to facilitate NPA management by banks more effectively.

In 1993, in recognition of the need to introduce greater competition, new private sector banks were allowed to be set up in the banking system. These new banks had to satisfy certain requirements. Further, revised guidelines for entry of new banks in private sector were issued on 3 January 2001.

The applications for setting up new banks received within the stipulated period were scrutinised by RBI and "in principle" approvals were issued to two entities on 7 February 2002. Kotak Mahindra Bank Ltd, on satisfactory completion of other

formalities, was granted banking licence on 6 February 2003. It commenced operations from 22 March 2003 and subsequently was included in the Second Schedule of the Reserve Bank of India Act, 1934 w.e.f 12 April 2003.

On satisfactory completion of all formalities, a licence was granted to “Yes Bank Ltd” on 24 May 2004. The bank commenced its operations from 16 August 2004 and was included in the second Schedule of the RBI Act, 1934 on 21 August 2004.

A draft comprehensive policy framework for ownership and governance in private sector banks was put in the public domain on 2 July 2004 for discussion and feedback. After taking into consideration the feedback received from all concerned and in consultation with Government of India, RBI issued detailed Guidelines on ownership and governance in private sector banks on 28 February 2005. The underlying principles of the guidelines *inter alia* are to ensure that the all banks in the private sector have a networth of Rs.300 crore, ultimate ownership and control of private sector banks is well diversified, important shareholders (i.e., shareholding of 5 per cent and above) are ‘fit and proper’ as laid down in the guidelines dated 3 February 2004 and the directors and the CEO who manage the affairs of the bank are ‘fit and proper’ as laid down in the circular dated 25 June 2004. The guidelines also provide for restrictions on cross holding of 5 per cent or above by one bank/FI in another bank/FI as laid down in the circular dated 6 July 2004 and observance of sound corporate governance principles. The RBI held discussions with banks to review the position.

RESERVE BANK OF INDIA

The Reserve Bank of India (RBI) was established under the Reserve Bank of India Act, 1934 on 1 April 1935 and nationalised on 1 January 1949. The Bank is the sole authority for issue of currency in India other than one-rupee coins and subsidiary coins. As the agent of the Central Government, the Reserve Bank undertakes distribution of one-rupee coin as well as small coins issued by the Government. The Bank acts as banker to the Central Government, and State Governments by virtue of agreements entered into with them. The Reserve Bank also handles the borrowing programme of the Central and State Governments. It formulates and administers monetary policy with a view to ensuring price stability while promoting higher production in the real sector through proper deployment of credit. The RBI plays an important role in maintaining orderly conditions in the foreign exchange market and acts as an agent of the Government in respect of India’s membership of International Monetary Fund. The Reserve Bank also performs a variety of developmental and promotional functions. The Reserve bank also regulates and supervises commercial banking system, urban co-operative banks and non-banking financial sector.

COMPOSITION OF BANKING SYSTEM

Commercial Banking System in India consisted of 218 scheduled commercial banks (including foreign banks) as on 31 March 2006. Of the scheduled commercial banks, 161 are in public sector of which 133 are regional rural banks (RRBs) and these account for about 75.2 per cent of the deposits of all scheduled commercial banks. The regional rural banks were specially set up to increase the flow of credit to small borrowers in the rural areas. The remaining 28 banks, other than RRBs, in the public sector consist of 19 nationalised banks, 8 banks in SBI group and IDBI Ltd. and transact all types of commercial banking business. Some important indicators in regard to progress of commercial banking in India since 1999 are given in Table 13.4.

Amongst the public sector banks, as on 31 March 2006, the nationalised banks (including IDBI Ltd.) group is the biggest unit with 33,868 offices, deposits aggregating Rs 10,13,664 crore and advances of Rs 7,21,066 crore. The State Bank of India group (SBI and its seven Associates) with 13,820 offices, deposit aggregating Rs 4,90,375 crore and advances Rs 3,50,961 crore is the second largest. The nationalised banks accounts for 67.3 per cent of aggregate banking business (aggregate of deposits and advances) conducted by the public sector banks (excluding RRBs) and 48.0 per cent of the aggregate business of all scheduled commercial banks. The SBI and its associates as a group accounts for 32.7 per cent of aggregate banking business conducted by the public sector banks (excluding RRBs) and 23.3 per cent of the aggregate business of all scheduled commercial banks (Source: Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks – March 2006).

DEPOSIT MOBILISATION AND DEPLOYMENT

There has been a substantial increase in the deposits of scheduled commercial banks in the post-nationalisation period. At the end of June 1969, deposits of these banks aggregated to only Rs.4,646 crore. As on 31 March 2006, this amount has increased to Rs 20,93,042 crore. Deposit amount with public sector banks was Rs 3,871 crore in June 1969. As on 31 March 2006, this amount stood at Rs 15,74,664 crore (Source: Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks – March 2006).

Deposits mobilised by the banks are utilised for: (i) loans and advances; (ii) investments in government and other approved securities in fulfillment of the liquidity stipulations; and (iii) investment in commercial paper, shares, debentures, etc., up to a stipulated ceiling. There has been a significant increase in the investments of banks in government and other approved securities from Rs.1,361 crore in June 1969 to Rs.7,17,454 crore (provisional) as at the end of March 2006. The Bank Credit of scheduled commercial banks have grown from Rs.3,599 crore in June 1969 to Rs.15,07,077 crore as at the end of March 2006 (source: Reserve Bank of India Bulletin – August 2006).

TABLE 13.4 : PROGRESS OF COMMERCIAL BANKING IN INDIA

S. No.	Item	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005
1.	Number of Commercial Banks	303	297	301	298	294	291	288
	(a) Scheduled Commercial Banks	302	297	296	294	289	286	284
	of which :Regional Rural Banks	196	196	196	196	196	196	196
	(b) Non-Scheduled Commercial Banks	1	-	5	4	5	5	4
2.	Number of Bank Offices in India [^]	64,939	65,412	65,919	66,190	66,535	67,188	68355
3.	Population per office (in thousands)	15	15	15	16	16	16	16
4.	Deposits of Scheduled Commercial Banks in India (Rs crore)	7,14,025 [@]	8,51,593 [@]	9,89,141 [#]	11,31,187 [#]	13,11,761 [#]	15,42,284 ^{&}	17,32,858 ^{&}
5.	Credit of Scheduled Commercial Banks in India (Rs crore)	3,68,837	4,54,069	5,29,272	6,09,053	7,46,432	8,65,594	11,24,300
6.	Per Capita Deposits of Scheduled Commercial Banks (Rs)	7,237	8,498	9,758	10,994	12,554	14,550	16,091

7. Per Capita Credit of Scheduled Commercial Banks (Rs)	3,738	4,531	5,221	5,919	7,143	8,166	10440
8. Deposits of Scheduled Commercial Banks as percentage of National Income (at current prices)	49.8	53.5	58.9	60.7	65.3	68.5	68.3

@ Includes Resurgent India Bonds (RIB) (Rs 17,945 crore)

Includes Resurgent India Bonds (RIB) (Rs 17,945 crore) and also India Millennium Deposits (IMD) (Rs 25,662 crore)

& Includes India Millennium Deposits (IMD) (Rs 25,662 Crore)

^ Excludes Administrative Offices

Source : Basic Statistical Returns of Scheduled Commercial Banks in India, Volume-34, (March 2005)

ADVANCES TO PRIORITY SECTOR

Extension of credit to small borrowers in the hitherto neglected sectors of the economy has been one of the key tasks assigned to the public sector banks in the post-nationalisation period. To achieve this objective, banks have drawn up schemes to extend credit to small borrowers in sectors such as agriculture, small-scale industry, road and water transport, retail trade and small business which traditionally had very little share in the credit extended by banks. To improve and enhance the flow of credit to the priority sector including agriculture and small-scale industries sectors, the following policy initiatives were taken:

- It was decided to treat investments made by banks in mortgage backed securities (MBS) as direct lending to housing within the priority sector lending subject to certain conditions;
- Investments made by banks on or after 1 April 2005 in the special bonds issued by certain specified institutions would not be eligible for classification under priority sector lending and such investments which have already been made/to be made by banks up to 31 March 2005 would cease to be eligible for classification under priority sector lending in a phased manner;
- Investment limit in plant and machinery for seven items belonging to sports goods, which figure in the list of items reserved for manufacture in the Small-Scale Industries (SSI) Sector, has been enhanced from Rs 1 crore to Rs. 5 crore for purpose of classification under priority sector advances;
- Advances granted by banks to farmers, through the produce marketing schemes under priority sector lending, against pledge/ hypothecation of agricultural produce including warehouse receipts for a period not exceeding 12 months was increased from Rs 5 lakh to Rs 10 lakh;
- Investments made by banks on or after 1 July 2005 in venture capital shall not be eligible for classification under priority sector lending while such investments already made up to 30 June 2005 would not be eligible for classification under priority sector lending with effect from 1 April 2006;
- Fifty per cent of the credit outstanding under loans for general purposes under General Credit Cards (GCC) would be eligible for classification as indirect finance to agriculture within the priority sector; and
- Loans to power distribution corporations/companies, emerging out of bifurcation/restructuring of State Electricity Boards (SEBs), for reimbursing

the expenditure already incurred by them for providing low tension connection from step-down point to individual farmers for energising their wells, may also be classified as indirect finance to agriculture.

Amount outstanding under priority sector lending by public sector banks during the period June 1969 to March 2006 increased from Rs 441 crore to Rs 4,10,379 crore and accounted for 40.3 per cent of net bank credit as on the last reporting Friday of March 2006.

CREDIT FLOW TO WEAKER SECTIONS

With a view to augmenting credit flow to small and poor borrowers, commercial banks were advised by the Reserve Bank of India to provide at least 10 per cent of their net bank credit or 25 per cent of their priority sector advances to weaker sections comprising small and marginal farmers, landless labourers, tenant farmers and share croppers, artisans, village and cottage industries where individual credit limits do not exceed Rs. 50000, beneficiaries of Government sponsored schemes such as the Swarnjayanti Gram Swarozgar Yojana (SGSY) for rural poverty, Swarna Jayanti Shahari Rozgar Yojana (SJSRY) and the Scheme of Liberation and Rehabilitation of Scavengers (SLRS), beneficiaries of the Differential Rate of Interest (DRI) scheme and scheduled castes and scheduled tribes. With a view to bringing in urban poor into formal financial system, banks have been advised to grant loans to distressed urban poor to prepay their debt to non-institutional lenders, against appropriate collateral or group security, subject to the guidelines to be approved by their Boards of Directors. Such loans to urban poor may be classified under weaker sections within the priority sector. As on the last reporting Friday of March 2006, the amount of outstanding advances extended by public sector banks to the weaker sections under the priority sector amounted to Rs 78,374 crore and accounted for 7.7 per cent of their net bank credit.

CREDIT FLOW TO AGRICULTURE

Banks were initially given a target of extending 15 per cent of the total advances as direct finance to the agriculture sector to be achieved by March 1985. This target was subsequently raised to 18 per cent to be achieved by March 1990. In terms of the guidelines issued by Reserve Bank of India in October 1993, both direct and indirect advances for agriculture are taken together for assessing the target of 18 per cent, with the condition that for the purpose of computing their performance in lending to agriculture, lendings for indirect agriculture should not exceed one fourth of the total agriculture lending target of 18 per cent of net bank credit so as to ensure that the focus of banks on direct lending to agriculture is not diluted. However, all agricultural advances under the categories 'direct' and 'indirect' will be reckoned in computing performance under the overall priority sector target of 40 per cent of the net bank credit. As at the end of March 2006, public sector banks had extended Rs 1,54,900 crore, constituting 15.22 per cent of the net bank credit, to the agriculture sector. Private sector banks extended Rs. 36,185 crore to agriculture as at the end of March 2006 constituting 13.5 per cent of net bank credit.

ADVANCES TO SC/ST BORROWERS

People belonging to the scheduled castes and scheduled tribes have been recognised as the most vulnerable sections. Banks have been asked to make special efforts to assist them with adequate credit to enable them to undertake self-employment ventures to acquire income generating capital assets so as to improve their standard of living.

At the end of March 2006, the total outstanding loan extended to scheduled castes/scheduled tribes by public sector banks under priority sector lending was Rs 22,666 crore in 84.38 lakh borrowal accounts.

DIFFERENTIAL RATE OF INTEREST SCHEME

Under the Differential Rate of Interest (DRI) Scheme, introduced in 1972, public sector banks are required to fulfil the target of lending of at least one per cent of the total advances as at the end of the preceding year to the weakest of the weak sections of the society at an interest rate of four per cent per annum. The scheme covers poor borrowers having an annual family income of not more than Rs. 6,400 in rural areas and Rs. 7,200 in other areas and not having more than 2.5 acres of unirrigated or one acre of irrigated land. They are given credit support of Rs. 6,500 as term loan and working capital loan for productive ventures. The public sector banks had an outstanding of DRI credit amounting to Rs 490 crore as at the end of March 2006.

SWARNJAYANTI GRAM SWAROZGAR YOJANA (SGSY)

The Union Ministry of Rural Development launched a restructured poverty alleviation programme, Swarnjayanti Gram Swarozgar Yojana (SGSY) with effect from 1 April 1999, which has replaced IRDP and its allied schemes viz., Training Of Rural Youth For Self Employment (TRYSEM), Development of Women and Children in Rural Areas (DWCRA), Supply Of Improved Toolkits to Rural Artisans (SITRA), Ganga Kalyan Yojana (GKY) and Million Wells Scheme (MWS).

The scheme aims at establishing a large number of micro enterprises in the rural areas of the country. The objective of the Scheme is to bring every assisted family above the poverty line in three years by providing them income generating assets through a mix of bank credit and government subsidy. The monthly income from the activity to be undertaken should not be less than Rs.2000, net of repayment to the bank, at least in the third year.

The SGSY is a holistic programme covering all the aspects of self employment such as organisation of poor into Self Help Groups, training, credit, technology, infrastructure and marketing. The scheme is funded on 75:25 basis by centre and states and is implemented by DRDAs through Panchayat Samities. Major share of assistance is for 4-5 key activities identified at the block level.

The year 2005-06 was the seventh year of implementation of the scheme. A total number of 12,07,078 swarozgaris received bank credit amounting to Rs 1125.42 crore (and Government subsidy amounting to Rs 375.09 crore) under the Swarna Jayanti Gram Swarozgar Yojana (SGSY) during the year 2005-06. Of the Swarozgaris assisted, 4,26,000 (35.29 per cent) were Scheduled Castes and Scheduled Tribes (SC/ST), 608756 (50.43 per cent) were women and 20788 (1.72 per cent) were physically handicapped.

SWARNA JAYANTI SHAHARI ROZGAR YOJANA

The Swarnjayanti Shahari Rozgar Yojana (SJSRY) is in operation from 1 December 1997 in all urban and semi-urban towns of India. Among other components, the scheme has two sub-schemes where bank credit is involved, namely, Urban Self Employment Programme (USEP) and Development of Women and Children in Urban Areas (DWCUA). The beneficiaries under the scheme are identified by the urban local bodies on the basis of house-to-house survey. Under the scheme, women are to be assisted to the extent of not less than 30 per cent, disabled at 3 per cent and SC/ STs at least to the extent of the proportion of their strength in the local population. The

scheme is funded on a 75:25 basis between the Central and the State Governments.

During the year 2005-06, disbursements amounting to Rs 183.61 crore were made in 55,023 cases (out of 68579 applications sanctioned). Of the above, Rs 49.68 crore were disbursed to 14,674 SC/STs, Rs 100.25 crore were disbursed to 12,494 women and Rs 4.12 crore were disbursed to 919 disabled persons during the year 2005-06.

PRIME MINISTER'S ROZGAR YOJANA (PMRY)

The scheme was launched on 2 October 1993 and initially was in operation in urban areas. From 1 April 1994 onwards the scheme is being implemented throughout the country. The objective of the scheme is to provide self-employment opportunities to educated unemployed youth in the age group of 18 to 35 years. In North-Eastern states the eligible age group is from 18-40. There is a 10-year relaxation for SC/ST, ex-servicemen/ physically handicapped and women, in the upper age limit. To be eligible for assistance under the scheme the family income of the beneficiaries shall not exceed Rs. 40000 per annum and income of parents of the beneficiaries also shall not exceed Rs. 40000. The banks have been allowed to make parents/Head of the family of unmarried girl as co-borrower, with effect from 21 November, 2002. The borrower should be the resident of the area for more than 3 years. He should have passed at least eighth standard. It has also been provided that the margin money and subsidy amount would be 20 per cent of the project cost. Ceiling on subsidy amount will be Rs 7500 in States/ UTs other than in the North Eastern Region. In the seven states in North East the ceiling on subsidy amount payable will be Rs 15000. This has been extended to Sikkim, Himachal Pradesh, Jammu and Kashmir and Uttaranchal. Hence the margin to be brought in by the borrower will vary from 5 per cent to 16.25 per cent of the project cost. All economically viable activities including agricultural and allied activities but excluding direct agricultural operations like raising of crops/ purchase of manure etc. are now being covered under the scheme. Projects up to Rs.1 lakh in business sector and up to Rs 2 lakh in other sectors will be eligible for finance by banks. In case of partnership firm projects up to Rs 10 lakh can be undertaken and loan amount will be to the extent of individual admissibility. Residency criteria for married men in Meghalaya has been relaxed in line with the married women in the rest of the country with effect from 11 August 2003.

SHGs are considered eligible for financing under the Prime Minister's Rozgar Yojana (PMRY), effective from 8 December 2003 (terms modified on 30 July 2004) provided all members individually satisfy the eligibility criteria laid down and total membership does not exceed twenty. There is also a ceiling on the loan amount. During 2004-05 banks sanctioned loans amounting to Rs 1923 crore in 2.98 lakh accounts, while disbursements amounted to Rs 1542 crore in 2.48 lakh accounts (data provisional). Further during 2005-06 banks sanctioned loans amounting to Rs 1987 crore in 3.10 lakh accounts, while disbursements amounted to Rs 1521 crore in 2.49 lakh accounts.

HOUSING FINANCE

The current focus of RBI's regulation with regard to Housing Finance is to ensure orderly growth of housing loan portfolio of banks.

(i) Risk Weight on Housing Finance : Taking into account rapid expansion in credit to housing sector, banks extending housing loans to individuals against the mortgage of residential housing properties were required to assign risk weight of 75 per cent on

such loans, which are fully secured by mortgage of residential properties and investments in Mortgage Backed Securities (MBS) of Housing Finance Companies (HFCs), recognised and supervised by NHB. The risk weight for commercial real estate exposure has been raised to 125 per cent on 26 July 2005 and further to 150 per cent on 25 May 2006.

(ii) Adherence to National Building Code : In view of the importance of safety of buildings especially against natural disasters banks were advised to adhere to the National Building Code (NBC) formulated by the Bureau of Indian Standards (BIS).

REGIONAL RURAL BANKS

Regional Rural Banks were set up to take banking services to the doorsteps of rural masses especially in remote rural areas with no access to banking services. These banks were originally intended to provide institutional credit to the weaker sections of the society called 'target groups'. The Regional Rural Banks (RRBs) are conceived as institutions that combine the local feel and familiarity with rural problems, which the co-operatives possess, and the degree of business organisation as well as the ability to mobilise deposits, which the commercial banks possess. The banks were also intended to mobilise and channelise rural savings for supporting productive activities in the rural areas. However, with effect from April 1997, the concept of priority sector lending was made applicable to RRBs. The interest rates on term deposits offered and interest rates on loans charged by RRBs have also been freed.

The credit outstanding of all the 196 RRBs stood at Rs 32,870 crore as at the end of March 2005 and Rs 62,143 crore were mobilized as deposits by RRBs till that date. RRBs which comply with certain prescribed conditions are also permitted to open and maintain non-resident accounts in Rupees.

With a view to consolidating and strengthening RRBs, the Government of India initiated, in September 2005, the process of amalgamation of RRBs, in a phased manner. Till 31 August 2006, 134 RRBs have been amalgamated to form 42 new RRBs, sponsored by 18 banks in 16 states, bringing down the total number of RRBs to 104 from 196. The amalgamation process is still continuing.

SMALL INDUSTRIES DEVELOPMENT BANK OF INDIA

The Small Industries Development Bank of India (SIDBI) was established as a principal financial institution for the promotion, financing and development of industries in the small scale sector. SIDBI started its operations from 2 April 1990 and is engaged in providing assistance to the small-scale industrial sector in the country through other institutions like State Financial Corporations, Commercial Banks and State Industrial Development Corporations. The Financial assistance sanctioned and disbursed aggregated to Rs 11975 crore and Rs 9100 crore, respectively, during 2005-06. Net profit after tax stood Rs 270 crore during 2005-06.

EXPORT-IMPORT BANK OF INDIA

The Export Import Bank of India (EXIM Bank) was established for financing, facilitating and promoting foreign trade in India. During the year ended 31 March 2006, EXIM Bank sanctioned loans of Rs 20489 crore while disbursements amounted to Rs 15039 crore. Profit (after tax) of the Bank for the period 2005-06 amounted to Rs 271 crore.

NATIONAL HOUSING BANK

The National Housing Bank (NHB), the apex institution of housing finance in India, was set up as wholly owned subsidiary of the Reserve Bank of India. The bank started its operations from July 1988. The authorised paid-up capital of NHB stood at Rs 450 crore and the reserves and surplus were Rs 1201.32 crore as on 30 June 2005. The profit after tax stood at Rs 44 crore during 2004-05.

The NHB is the regulator and supervisor of Housing Finance Companies (HFCs) in the country. Total refinance extended by NHB to all housing finance institutions including Housing Finance Companies, commercial banks and co-operative sector institutions stood at Rs 7500 crore as on 30 June 2005.

The bank monitors the performance of the Golden Jubilee Rural Housing Finance Scheme being implemented through Scheduled Banks, HFCs and Co-operative Sector Institutions. Against a target of 2.5 lakh dwelling units for the year 2004-05, 2.58 lakh units had been financed. For the Year 2005-06, target of financing 2.75 lakh units has been set by Government of India.

NABARD

The National Bank for Agriculture and Rural Development (NABARD) came into existence on 12 July 1982. It was established for providing credit for promotion of agriculture, small-scale industries, cottage and village industries, handicrafts and other allied economic activities in rural areas with a view to promoting integrated rural development and securing prosperity of rural areas. Paid-up capital of Nabard is stood at 2000 crore as on 31 March, 2006. The profit after tax stood at Rs 857 crore during year 2005-2006.

INDIAN BANKS ABROAD

As on 30 June 2006, eighteen Indian banks- twelve from the public sector and six from the private sector- had operations overseas, which had their presence in 47 countries with a network of 111 branches (including offshore units), 6 joint ventures, 18 subsidiaries and 34 representative offices. Bank of Baroda had highest concentration, with 39 branches, 7 subsidiaries, one joint venture bank and 3 representative offices in 20 countries, followed by State Bank of India with 30 branches, five subsidiaries, three joint venture banks and seven representative offices in 29 countries and Bank of India with 20 branches, one subsidiary, two joint venture banks and three representative offices in 14 countries.

INTERNATIONAL MONETARY FUND

As part of its mandate for international surveillance under the Article of Agreement, the IMF conducts what is known as Article IV consultations to review the economic status of the member countries, normally, once a year. Article IV consultations are generally held in two phases. During this exercise the IMF mission holds discussions with RBI and various ministries/departments of Central Government. The Article IV consultations are concluded with a meeting of IMF Executive Board at Washington D.C. which discusses the Report. The first phase of 2004 Article IV consultations was held in November 2003. After that another visit was made by the IMF Mission to India in March 2004 for making some interim assessment about the macro-economic and monetary development situation for the purpose of World Economic Outlook Report. Second phase of 2004 Article IV consultations concluded in October 2004.

Special Data Dissemination Standards (SDDS) : The SDDS indicates norms relating to coverage timeliness and periodicity of data, access to public and integrity and

quality of data. The Statistics Department of the IMF linked India's National Summary Data Page to the Dissemination Standard Bulletin Board (DSBB) on 7 July 2003, facilitating international investors and analysts getting information on India.

INDIA AND THE INTERNATIONAL MONETARY FUND (IMF)

Introduction : India is a founder member of the International Monetary Fund. Finance Minister is the ex-officio Governor on the Board of Governors of the IMF and Governor, RBI is India's Alternate Governor. India is represented at the IMF by an Executive Director who also represents three other countries, viz. Bangladesh, Sri Lanka and Bhutan.

Quota : India's current quota in the IMF is SDR (Special Drawing Rights) 4,158.20 million in the total quota of SDR 213 billion, giving it a share holding of 1.95 per cent. However, based on voting share, India (together with its constituency countries viz. Bangladesh, Bhutan and Sri Lanka) is ranked 21st in the list of 24 constituency.

Surveillance : As of its mandate for international surveillance under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members. Usually every year, to review the economic status of the member countries. During Article IV consultations exercise the IMF mission holds discussions with the RBI and various line Ministries/Departments of the Central Government. The Article IV Consultations are concluded with a meeting of IMF Executive Board at Washington DC which discusses the Report. For the year 2005, a mid-term review was undertaken in March 2005. Latest round of Article IV Consultations took place in October 2005. The IMF staff completed a report on 22 December 2005. Staff report on India is discussed at the IMF Executive Board in February 2006 and the report was published accordingly.

Financial Transaction Plan (FTP) : India participates in the FTP of the IMF from 2002. Forty-three countries, including India, now participate in FTP. By participation in FTP, India is allowing IMF to encash its rupee holdings as part of our quota contribution, for hard currency which is then lent to other member countries who are debtors to the IMF. From 2002 to February 2006, India has made purchases transactions of SDRs 493.230 million and four repurchase transactions amounting to SDRs 466.474 million.

India-IMF Institute : In July 2004, India and IMF joint training programme at the national Institute of Bank Management, Pune was established. The Training Programme will provide policy oriented training in economics and related operational fields to Indian officials and officials of countries in South Asia and East Africa. The first training programme was held during July 2006. The RBI is the nodal body to coordinate the training programme with the IMF.

Poverty Reduction Growth Facility : Enhanced Structural Adjustment Facility (ESAF) was established in 1987 with an amount of SDR 6 billion to help the low income countries with heavy debt burdens in difficult external environment to implement comprehensive macro-economic and structural policy programmes aiming at strengthening their balance of payments position and fostering growth. India contributes as donations to Subsidy Account and made a commitment to provide grant contributes to the extent of US \$ 1 million per year over 15 year for a total of US \$ 15 million. India has paid thirteenth annual installment to the PRGF Trust Subsidy Account amounting to US \$ 1 million (equivalent to Rs 4,66,70,000) during July 2006.

WORLD BANK LENDING TO INDIA

India has been borrowing from the World Bank through International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA) for various development projects in the areas of poverty alleviation, infrastructure, rural development, etc. IDA funds are one of the most concessional external loans for Government of India (GOI) and are used largely in social sector projects that contribute to the achievement of Millennium Development Goals (MDGs). IBRD funds are relatively costlier but cheaper than commercial external borrowings. The GOI utilises IBRD loans primarily for infrastructure projects. However, sometimes a blend of IDA credits and IBRD loans is also used. India has borrowed around US\$ 65.8 billion from the World Bank so far.

Terms and Conditions of World Bank Lending

IBRD Loans

Repayment period	20 years including a grace period of 5 years
Interest	LIBOR + variable spread
Commitment charges undisbursed amount	0.75 per cent
Front End fee	1 per cent
Total Cost	LIBOR + 40 Basis points (approx.)

IDA Credits

Repayment period	35 years including a grace period of 10 years
Interest	Nil
Service Charges	0.75 per cent
Commitment Charges on undisbursed amount	0.5 per cent

International Fund for Agricultural Development (IFAD) : India is one of the original members of IFAD the Government of India had committed to contribute US\$ 15 million (3 equal installments of 5 million each) towards the 6th Replenishment of IFAD resources, which has already been paid. The Government of India has committed to contribute US\$ 17 million towards the 7th Replenishment of IFAD resources. The total amount of US\$17 million will be deposited in three installments of US\$ 5 million for financial year 2006-07 and US\$ 6 million for financial year 2007-08 and 2008-09.

The IFAD has assisted in 19 projects in the agriculture and Rural Development Sector with the commitment of US\$ 479.78 million. Out of these, 12 projects have already been closed.

ASIAN DEVELOPMENT BANK

The Asian Development Bank (ADB), an international Partnership of 63 member countries, was established in 1966 with its headquarters at Manila, Philippines. India is a founder member. The Bank is engaged in promoting economic and social progress of its developing member countries in the Asia and the Pacific region. Its principal functions are as follows: (i) to make loans and equity investments for the economic and social advancement of its developing member countries; (ii) to provide

technical assistance for the preparation and execution of development projects and programs and advisory services; (iii) to respond to the requests for assistance in coordinating development policies and plans in developing member countries; and (iv) respond to the requests for assistance coordinating development policies and plans of developing member countries.

India's subscription to the Bank's capital stock as on 31 December 2004 is 6.424 per cent of all the member countries.

India started borrowing from ADB's Ordinary Capital Resources(OCR) in 1986. During calendar year 2004, ADB Board approved loans of US \$ 1200 million for five loans to India, namely :

Name of the Project	Amount US \$ million
1. Power Transmission (Sector) Project	400.00
2. National Highways Corridor Sector II Project	400.00
3. Assam Governance and Public Resource Management Sector Development Programme	125.00
4. Assam Governance and Public Resource Management Sector Development Project	25.00
5. Multisector Project for Infrastructure Rehabilitation in Jammu and Kashmir	250.00
TOTAL	1200.00

The Bank's lending has been mainly in the Energy, Transport and Communications, Finance, Industry and Social Infrastructure sectors. As of 31 December 2004, the Bank had cumulatively approved 83 Public Sector loans to India amounting to US\$ 14.111 billion. With 52 loans closed, the active portfolio comprises 31 loans. Cumulative disbursements till 31 December 2004 were about US\$ 7.304 billion.

India has contributed US \$ 2.91 million in convertible currency (upto the end of 2004) to the Technical Assistance Special Fund (TASF) of the ADB.

The Bank has extended technical assistance to India in addition to loans from its OCR window. The Bank's technical assistance support was US\$ 0.6 m in 1988. To end 2004, India has received a cumulative amount of US \$ 108.96 million. The technical assistance provided include support for institutional strengthening, effective project implementation and policy reforms as well as for project preparation.

India holds the position of Executive Director on the Board of Directors of the Bank - its Constituency comprises India, Bangladesh, Bhutan, Lao PDR and Tajikistan. The Finance Minister is India's Governor on the Board of Governors of Asian Development Bank and Secretary (EA) is the Alternate Governor.

FOREIGN INVESTMENT PROMOTION BOARD

The Foreign Investment Promotion Board (FIPB) has been reconstituted on 18 February 2003 and transferred to the Department of Economic Affairs (DEA), Ministry of Finance with the following administrative arrangements.

The Foreign Investment Promotion Board (FIPB) comprises the following Core Group of Secretaries to the Government: (i) Secretary to Government, Department of

Economic Affairs, Ministry of Finance– Chairman. (ii) Secretary to Government, Department of Industrial Policy and Promotion, Ministry of commerce and Industry. (iii) Secretary to Government, Department of Commerce, Ministry of Commerce and Industry. (iv) Secretary to Government, Economic Relations, Ministry of External Affairs. (v) Secretary to Government, Ministry of Overseas Indian Affairs (being included).

The Board would be able to co-opt other Secretaries to the Government of India and top officials of financial institutions, banks and professional experts of industry and commerce, as and when necessary. In the present constitution, Secretary, Department of Revenue and Secretary, Department of SSI are the co-opted permanent members of the Board.

The FIPB in Department of Economic Affairs (DEA) is the Secretariat for executing the policy of the Government on Foreign Direct Investment (FDI). All proposals (complete in all respects) received in FIPB Secretariat are considered by the Board and the decision of the Government is conveyed in the prescribed time limit of 30 days.

FOREIGN DIRECT INVESTMENT

The Government of India has recently undertaken a comprehensive review of the FDI policy and associated procedures. As a result, a number of rationalisation measures have been undertaken which, *inter alia* include, dispensing with the need of multiple approvals from Government and/or regulatory agencies that exist in certain sectors, extending the automatic route to more sectors, and allowing FDI in new sectors.

As per the extant policy, FDI up to 100 per cent is allowed, under the automatic route, in most sectors/activities. FDI under the automate route does not require prior approval either by the Government of India or the Reserve Bank of India (RBI). Investors are only required to notify the concerned Regional office of RBI within 30 days of receipt of inward remittances and file required documents with that office within 30 days of issue of shares to foreign investors.

Under the Government approval route, applications for FDI proposals, other than by Non-Resident Indians, and proposals for FDI in 'Single Brand' product retailing, are received in the Department of Economic Affairs, M/o Finance. Proposals for FDI in 'Single Brand' product retailing and the NRI's are received in the Department of Industrial Policy and Promotion, M/o Commerce and Industry.

Foreign Investments in equity capital of an Indian company under the Portfolio Investment Scheme are not within the ambit of FDI policy and are governed by separate regulations of RBI/Securities and Exchange Board of India (SEBI).

At present, FDI is prohibited for the following sectors : (i) Retail trading (except Single Brand Product retailing), (ii) Atomic energy, (iii) Lottery business, (iv) gambling and Betting.

All Activities/Sectors would require period Government approval for FDI in the following circumstances: (i) where provisions of Press Note (2005 Series) are attracted; (ii) where more than 24 per cent foreign equity is proposed to be inducted for manufacture of items reserved for the Small Scale Sector.

FDI is permitted up to 100 per cent on the automatic route in most sectors subject to serctoral rules/regulations applicable.

Rationalisation of the FDI Policy

The extent FDI policy stipulates as under :

- a. To allow under the automatic route, FDI up to 100 per cent.
 - i. distillation & brewing of potable alcohol;
 - ii. manufacture of industrial explosives;
 - iii. manufacture of hazardous chemicals;
 - iv. manufacturing activities located within 25 km of the Standard Urban Area limits which require Industrial license under the Industries (Development & Regulation) Act, 1951;
 - v. setting up Greenfield airport projects;
 - vi. laying of Natural Gas/LNG pipelines, market study & formulation and Investment financing in the Petroleum & Natural Gas sector; and
 - vii. cash & carry wholesale trading and export trading.
- b. To increase FDI caps to 100 per cent and permit it under the automatic route for:
 - i. coal & lignite mining for captive consumption;
 - ii. setting up infrastructure relating to marketing in Petroleum & Natural Gas sector; and exploration and mining of diamonds & precious stones.
- c. To allow FDI up to 100 per cent under the automatic route in :
 - i. power trading subject to compliance with Regulations under the Electricity Act, 2003
 - ii. processing and warehousing of coffee and rubber.
- d. To allow FDI up to 51 per cent with prior Government approval for retail trade of 'Single Brand' products, detailed guidelines for which have been notified vide Press Note 3 (2006 Series).
- e. To allow under the automatic route transfer of shares from residents to non residents in financial services, and where Securities & Exchange Board of India (Substantial Acquisition and Takeover) Regulations are attracted, in cases where approvals are required from the Reserve Bank of India/Securities & Exchange Board of India (Substantial Acquisition and Takeover) Regulations/Insurance Regulatory & Development Authority. With this, transfer of shares from residents to non- residents, including acquisition of shares in an existing company would be on the automatic route subject to sectoral policy on FDI.
- f. To dispense with the requirement of mandatory disinvestment of 26 per cent foreign equity in B2B-eCommerce.

FDI/NRI investment under the automatic route shall continue to be governed by the Sectoral regulations/licensing requirements.

INVESTMENT COMMISSION

The Investment Commission was set up in December 2004 with a view to make the environment in India attractive for investors. The Commission has the broad authority of the Government to engage, discuss with and invite domestic and foreign businesses to invest in India. In terms of the notification, the recommendations of the Commission are to be processed in the Ministry of Finance and will be put up to the Competent Authority for approval. All policy decisions emerging from the recommendations of the Investment Commission would be put up to CCEA for approval.

The Commission in its report of February 2006 titled "Investment Strategy for India" has observed that for sustaining growth at over 8 per cent per annum will require an increase in investment levels in the economy from approximately 28 per cent of GDP to about 32 per cent of GDP. Over the next 5 years, this translates to a cumulative investment of about \$ 1.5 trillion. The Commission has set itself the goal to increase the level of FDI from the existing level of about \$ 5 billion to \$ 15 billion by 2007-08.

The Commission studied 25 key sectors spanning Infrastructure, Manufacturing, Services, Natural Resources and the Knowledge Economy. They represent a significant part of the economy and would require an aggregate investment of US \$ 525- \$ 550 billion over the next 5 years.

The Commission has recommended that for the enhancing growth, there is a need to identify a few National Thrust Areas with defined national goals, where all impediments for growth are removed, and where appropriate incentives are provided, to encourage investment in the Thrust Areas and/or in supporting infrastructure. The purpose of the defined Thrust Areas would be to elevate India's presence in these areas regionally or even globally. This has been successfully done in countries such as Singapore (Biotechnology) and Ireland (Pharmaceuticals, IT).

The Thrust Areas could include :

- Tourism
- Power
- Textiles
- Agro-processing

These specific sectors would also create enormous job opportunities (both direct and indirect) resulting in a considerable boost to the economy.

The Commission has also recommended for India's hosting of mega events focusing the country's attention on infrastructure development while also building national pride. Some ideas are : 2010 Olympics, Football World Cup, Formula One Racing, etc.

The Commission in its report has observed that as a result of their extensive investor interactions, many representations on policy/procedures or other impediments were resolved through reference to Government.

The report contains 115 sector-specific recommendations covering sectors such as infrastructure, Manufacturing and Services and 37 multi-sectoral recommendations. These recommendations relate to 27 Ministries/Departments and feedback from all major Ministries/Departments have since been received. Of these 115 sector-specific recommendations. Major part of the action has already been completed or is in the process of being implemented in respect of 86 recommendations.

FDI Inflows : Final figure of FDI received during the financial year 2005-2006 (from April 2005 to March 2006) show an inflow of US\$ 5,548.3 million (Rs. 24,612.59 crore) compared to US\$ 3,218.7 million (Rs. 14,652.75 crore) during the corresponding period in 2004-2005. This represents an increase of 72 per cent in dollar terms.

Within this the cumulative FDI inflows from August 1991 till March 2006 aggregate US\$ 38.90 billion (Rs. 1,61,410.93 crore). The details of FDI inflows as at Annex.

Annexure**FACT SHEET ON FOREIGN DIRECT INVESTMENT (FDI)**

From AUGUST 1991 to MARCH 2006

(updated up to March 2006)

I. FDI INFLOWS:**A. CUMULATIVE FDI INFLOWS (equity capital components only):**

1.	Cumulative amount of FDI inflows (from August 1991 to March 2005)	Rs. 1,36,798 crore	US\$ 33,356 million
2.	Amount of FDI inflows (from April 2005 to March 2006)	Rs. 24,613 crore	US\$ 5,549 million
3.	Cumulative amount of FDI inflows (up to March 2006)	Rs. 1,61,411 crore	US\$ 38,905 million

Note: FDI inflows include amount received account of advances pending for issue of share for the years 1999 to 2004.

B. FDI INFLOWS DURING FINANCIAL YEAR 2005-2006:

Particulars	Amount of FDI Inflows	
	(In Rs. Crore)	(In US\$ mn)
1. April 2005	1,172	268
2. May 2005	2,844	654
3. June 2005	1,149	264
4. July 2005	1,411	324
5. August 2005	1,739	399
6. September 2005	1,238	282
7. October 2005	1,844	412
8. November 2005	3,410	746
9. December 2005	1,587	347
10. January 2006	2,141	482
11. February 2006	563	127
12. March 2006	5,515	1,244
2005-2006 up to March 2006	24,613	5,459
2004-2005 up to March 2005	14,653	3,219
Percentage growth over last year	(+) 67.95	(+) 72.30

C. YEAR-WISE FDI INFLOWS:

Sl. No.	Year (April-March)	Amount of FDI inflows	
		(In rupees crore)	(Inflows US\$ million)
1.	1991-1992 (Aug-March)	4 09	1 67
2.	1992-1993	1,094	3 93
3.	1993-1994	2,018	6 54
4.	1994-1995	4,312	1,374
5.	1995-1996	6,916	2,141
6.	1996-1997	9,654	2,770
7.	1997-1998	13,548	3,682
8.	1998-1999	12,343	3,083
9.	1999-2000	10,311	2,439
10.	2000-2001	12,645	2,908
11.	2001-2002	19,361	4,222
12.	2002-2003	14,000	3,134
13.	2003-2004	12,117	2,634
14.	2004-2005	17,138*	3,755*
15.	2005-2006 (upto March 2006)	24,613	5,549
	Grand Total	1,61,411	38,905

Note: * An Amount of US\$ 536 million (Rs. 2,485 crore), includes as advance for issue of share during 2004-2005.

D. SHARE OF TOP INVESTING COUNTRIES FDI INFLOWS
(Financial year-wise)

Amount Rupees in crore (US\$ in million)

Ranks	Country	Agust 1991 to March 2002	2002-03 (April- March)	2003-04 (April- March)	2004-05 (April- March)	2005-06 (April- March)	Cumulative Inflows (from Aug. 1991 to March 2006)	% age with Inflows
1.	Mauritius	27,446 (6,731)	3,766 (788)	2,609 (567)	5,141 (1,129)	11,411 (2,570)	50,403 (11,785)	37.18
2.	U.S.A	12,248 (3,188)	1,504 (319)	1,658 (360)	3,055 (669)	2,210 (502)	20,675 (5,038)	15.25
3.	Japan	5,099 (1,299)	1,971 (412)	360 (78)	575 (126)	925 (208)	8,931 (2,124)	6.59
4.	Netherlands	3,856 (986)	836 (176)	2,247 (489)	1,217 (267)	340 (76)	8,497 (1,994)	6.27
5.	U.K.	4,263 (1,106)	1,617 (340)	769 (167)	458 (101)	1,164 (266)	8,271 (1,979)	6.10
6.	Germany	3,455 (908)	684 (144)	373 (81)	663 (145)	1,345 (303)	6,570 (1,582)	4.81
7.	Singapore	1,997 (515)	180 (38)	172 (37)	822 (184)	1,218 (275)	4,388 (1,050)	3.24
8.	France	1,947 (492)	534 (112)	176 (38)	537 (117)	82 (18)	3,276 (779)	2.42
9.	South Korea	2,189 (594)	188 (39)	110 (24)	157 (35)	269 (60)	2,912 (752)	2.15
10.	Switzerland	1,200 (325)	437 (93)	207 (45)	353 (77)	426 (96)	22,622 (636)	1.93
Total FDI Inflows*		92,611 (23,829)	14,932 (3,134)	12,117 (2,634)	17,138 (3,754)	24,613 (4,549)	1,61,411 (38,905)	-

Note: (i) * Includes inflows under NRI Schemes of RBI, stock swapped and advances pending issue of shares.

(ii) Cumulative country-wise FDI inflows (from August 1991 to March 2006) -

E. SECTORS ATTRACTING HIGHEST FDI INFLOWS:

Amount Rupees in crore (US\$ in million)

Ranks	Sector	Amount of FDI Inflows					Cumulative Inflows (from August 1991 to March 2006)	% age with FDI Inflows
		2002-03 (April-March)	2003-04 (April-March)	2004-05 (April-March)	2005-06 (April-March)			
1.	Electrical Equipments (including computer software & Electronics)	3,075 (644)	2,449 (532)	3,281 (721)	6,499 (1,451)	23,709 (5,496)	17.49	
2.	Telecommunications (radio paging, cellular mobile, basic telephone service)	1,058 (223)	532 (116)	588 (129)	3,023 (680)	14,337 (3,372)	10.58	
3.	Transportation Industry	2,173 (455)	1,417 (308)	815 (179)	983 (222)	13,315 (3,178)	9.82	
4.	Services Sector (financial & non-financial)	1,551 (926)	1,235 (269)	2,106 (469)	2,565 (581)	12,804 (3,091)	9.45	
5.	Fuels (Power + Oil Refinery)	551 (118)	521 (113)	759 (166)	416 (94)	10,976 (2,581)	8.10	
6.	Chemicals (other than fertilizers)	611 (129)	94 (20)	909 (198)	1,979 (447)	8,580 (2,143)	6.33	
7.	Food Processing Industries	177 (37)	511 (111)	174 (38)	183 (42)	4,702 (1,179)	3.47	
8.	Drugs & Pharmaceuticals	192 (40)	502 (109)	1,343 (292)	760 (172)	4,311 (1,007)	3.18	
9.	Cement and Gypsum Products	101 (21)	44 (10)	1 (0)	1,970 (452)	3,231 (747)	2.38	
10.	Metallurgical Industries	222 (47)	146 (32)	881 (192)	681 (153)	2,816 (655)	2.08	

Note: Cumulative sector-wise FDI inflows (from August 1991 to March 2006)
- Annexure-B

REGION-WISE/STATE-WISE BREAK-UP FOR FDI INFLOWS¹ RECEIVED

(as reported to Regional Offices of RBI) (from January 2000 to March 2006)

Ranks	RBI's-Regional Office ²	State covered	Amount of FDI Inflows		% age with FDI Inflows (in rupee terms)
			Rupees In crore	U S in million	
1.	New Delhi	Delhi, Part of UP & Haryana	23,074.29	5,116.9	24.58
2.	Mumbai	Maharashtra, Dadra & Nagar Haveli, Daman & DIU	20,535.68	4,533.5	20.90
3.	Bangalore	Karnataka	6,984.17	1,546.3	7.44
4.	Chennai	Tamil Naru & Pondicherry	5,432.52	1,193.2	5.79
5.	Hyderabad	Andhra Pradesh	3,083.46	681.7	3.28
6.	Ahmedabad	Gujarat	2,883.90	631.9	3.07
7.	Chandigarh	Chandigarh, Punjab, Haryana, Himachal Pradesh	1,481.41	320.3	1.58
8.	Kolkata	West Bengal, Sikkim, Andaman & Nicobar Islands	1,277.24	280.7	1.36
9.	Panaji	Goa	494.42	107.6	0.53
10.	Kochi	Kerala, Lakshadweep	333.45	73.6	0.34
11.	Bhubaneswar	Orissa	315.88	70.6	0.34
12.	Bhopal	Madhya Pradesh, Chhattisgarh	168.84	37.3	0.18
13.	Guwahati	Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura	41.74	9.0	0.04
14.	Jaipur	Rajasthan	18.76	4.2	0.02
15.	Patna	Bihar, Jharkhand	2.74	0.6	0.00
16.	Kanpur	Uttar Pradesh, Uttaranchal	0.03	0.0	0.00
17.	Not Indicated ³		27,764.24	6,118.8	29.57
	TOTAL		93,892.76	20,726.3	100.00
18.	Advance of inflows (from 2000 to 2004)		8,962.22	1,962.8	-
19.	Stock Swapped		284.87	61.2	-
20.	RBI's-NRI Schemes ⁵ 89.15		134.4	-	-
	TOTAL FDI INFLOWS (From January 2000 to March 2006)		1,03,729.00	22,884.7	-

¹ Includes a equity capital components only.² The Region-wise FDI inflows are classified as per RBI's - Region-wise inflows, furnished by RBI, Mumbai.³ Represents inflows through acquisition of existing shares by transfer from residents. For this, regional wise information is not provided by Reserve Bank of India.

NRI UNIT

Major Functions of NRI Unit which is a part of the Investment Division are as under :

- (a) Euro-equity/Foreign Currency Convertible bonds policy.
- (b) Foreign Institutional Investors Portfolio Investment Policy.
- (c) Investment Policy for Non-Resident Indian.
- (d) Policy governing opening up of branch/liaison/project office by foreign companies and coordination in respect of individual proposals referred to Government by RBI.
- (e) Matters related to Indian Investment Centre, an autonomous body under the Ministry of Finance.

INSURANCE DIVISION**LIFE INSURANCE CORPORATION OF INDIA**

The Life Insurance Corporation of India (LIC) with its central office in Mumbai and seven Zonal Offices at Mumbai, Kolkata, Delhi, Chennai, Hyderabad, Kanpur and Bhopal operates through 101 divisional Offices including one Salary Savings Scheme (SSS) Division at Mumbai and 2048 branch offices. As on 31 March 2006, LIC has 10,52,283 agents spread all over the country. The Corporation also transacts business abroad and has offices in Fiji, Mauritius and United Kingdom. An overseas subsidiary of the Corporation namely Life Insurance Corporation (International) E.C. Bahrain was established in 1989. LIC is associated with joint ventures abroad in the field of insurance, namely, Ken-India Assurance Company Limited, Nairobi, a registered joint venture company in Kathmandu, Nepal by the name of Life Insurance Corporation (Nepal) Limited in collaboration with Vishal Group Limited, a local industrial Group. LIC (Lanka) Ltd., the latest joint venture subsidiary of the Corporation was established in Sri Lanka on 1 March 2003 in partnership with local company M/s Bartleet & Company Ltd. An off-shore company LIC (Mauritius) off-shore Limited was registered to tap the African insurance market.

During 2005-06, the total new business under Individual Assurances was Rs 2,87,530.24 crore under 315.73 lakh policies. The Group Insurance business during the year 2005-06 brought new business premium of Rs 3,919.01 crore under 11,845 schemes covering 51.27 lakh people. The sum assured in respect of conventional Group Insurance Business is Rs 25,216.88 crore. In addition, LIC sold 19,48,025 new individual pension policies including Future Plus.

The Life Fund of LIC as on 31 March 2006 as per the provisional results amounts to Rs 4,63,147.62 crore. During 2005-06 the Corporation made payments of Rs 3769.04 crore under Death Claim cases, Rs 24743.42 crore under Maturity Claims and Rs 1977.54 crore under annuities.

Under Varishtha Pension Bima Yojana the Corporation made payments of Rs 75.47 crore under Death Claim cases and Rs 656.08 crore under annuities.

SOCIAL SECURITY GROUP INSURANCE SCHEME

A Social Security Fund (SSF) was set up in 1988-89 for providing social security through Group Insurance Scheme to the weaker and vulnerable sections of the society. The SSF is administered by LIC for meeting insurance requirements of the segment.

People belonging to 24 occupational groups/areas have been covered under this scheme. The scheme has been replaced by Janshree Bima Yojana from August 2000. But the renewal of the groups covered earlier is permitted.

JANASHREE BIMA YOJANA

The Janashree Bima Yojana was launched on 10 August 2000. The Scheme has replaced Social Security Group Insurance Scheme (SSGIS) and Rural Group Life Insurance Scheme (RGLIS).

The Scheme provides for an insurance cover of Rs 20,000 on natural death. On death/total permanent disability due to accident, the benefit is Rs 50,000 increased to Rs 75,000 w.e.f. 15 August 2006. On partial permanent disability due to accident, the benefit is Rs 25,000 increased to Rs 37,500 w.e.f. 15 August 2006. The premium for the scheme is Rs 200 per member. 50 per cent premium under the scheme will be met out of Social Security Fund. The balance premium is to be borne by the member and/or Nodal Agency. As on 31 March 2006 about 39.87 lakh have been covered. The balance in Social Security Fund as on 31 March 2006 is Rs 808 crore.

KRISHI SHRAMIK SAMAJIK SURAKSHA YOJANA

The multi-benefit scheme for the agricultural workers, commenced on 1 July 2001, provides life insurance protection, periodical lump sum survival benefit and pension to those who were between the age of 18-50 years. Minimum membership of the group at commencement should be 20.

Gram Panchayat was to act as nodal agency and with the help of NGO/SHG or any other agency, would identify the agricultural workers.

As on 31 March 2006, 29,074 agricultural workers have been covered. Sale of new policies discontinued from December 2003. No new lives are to be added even under existing schemes at the time of renewal.

SHIKSHA SAHAYOG YOJANA

The scheme was launched on 31 December 2001, with the object to lessen the burden of parents in meeting the educational expenses of their children. It provides scholarships to students of parents living below or marginally above poverty line and who are covered under Janashree Bima Yojana and are studying in 9th to 12th standard (including ITI courses)

A scholarship amount of Rs 300 per quarter per child is paid for a maximum period of four years and for maximum two children of a member covered under Janashree Bima Yojana. No premium is charged for this benefit. As on 31 March 2006, scholarship were disbursed to 3,20,253 beneficiaries.

GENERAL INSURANCE CORPORATION OF INDIA

The General Insurance Corporation of India (GIC) was approved as the "Indian Reinsurer" on 3 November 2000. As the "Indian Reinsurer" GIC has been giving reinsurance support to four public sector and other private general Insurance Companies. The Corporation has commenced full-fledged life reinsurance operations from 1 April 2003. It continues its role as a reinsurance facilitator by managing marine hull pool and terrorism pool on behalf of India Insurance industry. The reinsurance programme of GIC aims at optimising the retention within the country and developing adequate reinsurance capacity.

During the year, the Corporation continued to offer maximum support for all classes of business to the Indian insurers. It has availed a new cover, the Peak Risk Facility, thereby increasing the PML capacity to Rs 3,000 crore from Rs 1,500 crore. The capacity of terrorism pool managed by GIC has increased to Rs 500 crore from

1 April 2005 from the earlier limit of Rs 300 crore. The GIC continues to lead the reinsurance programme of the companies in Maldives, Kenya, Malaysia, Mauritius, Middle-East, Africa and Sri Lanka. In the process, it has emerged as a preferred Reinsurer in the Afro-Asian region. During the year 2005-06, the net premium income of the Corporation has grown to Rs 4,234.88 crore as against Rs 4,614.87 crore in the previous year. The net incurred claims were at Rs 4,573.07 crore, i.e., 107.98 per cent as against Rs 3702.80 crore in the previous year, i.e., 80.25 per cent. Profit before tax was Rs 442.94 crore as on 31 March 2006 compared to Rs 800.08 crore as on 31 March 2005. The Corporation has recorded a profit after tax of Rs 598.52 crore as against Rs 200.02 crore in the previous year. The total assets and networth have grown to Rs 26,424.03 crore and Rs 4,759.13 crore respectively as on 31 March 2006.

The Corporation has its presence in foreign reinsurance business through its representative offices at London and Moscow. Apart from reinsurance business, GIC continues to participate in the share capital of Kenindia Insurance Company Ltd., Kenya and India International Insurance Pte. Ltd., Singapore. The Corporation has subscribed to 30 per cent of the holdings in the initial share capital of LIC (Mauritius) Offshore Ltd., a joint venture Company promoted by LIC of India in Mauritius.

PUBLIC SECTOR GENERAL INSURERS' ASSOCIATION OF INDIA

After de-linking from GIC in 2000, the four General Insurance Companies, namely, National Insurance Company Ltd., New India Assurance Company Ltd., Oriental Insurance Company Ltd., and United India Insurance Company Ltd., formed an association known as 'GIPSA' with headquarters in Delhi. The four public sector companies have a network of 95 Regional Offices, 1373 Divisional Offices, 2533 Branch Offices in India and 55 Overseas Offices.

The gross premium income of the four public sector general insurance companies during 2005-06 was Rs 14,997 crore as against Rs 13,973 crore during 2004-05, representing a growth of 10.73 per cent. Profits after tax for 2005-06 increased to Rs 1,425 crore from Rs 1,172 crore in 2004-05. The companies have paid a total dividend of Rs 266 crore in 2005-06 to the government. The market share of these companies has gone down to 72.87 per cent in 2005-06 from 77.49 per cent in 2004-05 with the entry of private players.

AGRICULTURE INSURANCE COMPANY OF INDIA LIMITED

A separate organisation for Agriculture Insurance called 'Agriculture Insurance Company of India Ltd.' (AICIL) has been incorporated under the Companies Act, 1956 on 20 December 2002 with the capital participation from General Insurance Corporation of India (GIC), four public sector general insurance companies viz., (i) National Insurance Company Ltd., (ii) New India Assurance Company Ltd., (iii) Oriental Insurance Company Ltd., and (iv) United India Insurance Company Ltd. and NABARD. The promoter's subscription to the paid-up capital is - 35 per cent by GIC, 30 per cent by NABARD and 8.75 per cent each by the four public sector general insurance companies. The authorised capital of the AICIL is Rs 1,500 crore, while the initial paid-up capital is Rs 200 crore. While AICIL would underwrite crop insurance to begin with, it will, in due course, cover other allied rural/agricultural risks also. National Agriculture Insurance Scheme (NAIS) which was being implemented by the General Insurance Corporation of India (GIC) has since been transferred to the new AICIL.

National Agricultural Insurance Scheme : The Government of India, in co-ordination with the GIC, have introduced a new Scheme, called the National Agricultural Insurance Scheme (NAIS), from *Rabi* 1999-2000 season replacing the Comprehensive Crop Insurance Scheme (CCIS). The scheme is being implemented by the newly set-up Agriculture Insurance Company of India Ltd., on behalf of the Ministry of Agriculture who are the Administrative Ministry. The main objective of the scheme is to protect the farmers against losses suffered by them due to crop failure on account of natural calamities, such as drought, flood, hailstorm, cyclone, fire pest/diseases, etc., so as to restore their credit worthiness for the ensuing season. The new scheme is available to all the farmers — loanee and non-loanee both, irrespective of their size of holding. It envisages coverage of all food crops (cereals, millets and pulses), oilseeds and annual horticultural/commercial crops, in respect of which past yield data is available for adequate number of years. Among the annual commercial/horticultural crops, eleven crops, namely, sugarcane, potato, cotton, ginger, onion, turmeric, chillies, jute, tapioca, annual banana and pineapple are presently covered. All other annual horticultural and commercial crops will be covered subject to the condition of availability of past yield data.

The premium rates for *Bajra* and Oilseeds are 3.5 per cent of sum insured or actuarial rates whichever is less while for Cereals, other Millets and Pulses, the premium rates are 2.5 per cent of sum insured or actuarial rates whichever is less. During *Rabi* season, the premium rate for wheat is 1.5 per cent of the sum insured or actuarial rates, which ever is less, and, for other food crops and oilseeds, premium rate is 2 per cent of the sum insured on actuarial rates, whichever is less. In the case of annual commercial/horticultural crops, actuarial rates are charged. 50 per cent subsidy in premium is allowed in case of small and marginal farmers. The subsidy is shared equally by States/Union Territories and Central Government. The subsidy in premium will be phased out on a sun-set basis over a period of five years.

Farm Income Insurance Scheme : In order to target the two critical components of a farmer's income, namely, and yield and price, through a single policy instrument, the Department of Agriculture and Cooperation formulated the Farm Income Insurance Scheme (FIIS). This Scheme was conceived to provide income protection to the farmers by integrating the mechanism of insuring production as well as market risks. The main features of the scheme are given in Box. Initially the scheme has been taken up on a pilot basis in *Rabi* 2003-04 in 18 districts of 12 States for wheat and paddy. The premium rates under the scheme is based on actuarial calculations. The Government of India provide subsidy of 75 per cent of the premium for small and marginal farmers and 50 per cent for others. During *Rabi* 2003-04, a total of 1.8 lakh farmers were covered over an area of 1.9 lakh hectares. Premium amounting to Rs 14.1 crore was generated as against the sum insured of Rs 239 crore. Claims to the tune of 1.5 crore were paid for the season. The scheme continued during *Kharif* 2004 season also covering 20 districts in 4 states covering a total of 2.22 lakh farmers over an area of 2.02 lakh hectares. Premium amounting to Rs 15.68 crore was generated against a sum insured of Rs 177.56 crore.

Rainfall Insurance “Varsha Bima” : Agriculture Insurance Company of India Ltd. (AICIL) introduced Rainfall Insurance Scheme known as “Varsha Bima” during 2004 South West monsoon period. Varsha Bima provided for five different options suiting varied requirements of farming community these are (i) seasonal rainfall insurance based on aggregate rainfall from June to September (ii) sowing failure insurance based on rainfall between 15 June and 15 August, (iii) rainfall distribution

insurance with weight assigned to different weeks between June and September, (iv) agronomic index constructed on the basis of water requirements of crops at different pheno-phases, (v) catastrophe option, covering extremely adverse deviation of 50 per cent and above in rainfall during the season. Varsha Bima has been piloted in 20 rain-gauge area spread over Andhra Pradesh, Karnataka, Rajasthan and Uttar Pradesh. A total of 1050 farmers were covered with a premium income of Rs 6.12 lakh against a sum insured of Rs 2.62 crore. Claims of Rs 5.63 lakh were paid.

Universal Health Insurance Scheme (UHIS) : The four public sector general insurance companies have been implementing Universal Health Insurance Scheme for improving the access of health care to poor families. The scheme provides for reimbursement of medical expenses up to Rs 30,000 towards hospitalisation floated rural and social sectors; and licensing of agents, corporate agents, brokers, and third party administrators. This is in addition to the regulatory framework provided for registration of insurance companies, maintenance of solvency margin, investments and reporting requirements.

Since opening up, the number of participants in the industry has gone up from five insurers (including Life Insurance Corporation of India but excluding General Insurance Corporation) in the year 2000 to 31 insurers each in the life and non-life segments (including specialised insurers, viz., Export Credit Guarantee Corporation and Agriculture Insurance Company). Star Health and Alliance Insurance Company set up as a non-life insurance is proposing to concentrate exclusively on health insurance. The premium underwritten by the industry has grown from Rs 45,677.57 crore in the year 2000-01 to Rs 1,02,376.51 crore in 2004-05. As per provisional statistics, the first year premium underwritten by the life insurers during 2005-06 was Rs 35,897.96 crore. As per provisional estimates, non-life insurers underwrote a premium of Rs 20,421.17 crore in 2005-06. The channels introduced in the market to underwrite premiums include agents, brokers, corporate agents including banks, referral arrangements and sales through the internet. As on date there are over 24.60 lakh agents in the insurance sector. The industry has been strengthened with additional commitment of funds to support the activities of the insurers. The paid up equity capital (provisional) of the insurers stood at Rs 9004.96 crore as on 31 March 2006, as against Rs 1692 crore as on 31 March 2001, in line with substantial insurance business growth and to meet Regulatory Solvency requirements, confirming their long-term commitment to the industry.

Efforts at increasing consumer awareness have been made at both the industry and regulatory levels. The competitive market conditions have also resulted in driving down premium rates/charges in respect of certain products and in improving the quality of services offered by the insurers. The competition pursuant to the establishment of new insurers has brought various innovative products into the market, including popularising the concept of capital market linked life insurance products. In addition to the conventional channels, NGOs and e-choupals are being tapped to sell insurance in the rural markets for providing coverage to informal sectors, backward classes and economically weaker sections. The Authority has also invited comments on the Concept Paper on Micro-Insurance, which could provide the framework for insurers designing suitable micro-insurance products. Norms are being framed to recognise micro insurance agents, like Non-Government Organisations (NGO), Micro Finance Institutions (MFI) and Self Help Groups (SHG). It is envisaged that micro insurance would facilitate penetration of insurance to the rural and remote areas.

At present fire, motor and engineering segments of the non-life industry are tariffed. After liberalisation of the industry and entry of private players it was expected that de-tariffing would be introduced across the board. In view of the continuous losses incurred by the industry under the motor portfolio, the Authority had constituted Justice Rangarajan Committee, followed by S.V. Mony Committee to examine various issues in the Motor Portfolio. As a follow-up of the recommendations, the Authority has decided to de-tariff all businesses currently under tariff from 1 January 2007. The business that will be de-tariffed are Fire, Motor, Engineering and Workmen's Compensation Insurances.

DISINVESTMENT

The disinvestment of Government equity in Central Public Sector Enterprises (CPSEs) began in 1991-1992. Till 1999-2000, it was primarily through sale of minority shares in small lots. From 1999-2000 till 2003-04, the emphasis of disinvestment changed in favour of Strategic Sale viz. sale of a large block of shares alongwith transfer of management control to a Strategic Partner identified through a process of competitive bidding. After 2004-2005, disinvestment realisations have been through sale of small portions of equity. The total proceeds from disinvestment between 1991-1992 and 31st May, 2008 amounted to Rs 53,423.03 crore, consisting of the following:

Item	Amount Realised (Rs. Crore)	per cent
Receipts through sale of minority shareholding in CPSEs	35,358.01	66.18
Receipts through sale of majority shareholding of one CPSE to another CPSE	1317.23	2.47
Receipts through Strategic sale	6,344.35	11.88
Receipts from other related transactions	4,005.17	7.50
Receipts from sale of residual shareholding disinvested CPSEs/companies	6,398.27	11.98
TOTAL	53,423.03	100

Policy Framework : The National Common Minimum Programme (NCMP) adopted by the Government outlines the policy of the Government with respect to the public sector including disinvestment of Government equity in CPSEs. The salient features of NCMP in this regard are as follows:

- (a) The Government is committed to a strong and effective public sector whose social objectives are met by its commercial functioning. But for this, there is need for selectivity and a strategic focus. The Government is pledged to devolve full managerial and commercial autonomy to successful, profit-making companies operating in a competitive environment. Generally profit-making companies will not be privatised.
- (b) All privatisations will be considered on a transparent and consultative case-by-case basis. The Government will retain existing "navratna" companies in the public sector while these companies can raise resources from the capital market. While every effort will be made to modernise and restructure sick public sector companies and revive sick industry, chronically loss-making companies

will either be sold-off, or closed, after all workers have got their legitimate dues and compensation. The Government will induct private industry to turn around companies that have potential for revival.

- (c) The Government believes that privatisation should increase competition, not decrease it. It will not support the emergence of any monopoly that only restricts competition. It also believes that there must be a direct link between privatisation and social needs – like, for example, the use of privatisation revenues for designated social sector schemes. Public sector companies and nationalised banks will be encouraged to enter the capital market to raise resources and offer new investment avenues to retail investors.

At present, the Government has decided, in principle, to list, large profitable CPSEs on domestic stock exchanges and to selectively sell small portions of equity in listed, profitable CPSEs, other than the *navratnas*.

Constitution of National Investment Fund

The Government has constituted a “National Investment Fund” (NIF) in 2005-06 into which the proceeds from disinvestment of Government equity in CPSEs would be channelised. NIF would be maintained outside the Consolidated Fund of India and would be professionally managed by selected Public Sector Mutual Funds to provide sustainable returns without depleting the corpus. 75 per cent of the annual income of NIF will be used to finance selected social sector schemes, which promote education, health and employment. The residual 25 per cent of the annual income of NIF will be used to meet the capital investment requirements of profitable and revivable CPSEs that yield adequate returns, in order to enlarge their capital base to finance expansion/diversification. The corpus of the fund as on 31st March, 2008 is Rs. 1651 crore.

During 2004-05, Government realized Rs. 2,684.07 crore from the sale of 43.29 crore equity shares of Rs. 10 each of National Thermal Power Corporation Ltd., Rs. 64.81 crore from the sale of shares of employees of IPCL and Rs. 15.99 crore as balance amount of realization from the Offer for Sale in ONGC.

During the year 2005-06, in January 2006, the Government realized a sum of Rs. 1,567.60 crore from the sale of 8 per cent of equity out of its shareholding of 18.28 per cent in Maruti Udyog Limited (MUL), to public sector financial institutions and banks. The average realization was Rs. 678.24 per share. Further, Rs. 2.08 crore was received by the Government in March 2006, from the sale of 31,507 equity shares in MUL to officers/employees of MUL at a price of Rs. 660 per share.

The residual Government shareholding of 10.27 per cent equity in MUL was sold in May, 2007 through the differential pricing method to Indian public sector financial institutions, public sector banks and Indian mutual funds. Government realised Rs. 2366.94 crore for the sale. The average realization per share was Rs. 797.49.

Five per cent of the pre-issue paid up equity of Power Grid Corporation of India Limited, out of Government's holding, was invested alongwith the Initial Public Offering of the Company consisting of fresh issue of equity equal to 10%. The issue opened for subscription in September, 2007. In October 2007, Government realized Rs. 994.82 crore from the sale of five per cent equity.

Ten per cent of the pre-issue paid up equity of Rural Electrification Corporation of India Ltd., out of Government's holding, was disinvested alongwith the Initial

Public Offering of the company consisting of fresh equity equal to 10%. The issue opened for subscription in February, 2008. In March, 2008 Government realized Rs. 819.63 crore from the sale of ten per cent equity

CM DIVISION

The Capital Market Division is responsible for formulating policies relating to protection of the interest of investors in securities and promotion of the development of and the regulation of the securities markets. In particular, it is responsible for a) institutional reforms in securities markets, b) building regulatory and markets institutions, c) strengthening investor protection mechanism and d) providing and efficient legislative framework for securities markets. In pursuance of these objectives, the Division Administers the Securities Contracts (Regulation) Act, 1956, Securities and Exchange Board of India Act, 1992 and the Depositories Act, 1996.

The measures taken during 2005-06 include:

Primary Market

- SEBI Disclosure and Investor Protection (DIP) Guidelines, 2000 relating to book-building issues were amended to introduce a specific allocation of 5 per cent for Mutual Funds, proportionate allotment to Qualified Institutional Buyers (QIBs) and margin requirement for QIBs.
- In order to ensure availability of floating stocks on a continuous basis and maintain uniformity for the purpose of continuous listing, it was decided to amend SEBI (DIP) Guidelines, 2000 prescribing minimum public shareholding of 25 per cent in case of all listed companies barring a few exceptions.
- In order to assist the investors, particularly the retail investors, in-principle approval was given for grading of IPOs by the rating agencies at the option of the issuers.
- In order to rationalise disclosure requirements, it was decided to do away with voluminous and repetitive disclosures in case of rights issues and public issues by the listed companies which have a satisfactory track record of filing periodic returns with the stock exchanges and have a comprehensive mechanism for satisfactory redressal of investor grievances.
- Listed companies were advised to comply with the provision of revised Clause 49 of the Listing Agreement on corporate governance, including appointment of the independent directors by 31 December 2005.

Secondary Market

- In order to ensure faster and hassle-free refunds, it was decided to extend the facility of electronic clearing services to refunds arising out of public issues, initially at 15 centres where clearing houses are managed by the Reserve Bank of India.
- In order to facilitate execution of large trades without impacting the market, the stock exchanges were permitted to provide a separate trading window for block deals subject to certain conditions. BSE and NSE activated this window with effect from 14 November 2005.
- SEBI advised the Depositories/DPs not to levy any charges when a Beneficiary Owner (BO) transfers all securities lying in his/her account to another branch of the same DP or to another DP of the same depository or another depository, provided the BO accounts at the transferee DP and at transferor DP are one and the same.

- In order to prevent off-market trades prior to the commencement of trading, SEBI advised Depositories that, in case of IPOs, the ISINs of securities should be activated only on the date of commencement of trading on the stock exchanges.
- It was decided to resume in phases registration under the MAPIN Regulations to obtain the Unique Identification Number with biometric impression for a trade order value of Rs 5 lakh and above.
- In order to streamline the settlement system consistent with IOSCO CPSS Task Force recommendations, it was mandated that all transactions executed on the stock exchanges would be necessarily settled through the clearing corporation/ clearing house of the stock exchanges.
- In order to expedite the Corporatisation and Demutualisation (C&D) of stock exchanges, SEBI approved and notified C & D schemes of 19 stock exchanges during 2005-06. The NSE and OTCEI have been exempted from submitting C & D schemes as they were already notified as corporatised and demutualised stock exchanges.
- The cumulative debt investment limit for FII investment in debt securities for 2006-07 has been revised upward within the overall limit of External Commercial Borrowings (ECBs). While such limit for Government securities (G-sec), including Treasury Bills, was raised from US \$ 1.75 billion to US \$ 2.0 billion, the same for the corporate debt was increased from US \$ 0.5 billion to US \$ 1.5 billion.
- In order to provide flexibility to corporate restructuring, SEBI (Substantial Acquisition of Shares and Takeovers) Regulations, 1997 is being amended to provide for removal of restrictions on market purchases and preferential allotments. The outgoing shareholders can sell entire stake to the incoming acquirer in case of takeover. However, if the target company's minimum public shareholding falls below the prescribed minimum, the restoration should take place through a framework provided by the revised Clause 40A of the Listing Agreement.
- In order to simplify the existing framework, the SEBI (Delisting of Securities) Guidelines, 2003 were amended making it possible for stock exchanges to delist the shares of companies non-compliant with the Listing Agreement.

Collective Investment Scheme

- Mutual funds were allowed to participate in the derivatives market in the same manner as the FIIs, subject to position limits.
- The SEBI (Mutual Funds) Regulations, 1996 were amended and a notification was issued on 12 January 2006 permitting mutual funds to introduce Gold Exchange Traded Funds (GETFs) in India subject to certain investment restrictions.
- Mutual funds were permitted to invest in ADRs, GDRs and foreign securities. In case, disclosures to this effect were not made in the offer document, all mutual funds were advised to send a written communication to the investors about the proposed investment.
- The Venture Capital Funds were allowed to invest in securities of foreign companies subject to the conditions stipulated by RBI and SEBI from time to time.

EXTERNAL COMMERCIAL BORROWINGS

External Commercial Borrowings are being permitted as an additional source of funds to Indian corporates and PSUs for financing expansion of existing capacity as well as for fresh investment, augmenting the resources available domestically. ECBs refer to commercial loans, [in the form of bank loans, buyers' credit, suppliers' credit, securitised instruments (e.g. floating rate notes and fixed rate bonds)] availed from non-resident lenders with a minimum average maturity of 3 years. The ECBs are approved within an overall annual ceiling, consistent with prudent debt management, keeping in view the balance of payments position and the level of foreign exchange reserves of the country.

The policy is regularly reviewed in consultation with the Reserve Bank of India (RBI) keeping in view the current macroeconomic situation, challenges faced in external sector management and the experience gained so far in administering ECB policy. In the background of developments in recent months, Government announced amendments to the ECB policy on 3 June 2005 and in January 2006.

The ECB can be accessed under two routes, namely, (i) Automatic Route and (ii) Approval Route. ECB for investment in the real sector - industrial sector, especially infrastructure sector in India - is under the Automatic Route, i.e., will not require RBI/Government approval. The maximum amount of ECB which can be raised by an eligible borrower under the Automatic Route is US\$ 500 million during a financial year. The following is permissible under the Automatic route: (a) ECB up to US \$ 20 million or equivalent with minimum average maturity of 3 years. (b) ECB above US\$ 20 million and up to US\$ 500 million or equivalent with minimum average maturity of 5 years.

All cases, which fall outside the purview of the Automatic Route, will be decided by an Empowered Committee of RBI.

Eligible borrowers : Under the extant policy, corporates registered under the Companies Act, 1956, except financial intermediaries such as banks, financial institutions (FIs), housing finance companies and Non-Banking Finance Companies (NBFCs), are eligible. Subsequently, NGOs engaged in micro-finance activities have been permitted to raise ECB up to US\$ 5 million during a financial year for permitted end-use, under the automatic route. The Multi State Co-operative Societies engaged in manufacturing activities in real sector with financial solvency and up-to-date audited balance sheet have been permitted to access ECB under the Approval Route. Detailed guidelines have been issued by RBI. The eligibility/end-use has been expanded as follows: (a) ECB by NBFCs will be permitted under the Approval Route from multilateral financial institutions, reputed regional financial institutions, official export agencies and international banks towards import of infrastructure equipment for leasing to infrastructure projects with a minimum average maturity of 5 years. (b) Foreign Currency Convertible Bonds (FCCBs) by Housing Finance Companies with strong financials satisfying criteria to be notified by RBI, will be permitted under the Approval Route.

Individuals, Trusts and non-profit making organisations, except NGOs as mentioned above, are not eligible to raise ECB.

Financial institutions dealing exclusively with infrastructure or export finance such as IDFC, IL&FS, Power Finance Corporation, Power Trading Corporation, IRCON and EXIM Bank are considered on a case-by-case basis i.e., through the approval route.

Banks and financial institutions which had participated in the textile or steel sector restructuring package as approved by the Government are permitted to the extent of their investment in the package and assessment by RBI based on prudential norms. Any ECB availed for this purpose so far is deducted from their entitlement.

Recognised Lenders : Borrowers can raise ECB from internationally recognised sources such as : (i) international banks, international capital markets, multilateral financial institutions (such as IFC, ADB, CDC, etc.) (ii) export credit agencies and (iii) suppliers of equipment, foreign collaborators and foreign equity holders.

Interest Rate Spreads : All ECBs are subject to the following maximum spreads over six month LIBOR, for the respective currency of borrowing or the applicable benchmark(s) as the case may be:

Minimum Maturity	Average Period	All-in-Cost Over Six Months	Ceilings Libor*
3 years and up to 5 years		200 basis points	
More than 5 years		350 basis points	

* All-in-cost ceilings includes rate of interest, other fees and expenses in foreign currency except commitment fee, pre-payment fee and fees payable in Indian rupees. Moreover, the payment of withholding tax in Indian rupees is excluded for calculating the all-in-cost.

End-use : Permissible end-use/restrictions are explained below : (a) ECB can be raised only for investment (such as import of capital goods, new projects, modernisation/ expansion of existing production units) in real sector - industrial sector including small and medium enterprises (SME) and infrastructure sector - in India. Infrastructure sector is defined as : (i) power, (ii) telecommunication, (iii) railways, (iv) roads including bridges, (v) ports (both sea and air), (vi) industrial parks and (vii) urban infrastructure (water supply, sanitation and sewage projects); (b) ECB proceeds can be utilised for overseas direct investment in Joint Ventures (JV)/Wholly Owned Subsidiaries (WOS) subject to the existing guidelines on Indian Direct Investment in JV/WOS abroad; (c) Utilisation of ECB proceeds is permitted in the first stage acquisition of shares in the disinvestment process and also in the mandatory second stage offer to the public under the Government's disinvestment programme of PSU shares; (d) Utilisation of ECB proceeds is not permitted for investment in capital markets by corporates or for on-lending, except for cases mentioned above; (e) Utilisation of ECB proceeds is not permitted in real estate. The term 'real estate' excludes development of townships, housing, built-up infrastructure and construction-development projects as defined by Ministry of Commerce and Industry, Department of Industrial Policy and Promotion, SIA (FC Division), Press Note 3 (2002 Series) dated 4 January 2002; (f) End-uses of ECB for working capital, general corporate purpose and repayment of existing Rupee loans are not permitted.

Guarantees : Issuance of guarantee, standby letter of credit, letter of undertaking or letter of comfort by banks, financial institutions and NBFCs relating to ECB is not normally permitted. Applications for providing guarantee/standby letter of credit or letter of comfort by banks, financial institutions relating to ECB in the case of SME will be considered on merit subject to prudential norms.

Parking of ECB proceeds overseas : ECB proceeds should be parked overseas until actual requirement in India.

Prepayment : Under the earlier guidelines, prepayment of ECB up to US \$ 100 million was permitted without prior approval of RBI, subject to compliance with the stipulated minimum average maturity period as applicable for the loan. It has now been decided to revise this upward to US\$ 200 million, subject to minimum average maturity of five years. Pre-payment of ECB for amounts exceeding US\$ 200 million or prepayment of ECBs with minimum average maturity of 3-5 years would be on the Approval Route.

Refinance of existing ECB : Refinancing of existing ECB by raising fresh ECBs at lower cost is permitted subject to the condition that the outstanding maturity of the original loan is maintained.

Foreign Currency Convertible Bonds (FCCBs) : The policy for ECB is also applicable to FCCBs in all respects, except in the case of Housing Finance Companies for which criteria will be notified by RBI.

The amendments to the ECB guidelines will come into force from the date of notification of regulations/directions by RBI under the Foreign Exchange Management Act, 1999.

As announced in Budget 2006-07, the limit on FII investment in Government securities has been increased from \$1.75 billion to \$ 2 billion and the limit on FII investment in corporate debt from \$ 0.5 billion to \$ 1.5 billion. The cap of US \$ 2 billion is applicable to FII investments in dated Government Securities and Treasury Bills only, both under 100 per cent debt route and the general 70:30 route. FII investment in corporate debt with commutative sub-ceiling of US \$ 1.50 billion would be over and above the sub-ceiling of US \$ 2 billion for Government debt. Also the ceiling for FII investments in Government securities and for corporate debt is not fungible. The overall ceiling for ECBs including limit for investment by FIIs for the financial year 2006-07, as recommended by RBI, has been increased from US \$ 15 billion to US \$ 18 billion.

PENSION REFORMS

On 23 August 2003, the Government decided to introduce a new restructured defined contribution pension system called New Pension System (NPS) for new entrants to Central Government service, except to Armed Forces, in the first stage, replacing the existing defined benefit system. It was operationalised from 1 January 2004 through a notification dated 22 December 2003. An interim Pension Fund Regulatory and Development Authority (PFRDA) was constituted through a Government resolution dated 10 October 2003 as a precursor to a statutory regulator and became operational from 1 January 2004.

Till the architecture is fully in place, the Central Pension Accounting Office (CPAO) under the Controller General of Accounts, Department of Expenditure is acting as the interim Central Recordkeeping Agency (CRA). Contributions are currently being credited into the public account earning a return equal to the GPF rate.

A Bill providing for a regulatory framework for the pension sector under the Pension Fund Regulatory and Development Authority was introduced in Parliament on 21 March 2005 and was referred to the Standing Committee on Finance. The Committee presented their report in Parliament on 26 July 2005. The recommendations of the Committee have been examined and a proposal for amending the PFRDA Bill,

2005, based on the recommendations of the Committee is under the Government's consideration.

The Bill proposes that the main mandate of PFRDA is to regulate the NPS, as amended from time to time by the Central Government. Pension Schemes already covered under the Employees Provident Fund & Miscellaneous Provisions Act, 1952 and other enactments would be specifically excluded from the architecture of the NPS including the Central Recordkeeping Agency (CRA) and pension funds. Further, the Bill provides that PFRDA will frame investment guidelines for pension funds. There are provisions empowering PFRDA to impose stringent penalties for any violation of the law and to create a special fund, to be used for educating and protecting the interests of subscribers to schemes of pension funds.

Press releases and notifications relating to pension reforms can be assessed at the Ministry of Finance website www.finmin.nic.in.

Investment Guidelines for Non-government Provident Funds, Superannuation Funds and Gratuity Funds : The Ministry of Finance notifies the investment pattern for non-Government provident funds, superannuation funds and gratuity funds. The investment pattern dated 24 January 2005 notified by the Ministry of Finance prescribes that incremental accretions by such funds shall be invested as follows :

- 40 per cent in Capital and State Government securities and/or units of gilt funds regulated by SEBI and any other negotiable securities fully and unconditionally guaranteed by the Central/State Government or any State Government, provided that exposure of a trust to any individual gilt fund should not be more than 5 per cent of its total portfolio at any point of time;
- 25 per cent in bonds/securities of public financial institutions and public sector companies including public sector banks provided that these instruments have an investment grade rating from at least two credit rating agencies; and/or term deposit receipts upto three years issued by public sector banks, and Collateral Borrowing and Lending Obligations (CBLOs) issued by Clearing Corporation of India Limited and approved by RBI;
- Another 30 per cent can be invested in any of the above categories as decided by the Trustees. Upto 10 per cent of this can be invested in private sector debt instruments which have an investment grade rating from at least two credit rating agencies and/or in equity-linked schemes of mutual funds regulated by SEBI;
- Upto 5 per cent can be invested in shares of companies that have an investment grade debt rating from at least two credit rating agencies.

The investment pattern dated 24 January 2005 notified by the Ministry of Finance can be accessed at the Ministry of Finance website www.finmin.nic.in.

International Ratings : In April 2006 S&P revised their long-term foreign currency rating on India from BB+ (with stable outlook) to BB+ (with positive outlook). Moodys' reaffirmed their last year's Foreign Currency Rating for the year of 2006 at Baa3 with a stable outlook, while Fitch's current rating is BBB-with a stable outlook.

Indian Direct Investment in Joint Ventures/Wholly Owned Subsidiaries Abroad/ Bilateral Investment Promotion and Protection Agreement (BIPA) : The policy on Indian Direct Investment Abroad has been consistently liberalised in the recent past contributing to significant growth in overseas investment by Indian corporates. The

liberalised policy is aimed at enabling Indian industry to access new markets and technologies with a view to increasing their competitiveness globally and promote exports.

The policy was further liberalised to enable Indian corporates to make investments in Nepal and Bhutan in freely convertible currencies, in addition to Indian rupees. The inward remittances of interest/dividends/profits from the investment in Nepal and Bhutan have been allowed in freely convertible currencies, in addition to Indian rupees.

The approved Indian Direct Investment Abroad has increased by more than four times from 290 approvals in 1996-97 to 1229 approvals in 2003-04. During the same period, the value of approved investments has increased by more than 2.5 times, from US\$ 557 million to US\$ 1450 million. During the year 2004-05 (Apr to Nov 2004), 793 approvals were issued for overseas investments worth US\$ 987 million.

During the year Bilateral Investment Promotion and Protection Agreements were signed/ratified with Cyprus, Bahrain, Indonesia and Yemen and negotiations were conducted with Saudi Arabia, Uruguay, Canada, Latvia and SAARC countries for finalising and concluding the agreement. So far agreements have been signed with 57 countries of which 47 have been ratified and others are in various stages of ratification.

ADR/GDR/FCCBS ISSUES

A scheme was initiated during 1992/1993 to allow the Indian Corporate Sector to have access to the Global Capital Markets through issue of Foreign Currency Convertible Bonds (FCCBs)/Equity Shares under the Global depository Mechanism.

Liberalisation in the guidelines are announced from time to time and the recent initiatives are listed below :

- Pricing guidelines for Indian listed companies FCCB/ADR/GDR were brought in alignment with SEBI's guidelines on domestic capital issues.
- Unlisted companies issuing FCCB/ADR/GDRs are now required prior or simultaneous listing in domestic stock exchange(s).
- Unlisted companies, which have issued ADR/GDR/FCCB, now required to list in domestic market by 31 March 2006. However, unlisted companies which had accessed FCCBs, ADR/GDRs in terms of guidelines at 22 May 1998 and are not making profit, be permitted to comply with listing condition on the domestic stock exchanges within three years of having started making profit. However, no fresh issues of FCCBs, ADR/GDRs by such companies will be permitted without listing first in the domestic exchanges.
- In order to rationalise the ADR/GDR guidelines further, Government exempted the companies, going in for an offering in the domestic market and a simultaneous or immediate follow on offering (within 30 days of domestic issue) through ADR/GDR issues wherein GDRs/ADRs are priced at or above the domestic price, from the requirement of the revised pricing guidelines.
- Unlisted Indian companies, which had issued FCCBs, ADRs/GDRs prior to 31 August 2005 and are not making profit are also permitted to sponsor such issues against existing shares and are permitted to comply with listing conditions

on the domestic stock exchanges within three years of having started making profits.

PORTFOLIO INVESTMENTS BY FOREIGN INSTITUTIONAL INVESTORS

A scheme for attracting portfolio from Foreign Institutional Investors (FIIs) has been operational since September 1992. Under this scheme, FIIs including institutions such as Pension Funds, Mutual Funds, Investment Trusts, Asset Management Companies, Nominee Companies and Incorporated/Institutional Portfolio Managers or their power of attorney holders are allowed to invest in all the securities traded on the primary and secondary markets as also in unlisted companies. Such securities would include shares, debentures and warrants issued by companies which are listed/to be listed on the Stock Exchanges in India and the schemes floated by domestic mutual funds.

Such portfolio investments by FIIs are subject to investment ceilings as indicated below:

- (i) Individual FII/Sub-account : 10 per cent issued and paid-up capital in a company.
- (ii) Aggregate by all FIIs : 24 per cent of the issued and paid-up capital in a company which could be increased up to the sectoral cap/statutory ceiling, as applicable, by the Indian company concerned by passing a resolution by its Board of Director followed by passing of a special resolution to that effect by its General Body.

The Lahiri Committee which was constituted to identify the sectors in which Foreign Institutional Investors (FIIs) portfolio investments will not be subject to the sectoral limits for Foreign Direct Investment except in specified sectors has submitted its report to Government. Besides making recommendation which would apply, in general, to all sectors, Committee has made specific recommendations for some sectors. The report of the Committee has been put on the web-site of this Ministry (www.finmin.nic.in) for wider dissemination. Consultation with concerned Department for implementing the recommendations has been taken up separately.

EXPENDITURE

The National Institute of Financial Management (NIFM) was set up in 1993 under the Ministry of Finance, Department of Expenditure as a society, registered under Societies Registration Act, 1860 to impart Professional training to directly recruited Group "A" Probationers of various Finance & Accounts Services.

NATIONAL INSTITUTE OF FINANCIAL MANAGEMENT

The Union finance Minister, the Minister of State in the Ministry of Finance, the Secretary to the Government of India, Department of Expenditure and the heads of various accounting services, are ex-official members of the Registered Society for providing broad policy guidelines. Currently the Institute runs three long-term programmes - Professional Training Course of 44 weeks for newly recruited probationers of Accounting Services; a one year Diploma Course in Govt. Accounts & Internal Audit and a two-year Post-Graduate Diploma in Business Management

(Financial Management) programme for officers of Central Government, the State Government, Public Sector undertakings and other Organizations under Government. In addition, NIFM also conducts short term programmes for Central Government, State Government, PSUs. Autonomous Bodies and Officers from different foreign countries also participate in the programmes. NIFM also provides consultancy services to various departments and organizations of the Govt. of India, State Govt, PSUs, Autonomous Body, Universities and foreign courtiers.

STAFF INSPECTION UNIT

The Staff Inspection Unit (SIU) was set up in 1964 with the objective of securing economy in the staffing of Government Organisations consistent with administrative efficiency and evolving performance standards and work norms. In the change scenario and keeping in view the Government emphasis on better governance and improved delivery of services, the role of SIU has been re-defined. The SIU has now been positioned to act as catalyst in assisting the line Ministries and autonomous organisations in improving their organizational effectiveness, through improved organizational structure/processes, optimum utilization of resources and focusing on monitorable, measurable outcome and specific deliverables.

ESTABLISHMENT DIVISION

Establishment Division is the nerve centre for the entire gamut of the service conditions of the Central Government employees having financial content. Basically, these include revision/prescription of pay scales, fixation of pay and various allowances. The proposals received from various Ministries/Departments of the Government seeking clarification in regard to revision and prescription of pay scales, increments, deputation allowance and cadre review of various categories of posts are examined in this division keeping in view the equity and comparable relativities and duties. Besides, this Division also functions as the Cadre Authority for the Indian Cost Accounts Service (ICAS) and also attends to vigilance related issues. A Public Grievance Redressal Machinery with Joint Secretary in charge of Administration as the Director of Grievances is also functioning in this department. A "Complaint Committee" has also been constituted in this Department as per the guidelines of the Supreme Court for redressing the grievances of women.

PLAN FINANCE-I

The Plan Finance-I Division handles matters relating to States' finances and financing of States' Annual Plans. It release Central Assistance to States for their Annual Plans including the assistance for externally aided projects, additional Central assistance for Jawaharlal Nehru National Urban Renewal Mission , Hill Areas/Western Ghats Development Programmes, Border Areas Development Programmes, Accelerated Irrigation Benefit Programmes, Accelerated Power Development Programme, Additional Central assistance for other specific schemes/projects of the States, Special Plan Assistance to States, National Social Assistance Programme including Annapurna, Special Central assistance for Backward Region Grant Fund, National E- Governance Programme, Isunami Rehabilitation Programme and long term reconstruction of assets damages during 2005-06 floods.

The various types of assistance allocated/released during 2008-09 and the Budget provision made for the Schemes during 2009-10 are as under:-

(Rs. in Crores)

Sl. No.	Items/Schemes	Allocation for 2008-09 (RE) + Re-appropriation	Amount released during 2008-09	Allocation for 2009-10 (BE) (Grant) (As per interim budget 2009-10)
A.	Plan Assistance			
1.	Normal Central Assistance for States' Plan	15,993.50	15,948.17	18,272.37
2.	Addl. Central Assistance for Externally Aided Projects	11,007.94	10,434.22	4,550.00
3.	Special Plan Assistance to Arunachal Pr., Assam, Chhattisgarh, Himachal Pr., J&K, Manipur, Punjab, Uttaranchal & U.P.	4,705.14	4,705.14	4,602.00
4.	Addl. Central Assistance for other specific Scheme/Projects	1,443.40	1,443.40	1,481.00
5.	Addl. Central Assistance for Nutrition Programme for Adolescent Girls (NPAG)	162.77	23.32	162.77
6.	Central Assistance for Accelerated Power Development Reform Programme (APDRP)	436.03	436.03	0.00
7.	Central Loan Assistance for Accelerated Irrigation Benefit Programme (AIBP)	8,501.94	8,501.89	8,700.00
8.	National Social Assistance Programme including Annapurna (NSAP)	4,442.24	4,442.24	5,109.24
9.	Central assistance for Hill Areas/Western Ghats Development Programme	272.00	271.88	272.00
10.	Special Central Assistance for Border Areas Development Programme (BADP)	635.00	635.00	635.00
11.	Central Assistance for Backward Region Grant Fund	1,130.00	1,130.00	1,130.00
12.	National E. Governance Action Plan (NEGAP)	469.37	284.21	469.37
13.	ACA for Sub-Mission on Urban Infrastructure and Governance (SMUIG)	4,400.37	4,400.37	4,686.69
14.	ACA for Urban Infrastructure Development for Small and Medium Towns (UIDSSMT)	3,279.69	3,279.69	2,973.90
15.	ACA for Sub Mission on Basic Services to Urban Poor (SMBSUP)	1,472.68	1,472.68	2,043.95
16.	ACA for Integrated Housing and Slum Development (IHSDP)	1,295.24	1,295.24	1,009.30
17.	Tsunami Rehabilitation Programme (TRP)	1,183.00	1,182.68	336.98
18.	Brihan Mumbai Storm Water Drain Project (BRIMSTOWA), Mumbai	100.00	100.00	200.00
19.	Commonwealth Youth Games, Pune	60.00	60.00	0.0
20.	ACA for Long Term Reconstruction Plan	1,198.50	645.15	0.0
21.	ACA for Desalination Plant	300.00	300.00	300.00
	Total (A)	62,488.81	60,991.31	56,934.57

PLAN FINANCE-II DIVISION

Plan Finance-II Division is primarily concerned with matters relating to the Central Plan. PF.II Division serves as a window within the Finance Ministry, which has an overview of the entire canvas of development activity of the Central Government, both at the project level and sectoral policy level. In respect of development schemes and projects, the focus has been on improving the quality of development expenditure through better project formulation, emphasis on outputs, deliverables, impact assessment, projectisation (Mission approach) and convergence.

With the commencement of the Eleventh Plan period, Revised Guidelines for Formulation, Appraisal and Approval of Government funded Plan Schemes/Projects have been issued vide O.M. No. 1(3)/PF.II/201, dated 15th November 2007 which has been issued afresh so as to rationalize the Schemes of delegation further, align it more closely with the rapidly changing economic environment, empower Ministries/Departments further for undertaking investments programmes and make the entire procedure more responsive and resilient in ensuring timely and well informed decision making. These guidelines, which will be applicable over the during of 11th Plan period are available at this Ministry's website (www.finmin.nic.in)

During the period from 1st January to 31st December 2008, **113** meetings of the Expenditure Finance Committee (EFC) chaired by Secretary (Expenditure) considered **108** Plan investment proposals/schemes of various Ministries/Departments costing Rs.2,58,670.25 crore. Also, 14 meetings of Public Investment Board (PIB) were held and 13 projects with a capital outlay of Rs.49,233.84 crore were recommended for approval of competent authority. The Ministry/Department wise position of projects considered by PIB is as below :

S.No.	Ministry/Department	No.of projects recommended for approval	Cost (Rs. crore)
1.	Power	5	30,354.76
2.	Shipping	2	919.25
3.	Coal	3	1,242.37
4.	Civil Aviation	2	2,117.46
5.	Urban Development	1	14,600.00
Total		13	49233.84

Plan Finance-II Division also deals with financial restructuring of Central PSUs on the recommendations of Bureau for Restructuring of Public Sector Enterprises (BRPSE). Plan Finance-II Division also deals with issues relating to Food, Fertilizer and Petroleum subsidies.

CONTROLLER GENERAL OF ACCOUNTS

According to Article 150 of the Constitution of India the accounts of the Union and the States shall be kept in such form as the President may on the advice of Comptroller and Auditor General of India prescribe. This function of the President has been allocated to Controller General of Accounts in terms of Article 77 (3) of Constitution of India. The Controller General of Accounts (CGA) is the principle advisor to the

Government of India on accounting matter and is responsible for establishing and maintaining a sound and efficient accounting and financial reporting system.

Principles and Form of Accounts: The CGA prescribes general principles and form of accounts of government relating to Union as well as State governments and frames rules and manuals relating thereto. In exercise of this power, CGA is entrusted with the responsibility of framing and administering Government Accounting Rules, Central Government Accounts (Receipts & Payments) Rules, Central Treasury Rules, Accounting Rules for Treasuries, Account Code for State Accountant Generals, Account Code – Vol III, List of Major and Minor Heads of Account, Civil Accounts Manual, Suspense Manual, Drawing and Disbursing Officers Manual and Inspection Code.

Budgetary Control, Payments, Receipts Collection and Accounting : The CGA, through Chief Controller/Controller of Accounts and their Pay and Accounts Offices, carries out the budget control, payments, receipts collection and accounting functions of the Union. The CGA also prescribes the banking arrangement for government transactions and closely monitors movement of cash through a network of over 20,000 bank branches authorised to handle government transactions, into and out of the Government cash balance with Reserve Bank of India.

Financial Reporting : The CGA provides regular feedback to the Finance Minister and other line Ministries on the status of Government finances. He submits a critical fiscal analysis to the Finance Minister every month and releases data on Central Government Operations on the Internet in compliance with the Special Data Dissemination Standards (SDDS) of IMF. The CGA also compiles the annual accounts of the Union Government. The accounts comprising the Union Government Finance Accounts and the Appropriation Accounts, are presented before the Parliament duly audited by the Comptroller and Auditor General of India. A summary of these accounts is presented by the CGA in the form of “Accounts at a Glance” with a view to provide better understandability to the users of these documents.

Technical Advice on Accounting Matters : The CGA provides advice to all Ministries/ Departments and State Governments on various accounting matters. The advice rendered by the CGA covers aspects related to maintenance of accounts, accounting procedures for new schemes/programmes or activities, collection of receipts and its crediting into Government account, release of payment and its accounting, creation and operation of funds within Government accounts, banking arrangements of making payments and collecting receipts, etc.

Disbursement of pension: The CGA is also responsible for disbursement and accounting of pension payments to Government employees retiring from all civil ministries. The functions are discharged through Central Pension Accounting Office (CPAO), which was created with the primary objective of simplifying the procedure of pension disbursement and accounting and providing better quality service to the pensioners. The CPAO is the central budgeting and accounting unit for the civil pensions. It functions as a single point interface between the Government, the banks and pensioners. With the introduction of modern technology, CPAO is able to serve over 6,00,000 pensioners spread all over the country through the network of bank branches specially authorised for pension disbursement.

Internal Audit: The Internal Audit function is carried out with the help of Internal Audit units in every Ministry, supervised by the respective Controller of Accounts;

the Inspection Wing of CGA also provides guidance to the Controller of Accounts on this subject.

The CGA also brings out annual review report based on the performance of Internal Audit Wing of various Ministries/Department, highlighting major irregularities, such as those involving over payments, non-recovery of Government dues, losses or infructuous expenditure, irregular procurement, etc., observed during the course of internal audit.

Capital Restructuring and Disinvestment of PSUs: The Controller General of Accounts is responsible for evaluating and processing the proposals relating to the capital restructuring of various public sector undertakings (PSUs) of the Union Government and its submission to the Ministry of Finance. Generally the proposals involve appraisal of the strategy proposed for reviewing the unit. Each proposal is evaluated on the basis of company specific options available. In evaluating these proposals a clear distinction is made between the Government's role as a regulator and its commercial interests as owner of an industry participant.

With the setting up of Board of Reconstruction of Public Sector Enterprises, the Capital Restructuring Cell in the Office of Controller General of Accounts has been offering their comments on the proposals for consideration of the Board as well as on proposals for restructuring received from administrative Ministries.

Centre of Excellence for Internal audit : A Centre of Excellence for Internal audit has been established in the Office of Controller General of Accounts with the following objectives :

- (i) Develop into a repository of technical resource and guidance center for advising internal audit wings of line Ministries on effective, independent and objective internal audit functions, procedures, and "best practices". The approach of COE will be to cover important aspects of risk management strategy and the management control framework and practices;
- (ii) Enhance the quality of internal audit so that the result of internal audit become an input into the processes of planning, project formulation and implementation and
- (iii) Provide an assurance to the management tht the "controls" in place provide adequate protection against likely "risks".

Core Accounting Solution : The office of CGA has taken initiative to achieve Core Accounting Solutions in phases. This program aims at a seamless electronic data transfer related to payment and receipt information, accounting information and reconciliation information in a secure environment. This will establish a centralized database to enable the organization to act as a single window for accussing all information related to accounts and other MIS data for decision making. By using Information Technology for compressing the timelines for submission of audited accounts and ensuring real time reporting of revenue/expenditure data financial management in Government is expected to improve significantly.

Human Resource Development: The CGA manages the cadre of the Indian Civil Accounts Service (ICAS) and the entire accounts personnel deployed in civil ministries and is responsible for the entire gamut of personnel management including their recruitment, transfers, promotions, training, and capacity building both within the country as well as abroad, and periodical reviews of cadre strength and distribution.

Training: The Institute of Government Accounts and Finance (INGAF) has been setup in the year 1992 under the CGA to meet the training needs of the Civil Accounts personnel. The Institute has developed itself into a centre of academic excellence in the field of Government Accounts and Finance. It acts as a 'think-tank' of the Civil Accounts Organisation providing feedback to the Controller General of Accounts on the training needs and various technical matters.

Besides training the officers and staff of the Civil Accounts Organisation the Institute has also been training personnel of various Ministries and Departments of the Central as well as State Governments. INGAF also provides consultancy services to various Government and autonomous bodies. The Institute has been conducting training for the accounts and finance personnel of several foreign governments under the Internal Technical and Economic Cooperation (ITEC) programme of the Ministry of External Affairs and also under bilateral cooperation. The Institute has its main centre at Delhi and regional centres at Mumbai, Chennai and Kolkata.

Parliamentary Financial Control: Monitoring Cell in office of CGA is entrusted with monitoring the progress of submission by Ministries of remedial/corrective Action Plan Taken Notes on recommendations of Public Accounts Committee (PAC), as contained in their reports from time to time. It is further entrusted with the task of coordination, collection and monitoring the submission of Action Taken Notes on various Paras contained in C&AGs Report (Civil). Besides it is also responsible for coordination, collection and timely submission to the Public Accounts Committee of explanatory Notes by Ministries/Depts on "excess expenditure" and "savings" of Rs. 100 crores and above appearing in the annual appropriations accounts. In addition, the Monitoring Cell monitors the receipt of Utilization certificates from Grantee Institutions by various Ministries/Deptt. of Government of India.

Besides training the officers and staff of the Civil Accounts Organisations the Institute has also been training personnel of various Ministries and Departments of the Central as well as State Governments.

Central Plan Schemes Monitoring System : The Plan Accounting & Public Finance Scheme also known as Central Plan Schemes Monitoring System is being implemented by Controller General of Accounts w.e.f. 01-04-2008 to establish a comprehensive decision support system and Management Information System in respect of Plan Scheme.

In the first phase of the implementation of the scheme, every sanction issued by different Ministries of Government of India for the releases of funds under Plan Schemes is captured by generation of unique Sanction ID in the specially designed CPSMS Portal of CGA's website to facilitate the Tracking of funds release to implementing agencies under a plan scheme. The system thus created has been able to generate grant/release/State wise report on disbursements for plan schemes. Pilot have also been conducted in Karnataka or Punjab states for selected schemes to capture component wise expenditure from the lowest level of implementation.

FINANCE COMMISSION DIVISION

Finance Commission Division undertakes processing of and follow up action on the various recommendations and suggestions of Finance Commission's reports including issue of Presidential/Executive Orders and sanctions. Under Article 280 of the constitution, a Finance Commission is to be constituted every fifth year or at

such earlier time as President on specified aspects of Centre-State Fiscal relations. The recommendations of the Commission together with an Explanatory Memorandum as to the action taken thereon, are laid before each House of Parliament.

The *Twelfth Finance Commission* (TFC) was appointed by the President on 1st November 2002 under the Chairmanship of Dr. C. Rangarajan. It submitted its report covering all the aspects of its mandate on December, 17 2004. The TFC report covering the five year period commencing 1st April, 2005 together with the Explanatory Memorandum as to the action taken on the recommendations of the Finance Commission was laid on the Table of the both Houses of the Parliament on 26.2.2005. Govt. of India has accepted recommendations of the TFC.

Debt Consolidation and Relief Facility (2005-10)

Debt Consolidation and Relief Facility (DCRF), formulated as per recommendations of Twelfth Finance Commission (TFC) has two components - consolidation of central loans (from Ministry of Finance); and debt waiver. TFC has recommended that the Central loans to States contacted till March 31, 2004 and outstanding on March 31, 2005 (estimated by TFC at Rs. 1,28,795 crore), may be consolidated and rescheduled for a fresh term of 20 years (resulting in repayment in 20 equal instalments), and an interest rate of 7.5 per cent be charged on them. So far central loans (from Ministry of Finance) of 28 out of 26 (except West Bengal and Sikkim) States have been consolidated to the extent of Rs. 1,12,076 crore. J&K is among the States that enacted FRBMAs, a prerequisite for availing benefits under DCRF, whose debts are to be consolidated. Debt consolidation has provided interest relief to the State to the extent of Rs. 4392 crore, Rs. 3,995 crore and Rs. 3,398 crore in 2005-06, 2006-07, 2007-08 and 2008-09 respectively.

The second component of DCRF is debt waiver. Debt waiver for 2005-06 has been awarded to 15 States to the extent of Rs. 3,984.35 crore, to 20 States for 2006-07 to the extent of Rs. 4,691.56 crore, to 18 States for 2007-08 to the extent of Rs. 4,609.55 crore and of Rs. 5,431.88 crore to 23 States in 2008-09.

Thus, from 2005 to 2009 States have been granted debt-waiver for an aggregate amount of Rs. 19,032.87 crore and interest relief of Rs. 15,688.64 crore.

Share in Central Taxes and Duties and Grants-in-aid

The 12th Finance Commission in their report for the period 2005-10 has recommended a total transfer of Rs.7,55,752 crore (Share in central taxes and duties of Rs. 6,13,112. Crore and Grants-in-aid of Rs. 1,42,640 crore) to States. The grants-in-aid recommended by TFC under the following sectors and the releases so far are :

(Rs. in crore)

Sl.No.	Purpose of Grant	During 2005-10	Released (till 17.6.2009)
1.	Local Bodies grants	25,000	18,588.47
2.	Centre's share in Calamity Relief	16,000	12,687.64
3.	Non-Plan revenue deficit grants	56,856	49,709.67
4.	Grant for education	10,172	7,626.97

5.	Grant for health	5,887	4,119.90
6.	Grant for maintenance of roads and bridges	15,000	11,783.40
7.	Grant for maintenance of public buildings	5,000	3,326.68
8.	Grant for maintenance of forest.	1,000	744.32
9.	Grant for heritage conservation.	625	395.42
10.	Grant for State-specific needs	7,100	4,358.36
Total		1,42,640	1,13,340.91

Financing of relief expenditure

The 12th Finance Commission has recommended the continuation of the scheme of calamity relief fund in its present form with contribution from the Centre and the States in the ratio of 75: 25. Out of the Centre's share of CRF, Rs. 2622.94 crore, Rs. 3,521.06 crore, Rs. 2,843.66 crore, Rs. 3,220.48 crore were released during the years 2005-06, 2006-07, 2007-08 and 2008-09 respectively, and Rs. 668.94 crore has been released during 2009-10 (upto 17.6.2009) to States. Out of the NCCF, central assistance of Rs. 3,061.44 crore, Rs. 1962.05 crore, Rs. 373.38 crores and Rs. 2,279.92 crore were released during the year 2005-06, 2006-07, 2007-08 and 2008-09; and Rs. 32.29 crore has been released during 2009-10 (upto 17.6.2009) to the States towards calamities of rare severity.

Office of Chief Adviser (Cost)

Office of Chief Adviser Cost (CAC), erstwhile Cost Accounts Branch, is one of the divisions functioning in the Department of Expenditure. Office of the CAC is responsible for advising the Ministries and Government Undertakings on cost accounts matters and to undertake cost investigation work on their behalf. It is a professional agency staffed by Cost/Chartered Accountants.

It was set up as an independent agency of the Central Government to verify the cost of production and to determine the fair selling price for Government Departments including Defence purchases in respect of the cases referred to. The role of the office was further enlarged and extended to fixing prices for a number of products covered under the Essential Commodities Act, such as, Petroleum, Steel, Coal, Cement, etc. under the Administered Price Mechanism (APM). Since cost/pricing work in the Ministries increased significantly, various other Ministries/Departments started to have their in house expertise by seeking posting of services of officers for work needing expertise in cost/commercial accounts matters.

As a repository of expertise in cost, management and financial accountancy in government, this office is rendering professional assistance to different Ministries and Government agencies. In the Post liberalization era, the office is receiving and conducting studies in synchronization with the liberalization policy of the Government in addition to the traditional areas of cost-price studies. The office of the CAC ventured into new areas and is conducting studies having greater relevance to the changing situation.

Chief Adviser Cost Office, as a repository of expertise in Cost and Management Accounting matters, over the years, had emerged as a prime professional agency in dealing with matters relating to costing and pricing, studies on cost reduction, cost efficiency, industry level studies for determining fair prices, studies on user charges, central excise abatement matters, cost-benefit analysis of projects, Commercial

Financial Management analysis, appraisal of capital intensive projects, profitability analysis and application of modern management tools evolving cost and commercial financial accounting etc.

Chief Adviser Cost's Office is also cadre controlling office for the Indian Cost Accounts Service (ICAS) and render advice on matters relating to the cadre administration including training requirements of the officers for continuous up-gradation of their knowledge and skills, besides being responsible for undertaking various type of studies referred to above. The office also provides necessary coordination, input and training for proper human resource development of ICAS Officers in addition to rendering professional guidance to the ICAS officers working in different participating organizations.

The major areas of professional functions of the office of the Chief Adviser Cost are as under: -

- (i) Assisting all Central Government Ministries/Departments/ Organizations/ State Governments/Union Territories in solving complex Price/Cost related issues, in fixing fair prices for various services/products and rendering advice to various Ministries/Departments in cost matters.
- (ii) Examination/Verification of claims between Government Departments/ Public Sector undertakings and suppliers arising out of purchase contracts.
- (iii) Determining prices of products and services supplied to Government, in order to enable Government Departments to negotiate the prices with the supplying organizations.
- (iv) Unit specific as well as industry level studies for determining cost/fair prices and making recommendations for fair prices/rates for products and user charges for services, revision of these charges and also to determine reasonableness of prices charged, duty structure, etc.
- (v) Valuation of assets and liabilities of business taken over and shares of public sector undertakings.
- (vi) Functioning as Chairman/Members of Committee constituted by Government/ different Departments related to Cost/financial and Pricing matters.
- (vii) Cost and performance audit of industrial undertaking.
- (viii) Concurrent Internal audit of Escalations claims of urea manufacturing units determined by Fertiliser Industry Coordination Committee.
- (ix) Subsidy detrimental and verification of claims.
- (x) Cost Accounting System for departmental undertakings/Autonomous bodies.
- (xi) Time and Cost Overruns of major projects. Efficiency and Competitiveness studies.
- (xii) Arbitrator in resolving pricing disputes.
- (xiii) Advise on matters relating to determination of abatement rate for purposes of Central Excise.

Till March 2009, total 8085 number of studies/reports were completed by the Office of Chief Adviser Cost and out of these 51 reports were completed during the year 2008-09. The studies completed during the year varied widely in nature.

During the year, the office of Chief Adviser Cost provided its services to various ministries like Petroleum & Natural Gas, Chemicals & Fertilizers, Shipping,

Agriculture, Commerce, Steel, Textiles, Defence, Home, Railways, Health & Family Welfare and Corporate Affairs etc. Some of the major studies undertaken were Study of Under-recovery of Oil Marketing Companies on petroleum products, Stock loss/gain on petroleum products, Concurrent cost audit of escalation claims of Urea Fertilizer units, Reimbursement of loss under Price Support Scheme and Market Intervention Scheme, Fixation of dredging rates for Sethusamundram Ship Channel Project, Analysis of cost of Fast Attack Craft (FAC), Fixation of final prices of Traction and electronics Equipment supplied by BHEL to Railway factories, Common hourly rate and overhead percentages for Government of India Printing Presses, Ascertainment of fair/cost price of bogies used for manufacturing of Railway Wagons for supply of Indian Railways etc. Through these studies, savings for several hundred crores of rupees have been achieved.

The officers are functioning as Chairman/Members of Committee constituted by Government/different Departments related to Cost/financial and pricing matters like National Pharmaceuticals Pricing Authority, Fertilizer Industry Coordination Committee, Department of Fertilizers and various Inter-ministerial committees constituted by different departments.

REVENUE

The Department of Revenue exercises control in respect of revenue matters relating to direct and indirect Union taxes, through two statutory Boards, namely, the Central Board of Direct Taxes and the Central Board of Excise and Customs. The Department is also entrusted with administration and enforcement of controls and regulatory measures provided in the enactments concerning central sales tax, stamp duties, forfeiture of properties of smugglers and foreign exchange manipulators, and other fiscal statutes. Control over production and disposal of opium and its products is also vested with this Department.

DIRECT TAXES

The Income Tax Department administers a number of Direct Tax Acts, namely, the Income Tax Act, 1961, the Wealth Tax Act, 1957, the Gift Tax Act, 1958, Interest Tax Act, 1974, Securities Transaction Tax Act, 2004, Banking Cash Transaction Tax Act, 2005 and Fringe Benefit Tax Act, 2004. Table 13.5 gives figures of revenue collection under the major Heads of direct taxes from the 2002-03 onwards.

Major changes in Direct Taxes (Rates)

The basic exemption limit has been increased from Rs. 1,50,000/- to Rs. 1,60,000/-. The exemption limit for every woman resident in India and below the age of sixty-five years has been raised from Rs. 1,80,000/- to Rs. 1,90,000/-. The basic exemption limit for every individual resident, who is of the age of sixty-five years or more, has been raised from Rs. 2,25,000/- to Rs. 2,40,000/-. The rates for deduction of income-tax at source during the financial year 2009-10 from certain incomes other than "Salaries" have been specified in Part II of the First Schedule to the Bill. The rates for persons not resident in India, including companies other than domestic companies, are the same as those specified in Part II of the First Schedule to the Finance Act, 2008, for the purposes of deduction of income-tax at source during the financial year 2008-2009. **For resident tax payers, some of the rates have been reduced in order to converge most rates to 10 per cent.** The amount of tax so deducted in the case of every company other than a domestic company shall continue to be increased by a surcharge at the rate of two and one-half per cent of such tax, where the income or

Table 13.5 : DIRECT TAXES

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09*
Taxes							
Corporation Tax	46,172.00	63,562.00	82,680.00	1,01,277.16	1,44,318.3	1,92,910.83	2,13,823.03
Income Tax	36,866.00	41,387.00	49,268.00	55,976.23	75,081.16	1,02,644.05	1,09,980.23
Interest Tax	-275.00	-46.00	50.00	13.24	4.92	2.6	8.53
Securities Transaction Tax	-	-	590.00	2,559.38	4,645.5	8,576.07	5408
Banking Cash Transaction Tax	-	-	-	321.33	507.01	585.88	582.26
Fringe Benefit Tax	-	-	-	4,772.35	5,316.04	7,098.32	7,997.00
Wealth Tax	154.00	136.00	145.00	250.35	240.33	340.32	387.43
Gift Tax	(-)2.00	1.00	2.00	1.96	4.35	1.58	5.62
Total	82,915.00	1,05,040.00	1,32,735.00	1,65,172.00	2,30,118.00	3,12,160.00	3,38,192.00

*Figures for the Financial Year 2008-09 are Provisional.

the aggregate of such incomes paid or likely to be paid and subject to the deduction exceeds one crore rupees. **Levy of surcharge has been withdrawn on deductions in all other cases.** "Education Cess on Income tax" and "Secondary and Higher Education Cess on income tax" shall continue to be levied for the purposes of Union at the rate of two per cent. and one per cent respectively of income tax only in the cases of persons not resident in India, including companies other than domestic companies and in the cases of deductions on payment of salary.

MEASURES UNDERTAKEN BY FINANCE (NO.2) ACT, 2009

RATIONALISATION & SIMPLIFICATION MEASURES

- The provisions relating to Transfer Pricing Adjustment has been rationalized by amending the Section 92C of the Income Tax Act.
- The power of the Board to make 'safe harbour' rules has been introduced by inserting a new Section -92CB in the Income Tax Act, 1961. The 'safe harbour' means circumstances in which in the Income Tax Authority shall accept the Transfer Price declared by the assessee.
- With a view to reduce the litigation between the Income Tax Department and assessee, an alternate dispute resolution mechanism has been introduced by inserting a new Section 144C in the Income Tax Act. The dispute resolution panel shall be consisting of collegium of three Commissioners who will decide the cases referred to it before the tax demand is raised by the Assessing Officer.
- The Centralized Processing Centre (CPC) set up at Bengaluru would be made operational in the Financial Year 2009-10 where all the electronic returns filed in India and all the paper returns filed in Karnataka and Goa charge will be processed.
- The term "block of assets" has been defined in clause (11) of section 2 and in Explanation 3 to sub-section (1) of section 32 of the Income tax Act. However, these definitions are not identical and therefore they are subject to misuse. Accordingly, it has been provided to amend Explanation 3 of sub-section (1) of Section 32 of the Income-tax Act so as to delete the definition of "block of assets" provided therein. Consequently, "block of assets" will derive its meaning only from clause (11) of section 2.
- The computation of profits and gains of non-life insurance business under section 44 read with Rule 5 of the First Schedule has been amended to provide that any increase in respect of any amount taken credit for in the accounts on account of appreciation of or gains on realisation of investments in accordance with the regulations prescribed by IRDA shall be treated as income and included in the computation of the total income. Similarly, deduction shall be allowed in respect of any amount either written off or provided in the accounts to meet diminution in or loss on realisation of investments in accordance with the regulations prescribed by IRDA.
- The existing provisions of the Income tax Act provide for taxation of income on presumptive basis in the case of residents for construction business, income from goods carriages and business of retail trade. The scope of presumptive taxation has been expanded to all businesses by substituting a new section 44AD.
- The expression of the term "actually allowed" has been rationalised for the computation of composite income in the case of manufacture of rubber, coffee

and tea under Rules 7A, 7B and 8 of the Income tax Rules, 1962 to provide that in the cases of composite income, notwithstanding that the assessee was not required to compute a part of his income for the purposes of Income tax Act for any previous year, depreciation shall be computed as if the total composite income of the assessee is chargeable under the Income Tax Act and such depreciation shall be deemed to have been “actually allowed” to the assessee.

- The expression “public sector banks” has been defined in the explanation to section 10(23D). Reserve Bank of India has categorized a new sub-group called “other public sector banks”. The Central Government holds more than 51% shareholding in IDBI Bank Limited which has been categorized under “other public sector banks” by RBI. Since “other public sector banks”, has not been included in the expression “public sector banks” as defined in the Explanation to section 10(23D), the relevant provisions of the Income Tax Act, 1961 has been amended to do so.
- The Limited Liability Partnership Act, 2008 has come into effect in 2009. LLP Rules (except some rules dealing with conversion) and forms have been notified w.e.f. 1st of April, 2009. The taxation scheme of LLPs in the Income Tax Act has been provided on the same lines as the taxation scheme currently prevalent for general partnerships, i.e. taxation in the hands of the entity and exemption from tax in the hands of its partners. A “limited liability partnership” and a general partnership has been accorded the same tax treatment.
- Extension of income tax exemption to Special Undertaking of Unit Trust of India (SUUTI) has been extended up to the 31st March, 2009.
- The power to levy Commodity Transaction Tax (CTT) has been done away with by Finance (No. 2) Act, 2009.
- The scope of provisions of Section 50C of the Income Tax Act, 1961 has been widened.
- The interest income received on compensation or enhanced compensation shall be taxed on receipt basis irrespective of method of accounting followed by the assessee. However, with a view to give the benefit of bunching of income, only 50% of such income shall be taxed and 50% shall be allowed as deduction.
- The provision relating to service of notice has been rationalized by substituting the Section 282 of the Income Tax Act, 1961 with a new Section.
- With a view to increase transparency in the functioning of Income Tax Department, a new Section 282B has been inserted to provide that every Income Tax Authority shall allot a computer generated Document Identification Number in respect of every notice, order, letter or any correspondence issued by him to any other income tax authority or assessee or any other person and such number shall be quoted thereon and without such number, the same shall be treated invalid.
- A new Section 293C has been inserted in the Income Tax Act, 1961 to specifically provide that the approval granting authority has inherent power of withdrawal of the approval granted by such authority.

Welfare Measures for taxpayers

- Section 80-DD of the Income Tax Act provides for a deduction to an individual or HUF, who is a resident in India, in respect of the following:—

- (a) Expenditure for the medical treatment (including nursing), training and rehabilitation of a dependant, being a person with disability; and
- (b) Amount paid to LIC or other insurance in respect of a scheme for the maintenance of a disabled dependant.

The present limit for deduction is Rs.50,000 if the dependant is suffering from disability and Rs.75,000 if the dependant is suffering from severe disability.

The limit for severe disability has been increased to Rs.1 lakh.

- Section 80-U has been amended to enhance the deduction available to a person suffering from severe disability from Rs. 75,000/- to Rs. 1,00,000/-.
- The New Pension System (NPS) has become operational since 1st January, 2004 and is mandatory for all new recruits to the Central Government service from 1st January, 2004. Since then it has been opened up fo employees of State Government, private sector and self employed (both organised and unorganized). With a view to ensure that tax treatment of savings under this system is in synchronised with the “exempt-exempt-taxed” (EET) method and that there is no incidence of taxation at the accumulation stage, the NPS Trust has been made a complete pass-through in so far as taxation is concerned. Therefore, any income received by any person on behalf of the New Pension System Trust has been exempted from income tax. Section 115-O has been amended to provide that any dividend paid to the NPS Trust shall be exempt from Dividend Distribution Tax. It has also been provided that all purchases and sales of equity and derivatives by the NPS Trust will also be exempt from the Securities Transaction Tax and section 197A has been amended to provide that the NPS Trust shall receive all income without any tax deducted at source.
- The liability for payment of advance tax during a financial year arises when the amount of such tax payable during that year is five thousand rupees or more. The existing limit was fixed in 1996 and with a view to providing for inflation adjustment, the threshold limit for payment of advance tax has been raised from the present five thousand rupees to ten thousand rupees.
- The threshold limit for payment of wealth tax has been raised from the existing fifteen lakh rupees to thirty lakh rupees.
- The existing limits of payment of salary, bonus, commission or remuneration (hereinafter referred to as “remuneration”) to a working partner of a partnership firm have been revised upwards and prescribed uniform limits for both professional and non professional firms for simplicity and administrative ease. The revised limits are as under:

(a)	on the first Rs. 3,00,000 of the book-profit in case of a loss	Rs. 1,50,000 or at the rate of 90 per or cent of the book-profit, whichever is more;
(b)	on the balance of the book-profit	at the rate of 60 per cent;

- Under the existing provisions of the Income Tax Act, under sub-section (2AB) of section 35, weighted deduction of 150 per cent is allowed to a company engaged in the business of biotechnology or in the business of manufacture or production of drugs, pharmaceuticals, electronic equipments, computers,

telecommunication equipments, chemicals or any other article or thing notified by the Board and which has incurred expenditure (excepting on land and building) on in-house scientific research and development facility approved by the prescribed authority.

- With a view to promoting research and development in all sectors of the economy, the benefit of weighted deduction has been extended to all companies engaged in the business of manufacture or production of an article or thing except those specified in the Eleventh Schedule of the Income Tax Act.
- National Housing Bank (NHB) which is wholly owned by Reserve Bank of India and is engaged in promotion and regulation of housing finance institutions in the country has been provided the benefit under section 36(1)(viii).
- Under the current provisions of section 115BBC, wholly religious entities are outside the purview of taxation of anonymous donations. Partly religious and partly charitable entities have also been exempted from the taxation of anonymous donations, except where the anonymous donation is made to an educational or medical institution run by such entity in which case such donations are taxed at the rate of 30 per cent. In the case of wholly charitable entities, all anonymous donations are taxed at the rate of 30 per cent. In order to mitigate the compliance burden, and to provide relief to such organizations, a part of the anonymous donations is exempted from being taxed.
- The time limit for filing applications for tax exemption under section 10(23C) has been extended to the 30th day of September in the succeeding financial year.
- “Charitable purpose” has been defined in section 2(15) of the Income Tax Act to include (a) relief of the poor, (b) education, (c) medical relief and, (d) the advancement of any other object of general public utility. However the “advancement of any other object of general public utility” shall not be a charitable purpose, if it involves the carrying on of any activity in the nature of trade, commerce or business, or any activity of rendering any service in relation to any trade, commerce or business, for a cess or fee or any other consideration, irrespective of the nature of use or application, or retention, of the income from such activity. Now the clause 15 of section 2 has been amended so as to separately list the preservation of environment (including watersheds, forests and wildlife) and preservation of monuments or places or objects of artistic or historic interest so that they would be excluded from the applicability of the aforesaid conditions which are applicable to the “advancement of any other object of general public utility”.

Revenue Mobilisation Measures

- Sub-section (1) of section 115JB has been amended to increase the MAT rate to 15 per cent from the existing level of 10 per cent.
- Section 56 of the Income Tax Act has been amended to provide that the value of any property received without consideration or for inadequate consideration will also be included in the computation of total income of the recipient. Such Properties will include immovable property being land or building or both, shares and securities jewellery, archaeological collections, drawings, paintings, sculptures or any work of art.

- Presumptive rates under section 44AE in the case of an assessee, who is engaged in business of plying, hiring or leasing goods carriages has been increased to Rs 5,000/- in the case of heavy goods vehicle and to Rs 4,500/- in the case of a other goods vehicles.

Measures for socio-economic development

- Section 80E of the Income Tax Act provides for a deduction to an assessee, being an individual, on account of any amount paid by him by way of interest on loan taken from any financial institution or any approved charitable institution for the purpose of pursuing higher education in specified fields of study. With the objective of fostering human capital formation in the country, the provisions of section 80E of the Income Tax Act has been amended so as to extend its scope to cover all fields of studies (including vocational studies) pursued after passing the Senior Secondary Examination or its equivalent from any school, board or university recognised by the Central Government or State Government or local authority or by any other authority authorized by the Central Government or State Government or local authority to do so. Further, the scope of the term “relative” has also been expanded in relation to an individual to mean the spouse and children of that individual or the student for whom the individual is the legal guardian.
- Section 80GGB and section 80GGC of the Income Tax Act, 1961 provide for deduction in respect of contributions given to political parties by companies and any person respectively. With a view to reforming the system of funding of political parties section 80GGB and section 80GGC of the Income Tax Act, 1961 have been amended to provide that donations to electoral trusts shall be allowed as a 100 per cent deduction in the computation of the income of the donor.
- With a view to creating rural infrastructure and environment friendly alternate means of transportation for bulk goods, investment-linked tax incentive has been provided by inserting a new section 35AD in the Income Tax Act for the following businesses:—
 - (a) setting up and operating cold chain facilities for specified products;
 - (b) setting up and operating warehousing facilities for storage of agricultural produce;
 - (c) laying and operating a cross-country natural gas or crude or petroleum oil pipeline network for distribution, including storage facilities being an integral part of such network.

100 per cent deduction would be allowed in respect of the whole of any expenditure of capital nature incurred, wholly and exclusively, for the purposes of the specified business during the previous year in which such expenditure is incurred.

 - (d) Section 80-IA, the provisions of clause (iv) of sub-section (4) provides for a deduction of profits and gains of an undertaking;
 - (a) which is set up for the generation and distribution of power if it begins to generate power at any time during the period beginning on 1-4-1993 and ending on 31-03-2010;

- (b) which starts transmission or distribution by laying a network of new transmission or distribution lines at any time during the period beginning on 1-4-1999 and ending on 31-03-2010;
- (c) which undertakes substantial renovation and modernization of existing network of transmission or distribution lines at any time during the period beginning on 1-4-2004 and ending on 31-03-2010. Clause (iv) of sub-section (4) of section 80-IA has been amended to extend the terminal date for a further period of one year upto 31-03-2011.
- (e) Further, in respect of an undertaking which develops and operates or maintains and operates an industrial park, the sunset date has been extended from 31st day of March, 2009 to 31st day of March, 2011.
- (f) Sections 10A and 10B have been amended to extend the tax benefit under both these sections by one year i.e., the deduction will be available upto assessment year 2011-12.

Amendment to TDS provisions

- TDS on rental payments under section 194-I of the Income Tax Act has been rationalised by reducing the rates as under:
 - (a) 2% for the use of any machinery or plant or equipment,
 - (b) 10% for the use of any land or building or furniture or fittings for all persons.
- TDS rates in the case of contract payments has been rationalised by providing that the following rates:
 - (a) 1% where payment for a contract are to individuals/HUF.
 - (b) 2% where payment for a contract are to any other entity.
- TDS on payment to transport operators has been exempted where the operator furnishes his Permanent Account Number (PAN) to the deductor.
- The existing limit of cash payment to transport operators has been raised to Rs 35,000/- from the existing limit of Rs 20,000/-.
- The term “work” has been defined for deduction of TDS u/s 194C not to include manufacturing or supplying a product according to the requirement or specification of a customer by using raw material purchased from a person other than such customer as such a contract is a contract for ‘sale’.
- In order to strengthen the PAN mechanism, amendments in the Income Tax Act has been made to provide that the deductee shall mandatorily furnish his PAN to the deductor, failing which the deductor shall deduct tax at source at higher of the following rates:
 - (i) the rate prescribed in the Act;
 - (ii) at the rate in force i.e., the rate mentioned in the Finance Act; or
 - (iii) at the rate of 20 per cent.
- Electronic processing of statements of tax deducted at source on computer has been provided so that liabilities on account of interest and other defaults in

TDS payment are promptly calculated and intimated to the deductor. An intimation will be sent to the deductor informing him of his tax liability or granting him the refund due within one year from the end of the financial year in which the statement is filed. It is also provided that the processing of these statements can be undertaken in a centralized processing centre.

- Currently, the Income Tax Act does not provide for any limitation of time. In the absence of such a time limit, disputes arise when these proceedings are taken up or completed after substantial time has elapsed.
- Express time limits has been provided for passing an order u/s 201(1) for failure to deduct the whole or any part of the tax as required under this Act. The time limits are within two years from the end of the financial year in which the statement of tax deduction at source is filed by the deductor.
- Sub-section (3) of section 200 of Income-tax Act provides that any person deducting tax in accordance with the provisions of Chapter XVIIB has to furnish, within the prescribed time, quarterly statements for the period ending on the 30th June, 30th September, 31st December and 31st March in each financial year. Similarly, filing of quarterly returns for tax collection at source (TCS) have been provided in sub-section (3) of section 206C of the Act. Further section 206A provides furnishing of quarterly return in respect of payment of interest to residents without deduction of tax.
- The provisions of above sections have been accordingly modified so as to allow the Government to prescribe periodicity of such TDS statements besides prescribing their form and manner.

Combating tax evasion:- The Income Tax Department is taking necessary legislative and administrative steps from time to time to curb/control black money and is also striving to check tax evasion and accumulation of unaccounted wealth. In pursuance of this objective, systematic search and seizure operations, verifications of information by Central Information branches in a planned manner and scrutiny of selected cases, are undertaken. Persons found to be indulging in tax evasion are dealt with severely by imposing penalties and by launching prosecution proceedings against them. Results achieved on searches and statistics for prosecution launched during the F.Y. 2004-05 to 2008-09 are as under:

RESULT OF SEARCHES

(Rs in crore)

Year	No. of Warrants	Value of assets seized
2004-2005	2,377	202.28
2005-2006	3,364	351.69
2006-2007	3,534	364.64
2007-2008	3,364	411.45
2008-2009	3,483	625.50

STATISTICS FOR PROSECUTION

Year	No. of Prosecution proceedings launched	No. of proceedings decided	No. of proceedings where conviction obtained	No. of proceedings compounded	No. of proceedings acquitted
2004-2005	103	350	1	262	87
2005-2006	326	125	1	85	39
2006-2007	71	69	1	40	28
2007-2008	263	280	11	13	256
2008-2009	162	146	14	13	119

INDIRECT TAXES

Customs, Union Excise and Service Tax duties are the major sources of indirect tax revenue. The revenue for the year 2008-09(Actual) in respect of Customs, Union Excise duties and Service tax are Rs. 99,850/- crore, *Rs. 1, 09,343/- crore and Rs. 60,702/- crore respectively. (*inclusive of revenue of Rs. 1,246 crore from Cesses administered by other than Department of Revenue ## source: PCCA)

CUSTOMS**Health Care**

- 1) Customs duty on 10 specified life saving drugs/vaccine and their bulk drugs has been reduced from 10% to 5% with Nil CVD (by way of excise duty exemption).
- 2) Customs duty on specified heart devices, namely artificial heart and PDA/ ASD occlusion device, has been reduced from 7.5% to 5% with Nil CVD (by way of excise duty exemption).

Electronics Hardware

- 1) Customs duty on LCD Panels for manufacture of LCD televisions has been reduced from 10% to 5%.
- 2) Customs duty exemption on Set Top Box for television broadcasting has been withdrawn and 5% customs duty imposed.
- 3) Full exemption from 4% special CVD on parts for manufacture of mobile phones and accessories has been reintroduced for one year, upto 06.07.2010.

Renewable Energy Sector

- 1) Customs duty on permanent magnets for PM synchronous generator above 500 KW used in wind operated electricity generators has been reduced from 7.5% to 5%.
- 2) Customs duty on bio-diesel has been reduced from 7.5% to 2.5%.

Capital Goods

- 1) Concessional customs duty of 5% on specified machinery for tea, coffee and rubber plantations has been reintroduced for one year, upto 06.07.2010.
- 2) Customs duty on 'mechanical harvester' for coffee plantation has been reduced from 7.5% to 5%. CVD on such harvesters has also been reduced from 8% to nil, by way of excise duty exemption.

Export Sector

- 1) At present, specified raw materials/inputs imported by manufacturer-exporters of sports goods are fully exempt from customs duty, subject to specified conditions. The list of such items has been expanded by including five additional items.
- 2) Similarly, specified raw materials and equipment imported by manufacturer-exporters of leather goods, textile products and footwear industry are fully exempt from customs duty, subject to specified conditions. The list of such items has been expanded by including additional items.
- 3) Customs duty on unworked corals has been reduced from 5% to Nil.

Precious Metals

- 1) Customs duty on serially numbered gold bars (other than tola bars) and gold coins has been increased from Rs. 100 per 10 gram to Rs. 200 per 10 gram.
- 2) Customs duty on other forms of gold has been increased from Rs. 250 per 10 gram to Rs. 500 per 10 gram.
- 3) Customs duty on silver has been increased from Rs. 500 per Kg. to Rs. 1,000 per Kg.

The above increase in rates is also applicable when gold and silver (including ornaments) are imported as personal baggage.

Textiles

- 1) Customs duty on cotton waste has been reduced from 15% to 10%.
- 2) Customs duty on wool waste has been reduced from 15% to 10%.

Miscellaneous

- 1) Customs duty on rock phosphate has been reduced from 5% to 2%.
- 2) CVD exemption on Aerial Passenger Ropeway Projects has been withdrawn. Such projects will now attract applicable CVD.
- 3) Customs duty exemption on concrete batching plants of capacity 50 cum per hour or more has been withdrawn. Such plants will now attract customs duty of 7.5%.
- 4) On packaged or canned software, CVD exemption has been provided on the portion of the value which represents the consideration for transfer of the right to use such software, subject to specified conditions.
- 5) Customs duty on inflatable rafts, snow-skis, water skis, surf-boats, sail-boards and other water sports equipment has been fully exempted.

Amendments in the Customs Act, 1962

- 1) A new section 26A is being inserted in the Customs Act, 1962 to provide for refund of import duty paid on imported goods if they are found to be defective or not conforming to the specifications agreed upon between the importer and the seller, subject to certain conditions. Consequential amendment is also being made in section 157.
- 2) Section 28F of the Customs Act, 1962 is being amended to provide that the Central Government may by notification authorize the Authority for Advance Rulings constituted under Section 245-O of the Income Tax Act to act as an Authority for the purposes of customs, central excise and service tax subject to some modification regarding the constitution of the Authority.

- 3) Section 130 of the Customs Act, 1962 is being amended retrospectively with effect from 01.07.2003 so as to make an express provision empowering High Courts to condone delay in filing of appeals beyond the prescribed period.
- 4) Section 130A of the Customs Act, 1962 is being amended retrospectively with effect from 01.07.1999 so as to make an express provision empowering High Courts to condone delay in filing of applications or memorandum of cross objections beyond the prescribed period.
- 5) Section 137 of the Customs Act, 1962 is being amended so as to provide for the manner of compounding of offences and to provide that certain offences shall not be compoundable. Consequential amendment is also being made in section 156.

Amendments in the Customs Tariff Act, 1975

- 1) Section 3 of the Customs Tariff Act, 1975 is being amended so as to provide that where the Central Government has fixed tariff value for collection of central excise duty on an article produced or manufactured in India, the value of a like imported article shall be such tariff value.
- 2) Section 8B and 8C of the Customs Tariff Act, 1975 are being amended retrospectively so as to extend the machinery provisions of the Customs Act, 1962 to safeguard duties levied under these sections.
- 3) Section 9 of the Customs Tariff Act, 1975 is being amended retrospectively so as to extend the machinery provisions of the Customs Act, 1962 to countervailing duty levied under this section.
- 4) Section 9A of the Customs Tariff Act, 1975 is being amended to-
 - (a) provide that the margin of dumping in relation to an article exported by an exporter or producer shall be determined on the basis of records maintained by such exporter or producer and on the basis of information available in the case of non-cooperating exporter or producer.
 - (b) extend retrospectively the machinery provisions of the Customs Act, 1962 to anti-dumping duties levied under this section.
- 5) Para (A) in Note 2 of Section XI of the Customs Tariff Act, 1975 is being substituted by a new para so as to align it with the parallel provision in the Central Excise Tariff Act, 1985.
- 6) Notification No. 40/2006-Customs dated 01.05.2006 is being amended retrospectively from its date of issue so as to,
 - (a) allow facility of rebate under rule 18 or rule 19 of Central Excise rules, 2002 in respect of materials which have been locally procured and have been used in the manufacture of goods exported under the Duty Free Import Authorisation Scheme.
 - (b) provide that goods procured under duty free replenishment in respect of which the facility under rule 18 or 19 has been availed shall be used in the manufacture of dutiable goods in the factory of the exporter or in the factory of his supporting manufacturer even after discharge of export obligation.
 - (c) provide that the importer shall pay an amount equal to additional duty of customs together with interest @ 15% per annum from the date of clearances of the said materials in case the materials are imported against

an authorisation transferred by the regional authority or such materials are transferred with the permission of the regional authority. However, no such amount shall be payable in respect of authorisation issued from 01.05.2006 to 31.03.2007.

(d) define dutiable goods for the purpose of the notification.

- 7) Notification No. 27/2009-Customs (NT) dated 17.03.2009 provides for officers of DGCEI to act as officers of customs with all India jurisdiction. This notification has been given retrospective effect from 09.05.2000.

CENTRAL EXCISE

A. Rate Structure

The excise duty rate on items currently attracting 4% duty has been increased to 8% with the following major exceptions:

- Specified food items including biscuits, sherbats, cakes and pastries
- Drugs and pharmaceutical products falling under Chapter 30
- Medical equipment
- Certain varieties of paper, paperboard and articles thereof
- Paraxylene
- Power driven pumps for handling water
- Footwear of RSP exceeding Rs.250 but not exceeding Rs.750 per pair
- Pressure cookers
- Vacuum and gas filled bulbs of RSP not exceeding Rs.20 per bulb
- Compact Fluorescent Lamps
- Cars for physically handicapped persons

B. Automobile Sector

- 1) Specific component of excise duty applicable to large cars/utility vehicles of engine capacity 2000cc and above has been reduced from Rs.20, 000/- per vehicle to Rs.15, 000/- per vehicle.
- 2) Excise duty on petrol driven trucks/lorries has been reduced from 20% to 8%. Excise duty on chassis of such trucks/lorries has been reduced from '20% + Rs.10000' to '8% + Rs.10000'.

C. Petroleum Sector

- 1) Excise duty on Special Boiling Point spirits has been reduced to 14%.
- 2) Excise duty on naphtha has been reduced to 14%.
- 3) Duty paid High Speed Diesel blended with upto 20% bio-diesel has been fully exempted from excise duties.
- 4) The ad valorem component of excise duty of 6% on petrol intended for sale with a brand name has been converted into a specific rate. Consequently, such petrol would now attract total excise duty of Rs.14.50 per litre instead of '6% + Rs.13 per litre'.
- 5) The ad valorem component of excise duty of 6% on diesel intended for sale with a brand name has been converted into a specific rate. Consequently, such diesel would now attract total excise duty of Rs.4.75 per litre instead of '6% + Rs.3.25 per litre'.

D. Textiles

- 1) Excise duty on manmade fibre and yarn has been increased from 4% to 8%.
- 2) Excise duty on PTA and DMT has been increased from 4% to 8%.
- 3) Excise duty on polyester chips has been increased from 4% to 8%.
- 4) Excise duty on acrylonitrile has been increased from 4% to 8%.
- 5) The scheme of optional excise duty of 4% for pure cotton has been restored.
- 6) Excise duty for man-made and natural fibres other than pure cotton, beyond the fibre and yarn stage, has been increased from 4% to 8% under the existing optional scheme.
- 7) An optional excise duty exemption has been provided to tops of manmade fibre manufactured from duty paid tow using 'tow-to-top' process at par with tops manufactured from duty paid staple fibre.
- 8) Suitable adjustments have been made in the rates of duty applicable to DTA clearances of textile goods made by Export Oriented Units using indigenous raw materials/inputs for manufacture of such goods.

E. Miscellaneous

- 1) Full exemption from excise duty has been provided on goods of Chapter 68 manufactured at the site of construction for use in construction work at such site.
- 2) Excise duty exemption on 'recorded smart cards' and 'recorded proximity cards and tags' has been made optional. Manufacturers have the option to pay the applicable excise duty and avail the credit of duty paid on inputs.
- 3) EVA compound manufactured on job work for further use in manufacture of footwear has been exempted from excise duty.
- 4) Benefit of SSI exemption scheme has been extended to printed laminated rolls bearing the brand name of another person by excluding this item from the purview of the brand name restriction.
- 5) On packaged or canned software, excise duty exemption has been provided on the portion of the value which represents the consideration for transfer of the right to use such software, subject to specified conditions.
- 6) Excise duty on branded articles of jewellery has been reduced from 2% to Nil.

F. Amendments in Central Excise Act, 1944

- 1) Section 9A of the Central Excise Act is being amended so as to provide for the manner of compounding of offences and to provide that certain offences and circumstances shall not be compoundable. Consequential amendment is also being made in section 37 of the Central Excise Act.
- 2) Sections 14A and 14AA of the Central Excise Act are being amended so as to empower the Chief Commissioner of Central Excise to nominate a Chartered Accountant for conducting special audit under these provisions.
- 3) Section 23A of the Central Excise Act is being amended so as to substitute the definition of the 'Authority for Advance Rulings' to include therein the authority authorized under section 28F of the Customs Act.
- 4) Section 35G of the Central Excise Act is being amended retrospectively with effect from 01.07.2003 so as to make an express provision to empower High

Courts to condone delay in filing of appeals beyond the prescribed period.

- 5) Section 35H of the Central Excise Act is being amended retrospectively with effect from 01.07.1999 so as to make an express provision to empower High Courts to condone delay in filing of applications or memorandum of cross objections beyond the prescribed period.

G. Amendments in the First Schedule to the Central Excise tariff Act, 1985.

- 1) Note 1 to Chapter 8 in the First Schedule to the Central Excise Tariff Act, 1985 has been substituted so as to exclude 'betel nut product known as supari' of tariff item 2106 9030 from its purview.
- 2) A Note (No. 6) has been inserted in Chapter 21 so as to provide that in relation to product of tariff item 2106 90 30 the process of adding or mixing cardamom, copra, menthol, spices, sweetening agents or any such ingredients, other than lime, katha (catechu) or tobacco to betel nut in any form shall amount to 'manufacture'.
- 3) In Chapter 58, against tariff item 5801 22 10, in column (3) and (4), the entries 'm2' and '8%' respectively are being inserted.

H. Amendments in central Excise Rules and CENVAT Credit Rules.

- 1) A new rule is being inserted in Central Excise Rules, 2002 to provide that records seized by the department during an investigation but not relied upon in the Show Cause Notice should be returned to the party within 30 days of issue of Show Cause Notice.
- 2) An explanation is being inserted in Rule 2 of Cenvat Credit rules, 2004 so as to clarify that 'inputs' shall not include cement, angles, channels, CTD or TMT bars and other items used for construction of shed, building or structure for support of capital goods.
- 3) Notification Nos. 33/97-CE (NT) dated 01.08.1997, 44/97-CE (NT) dated 30.08.1997 and 7/98-CE (NT) dated 10.03.1998 are being amended with retrospective effect from the date of issue of respective notifications so as to provide the Central Government with the power to notify rates of excise duty under these notifications by virtue of powers conferred on it by the erstwhile section 3A of the Central Excise Act [These changes to come into effect on enactment of the Finance (No.2) Bill 2009] .
- 4) Rule 6 (3) of the Cenvat Credit Rules, 2004 is being amended to prescribe that a manufacturer of both dutiable and exempted goods, who does not maintain separate accounts of inputs, shall pay an amount equal to 5% of the total price of the exempted goods instead of 10%.

SERVICE TAX

A. Service Tax has been imposed on the following specified services:

- 1) Service provided in relation to transport of goods by rail
- 2) Service provided in relation to transport of (i) coastal goods; and (ii) goods through Inland Water including National Waterways
- 3) Legal consultancy service
- 4) Cosmetic and plastic surgery service

B. Scope of specified taxable services has been amended as follows:

- 1) The definition of Business Auxiliary Service (BAS) is being amended so as to provide that only those processes, which result in the manufacture of 'excisable goods' (as defined in the Central Excise Act) are excluded from the purview of BAS.
- 2) The definition of 'Information Technology Software Service' is being amended to replace the word 'acquiring' with the word 'providing' [appearing in Sl. No. (iv) and (v) of the definition]. The amendment is being given retrospective effect from 16.05.2008.
- 3) The definition of stock-broker (in stock-broker service) is being amended to exclude sub-broker from its ambit. As a consequence, sub-brokers will be outside the purview of service tax.

C. Amendments in the Finance Act,1994

- 1) Finance Act, 1994 is being amended to:-
 - (a) abolish revision procedure prescribed under section 84 and to prescribe the procedure of filing departmental appeals before the Commissioner (Appeal) in service tax cases similar to the central excise procedure. Accordingly, section 84 pertaining to revision by Commissioner is being modified and consequential changes are being made in section 86. A saving clause is being provided to protect the pending cases.
 - (b) empower the Central Government to frame rules with respect to the place of provision of taxable services; and with respect to the relevant date for determination of the rate of service tax.

D. Amendments in existing Rules and Notifications

- 1) The scope of notification No. 1/2002-ST dated 01.03.2002 is being enlarged by extending the applicability of service tax provisions to installations, structures and vessels in the entire Continental Shelf of India and Exclusive Economic Zones of India.
- 2) Rule 6 (3) of the Cenvat Credit Rules, 2004 is being amended to prescribe that a provider of both taxable and exempted services, who does not maintain separate accounts of inputs, shall pay an amount equal to 6% of the value of exempted services instead of 8%.
- 3) Rule 3 (5B) of the Cenvat Credit Rules, 2004 is being amended so as to provide that a service provider shall pay back the amount of credit taken on inputs/ capital goods fully written off.
- 4) Explanation provided in the Works Contract Rules, 2007 is being modified so as to allow the benefit of optional composition scheme only to such works contracts where the taxpayer declares the entire value of goods (whether supplied under any other contract for a consideration or otherwise) and services used in the execution of the works contract as the 'gross value' charged for the works contract. This restriction would not apply to current works contracts on or before 07.07.2009.

E. Exemptions

- 1) Exemption from service tax is being provided to inter-state or intra-state transportation of passengers in a vehicle bearing 'Contract Carriage Permit' with specified conditions.
- 2) Exemption from service tax (leviable under Club or Association Service) is being provided to the Federation of Indian Export Organizations (FIEO) and specified Export Promotions Councils. The exemption is valid till 31.03.2010.
- 3) Exemption from service tax (leviable under banking and other financial services or under foreign exchange broking service) is being provided to inter-bank purchase and sale of foreign currency between scheduled banks.

F. Refund Scheme for Exporters

Notification No. 41/2007-ST dated 06.10.2007 provides for refund of service tax paid on services, which though not in the nature of input services, are relatable to export of goods. The scheme is being revamped to ensure speedier grant of refunds to the exporters. The salient features of the new scheme, being notified under two notifications, both dated 07.07.2009, are as follows:

- (a) Two taxable services, namely, 'Transport of goods by road' and 'Commission paid to foreign agents' have been exempted from the levy of service tax, if the exporter is liable to pay service tax on reverse charge basis. However, as the present cap of 10% on commission agency charges has been retained, the exporter will have to pay service tax on the amount of commission which is in excess of 10%.
- (b) Following are some of the salient features of the revamped refund scheme, notified in supersession of notification No.41/2007-ST dated 06.10.2007:
 - 'Terminal Handling Charges' is being added to the list of eligible services.
 - The time period for filing a refund claim is being increased to one year from the date of export. The condition for filing refund claims once in a quarter is being dispensed with. Now the exporter can file a refund claim anytime after each export shipment.
 - A simplified format is being prescribed for filing refund claims.
 - Self-certification is being introduced to ensure faster sanction and disbursement of refunds. In a case, where total amount of refund claim does not exceed 0.25% of the total f.o.b. value of exports under a claim, a self-certification by the exporter on the relevant documents to the effect that: (a) the eligible services have been received by him; (ii) the service tax payable thereon has been reimbursed; and (iii) such services have been used for the export, would be sufficient. The refunds shall be granted within one month without any pre-audit.
 - In a case, where amount of refund claim exceeds 0.25% of the f.o.b. value of exports, the documents submitted by the exporter should be certified by the chartered accountant, who audits his annual accounts. On the basis of such certification, the refund claim shall be sanctioned within one month without any pre-audit.

CENTRAL SALES TAX (CST)

The Central Sales Tax is levied under the provisions of the Central Sales Tax Act, 1956 on the sale of goods of the course of inter-State trade or commerce. The Central Sales Tax is levied by the Central Government by virtue of Entry 92 A of the union List, but the same is assigned to the States within which the tax is leviable, by virtue of provisions of Article 269 of the Constitution of India. It is an accepted fact that the CST, being an origin-based tax, is inconsistent with VAT (which is a destination based tax). Moreover, CST is a cascading-type tax since it is not re-batable against VAT. Hence, it is agreed that CST should be phased out.

In fact, after extensive consultations between the Centre and the States, the roadmap for phasing out the CST by 31.3.2010 (i.e. before the date appointed for introduction of GST) has been finalized. The package of compensation to the States for revenue loss on this account has also been finalized. Accordingly, the process of phasing out of the CST has been started with reduction in CST from 4% to 3% w.e.f. 01.04.2007 and further from 3% to 2% w.e.f. 1st June, 2008.

ANTI-SMUGGLING DRIVE

The following measures have been introduced with a view to help detect and curb evasion of Customs duty and frauds:

India has signed Customs Mutual Assistance Agreement, memorandum of understanding with various countries to promote sharing of intelligence and provide investigative assistance to curb duty evasion.

Customs Overseas Intelligence Network (COIN) provides actionable intelligence for facilitating seizures of offending goods and to detect evasion of Customs duty.

Use of National Import Database (NIDB) helps in detecting under-valuation of imported goods, which has been reported to be the oft-used route for Customs commercial frauds.

Intelligence Support System (ISS) provides for development of intelligence and for analyzing macro level inputs into macro level workable intelligence. This system has resulted in detection of commercial fraud and evasion of customs duty.

In order to disseminate information about new modus operandi, DRI shares details of important cases booked by it through issuance of alert circular. These alert circulars act as useful tools for the field formations in the detection of Customs duty evasion. These alert circulars are also used for targeting in the Risk Management framework.

The department has installed one Mobile Gamma Ray Container Scanner, one fixed X-ray scanner at Mumbai Sea Port. The department also proposed to install 7 additional Mobile and fixed container scanner during 2009-10 for effectively curbing the misdeclaration of goods etc. The speed Boats are being procured for effective patrolling of the coastal area. The department also approved procurement of 87 XBIS for installation at airport for scanning of baggage.

STATE LEVEL VALUE ADDED TAX (VAT)

Introduction of State VAT is the most significant tax reform measure at State level. The State VAT has replaced the earlier Sales Tax systems of the States. VAT, being a 'tax on sale or purchase of goods within a State' is a State subject, is a State Subject by virtue of Entry 54 of List II (State List) of the Seventh Schedule of the Constitution

Anti-Smuggling Performance of DRI AND Commissionerate -- At a Glance (Rs.in crores)

SI.	Item of work	2007-08		2008-09		2004-05		2005-06		2006-07	
		No. of cases	Value/ Duty	No. of cases	Value/ Duty	No. of cases	Value/ Duty	No. of cases	Value/ Duty	No. of cases	Value/ Duty
1	Seizure	45424	859.31	43676	675.17	46043	689.16	42764	1021.08	43614	173.01
2	Commercial fraud (CF) cases detected	4147	780.75	2686	760.32	2643	900.01	3579	876.03	3303	2011.30
3	Investigation completed and SCN issued in CF cases	1033	1080.42	967	950.51	1176	1991.67	1262	1221.77	1575	2128.23
4	SCN issued in Outright Smuggling cases	20192	133.34	5719	152.65	4776	95.72	4885	99.67	9054	147.54
5	Duty recovered	1243	234.21	2480	170.96	4403	202.98	5130	338.47	1737	674.06
6	Persons arrested	472		445		390		451		464	
7	Persons detained under COFEPOSA/NDPS Act.	103		128		113		102		86	

of India. The Government of India has constituted an Empowered Committee of State Finance Ministers (EC) to deliberate upon and decide all issues concerning Sales Tax Reforms/State VAT. The State VAT has been introduced by all the States/UTs except Uttar Pradesh.

Since Sales Tax/VAT is a State subject, the Central Government has been playing the role of a facilitator for successful implementation of VAT. Some of the steps taken by the Central Government in this regard are as follows:

- a) A package for payment of compensation to States for any revenue loss on account of introduction of VAT has been implemented.
- b) Technical and financial support is being provided to North Eastern/Special-category States to enable them to take up VAT computerization.
- c) Financial support has been provided to the Empowered committee as well as the States for undertaking VAT related publicity and awareness campaigns.
- d) 50% funding is being provided to the EC for implementation of the TINXSYS Project for tracking of inter-State transactions.

The experience with implementation of VAT has been very encouraging so far. The new System has been received well by all the state-holders. The transition to the new system has been quite smooth. The tax revenues of VAT implementing States registered an increase of 13.8% during 2005-2006 and about 21 % during 2006-2007. During 2007-08, the gross revenue growth in State VAT and Sales Taxes for all the States/UTs was 15.7%, which included a growth of about 24% in the revenue from VAT-items. The provisional growth reported, for the period April-December 2008 in financial year 2008-09 over the corresponding period in financial year 2007-08, has been 19.1%.

Rationalization of Instruments under Indian Stamp Act, 1899

A High level Expert Committee on Corporate Bonds and Securitisation (under Chairmanship of Dr. R.H. Patil, Chairman, UTI) was constituted. The Committee has recommended for rationalization of certain instruments under Indian Stamp Act, 1899 namely Debentures (Article 27), Bonds in the nature of Promissory Notes (Article 49) and Assignment etc. The recommendations of the Committee have been accepted by the State Government in the meeting of Standing Committee of State Secretaries on Stamps and Registration held on 11.05.2007 at NIPFP. It was decided to reduce/to make rates of stamp duty uniform in respect of two instruments viz. Debenture and Promissory Notes, being the Central Instruments and notifying them under Section 9 (1)(a) of the Indian Stamp Act. Necessary Stamp Order notifying the rates of Stamp Duty in respect of Debentures and Promissory Notes has since been issued vide S.O. 2189 (E) dated 12.09.2008.

Empowered Committee of State Finance Ministers (EC) has been requested to work with the Central Government to create a truly pan Indian market for securities that will expand the market base and enhance the revenues of the State Government.

Goods and Services Tax (GST)

Goods and Services Tax (GST) means taxation of goods and services in an integrated manner, and not separately as is being done now. The line of demarcation between goods and services is getting blurred, which has made separate taxation of goods and services untenable. Integrated Goods & Service Tax (GST), based on VAT

principles, has evolved as the most modern and efficient form of indirect taxation and the same has been adopted by a large number of countries (including Federal countries) around the world. Even in European countries, coverage of VAT includes both goods and services. In India also, the process of indirect taxation has been evolving on the lines of VAT and introduction of an integrated GST would be the natural culmination of the tax reform efforts of last about two decades.

The Central Government has set 01.04.2010 as the target date for introduction of GST. Since introduction of GST would involve restructuring of Central as well as State Taxes, the process of introduction of GST essentially acquires extensive process of consultation between the Centre and the States. It has been decided that the Empowered Committee of State Finance Ministers (EC) shall work with the Central Government of finalize the roadmap for introduction of GST by 01.04.2010. The EC has prepared a roadmap to GST. The same has been examined in depth at the Ministry, in consultation involving the Tax Research Unit, Central Board of Excise & Customs, Commissioner

Service Tax and Commissioner Central Excise also. The consolidated Preliminary comments of the Department of Revenue, Ministry of Finance had conveyed to the EC on 08.10.2008, so as to streamline the GST design and facilitate working out of further details by them. The revised comments of the Government of India have been formulated accordingly for conveying to the EC to facilitate further streamlining of the report.

EC has taken up re-examination of the GST model with a view to suitably incorporate changes suggested by government of India. A meeting of the State Commissioner/Secretaries of Taxation was convened by Member Secretary, EC on 5th & 6th of January, 2009 to deliberate upon the final GST model and proposed rates for both CGST & SGST. EC has now constituted three Sub-Groups consisting of the officials from State Government as well as from Union Government to work out details like treatment of interstate transfers, threshold limit above which registration under GST would be must and list of exempted Goods and Services etc.

OPIUM CULTIVATION

India is the sole licit producer and exporter of opium gum in the world market. Other countries which grow opium follow the Concentrate of Poppy Straw (CPS) method. Cultivation of opium poppy through licences issued by the Central Bureau of Narcotics (CBN), and export of opium are under the exclusive control of the Central Government. The Central Bureau of Narcotics, headed by the Narcotics Commissioner, is the designated agency to supervise the licit production of opium in the notified tracts of the three States namely Madhya Pradesh, Rajasthan and Uttar Pradesh. During the Crop Year 2008-09, commencing from 1st October, 2008 and ending on 30th September, 2009, an area of 8853 hectares was harvested for opium poppy cultivation by 41502 cultivators. 396 metric tones of opium at 90 degree consistence (509 metric tones of opium at 70 degrees consistence(provisional) was procured in April, 2009.

The Central Bureau of Narcotics has also initiated a Smart Card Project to streamline and digitize opium cultivation data through micro processor chip based cards.

Government Opium and Alkaloid Works:

During the Financial Year 2008-09 (upto 31st March, 2009), 143.177 MT opium (from the crop year 2007-08) was received at 90 degree consistence, 8.280 MT opium dried and 421.327 MT opium exported at 90 degree consistence.

The production/sale, etc., in respect of Alkaloids manufactured during 2008-09 in the Government Opium and Alkaloid Works, Ghazipur and Neemuch is tabulated as under:

Name of the Alkaloid	Opening Stock (Qty. in kgs.)	Production (Qty. in kgs.)	Sales (Qty. in kgs.)	Sales Amount (Rs./lakhs)
1. Codeine Phosphate-Indigenous	2,321	10,307	10,830	3,573.97
2. Codeine Phosphate -Import	1,777	29,000	25,445	8,397.01
3. Codeine Sulphate	92
4. Thebaine	851	601	265	112.63
5. Morphine Salts	58	316	215	107.68
6. Dionine I.P.	79	381	402	216.07
7. Noscapine B.P.	1,638	2,987	2,426	849.10
8. S.R. Papaverine	296	1,448	1100	22.42
9. Value Added Product	11	157	137	63.20
10. IMO Powder	2,966	3,675	6,079	278.46
11. IMO Cake	193	1,890	1,490	58.09

DIRECTORATE OF ENFORCEMENT

The Directorate of Enforcement is mainly concerned with the Enforcement of the provisions of the Foreign Exchange Management Act (FEMA), 1999, beside implementation of Prevention of Money Laundering Act (PMLA), 2002, w.e.f. 1.7.2005. The Directorate is also responsible for adjudication of the Foreign Exchange Regulation Act, 1973 (FERA) cases (repealed Act) and follow-up of prosecutions filed under the erstwhile FERA. Consequent to the amendment of PMLA, which has been notified on 1.6.2009, the work of the Directorate, with regard to implementation of PMLA has increased manifold.

The intelligence is collected by the Directorate from different sources, which is collated and investigated upon resulting in filling of the complaint by the Investigating Officers before the Adjudicating Authority, who on consideration of the same issues Show Cause Notices in the deserving cases, which SCNs on Adjudication result in imposition of penalty besides confiscation of the amount involved in the contraventions.

Under FEMA, the Directorate, during the period 1.4.2008 – 31.3.2009, conducted 93 searches, which resulted in the seizure of Rs.798.14 lakh and foreign currencies equivalent to Indian Rs.34.14 lakh. During the same period, penalties of Rs.155.88 lakh under FEMA and Rs.1,342.70 lakhs under FERA (since repealed) were recovered by the Directorate. During the said period under reference 160 FERA cases and 233 FEMA cases were adjudicated resulting in imposition of penalties of Rs.3,15,086.77 besides confiscation of Rs.201.97 lakhs (inclusive of FC & IC) under FERA & penalties

of Rs.14,650.71 besides confiscation of Rs.144.59 lakhs (inclusive of FC & IC) under FEMA.

Under Prevention of Money Laundering Act (PMLA) 2002, the Directorate has taken up investigations in 65 ECIRs (Enforcement Case Information Report) cases under the provisions PMLA, relating to Scheduled Offences such as (a) waging war against the country/state, (b) drug offences under NDPS Act, (c) IPC offences like forgery of valuation security (d) Fake Indian currency notes, etc (e) offences under the Arms Act (f) Wild Life (Protection) Act (g) Immoral Traffic (Prevention) Act etc. Provisional Attachment of Properties under PMLA valued at Rs.46.76 crores had been ordered.

Provisional Attachment Orders (PAO) have been issued in 40 cases, whereby proceeds of crime to the tune of Rs. 4,676 lakhs have been provisionally attached; out of these 34 (PAO) involving a sum of Rs. 7,307 lakhs, stand already confirmed by the Adjudicating Authority. In two cases prosecution complaints under PMLA has also been filed before the designated court.

FORFEITURE OF ILLEGALLY ACQUIRED PROPERTY

The Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Act, 1976 [SAFEM(FOP)A], provides for forfeiture of illegally acquired property of the persons convicted under the Sea Customs Act, 1878, the Customs Act, 1962 and the Foreign Exchange Regulation Act, 1947 and Foreign Exchange Regulation Act, 1974 and the persons detained under the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974. The Narcotics Drugs and Psychotropic Substances Act, 1985 [NDPS Act] provides for tracing, freezing, seizure and forfeiture of illegally acquired property of the persons convicted under that Act or any corresponding law of any foreign country, and those who are detained under the Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988 and Jammu & Kashmir Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988.

SAFEM(FOP) Act and NDPS Acts provide for appointment of Competent Authorities for carrying out forfeiture of illegally acquired properties. At present, the Offices of Competent Authorities are located at Kolkata, Chennai, Delhi, Mumbai and one unit is at Ahemdabad. During the year 2008-2009, the Competent Authorities have forfeited property worth of Rs. 1,115.33 lakhs in 28 cases.

14 Corporate Affairs

INDIA'S corporate sector is one of the major driving forces of its economic growth. From major multinational corporations to small and medium enterprises and ranging across a wide diversity of sectors, including manufacturing, construction, telecom and services, corporate sector has played a significant role in the economic development of the country. This growth and development of corporate sector was enabled by the liberal reforms introduced in the country from time to time.

GROWTH OF CORPORATE SECTOR

Year ended March	No. of companies	Paid up capital (Rs. Crores)	% contribution to GDP
1982	72,402	18,935.5	11.1
1987	1,40,670	43,967.8	14.0
1992	2,50,361	84,642.3	12.9
1997	4,50,950	1,90,518.6	13.8
2002	5,89,246	4,05,753.2	17.8
2003	6,12,155	4,57,058.7	18.7
2004	6,41,512	4,98,790.8	18.1
2005	6,79,649	6,54,021.6	21.0
2006	7,32,169	6,19,152.0	17.3
2007	7,43,678	6,49,490.0	15.7

To meet the expectations of the Corporate Sector and its stakeholders in the changing national and global business environment, Ministry of Corporate Affairs has extended its efforts through a number of initiatives to bring about 'Good Governance'. These initiatives aim at improvement in the legislative framework and administrative set up to enable easy incorporation and exit of the companies, convenient compliance of regulations with transparency and accountability in corporate governance.

The Ministry is primarily concerned with the administration of the Companies Act, 1956 and other related statutes, and has taken up a series of initiatives to meet the needs of the Indian corporate sector. These initiatives include the implementation and stabilizing of an ambitious e-governance Project known as MCA21 as one of the Mission Mode Projects of the Govt. of India under the National E-governance Plan, comprehensive revision of the Companies Act, 1956 through a wide consultative process, introduction of a new legal framework on the Limited Liability Partnerships, amendments to the Acts governing the three professional Institutes of Chartered Accountants, Cost and Works Accountants and the Company Secretaries, Amendments to the Competition Act, 2002, Developments and notification of Accounting Standards, creation of physical infrastructure in order to meet the

requirements of offices and provide for an efficient work environment and proposed establishment of the Indian Institute of Corporate Affairs.

The Corporate Sector, apart from creating wealth for the nation, plays a significant role in the national economy by providing investment and employment opportunities to millions of our people in India. There were about 30 thousand registered companies at work in 1957, i.e. initial year of 2nd five year plan and this number has increased to about 788 thousand registered companies at work at the end of March, 2008.

The corporate sector consists mainly of non-government companies which form 99% of the total sector whereas government owned companies are a negligible 1%. The companies are of three types - companies limited by guarantee, companies limited by shares and unlimited companies; with companies limited by shares forming the major chunk of the corporate sector (98%).

The corporate sector in India is dominated by small and medium sized companies as they constitute 92% of the sector. These companies have authorized capital of less than Rs. one crore. The remaining 8% companies have authorized capital of more than Rs. one crore. Only 1% companies have authorized capital of more than Rs. 25 crores.

The industrial sectors having major concentration of Indian companies are the manufacturing sector, finance, insurance, real estate & business activities, wholesale & retail consists of 31% of total companies followed by finance, insurance, real estate & business activities which together form 30% of the Indian Corporate sector. The industrial sector with the activities of wholesale & retail trade, hotel & restaurants forms 16% whereas construction forms 8% of the corporate sector.

State-wise distribution of Indian companies

The three largest states constituting 54% of the corporate sector are Maharashtra, Delhi and West Bengal. The top fifteen states having largest concentration of Indian companies are Maharashtra, Delhi and West Bengal, Tamil Nadu, Andhra Pradesh, Gujrat, Karnataka, Uttar Pradesh, Rajasthan, Kerala, Punjab, Madhya Pradesh, Bihar, Haryana and Chandigarh in that order. These states constitute 96% of the sector.

Statutory Reforms

The Ministry has been working on wide ranging reforms in the statutory framework relating to the corporate sector. Some of the major initiatives taken in this direction are as under :

i. Comprehensive revision of the Companies Act, 1956 : In today's globalized environment, India's corporate sector is expanding its operations rapidly beyond India's border. To achieve levels of management and governance that inspire investor confidence internationally, legal and regulatory framework for corporate sector is being developed to provide a business friendly structure for entrepreneurs without compromising on the need for protection of investors and other stakeholders. The exercise was started with the preparation of the Concept Paper and its dissemination on the website of the Ministry to seek public comment, followed by constitution of an Expert Group headed by Dr J J Irani and consisting of representatives from corporate, industry bodies and professionals. Based on the inputs received from various segments, a draft Companies Bill prepared in consultation with the Ministry of Law & Justice will be introduced in the Parliament after requisite approvals. The new compact law would focus on shareholder democracy, a disclosure based regime,

rational penal provisions with built-in required deterrence and sufficient protection of the interests of investors.

ii. Limited Liability Partnerships Bill : Keeping in view the vast potential for the growth of knowledge and services sector in the country, the Ministry has prepared a new legislative framework enabling the creation of Limited Liability Partnerships as a new corporate form. The Limited Liability Partnership Bill, 2006 has been introduced in the Parliament in December, 2006. The Government has approved introduction of the revised LLP Bill, 2008 in the Parliament for considering and passing.

iii. Accounting Standards : The National Advisory Committee on Accounting Standards (NACAS) constituted under section-210A of the Companies Act, 1956 has recommended Accounting Standards 1-29 (except AS 8 which has been merged with AS 26) for prescribing under the Act. These Accounting Standards were examined in consultation with Ministry of Law and have been prescribed under the Companies Act, 1956 through notification number GSR 739(E), dated 7th December, 2006. The new Accounting Standards incorporate the internationally accepted practices and the implementation thereof would bring the Indian Accounting systems largely conforming to the international accounting standards.

iv. Competition Act, 2002: India has responded to the current trend of globalization by opening its economy, removing controls and moving to a more liberal regime. As a natural corollary, it was felt that the Indian market should be geared to face competition, from within the country and outside. While competition in the market has significant benefits by way of increased economic efficiency and consumer welfare, however, there is need to guard against market failures. The common market failures arise out of anti-competitive agreements like cartel formation; abuse of dominant position like predatory pricing, vertical restraints like exclusive supply or distribution arrangements and mergers to exercise monopoly power. With a view to prohibit and regulate such activities, the Competition Act, 2002 was enacted and under the provisions of this Act the Competition Commission of India was established.

Certain provisions of the Competition Act, 2002 were challenged in the Supreme Court and keeping in view the judgment of the Supreme court proposals for amendments to the Competition Act were placed before the Indian Parliament which were approved during Monsoon Session, 2007. The amended provision of the Act provides for a dedicated institutional structure for dealing with Competition related issues. The structure includes the Competition Commission of India (CCI) and the Competition Appellate Tribunal (CAT) to deal with the appeals against the orders of the CCI. Now, the central Government is taking necessary measures for fully operationalising CCI and CAT, by notification of relevant rules under the Competition Act, 2002 as amended selection of Chairperson and Members of CCI & CAT respectively, recruitment of necessary staff to man the said organizations and facilitating their training and capacity buildings.

MAJOR PROGRAMMES OF THE MINISTRY

• Investor Education and Protection Fund

Investor Education and protection Fund (IEPF) has been established under Section 205C of the Companies Act 1956 by way of Companies (Amendment) Act, 1999 for promotion of investor's awareness and protection of the interests of investors. Under IEPF, various programmes on investors education and awareness have been funded and organized through voluntary Associations or organizations registered under IEPF.

About 69 Associations/organizations have been registered under IEPF, till date. The Ministry has undertaken various initiatives for increasing the investor's awareness and education in the year 2007-08 which are as follows :

i. Series of advertisements on investor education were issued in national as well as regional language newspapers. Through these advertisements, efforts have been made to educate investors for investing in IPOs, market instruments, Mutual Funds etc.

ii. The Media campaigns had been launched in various newspapers, wherein besides the above said educative messages, NGOs/VOs involved in investor education and protection activities, especially those with a rural outreach were invited to apply for financial assistance under IEPF schemes. Further, organizations , which were keen to carry out the reseach on the subjects of investor education/protection, related issues were also invited to submit their proposals to the IEPF.

iii. Investor Education message was aired on All India Radio through Prasar Bharati to create awareness on the issues concerning investors and about the IEPF.

iv. An "Investor Helpline" www.investorhelpline.in project which had been launched under IEPF through Midas Touch Investors Association to provide a mechanism for redressal of grievances and to create investor awareness has been rendering service to the investors.

v. Further, another website, namely www.watchoutinvestors.com which is a national registry of economic defaulters and covers information on convictions by various bodies, has also been rendering effective service to not only investors and prospective investors but also to professionals such as advocates, chartered accountants and company secretaries.

vi. Another website, namely www.iepf.gov.in was launched by the Hon'ble Minister for Corporate Affairs during the year to serve as a knowledge sharing platform in the area of financial literacy as a measure of investor awareness and education.

vii. During the year, the month of September 2007 was observed as 'Investor Awareness Month' for the first time by the Ministry of Corporate Affairs. This event was organized in association with the Institute of Chartered Accountants of India and the Institute of Company Secretaries of India and various investor awareness programmes were organized at 61 location across the country.

viii. Under the Capacity Building Programme, "Training of Trainers" programmes through Indian Institute of Capital Market (IICM), Mumbai had been conducted especially for the new organizations active at Taluka level.

ix. Besides, a research project on the impact of delisting of shares on investors by the Society for Capital Market Research and Development, Delhi had been undertaken.

• **National Foundation for Corporate Governance**

The Ministry of Corporate Affairs has set up National Foundation for Corporate Governance (NFCG) as a not-for profit Trust to provide a platform to deliberate issues relating to good corporate governance and to sensitize corporate leaders on the importance of good corporate governance practices, to facilitate exchange of experiences and ideas between corporate leaders, policy makers, regulators, law enforcing agencies and non-government organizations.

The NFCG has a three-tier structure for its management, viz, the Governing Council under the Chairmanship of Minister of Corporate Affairs, the Board of Trustees and the Executive Directorate.

A website of NFCG had been launched to serve as a vehicle for dissemination of policies for better corporate governance. NFCG had framed an Action Plan which includes development of good corporate governance principles on identified themes i.e. (i) corporate governance norms for Institutional Investors, (ii) corporate governance norms for independent directors, and (iii) corporate governance norms for Audit. Three core groups were constituted in this behalf.

Besides the NFCG has also been sponsoring orientation programme for Directors through the various institutes of Excellence and has been organizing seminars and conferences to propagate the need for following good corporate governance practices.

The following initiatives were undertaken the aegis the NFCG towards promotion of Corporate Governance during the financial year 2007-08.

a) Faculty development Programme on Corporate Governance in partnership with the Indian Institute of Management, Bangalore was conducted in May, 2007;

b) Symposium on Corporate Governance through Audit Committee was organized in June 2007 in partnership with ICAI;

c) National Conclaves on Corporate Governance in India was organized in July 2007 and October 2007;

d) Corporate Director Programme on Audit Committee was conducted in July/August, 2007 in partnership with the Indian Institute of management, Bangalore;

e) Corporate Governance orientation Programme for Company Directors was organized in partnership with the Indian Institute of Management, Bangalore in November 2007;

f) National Seminar on Corporate Governance was organized in partnership with Loyola Institute of Business Administration at Chennai in January 2008;

g) 1st International Summit on Corporate Staff Responsibility which was organized by ASSOCHAM was sponsored through NFCG in January 2008;

h) Seminars on Corporate Governance to State Level Public Enterprises and for Directors of SMEs were organized by Administrative Staff College of India in partnership with NFCG in March 2008.

i) Besides, research studies on various topics relating to Corporate Governance were also conducted under the aegis of NFCG.

Future Plans of NFCG include taking up the issues of adopting a country strategy on Corporate Governance, encourage Corporate Governance cooperation in South Asia particularly relating to SAARC countries and dissemination of corporate governance practices for the small and medium corporate.

• **Serious Frauds Investigation Office (SFIO)s**

Serious Fraud Investigation Office (SFIO) has been set up by the Govt. of India in the Ministry of Corporate Affairs by way of resolution dated 2.7.2003 as per the Cabinet decision dated 09.01.2003. This office has been set up to investigate corporate frauds of serious and complex nature. It carries out investigation under the provisions of the Companies Act and files prosecutions for the violations of the provisions of the Companies Act as well as Indian Penal Code (IPC). Investigation is carried out by a

multidisciplinary team which includes experts from the field of accountancy, forensic auditing, taxation, customs and central excise, information technology, capital market, financial transactions (including banking) and enforcement agencies like CBI, IB and Directorate of Enforcement.

SFIO take up investigations of frauds characterized by (a) complexity and having inter-departmental and multi disciplinary ramifications, (b) substantial involvement of public interest to be judged by size, either in terms of monetary misappropriation or in terms of persons affected, and (c) the possibility of investigation leading to or contributing towards a clear improvement in systems, laws or procedures.

This office is in existence for last four and a half years and so far this organization has received 65 investigation cases and carried out investigation and submitted investigation report to the Ministry in 31 corporate fraud cases. Prosecutions have been sanctioned against the concerned officials/Directors of these corporates on the basis of these reports. On the basis of these sanctions, so far 739 prosecutions under the various provisions of Companies Act as well as IPC have been filed in the competent court.

- **Indian Institute of Corporate Affairs (IICA)**

The Ministry of Corporate Affairs is in the process of establishing the Indian Institute of Corporate Affairs (IICA) which will provide policy think tank, policy research, capacity building and knowledge support to the Ministry as well as other sections of the government. It will also function as a service delivery arm of the Ministry for specific initiatives related to investor education, corporate governance and electronic Registry functions. The institute with national and international institutions of excellence in corporate affairs. The proposal has already been approved by the Cabinet and the Ministry has started working on establishing a campus at IMT Manesar, Gurgaon. While the regular campus is coming up, the interim operations of the institute are going to be started shortly from a temporary premises.

- **MCA21 e-Governance Project**

The Ministry of Corporate Affairs (MCA) has implemented an e-Governance initiative known as 'MCA21 e-Governance Project'. It is built on the Government's vision to introduce a service-oriented approach in the design and delivery of Government Services. The Project offers availability of all registry related services including filing of documents, registration of companies and public access to corporate information through a secure portal. The portal services can be accessed/availed from anywhere, at any time that best suits the corporate entities, professionals and the public at large. Thus MCA21 has led to efficient delivery of services and supervision of corporate processes through the use of modern information technology and computers in an easy and transparent manner.

The objective of the e-governance is to improve the speed and certainty in delivery of MCA services in a transparent manner. This improvement is ensured primarily through the mechanism of secure electronic filing (e-filing) and easy online payment for all the services provided by the Registrar of Companies. It is, therefore, a significant step towards an end-to-end paperless delivery of the Government Services with widespread use of Digital Signature to carry out e-filing in a secure manner in conformity with the Information Technology Act, 2000. Starting with the launch of first pilot on February 18, 2006 from Coimbatore and the major launch of the second pilot from Delhi by the Hon'ble Prime Minister on March 18, 2006, the programme

was rolled out at all the ROC locations in a phased manner by September 4, 2006. Electronic filing, using Digital Signatures, was made compulsory from September 16, 2006 with the amendment in the Companies Act, 1956. The facility for online payment through Credit Card and Internet Banking has also been provided on the portal through a secure payment gateway, to ensure prompt recognition of payment and delivery of services.

The project has a sound foundation in its conceptualization, solution architecture, a sound BPR and deliverables measured through a strict regimen of services level benchmarks. A comprehensive outcome based project with focus on service delivery, the project envisages benefits for various categories of stakeholders as under :

- **Business:** enabled to register a company and file statutory documents quickly and easily, and in a manner that is convenient
- **Public :** to get easy access to relevant records and get their grievances redressed effectively
- **Professionals :** to be able to offer efficient services to their client companies
- **Financial Institutions :** to find registration and verification of charges easy
- **MCA :** to ensure proactive & effective compliance of relevant laws and corporate governance
- **Employees :** enabled to deliver best of breed services

The solution architecture provides for a Data Centre, which has been set-up at Delhi, A Disaster Recovery Centre at Chennai and a network of facilitation centres at 52 locations throughout the country. In the event of any technology breakdown or disruption of services from the Data Centre, the services can be restored within a time-frame of 12 hours by taking recourse to the Disaster Recovery Centre. The project has been designed with provision for interoperability and interface with other Government Departments/Ministries.

The implementation of the programme has been remarkably smooth with the transition having been facilitated through a well structured communication plan with the external stakeholders and training & hand-holding of the MCA employees. Seminars and conferences attended by professionals and company representatives were organised at 24 places. Full day training workshops were held by the operator at 55 locations attended by more than 9000 professionals before mandating e-filing from September 16, 2006. Keeping in view that the stakeholders including corporate entities and the public may face certain difficulties in the beginning in switching over from the manual filing system to an electronic filing system, these facilitation centres provide complete range of services for e-filing of documents to the stakeholders who do not have the necessary computing/IT infrastructure or capability to use the same for e-filing from their own locations. The Project provides for continuation of this support for a period of three years from the Project Implementation Completion date without any charge to the stakeholders.

Besides a network of state-of-the-art Facilitation Centres at 52 location where facilities for e-filing have been made available free of any charge throughout the country, a scheme for Certified Filing Centres (CFCs) managed through the practising professionals was introduced following the concept of user charges. About 900 such CFCs have been authorised throughout the country. It is result of these efforts that

about 92% of the documents are being filed today from the virtual offices without any support or help.

A new concept of Director Identification Number (DIN) has been introduced whereby all the existing Directors as well as those intending to be Directors in future are required to obtain DIN for which a process has already been put in place. A reference to DIN allotted to a Director is a mandatory field in respect of certain filings. Since the process establishes the identity of Directors of the companies and it is envisaged to develop a link between the Company Identification Number (CIN) and the DIN, it would enable the Ministry to do a meaningful processing in relation to enforcing compliance of statutory provisions of the Companies Act, more specifically in relation to the Directors on companies.

National Award for MCA21 Programme : The MCA 21 programme of the Ministry has been conferred the "National Award for e-Governance - 2007-08" by the Government of India. The award is in the Gold category for excellence in Government Process Re-engineering.

Skoch Challenger Award 2008 : The MCA21 project has been awarded "Skoch Challenger Award 2008" as a project of "National Significance" on March 19, 2008 by Skoch Consultancy Services Pvt. Ltd.

The operational statistics, as on July 31, 2008 as follows :

Sr No.	Description	Number
Filing Status as on July, 2008		
1	Average portal hits per day	2.98 Millions
2	Peak Portal hits (28 Nov, 2007)	14.18 Millions
3	Maximum number of documents filed on a day (29 Nov. 2007)	41,832
4	Total filings done till date	49.00 lakhs
5	Companies Registered online	1,43,537
6	Total DIN issued till date	8.64 lakh
7	Company records viewed online	5.78 lakh
8	Number of Balance Sheets filed	3.80 lakh
9	Number of Annual Returns filed	3.80 lakh
10	Number of Din-3 filed	4.88 lakh
11	E-filing through VFO	92 %
12	Online Payment transactions	58.69 %

• Indo-UK Task Force On Corporate Affairs

The 2nd meeting of Indo-UK Task Force on Corporate Affairs was held on 5th to 8th February, 2008. Five sub-groups were formed for the purpose of deliberations and cooperation in the following areas :-

- Regulatory and statutory issues including institutional Cooperation and Capacity Building;
- Corporate Governance;
- Corporate Social Responsibility;

- Standards in Financial and Related Professions;
- Insolvency and related issues;

Subsequent to the meeting, the following initiatives have been taken :-

i. One group of five officers will be visiting UK from 15-20 September for capacity building and exposure to the best practices in UK in the area of Insolvency Services. This is expected to widen the horizons of officers in the Ministry of Corporate Affairs towards an efficient and effective system of service delivery and protection of rights of monitory stakeholders.

ii) Mr. Toby Watkinson, Senior Policy Advisors, an expert on insolvency in U.K. visited India and held discussions as well as shared experiences with selected officers/ audiences from Ministry of Corporate Affairs. Regional Directors, Official Liquidators, Institute of Chartered Accountants of India, Institute of Company Secretaries of India and Institute of Cost & Works Accountants of India towards initiation of a process aimed at change of mind-sets for better and transparent corporate governance and liquidation process.

iii) One group of five officers is visiting Department for Business Enterprise and Regulatory Reforms (BERR) in U.K. for capacity building and exposure to the best practices in U.K. in the area of corporate fraud. This is expected to widen the horizons of officers in the Ministry of Corporate Affairs towards efficient system of inspection, technical scrutiny and investigation besides creation of an early system to act as a deterrent for others.

EVENTS OF THE YEAR

New Look MCA Offices : Initiatives have been taken to provide modern and productive work environment to the field offices of the Ministry, wherein new office complexes are to be constructed at Jaipur, Chandigarh and Cuttack, built up spaces are acquired from UTIISL at Cheennai and Bangalore and existing offices are to be refurbished.

Corporate Bhavan at Jaipur : The Hon'ble Minister for Corporate Affairs laid the foundation stone of the first Composite office of the Ministry known as "Corporate Bhawan" at Jaipur on 10th May, 2007. The new office complex after completion would house the offices of the Registrar of Companies (RoC) Jaipur, the office of Liquidator, Jaipur and also accommodate the proposed bench of NCLT at Jaipur.

CONFERENCES/MEETINGS HELD DURING THE YEAR

National Conclave on Corporate Governance : A national conclave was organised by the national Foundation for Corporate Governance on the theme entitled "Corporate Governance in India : Transforming Business Environment" on 30th July, 2007. It was attended by various industrialists, stakeholders, business leaders and professionals. The prime focus of this initiative was to highlight the "Partnership Approach" with stakeholders which has been the hallmark of various initiatives undertaken by the Government during last couple of years. Discussions were held on various legislative and administrative aspects concerning corporate sector.

Annual Workshop of RDs and RoCs : A two day residential workshop was conducted for RDs and RoCs on August 10 and 11, 2007 at National Institute of Financial Management, Faridabad. The main focus of the workshop was to evolve Annual Action Plan and implementation strategies to reform and restructure the functioning

of these offices. Awards were given to the RoCs for transforming the physical environment of their offices to provide a 'New Look'. The first award was given to RoC Cuttack, second prize to RoC Gwalior and the third prize to RoC Kerala.

International Summit on Corporate Social Responsibility: The First international Summit on Corporate social Responsibility (CSR) was held on January 29-30, 2008 at New Delhi. It was cosponsored by the Ministry of corporate Affairs under the aegis of National Foundation for corporate Governance (NFCG) and organized by ASSOCHAM.

Asia Network on corporate Governance: A meeting of Asia Network on Corporate Governance of state-issued enterprises by OECD was held on 25th and 26th June, 2008 at 'Oberoi Hotel', New Delhi. It was sponsored by National Foundation for Corporate Governance a body established by MCA in partnership with CII, ICAI and ICSI.

INTERNATIONAL COOPERATION

Indo-UK cooperation: A delegation of financial and legal experts from UK led by Mr. Alderman John Stuttard MA, the Rt. Hon Lord Mayor of the City of London visited the Ministry of Corporate Affairs on 21st May, 2007. The Lord Mayor is also the Ambassador of the Indo-UK industry with its headquarter in the city of London and includes the regional financial centres such as Edinburgh, Glasgow, Leeds, Manchester and Bristol, as part of his role includes ambassadorial role for financial services as well. Mr Stuttard has wide international experience including in China. In 1981 he was seconded for two years to the UK Cabinet Office, to advise on the nationalized industries and their privatization. He also receives visiting heads of states and governments on behalf of the British government, Lord Mayor's business initiatives will focus on developing London as a city of Financial Learning During the meeting with Hon'ble Minister of Corporate Affairs, Govt of India, the delegation discussed areas of mutual concern relating to the regulatory framework of preparation, presentation and audit of financial information of Companies. The discussions also covered institutional mechanisms for regulation of accountancy professionals and impact of financial reporting on corporate governance. Government of the two countries have already agreed to set up an Indo-UK Joint Working Group for mutual cooperation on all issues relating to corporate matters, including corporate laws and corporate governance. It was agreed to explore the possibilities of collaboration between selected U.K. institutes and the proposed 'Indian Institute of Corporate Affairs' being set up by the Ministry.

Indo-UK Task Force: The first meeting of Indo-UK Task Force on corporate affairs was held on 1st August 2007 with a view to strengthen the Cooperation between the two countries on corporate matters. The task force deliberated and agreed on the following areas of cooperation. Regulatory and statutory issues including company Law, Partnership Law, Competition, Law Regulation of Accountancy Profession and enhancing competitiveness; Corporate Governance, Corporate Social Responsibility; Law Standards in Financial Profession, Insolvency, International co-operation, capacity building and best practices, and Investor Protection and Electronic Registry Services.

Ministry of Trade and Investment, UK meets Minister of Corporate Affairs: A meeting of Lord Digby Jones of Birmingham the Minister of State of trade and Investment, UK was held with the Minister Corporate Affairs on 15th January, 2008. In the meeting various reforms introduced in the corporate law like LLP Bill, accounting

standards. Amendment of competition Act and revision of Companies Act, 1956 were discussed.

Lord Mayor of the city of London meets the Minister of Corporate Affairs: A delegation led by Mr. Alderman David Lewis Ma, the Rt. Hon Lord mayor of the city of London met the Hon'ble Minister of Corporate Affairs on 22nd April, 2008 and discussed the matter relating to corporate Government. Current position of LLP Bill and Companies Act, Professional service. regulation and corporate governance structure and functioning of the Indo-UK Task Force on corporate Affairs.

Visit of Indian delegation to UK: An Indian delegation led by Secretary MCA visited UK to attend the second meeting of Indo-UK. Task force on Corporate Affairs on 7th February 2008. The delegation also visited INSOL, Competition Commission, National School of Government, UK, Institute of Directors, UK, Take Over Panel, UK and Financial Reporting Council and Chartered Institute of Management Accountants. UK.

Visit of delegates from European Commission: A delegation led by Mr. Pierre Desaux, Director, Free Movement of capital. Company law and Corporate Governance, European Commission met Secretary. Ministry of Corporate Affairs on 7th March. 2008. In the meeting, issues related to Accounting and auditing, convergence of accounting standards with IFRS, modernization of the accounting profession and other related issues were discussed.

Mr. Jorgen Holmquist, Director-General responsible for International Market and Services, European Commission met Secretary, Ministry of corporate Affairs on 10th April 2008. Issues related to possible cooperation on regulatory mechanism, accounting, auditing and other areas of mutual interest were discussed.

15 Food and Civil Supplies

THE Department of Food and Public Distribution is responsible for management of the food economy of the nation. It undertakes various activities, such as procurement of food items, their storage, movement and delivery to the distributing agencies. A close watch is kept on production and efforts are made to ensure their adequate availability at reasonable prices in different parts of the country. The details of production of foodgrains may be seen below.

PRODUCTION OF FOODGRAINS

(lakh tonnes)

Crop	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07*	2007-08
Rice	817.3	825.4	860.8	896.8	849.8	933.4	718.2	885.3	853.1	917.9	933.5	956.8
Wheat	693.5	663.5	712.9	763.7	696.8	727.7	657.6	721.5	720.0	693.5	758.1	767.8
Coarse Cereals	341.1	304.0	313.3	303.4	310.8	333.7	260.7	376.0	339.2	346.7	339.2	396.7
Pulses	142.5	129.7	149.1	134.1	110.7	133.7	111.3	149.1	133.8	133.9	142.0	151.9
Total	1,994.4	1,922.6	2,036.1	2,098.0	1,968.1	2,128.5	1747.8	2131.9	2046.1	2092.0	2172.8	2273.2

* as per 3rd advanced estimates as on 22-04-2008

PROCUREMENT OF FOODGRAINS

(lakh tonnes)

Marketing Season	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09*
Rice ¹	155.91	125.99	182.28	212.81	221.27	164.10	228.28	217.93	276.56	251.07	259.54*	222.8*
Wheat ²	92.97	126.52	141.44	163.55	206.30	190.54	158.01	165.95	147.85	92.26	111.27	222.8*

¹ Marketing Season : October-September

² Marketing Season : April-March

* As on 26.06.2008

The Department of Consumer Affairs under Ministry of Food & Consumer Affairs is responsible for the formulation of policies for Consumer Cooperatives, Monitoring, Prices, availability of essential commodities, Consumer Movement in the country and Controlling of statutory bodies like Bureau of Indian Standards (BIS) and Weights and Measures.

ESSENTIAL COMMODITIES ACT, 1955

The Essential Commodities Act, 1955 was enacted to ensure the easy availability of essential commodities to consumers and to protect them from exploitation by unscrupulous traders. The Act provides for the regulation and control of production, distribution and pricing of commodities which are declared as essential for maintaining or increasing supplies or for securing their equitable distribution and availability at fair prices. Exercising powers under the Act, various Ministries/ Departments of the Central Government and under the delegated powers, the State Governments/UT Administrations have issued orders for regulating production,

distribution, pricing and other aspects of trading in respect of the commodities declared as essential. The enforcement/ implementation of the provisions of the Essential Commodities Act, 1955 lies with the State Governments and UT Administrations.

As per the decisions of the Conference of Chief Ministers held on 21 May 2001, a Group of Ministers and Chief Ministers had been constituted which recommended that the regulatory mechanism under the Essential Commodities Act, 1955 should be phased out. Accordingly, the restrictions like licensing requirement, stock limits and movement restrictions have been removed from almost all agricultural commodities. Wheat, pulses and edible oils, edible oilseeds and rice being exceptions, where States have been permitted to impose some temporary restrictions in order to contain price increase of these commodities.

The list of essential commodities has been reviewed from time to time with reference to the production and supply of these commodities and in the light of economic liberalisation in consultation with the concerned Ministries/Departments administering these commodities. The Central Government is consistently following the policy of removing all unnecessary restrictions on movement of goods across the State boundaries as part of the process of globalisation simultaneously with the pruning of the list of essential commodities under the said Act to promote consumer interest and free trade. The number of essential commodities which stood at 70 in the year 1989 has been brought down to 7 at present through such periodic reviews.

In conformity with the policy of the Government towards economic liberalisation, Department of Consumer Affairs is committed to the development of agriculture and trade by removing unnecessary controls and restrictions to achieve a single Indian Common Market across the country for both manufactured and agricultural produce and to encourage linkage between agriculture and industry. With this object in view, this Department introduced the Essential Commodities (Amendment) Bill, 2005 in the Parliament in the winter session of 2005 to enable the Central Government to prune the list of essential commodities to the minimum by deleting all such commodities which have no relevance in the context of present improved demand and supply position and to facilitate free trade and commerce. Only those commodities considered essential to protect the interest of the farmers and the large section of the people "below the poverty line" are proposed to be retained under the Essential Commodities Act, 1955.

The Prevention of Black-marketing and Maintenance of Supplies of Essential Commodities Act, 1980 is being implemented by the State Governments/UT Administrations for the prevention of unethical trade practices like hoarding and black-marketing. The Act empowers the Central and State Governments to detain persons whose activities are found to be prejudicial to the maintenance of supplies of commodities essential to the community. Detentions are made by the States/UTs in selective cases to prevent hoarding and black-marketing of the essential commodities. As per reports received from the State Governments, 119 detention orders were issued under the Act during the year 2007. The Central Government and the State Governments also have the power to modify or revoke the detention orders. The representations made by or on behalf of the persons ordered for detention are considered and decided by the Central Government.

In the context of unprecedented rise in prices of some essential commodities in the mid 2006, there had been wide spread concern from various corners for taking immediate steps to mitigate the rising trend of prices of essential commodities. Representations from the Chief Ministers of Punjab and Delhi and also from the

Governments of Andhra Pradesh, Rajasthan and Maharashtra were received for restoration of powers under the Essential Commodities Act, 1955 for undertaking dehoarding operations in view of the assumption that there is speculative holding back of stocks particularly of wheat and pulses in anticipation of further rise in prices. Central Government has already taken a number of steps to control the price rise in essential commodities by trying to augment supply including through imports by reducing the duty level on import of both wheat and pulses to zero.

The situation was further reviewed by the Government and it was decided with the approval of the Cabinet to keep in abeyance some provisions in the Central Order dated 15.2.2002 for a period of six months with respect to wheat and pulses (whole and split), so as to tackle the crises on availability and prices of these commodities. Accordingly, the Government order No. (1373 (E) dated 29.8.2006 by virtue of which the words or expressions made in respect of purchase, movement, sale, supply, distribution or storage for sale in the "Removal of (Licensing requirements, Stock limits and Movement Restrictions) on Specified Foodstuffs Order, 2002" notified on 15.02.2002 have been kept in abeyance for commodities namely wheat and pulses for a period of six months. The transport, distribution or disposal of wheat and pulses (whole or split) to places outside the State as well as import of these commodities have been kept outside the purview of the aforesaid Order of 29.08.2006. The Order of 29.08.2006 was initially in force for a period of 6 months, which was extended thrice for a period of 6 months each by Central Notifications dated 27.02.2007, 31.8.2007 and 28.02.2006. The Order permitted State/UT Governments to fix stock limits in respect of wheat and pulses.

To enable the State Governments/UT Administrations to continue to take effective action for undertaking de-hoarding operations under the Essential Commodities Act, 1955, the price situation was further reviewed by the Government and it has been decided with the approval of the Cabinet to further impose similar restrictions by keeping in abeyance some provisions of the Central Order dated 15.02.2002 for a period of one year with respect to edible oils, oilseeds and rice, so as to tackle the rising trend of prices as well as to ensure availability of these commodities to the common people. However, it has also been decided that there shall not be any restriction on the inter-state movement of these items and that imports of these items would also be kept out of the purview of any controls by the State Governments.

CONSUMER CO-OPERATIVES

The consumer co-operative structure in the country has four tiers, with the National Co-operative Consumers Federation of India Ltd. (NCCF) at the national level. Thirty State Co-operative Consumers Organisations are affiliated to the NCCF. At the Central/Wholesale level, there are 800 Consumer Co-operative Stores. At the primary level, there are 21,903 primary stores. In the rural areas, there are about 44,418 village level Primary Agricultural Credit Societies and Marketing Societies undertaking the distribution of consumer goods along with their normal business. In the urban and semi-urban areas, the consumer co-operative societies are operating about 37,226 retail outlets to meet the requirements of the consumers. The NCCF, besides undertaking distribution of consumer articles, also has a Consultancy and Promotional Cell for strengthening consumer co-operative societies engaged in the retailing activities. The NCCF with its Head Office at New Delhi, has 34 branches/sub-branches located in various parts of the country. The sales turnover achieved by the NCCF during the year 2006-2007 was Rs. 411.12 crore as against the sales turnover of Rs 630.39 crore

last year. It has earned a net profit of Rs. 1.33 crore as against the profit of Rs. 6.32 crore during the previous year. The accumulated losses of the NCCF as on 31 March 2007 stand tentatively at Rs. 1.12 crore.

FORWARD TRADING AND FORWARD MARKETS COMMISSION

Forward Markets Commission (FMC) is a statutory body set up under Forward Contracts (Regulation) Act, 1952 and functions under the administrative control of the Ministry of Consumer Affairs, Food and Public Distribution. The FMC regulates forward markets in commodities through the recognised associations, recommends to the Government the grant / withdrawal of recognition to the associations organising forward trading in commodities and makes recommendations for general improvement of the functioning of forward markets in the country.

At present, there are 24 exchanges including three 'national level' exchanges which have been recognised for conducting futures/forward trading in India and all the commodities have been permitted for trading. During the current year "Thermal Coal" and "Carbon Credit" have also been allowed to be traded on recognized Commodity Exchanges.

In tune with the liberalisation of the commodity markets in India, all the operational exchanges have been persuaded to implement various reforms such as online trading, time stamping, trade guarantee and settlement mechanism, one-third independent board representation and back-office automation. In addition to the setting up of the nation wide multi-commodity exchanges, there are a number of ancillary areas, which are being looked at for the orderly and harmonious development of the commodity derivatives market. This includes removing a host of controls on movement, prices, etc. on commodities, sorting out certain tax related issues, standardisation, certification and warehousing issues, the usage of warehouse receipts, participation by diverse groups of players, banks, FIs and FIIs and so on. The Government is simultaneously making efforts in all these directions.

The commodity futures market is regulated under the provisions of the Forward Contracts (Regulation) Act, 1952 (FCR Act). In order to include some new features that are in tune with the latest development in the commodity futures market, this Department has proposed Amendments to the FCR Act. Accordingly, Forward Contracts (Regulation) amendment Bill, 2006 was introduced in the Lok Sabha on 21.03.2006. However, since this issue was related to financial and market integrity, the Government hastened the process of amendment by promulgating forward Contracts (Regulation) Ordinance, 2008 on 31.01.2008. The main elements of the amendment are as follows:

- increase the maximum number of members of Forward Market Commission from four to nine out of which three to be whole time members and a chairman;
- confer power upon the FMC to levy fees;
- Provide for constitution of FMC General Fund to which all grants, fees and all sums received by the FMC shall be credited except penalty and apply the funds for meeting the expenses of the Commission;
- make provisions for corporation and demutualisation of recognised association in accordance with the scheme to be approved by the FMC;
- make provisions for registration of members and intermediaries;
- allow trading in options;

- make provisions for investigation, enforcement and penalty in case of contravention of the provisions of the FCR Act.

In order to replace the said Ordinance, a fresh Bill—the Forward Contracts (Regulation) Amendment Bill 2008 was introduced in Lok Sabha on 13.03.2008. The earlier FCR (A) Bill 2006 which was pending in the Lok Sabha, was withdrawn simultaneously.

The liberalization and opening up of commodities futures market has started showing results in terms of significant jump in the volume and value of futures trading in commodities. During 2007-08, the total value of commodity futures trade has been Rs. 40.66 lakh crore as compared to Rs. 36.76 lakh crore during 2006-07 showing an increase of 10.6%. The trading volume and value have increased by manifold after the three national Exchanges were setup. National Multi-Commodity Exchange of India, Ahmedabad (NMCE), Exchange of India Ltd., Mumbai (MCX) and National Commodity and Derivative Exchange Ltd., Mumbai (NCDEX) started trading in November 2003. The following table shows the increase in commodity futures trading volume and value since the setting up of the these national Exchanges.

Commodity Futures Trading Value since 2002-03

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Value of trading	66,530	1,29,363	5,71,759	21,55,122	36,76,926	40,65,989
(Rs. in crore)	(92)*	(94)*	(341)*	(274)*	(70)*	(10.56)*

* Figures in parenthesis are % change over previous year.

'Jago grahak jago' — an Initiative towards consumer Education and Awareness

An enlightened consumer is an empowered consumer. An aware consumer not only protects himself from exploitation but induces efficiency, transparency and accountability in the entire manufacturing and services sector. Realising the importance of consumer awareness, the Government has accorded top priority to Consumer Education, Consumer Protection and Consumer Awareness. The most important milestone in Consumer Movement in the country has been the enactment of the Consumer Protection Act, 1986. The Act applies to all goods and services unless specially exempted by the Central Government, in all sectors whether Private, Public or Co-operative.

Consumer Protection Act, 1986

The Act enshrines all the consumers rights which are internationally accepted. As per the Act, the consumer protection councils have been established at Central, State and District levels to promote and protect the consumer rights. They are:

- Right to Safety: To be protected against the sale of goods and services which are spurious/hazardous for the life.
- Right to Information: To know the quality, quantity, weight and the price of goods/services being paid for, so that one is not cheated by unfair trade practices.
- Right to Choose: To be assured, wherever possible, access to a variety of goods and services at competitive prices.

- Right to be Heard: To be heard and to be assured that the interest would receive due consideration at appropriate fora.
- Right to Seek Redressal: To seek legal redressal against unfair or restrictive trade practices or exploitation.
- Right to Consumer Education: To have access to consumer education.

Basic Framework for Consumer Protection

Consumer protection initiatives by the Government hinge on 3 basic parameters. Firstly, ensuring a legal framework that comprises of Consumer Protection Act. The Act has been recognised as one of the finest legislation enacted in any part of the world and India can boast of being the only country having such specialized legislation for consumer protection. The CPA has a three tier: Quasi-judicial machinery at the National, State and District level for hearing cases raised by consumers. Secondly, evolving standards for different products is necessary. Standards are the essential building block for quality and play a key role in consumer protection. Standards could be on technical requirement (specifications), improved specific standard terminology (glossary of terms), codes of practice or test methods or management systems standards. The standards are set generally by Government or inter-Governmental bodies but worldwide it is being recognised that voluntary establishment of standards plays an equally important role for protecting consumers. Finally, consumer awareness and education is the main ingredient for consumer protection.

National Action Plan on Consumer Protection

Consequent upon the 50th National Development Council Meeting, Planning Commission has identified consumer awareness, redressal and enforcement of Consumer Protection Act as priority areas for action by the Department of Consumer Affairs. The allocation for consumer protection activities was significantly enhanced in the last 2 years of the 10th plan.

Consumer Awareness Scheme in the 11th Plan

The Consumer Awareness Scheme for the 11th Plan amounting to a total of Rs. 4009 crores has been approved by the Cabinet Committee on Economic Affairs on 24.01.08. This scheme has been formulated to give an increased thrust to a multi-media publicity campaign to make consumers aware of their rights. The slogan 'Jago Grahak Jago' has now become a household name as a result of publicity campaign undertaken in the last 3 years. Through the increased thrust on consumer awareness in the 11th Five Year Plan, the Government has endeavoured to inform the common man of his rights as a consumer. As part of the Consumer Awareness Scheme, the rural and remote areas have been given top priority. In a big country like India educating the consumers is a gigantic task. Government has taken up number of activities and schemes in creasing consumer awareness in the country.

Multi-media Publicity Campaign

As part of the Multi-media publicity campaign, gist of the activities being undertaken is summarised as below:

1. Publicity through print media using newspaper advertisements

To educate the consumers about their rights and responsibilities, the Department has been releasing small advertisements through DAVP in national dailies as well as

regional newspapers in local languages in accordance with the New Advertisement Policy of the DAVP.

2. Publicity through electronic media by telecast of video spots

The Department has got produced video spots of 30 seconds duration on various consumer-related issues such as Grievance Redressal System, MRP, ISI, Hall Mark, Alternate Dispute Redressal System, Weights and measures, Rights of Consumers etc. which are being telecast through Doordarshan, cable and satellite channels such as Sony, Star Plus, Zee News, Star News, Sun Network, ETV Network, ZEE TV Network, Discovery and other private popular satellite channels. special programmes have been telecast on DD News and Lok Sabha TV to highlight the issues relating to consumer awareness. Issues pertaining to rural and remote areas have been given prominence in various advertisement spots.

3. Telecast of video sports in north-east states

The Department has produced 6 video spots in Regional languages of North Eastern States of 20 seconds and 30 seconds duration on various consumer related issues such as M.R.P. (Maximum Retail Prices), short measurement, expiry date on medicine, adulteration, damaged product, redressal systems and telecast them through Doordarshan Kendras of north-east states.

4. Meghdoot Postcards

The Department, in consultation with Department of Posts has disseminated consumer awareness messages through Meghdoot Postcards to reach far-flung rural areas including north-east states. A bigger plan of partnership with the Department of Posts to use its vast network for spreading the message of consumer awareness has been chalked out. Calendars containing the message of consumer awareness are being displayed through the network of 1.55 lakhs post offices.

5. Printed Literature

The Department has re-printed a folder entitled "Consumer Awareness Mission" containing the salient features of Consumer Protection Act 1986, Consumer Resource kits as well as pocket calendars and posters for distribution during various events such as IITF, street plays and also through the State Governments at grassroot level. The publicity material relating to consumer awareness has also been translated in regional languages and is being disseminated to various State Governments.

6. Nukkad Nataks (Street Plays)

The Department in consultation with Song & Drama division of Ministry of Information and Broadcasting has organized more than 1000 programmes in all the States/UTs to create awareness at grass root level.

7. National Helpline

The Department has launched National Helpline and the Toll Free Number 1800-11-4000 which is being operated by Delhi University for counselling the Consumers to redress their grievance. The toll free number facility is available to consumers from 9.30 A.M. to 5.30 P.M. on all working days (Monday-Saturday).

Through various advertisements adequate publicity has been given to National Helpline .

8. Use of sports events

In order to reach maximum number of consumers, the Department has telecast video spots containing consumer related information during the popular sports events such as Tri-series cricket tournament.

9. Use of internet to generate consumer awareness

We are a young country with more than 70% population being under 38 years. The younger generation is using the internet frequently for various purposes. Realizing this, a major initiative is being taken to spread online consumer awareness. The advertisements brought out by the Department are also being displayed on the website of the Ministry www.fcanin.nic.in

10. Advertisements in journals of Publications Division

The Department has entered into a tie-up with Publications Division under the Ministry of Information & Broadcasting. As part of the tie-up advertisements are being published to educate consumers in all the journals brought out by Publications Division such as Yojana, Kurukshetra, Bal Bharati, Aajkal and their regional language editions. Focussed articles on consumer awareness are being published in these magazines keeping in view their target readership. Employment News, the flagship publication of the Publications Division, which is the largest selling career weekly of its kind, occasionally publishes articles that are of interest to youngsters to keep them informed about their rights. The advertisements of the Department are also being published regularly in Employment News/Rozgar Samachar .

11. Focus areas on Consumer Awareness

The print advertisements and spots for the electronic media have focussed on such areas that are of interest to a large section of the society. Some of the examples are :

- Issues relating to MRP, wherein consumers have been educated about its concept and related issues.
- Awareness and education about standardisation and different standards brought about by government departments, such as ISI, hallmark, Agmark etc.
- Education and awareness about various provisions of weights and measures.
- Issues in education sector where awareness about the source through which degree/validity of courses and recommendation status of different institutions has been given through print advertisements and advertisement spots.
- Issues concerning banking sector to educate consumers about their right to different services provided by banks as well as related areas of insurance, credit card facilities.
- Education and awareness about the 3-tier grievance redressal mechanism.
- Education and awareness about how to file a complaint and related formats and procedures.

- Issues relating to tourism sector to make the tourists aware about the precautions to be taken while dealing with travel agents.
- Awareness and education about misleading advertisements.

In a nutshell efforts have been made to target all the major sectors where consumers face problems and the Department has adopted an active approach to react immediately.

12. Joint campaign with other Departments

'Jago Grahak Jago' has become the focal theme through which issues concerning the functioning of almost all Government Departments having a consumer interface have been addressed. To achieve this objective joint campaigns have been undertaken/are being undertaken with a number of departments. The Department had run a joint campaign with Bureau of Energy Efficiency (BEE) to educate people about energy conservation and BEE star labels. A joint campaign with National Pharmaceuticals Product Authority is being devised to educate consumers about the various issues concerning pharma industry. Similarly, campaigns with Reserve Bank of India, FICCI and the Ministries of Urban Development (for real estate sector) and Human Resources Development (for education sector) are being finalised.

Special scheme on assistance to State Governments/UTs.

Considering the fact that active involvement of State Governments in awareness campaign is crucial in taking forward the movement to rural, remote and backward areas, State/UT Governments have been actively associated in expanding the area of consumer awareness. In fact the effectiveness of the scheme is enhanced by the involvement of States/UTs. The provision for grant in-aid/support to States/UTs has been one of the key components of the Consumer Awareness Scheme.

The Department of Consumer Affairs provides publicity material such as posters, audio, video, folders, calendars, and magazines etc. to State Governments/UTs for distribution through panchayats in the rural areas.

Publicity around National Consumer Day

Every year 24th of December is celebrated as National Consumer Day commemorating the coming into effect of the Consumer Protection Act, 1986. The theme for National Consumer day in 2007 was 'Enlightened Consumer is the Empowered Consumer.' This theme was adopted to spread the message that a consumer will be able to safeguard his interests/rights only if he is aware about the rights and redressal mechanism available to him.

As part of the week-long celebration of National Consumer Day a function was organised in the capital. Various Central government Departments, State Governments, NGOs and other institutions organised a large number of programmes during this week to spread the message of consumer awareness.

The media units of the Ministry of Information and Broadcasting actively participated in spreading the message of consumer awareness through various journals brought out by the Publications Division as well as programmes conducted by other Media units. Articles stressing on consumer protection/consumer right were published in the magazines like Yojana, Bal Bharati and the flagship publication of the Division, Employment News/Rozgar Samachar. Cultural programmes were

organised by the Song & Drama Division and Directorate of Field Publicity to commemorate national Consumer Protection Day.

Prasar Bharti also gave valuable contribution in spreading the message of consumer rights, soft stories were mounted by DD News channel as well as several regional news units of Doordarshan, throughout the length and breadth of the country. DD-I and many regional Kendras of Doordarshan mounted special programmes highlighting consumer awareness and consumer protection. All India Radio and private FM channels also broadcast several audio programmes on this theme. Print media carried several news items/messages regarding National Consumer Day. Leading private sector portals also carried out feature items/news stories concerning consumer awareness on the basis of reference material provided by the Department. The Press Information Bureau published feature/backgrounders on consumer awareness thus carrying the message to the medium and small newspapers as well.

Collaboration with Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) Gmbh for technical supports

The Department has collaborated with GTZ for providing technical support regarding production and development of publicity material. Under the GTZ Project, advertisement spots pertaining to electronic media on the areas of MRP and consumer awareness regarding unhealthy trade practices were produced. Publicity material brought by the Department has also been analysed and suggestions for new publicity materials have been identified. The professional support being received through the joint partnership with GTZ has helped the Department in achieving professional standardisation. This cooperation also helped the Department in making such creatives/Ad spots that can appeal to the masses and have a lot of aesthetic appeal.

Concurrent Evaluation of publicity campaign

Planning Commission has time and again stressed on the need to undertake evaluation and monitoring studies on the publicity campaign undertaken by the Department. To meet this objective, following steps have been taken:

- (a) Monitoring by the Multi-Media Committee
- (b) Feedback from NCH/Core
- (c) IIMC Survey.

A comprehensive survey was undertaken by Indian Institute of Mass Communication (IIMC) that covered 12 States and 144 districts in the country. The survey presented an encouraging picture regarding the impact of publicity campaign carried out by the Department. The survey has brought out that about 62.56% respondents from both rural and urban areas were aware of the publicity campaign run by the Department. Findings of the IIMC survey have been duly considered and incorporated while finalising the Media Plan for undertaking consumer awareness activities.

The Future Roadmap

The massive multi-media publicity to educate consumers and make them aware of their rights will have a long lasting impact not only on the end consumers but also of the entire manufacturing and services sector. The scheme will go a long way in introducing greater accountability and transparency in the services provided by the public as well as private sector since the end user i.e. consumer will be educated and

aware enough to ask for best possible services in return for his hard-earned money. 'Jago Grahak Jago' is thus an initiative which empowers consumers by making them aware about their rights as well as about the Grievance Redressal Mechanism.

Creation of Consumer Welfare Funds (CWF) in States/UTs : After closure of all earlier schemes of funding by this Department viz. Consumer Awareness Scheme, Jagriti Shivar Yojana and District Consumer Information Centre, the State Governments and Union Territory Administrations have been impressed upon to create their own Consumer Welfare Funds. For strengthening financial support, the ratio of amount of seed money to be provided to the States/UTs has been increased from 1:10 to 50:50 (Centre: State). This ratio has further been enhanced to 90:10 in the case of 13 special category States as per decision taken in the 39th CWF Standing Committee meeting. So far, the State level Consumer Welfare Funds have been created in the States of Andhra Pradesh, West Bengal, Gujarat, Rajasthan, Orissa, Karnataka, Tripura, Sikkim, Maharashtra, Punjab, Uttar Pradesh, Jammu & Kashmir, Arunachal Pradesh, Goa, Haryana, Mizoram and Uttarakhand.

Consumer Clubs : This scheme was launched in 2002. There is provision for one consumer club in each Middle/High/Higher Secondary School/College affiliated to a government recognised Board/University. A grant of Rs.10,000 per consumer club is admissible under this scheme. This scheme has been decentralised and transferred to the State/UT Governments with effect from 1 April 2004. All interested NGO/VCOs have to apply to the Nodal Officer in the Food, PD and Consumer Welfare Department of the respective States/UTs. Till the end of March 2006, 4661 consumer clubs were sanctioned in the States of Andhra Pradesh, Tripura, Maharashtra, Gujarat, Orissa, Rajasthan, Karnataka, Tamilnadu, Jammu & Kashmir, Haryana, NCT of Delhi, Punjab, Sikkim, Lakshadweep, Himachal Pradesh and Arunachal Pradesh.

Promoting involvement of Research Institutions/Universities/Colleges, etc, in consumer protection and welfare : This scheme has been launched with a view to sponsor research and evaluation studies in the field of consumer welfare to provide solution to the practical problems being faced by the consumers, to sponsor seminars/workshops/conferences on the consumer related topics and to have necessary inputs for the formulation of policy/programme/scheme for protection and welfare of the consumers. The Indian Institute of Public Administration, New Delhi, has been identified as the nodal organisation to administer the scheme. Proposals received from Universities/Colleges/Research Institutions for conducting seminars, conferences, workshops, consumer festivals, research/evaluation studies are processed to sanction grants and then publish results of such studies in the form of books, monographs and pamphlets on consumer education and awareness.

National Consumer Helpline : A National Consumer Helpline project has been established in co-ordination with Delhi University, Department of Commerce. Consumers from all over the country can dial toll-free number 1800-11-4000 and seek telephonic counselling for problems that they face as consumers. The Helpline intends to deal with problems related to telecom, courier, banking, insurance, financial services, etc. The Helpline was launched on 15 March 2005, i.e. World Consumer Rights Day.

Consumer Online Research and Empowerment (CORE) Centre : A Consumer Online Research and Empowerment (CORE) Centre has been set up in collaboration with Consumer Co-ordination Council (CCC). The CORE Centre is intended to provide the most scientific and effective system of collection and dissemination of consumer related information to generate consumer awareness and empowerment of all sections

of the society. It also provides e-counselling and mediation for consumer problems. The CORE project was formally launched on 15 March 2005.

BUREAU OF INDIAN STANDARDS

Bureau of Indian Standards (BIS) is a national standards body engaged in the preparation and implementation of standards, operation of certification schemes both for products and systems, organisation and management of testing laboratories, creating consumer awareness and maintaining close liaison with international standards bodies.

General

Bureau of Indian Standards (BIS) came into existence, through an Act of Parliament on 1 April 1987, with a broadened scope and more powers taking over the staff, assets, liabilities and functions of erstwhile Indian Standards Institution (ISI) with following objectives.

- Harmonious development of activities of standardization, marking and quality certification
- To provide new thrust to standardization and quality control
- To evolve a national strategy for according recognition to standards and integrating them with growth and development of Industrial production and exports.

BIS is involved in multifarious activities like Standards Formulation, Certification, Product/Schemes. Laboratory Services, International Activities, Consumer -related Activities, Promotional Activities, Training Services, Information services, Sale of Standards & Publications

Standards formulation

Under Standards formulation, it is engaged in formulation of Indian Standards for 14 sectors namely Chemicals, Food and Agriculture, Civil, Electrical, Electronics & Telecommunications and Information Technology, Mechanical Engineering, Management & Systems, Metallurgical Engineering, Petroleum, Coal & related Products, Medical and Hospital Planning, Textile, Transport engineering and Production and General Engineering, Water Resources under Division Councils which have 308 Sectional Committees working under them. As on 31 March 2008, 18424 Standards formulated by BIS, are in force. These cover important segments of economy, which help the industry in upgrading the quality of their goods and services. BIS formulates need-based Indian Standards in line with the national priorities as a time-bound programme.

Product Certification Scheme

BIS Product Certification Scheme is basically voluntary in nature. However, keeping in view the health and safety of the consumer, it has been made mandatory for 68 items by the Government through various statutory measures such as Prevention of Food Adulteration Act, Coal Mines Regulations and Indian Gas Cylinders Rules besides BIS Act. Some of the items brought under mandatory certification on consideration of health and safety are milk powder, packaged drinking water, LPG cylinders, oil pressure stoves, clinical thermometers etc. As on 31 March 2008, 20025

certification marks licences are in operation under the Scheme, covering about 1000 different items ranging from food products to electronics.

All foreign manufacturers of products who intend to export to India are required to obtain a BIS product certification licence. Towards this, BIS launched its Product Certification Scheme for overseas manufacturers in the year 1999. Under the provisions of this scheme, foreign manufacturers can seek certification from BIS for marking their product(s) with BIS Standard Mark. Under this scheme, about 101 licences of foreign manufacturers in about 15 countries are in operation as on 31 March 2008. Under the scheme for Indian importers, Certification Marks Licence can be granted to Indian importers for the product imported into the country and are not covered under Regulatory Requirements. Indian importers can apply for BIS licence on such products and they are treated as Indian manufacturers. Three licences are in operation under this scheme. BIS also runs other certification schemes like IECEE-CB, IECQ and IECs Schemes of IBC under different provisions. India is a certifying member of the IEC System of Quality Assessment of Electronic Components (IECQ) and IEC System for Conformity Testing to Standards for Safety of Electrical Equipment (IECEE).

Further, BIS has taken new initiatives like simplification of procedure for grant of licence, basically to reduce the procedural time. This has yielded some encouraging results.

Laboratories

To support the activities of product certification, BIS has a chain of 8 laboratories. These laboratories have established testing facilities for products of chemical, food, electrical and mechanical disciplines. Approximately, 25000 samples are being tested in the BIS laboratories every year. In certain cases where it is economically not feasible to develop test facilities in BIS laboratories and also for other reasons like overloading of samples, equipment being out of order, the services of outside approved laboratories are also being availed. Except for the two labs, all the other labs are NABL (National Accreditation Board for Testing and Calibration Laboratories) accredited. BIS has recognized about 116 laboratories for product certification purposes. BIS has undertaken the project of modernization of all its testing laboratories in order to increase the in-house capacity of testing of samples as well as to reduce the time taken in testing.

Hallmarking

Hallmarking of Gold Jewellery started in April 2000 on voluntary basis under BIS Act 1986. It is aimed at to protect the consumer's interest and providing third party assurance to consumers on the purity of gold. Till 31 Mar 2008, 91 hallmarking centers have been recognized. Since the launch of the scheme, over 5403 gold jewellers have taken licence from BIS, a figure which stood at 186 in the year 2001-02. So far, over 381 lakh jewellery articles have been hallmarked. The list of hallmarked jewellers with BIS licence and BIS recognised hallmarking centres has been hosted on BIS website. Under a similar scheme of Hallmarking of Silver, 405 licences have been granted since its launch in October 2005.

Management Systems Certificate

BIS runs other important systems certification schemes under the Management Systems Certification. Under Quality Management System Certification Scheme (QMSCS), which was launched in September 1991, the total number of operative

licences as on 31 Mar 2008 is 1161 which has grown from the figure of 916 in 2001-2002. BIS Quality Management System Certification has been accredited by Raad voor Accreditatie (RvA) Netherlands for 23 major economic activities.

Under Hazard Analysis and Critical Control Point Certification (HACCP) Integrated Scheme, 64 certified companies are under operation as on 31 March 2008. Under the Environmental Management Systems Certification Scheme (EMSCS), the total number of operative licences as on 31 March 2008 is 131 which has grown from a figure of 61 in 2001-02. Under the Occupational Health & Safety Management System (OH & SMS) Certification Scheme which was launched in January 2003, the total number of operative licences as on 31 Mar 2008 is 35.

Among the new Schemes, BIS has launched public Service Delivery Management systems as per IS 15700-2005 "Quality Management Systems - Requirements for Service Quality by Public Service Organizations." in order to ensure minimum standards of service delivery in all sectors pertaining to or influenced by the government.

Enforcement activity

With the growth and popularity of the BIS Certification Marks Scheme, there have been instances of misuse of BIS Standard Mark also. BIS, therefore, lays emphasis on enforcement activity to stop misuse of Standard mark, enforcement raids are carried out and prosecution cases filed in the court of law wherever legally tenable. To strengthen this activity, two outsourced agencies have been engaged for providing intelligence and assisting in carrying out raids against offending parties for an initial period of one year in selected locations. The number of search and seizures operations carried out in 2007-08 stand at 125.

International Activities

Since its inception in 1947, the then ISI and now BIS has been an active member of international organizations namely, ISO and International Electrotechnical Commission (IEC). BIS represents India as Member Body in ISO and IEC. It holds Participating Membership (P) status in 259 Technical Committees/ Sub-committees of ISO and 62 Technical Committees/ Sub-committee of IEC, whereas it is Observer Member (O) on 308 Technical committees/ Sub-committees of ISO and 84 Technical Committees/ Subcommittees of IEC. It participates in various policy-making committees of these international standards bodies. BIS also holds secretariat of some of the important ISO/IEC Committees which are of trade interest of India. As member of ISO, BIS also takes active part in the development of International Standards with a view to protect the interests of Indian trade & industry. BIS is actively involved in Regional and Bilateral Cooperation Programmes pertaining to standardization, conformity assessment & accreditation etc. It has signed MoU/MRA with 16 countries/ organizations including ISO and American National Standards Institute (ANSI) of USA to this effect.

Consumer protection

To meet with the growing expectations of consumers in the country, BIS has established a separate department with a specific mandate of providing consumer protection and welfare and dealing with public grievances. This department maintains liaison with Central Consumer Protection Council and consumer associations and coordinates with the Ministry of Consumer Affairs and Public Distribution on consumer issues. It is guided in its activities by a Consumer Policy Advisory Committee which

advise BIS on all policy matters relating to efficient discharge of the functions and for making standardization and certification activities user-friendly. A well-defined procedure has been established for handling complaints. The complaints can also be lodged on line, and are monitored regularly.

Promotion of Indian Standards assumes great significance and has been a prime objective of BIS. All standards are generally voluntary in nature. Promotional activities are, therefore, essential to implement the standards for deriving the desired benefits.

The promotion of standardization involves varied interests ranging from ordinary consumers to educational institutions. To propagate the concept of standardization and quality systems among small scale industries, discussions and video film shows are organised where the participants are exposed to the concepts of standardization, quality system, product certification and other BIS activities.

Rajiv Gandhi National Quality Award

With a view to encourage manufacturers and service organizations to strive for excellence, Rajiv Gandhi National Quality Award was instituted by the Bureau in 1991. This annual award compares well with similar international awards, such as, Malcolm Baldrige National Quality Award of USA and European Quality Award. The assessment for this award is made on the basis of parameters, such as, Leadership, Policies objectives and Strategies; Human Resources Management; Resources, Processes; Customer Focus; Employees' Satisfaction; Business Results and Impact on Environment and Society.

Information & SSI Facilitation Cell

Marching further ahead on the path of 'total customer satisfaction' BIS had set up a single window Information & SSI Facilitation Cell at its headquarters in New Delhi which became operational since 1997 with the aim of providing variety of information/assistance. A number of entrepreneurs, consumers and professionals visit this centre.

National Institute of Training for Standardization (NITS),

To impart training to technical and management personnel from industry, consumer organizations, public sector undertakings, government bodies and developing countries, BIS has established, the National Institute of Training for Standardization (NITS) at NOIDA (U.P.)

NITS conducts training on Quality Management Systems as per IS/ISO 9001, Environment Management Systems as per IS/ISO 14001, Occupational Health and Safety Management Systems as per IS 18001, Food Safety Management Systems as per IS/ISO 22,000, Hazard Analysis and Critical Control Points (HACCP) and Laboratory Management Systems as per IS/ISO/IEC 17025. It also conducts International Training Programmes in Standardization and Quality Systems and on Management systems for developing countries of Asia, Africa, Europe and Latin America every year since 1968. NITS also conducts training programmes for BIS employees. On an average, about 630 personnel have been trained/retrained every year since last six years.

Library

BIS Technical Library is a national resource centre for information on standards and related matters and meets the needs of industry, trade, government, researchers and

consumers. It is the largest library of standards in the South Asian Region, covering a floor area of 1000 square meters. The collection includes about 6 lakh standards from all over the world and 50,000 technical books. The Bureau's library system comprises the Headquarters' Library (New Delhi) and four Regional Office Libraries at Mumbai, Kolkata, Chandigarh and Chennai. BIS has also been designated as WTO/TBT Enquiry Point by the Ministry of Commerce, Government of India under the Technical Barriers to Trade Agreement of World Trade Organization.

BIS has brought out all Indian standards on CD-ROMs through a franchisee with a view to computerize its sales points as well as to provide standards in electronic form directly to the customers. The product has been well received by the industry and provides excellent full-text searching facility in over 18,000 standards formulated by the Bureau.

BIS has a website with domain name *www.bis.org.in* which includes its Hindi version also. Information of interest to the Indian industry as well as consumers, relating to various activities and schemes of the Bureau, such as certification, standards formation, consumer affairs, various application forms, laboratory services and other support services, is available on the website.

Finance & Account

For over a decade now, BIS is self-reliant in meeting its non-plan expenditure without any budgetary support from the Government of India. Financial resources of BIS are broadly mobilized under the following heads:

- (a) product Certification
- (b) Management System Certification
- (c) Hallmarking
- (d) Sale of BIS Standards and Publications
- (e) Training Institute.

BUFFER STOCKS

According to the current Buffer Stocking Policy of foodgrains, the total minimum stock in the Central Pool held by Public Agencies as on different dates in a year should be as under:

(lakh tonnes)			
Date	Wheat	Rice	Total
1 April	40.00	122.00	162.00
1 July	171.00	98.00	269.00
1 October	110.00	52.00	162.00
1 January	82.00	118.00	200.00

* Adhoc norms pending finalisation of revised buffer norms

STOCK POSITION

As on 31 March 2007, closing stock of foodgrains (wheat and rice) in the Central Pool with FCI and State Agencies stood at 177.35 lakh tonnes (provisional).

DISTRIBUTION

The offtake of foodgrains (wheat and rice) from the Central Pool by various States/UTs and others for distribution through fair price shops and for welfare/employment programmes in 2007-08 was 374.3 lakh tonnes as against 367.07 lakh tonnes during 2006-07. The total offtake of foodgrains (wheat and rice) under Targeted Public Distribution System (TPDS) during April 2007 to March 2008 was about 33.5 lakh tonnes comprising 265.6 lakh tonnes of rice and 109.07 lakh tonnes of wheat.

IMPORT AND EXPORT

During 2007-08, only 111 lakh MTs of wheat could be procured for Central Pool against the requirement of 150 lakh ton. To meet the shortfall, orders were placed for import of 17.95 lakh MTs wheat against which 17.69 lakh MTs of wheat arrived in the country.

During the year 2008-09, a record procurement of 223.55 lakh MTs of wheat (as on 30.06.2008) has been made for the Central Pool.

Export of rice and wheat from the Central Pool stocks has been stopped w.e.f. 11.8.2003. After meeting the pending commitments of exports, sale of foodgrains for commercial exports have been totally stopped w.e.f. 1st October 2004. Export of rice, wheat and wheat products from Central Pool remains discontinued till further orders. However humanitarian assistance/aid to needy countries has been given, from time to time on need basis, at the prevailing export price on the date of lifting.

In view of tight position of rice in the domestic market, export of non-Basmati rice on private account has also been prohibited w.e.f. 1st April, 2008. Further a minimum export price (MEP) has been fixed for export of Basmati rice. Presently, MEP of the Basmati rice is US \$ 1200 per ton or Rs. 48,000 per ton w.e.f. 1.4.2008. In addition a customs duty of Rs. 8000 per ton has been imposed on export of Basmati rice vide Notification dated 10.5.2008.

Wheat exports on private account have been banned with effect from 9th February 2007. Export of wheat flour has also been prohibited w.e.f. 8th October 2007.

WELFARE SCHEMES**MID-DAY MEAL SCHEME**

The Mid-Day Meal Scheme was launched by the Ministry of Human Resource Development (Department of Education) with effect from 15th August 1995 for the benefit of students in primary schools under Employment Assurance Scheme (EAS)/earlier Revamped Public Distribution System (RPDS) blocks (2368). The Scheme covers students (Class I-V) in the Government Primary Schools/Primary Schools aided by Government and in the Primary Schools run by local bodies.

Foodgrains (wheat and rice) are supplied free of cost @ 100 gram per child per school day where cooked/processed hot meal is being served with a minimum content of 300 calories and 8-12 gm of protein each day of school for a minimum of 200 days and 3 kg per student per month for 9-11 months in a year, where foodgrains are distributed in raw form. In drought-affected areas, the mid day meal is distributed in summer vacations also.

To cut down delays in implementation of the scheme, Department of Elementary

Education and Literacy has been authorised to make State/UT-wise allocation of foodgrains under intimation to this Department. Food Corporation of India (FCI) releases foodgrains to States/UTs at BPL rates as per allocation made by Department of Elementary Education and Literacy. Allocation/offtake of foodgrains under the scheme from 2001-2002 to 2007-08 is as under :

Figures in lakh tonnes

Year	Rice			Wheat			Total allocation	Total offtake	%age offtake
	Allocation	Offtake	%age of offtake	Allocation	Offtake	%age of offtake			
2001-02	18.67	13.48	72.20	9.96	7.28	73.09	28.63	20.76	72.51
2002-03	18.84	13.75	72.98	9.40	7.45	79.25	28.24	21.20	75.07
2003-04	17.72	13.49	76.12	9.08	7.20	79.29	26.80	20.69	77.20
2004-05	20.14	15.41	76.51	7.35	5.92	80.54	27.49	21.33	77.59
2005-06	17.78	13.64	76.71	4.72	3.63	76.90	22.50	17.24	76.75
2006-07	17.22	13.05	75.78	4.38	3.50	80.00	21.60	16.55	76.62
2007-08	19.98	14.41	55.61	5.29	3.95	74.87	25.27	18.36	72.66

* Offtake up to March 2008, furnished by FCI as on 22.4.2008

WHEAT-BASED NUTRITION PROGRAMME

The Scheme is implemented by the Department of Women and Child Development, The foodgrains allotted under this Scheme are utilised by the States/UTs under Integrated Child Development Scheme (ICDS) for providing nutritious/energy food to children below 6 years of age and expectant/lactating women.

Allocation/offtake of foodgrains under the scheme from 2002-03 to 2007-08 is as under :

Figures in lakh tonnes

Year	Rice			Wheat			Total allocation	Total offtake	%age offtake
	Allocation	Offtake	%age of offtake	Allocation	Offtake	%age of offtake			
2001-02	0.80	0.32	0.40	1.75	1.03	58.85	2.55	1.35	52.94
2002-03	1.47	0.69	46.93	1.75	2.13	65.13	3.22	2.82	59.49
2003-04	1.04	0.61	58.65	3.72	3.16	66.39	4.76	3.77	64.70
2004-05	1.16	0.85	73.27	3.42	3.57	104.38	4.58	4.42	97.16
2005-06	1.50	2.07*	>100	2.82	2.73	96.80	4.32	4.80	>100
2006-07	1.98	1.61	81.31	3.19	2.98	93.42	5.17	4.59	89.00
2007-08	2.31	1.79	77.49	3.25	2.74	84.31	5.56	4.53	81.47

* Backlog quota included

Offtake upto March 2008, furnished by FCI as on 22.4.2008.

SCHEME FOR SUPPLY OF FOODGRAINS TO HOSTELS/WELFARE INSTITUTIONS (5% OF BPL ALLOCATION)

With a view to meeting the requirement of Hostels/Welfare Institutions viz., N.G.Os/Charitable Institutions which help the shelterless/homeless poor and other categories not covered under TPDS or under any other Welfare Schemes, an additional allocation of foodgrains (rice and wheat) equal to 5% of the BPL allocation of each State/UT is made to States/UTs at BPL rates. This scheme was introduced during 2002-03 to liquidate the stocks of foodgrains.

As per the directions of the Parliamentary Standing Committee, the allocation under the scheme was reviewed and rationalized on the basis of average offtake of foodgrains during the last 3 years.

Allocation/offtake of foodgrains under the scheme from 2002-03 to 2007-08 is as under :-

Figures in lakh tonnes

Year	Rice			Wheat			Total allocation	Total offtake	%age offtake
	Allocation	Offtake	%age of offtake	Allocation	Offtake	%age of offtake			
2002-03	6.58	1.30	19.75	4.53	0.14	3.09	11.11	1.44	12.96
2003-04	6.25	3.15	50.4	5.19	0.23	4.43	11.44	3.38	29.54
2004-05	6.06	1.94	32.01	4.80	0.75	15.62	10.86	2.69	24.76
2005-06	3.47	2.37	68.29	2.44	0.27	11.06	5.91	2.64	43.99
2006-07	3.26	2.76	84.92	0.57	0.25	43.85	3.83	3.01	78.59
2007-08	2.13	1.61	0.59	0.57	0.33	57.81	2.70	1.94	71.85

During 2005-06, the allocation and offtake of foodgrains under the scheme were reviewed. On the basis of offtake, for last three years, of States/UTs, (on recommendation of the Parliamentary Standing Committee for Food) the allocation to the States/UTs was rationalized w.e.f. August, 2005

SCHEME FOR SUPPLY OF FOODGRAINS FOR SC/ST/OBC HOSTELS

This scheme was introduced in October, 1994. Ministry of Consumer Affairs, Food & Public Distribution is the nodal Ministry for the scheme. Allocation of foodgrains was made for the first time during 2001-02 to nineteen States on the recommendation of Ministry of Social Justice & Empowerment. The residents of the hostels having 2/3rd students belonging to SC/ST/OBC are eligible to get 15 kg foodgrains per resident per month. In such hostels, foodgrains are provided for all resident students, including those who belong to other categories. Only Karnataka and Andhra Pradesh are availing this scheme.

Allocation/offtake of foodgrains under the scheme from 2001-02 to 2006-07 is as under :

(in lakh tonnes)

Year	Rice			Wheat		
	Allocation	Offtake	%age of offtake	Allocation	Offtake*	%age of offtake
2001-02	1.96	0.76	38.77	-	0.07	3.57
2002-03	0.36	-	-	-	-	-
2003-04	1.63	-	-	-	-	-
2004-05	1.34	-	-	-	-	-
2005-06	-	-	-	0.14	-	-
2006-07**	1.62	-	-	0.14	-	-
2007-08 [#]	0.28	-	-	0.14	-	-

Note : * Offtake figures are combined with offtake against 5% BPL allocation w.e.f. 2002-03.

** 1,33,693 MT of rice to Andhra Pradesh and 28332.30 MT of rice and 14166.15 MT of wheat to Karnataka in 2006-07.

[#]28332 MT of rice and 14166 MT of Wheat to Karnataka in 2007-08.

ANNAPURNA SCHEME

Ministry of Rural Development launched this scheme in 2000-2001. Indigent senior citizens of 65 years of age or above who though eligible for old age pension under the National Old Age Pension Scheme (NOAPS) but are not getting the pension are covered under the Scheme. 10 kg of foodgrains per person per month are supplied free of cost under the scheme.

From 2002-2003, the scheme has been transferred to State Plan along with the National Social Assistance Programme comprising the National Old Age Pension Scheme and the National Family Benefit Scheme. The funds for the transferred scheme are being released by the Ministry of Finance as Additional Central Assistance (ACA) to the State Plan and the States have the requisite flexibility in the choice of beneficiaries and implementation of the Scheme. The implementation of the Scheme at the ground rests with the States/UTs.

The foodgrains are released to the State Governments on the existing norms at BPL rates. Allocation/offtake of foodgrains under the scheme from 2001-02 to 2007-08 is as under :-

Figures in lakh tonnes

Year	Rice			Wheat			Total allocation	Total offtake	%age offtake
	Allocation	Offtake	%age of offtake	Allocation	Offtake	%age of offtake			
2001-02	1.62*	0.93	57.40						
2002-03	0.54	0.53	98.14	0.24	0.62	258.30	0.78	1.15	147.81
2003-04	0.56	0.45	80.35	0.67	0.64	95.52	1.23	1.09	88.61
2004-05	0.90	0.64	71.11	0.77	0.68	101.49	1.67	1.32	79.04
2005-06	0.90	0.69	76.66	0.77	0.70	90.90	1.67	1.39	83.23
2006-07	0.90	0.61	67.78	0.77	0.29	37.66	1.67	0.90	53.69
2007-08	0.44	0.70	76.08	0.77	0.30	38.96	1.89	1.00	59.17

* offtake upto March 2008, furnished by FCI as on 24.4.2008.

SAMPOORNA GRAMIN ROZGAR YOJANA (SGRY)

The Ministry of Rural Development, which is the nodal Central Ministry for the programme, launched the scheme on 25.9.2001 for all the States/UTs for organising

various employment generation programmes. Under the Scheme, 50 lakh tonnes of foodgrains are to be allotted to the States/UTs free of cost by Ministry of Rural Development. The Ministry of Rural Development will reimburse the cost of foodgrains at economic cost prevailing at the time.

The Ministry of Rural Development has been authorized to communicate to FCI directly the allocations made to various State Governments under the scheme.

Allocation/offtake of foodgrains under the scheme from 2001-2002 to 2007-08 is as under :

(in lakh tonnes)

Year	Rice			Wheat					
	Allocation	Offtake	%age of offtake	Allo-cation	Off-take	%age of offtake	Total alloca-tion	Total offtake	%age offtake
2001-02	23.64	11.69	49.45	11.14	5.64	50.62	34.78	17.33	49.82
2002-03	28.01	21.15	75.50	13.90	18.87	135.75	41.99	40.02	95.30
2003-04	73.55	63.49	86.32	39.35	42.73	108.58	112.9	106.22	94.08
2004-05	32.64	30.27	92.73	16.99	19.73	116.12	49.63	50.00	100.00
2005-06	24.81	24.21	97.58	12.58	15.71	124.88	37.39	39.92	>100
2006-07	12.04	11.66	96.84	4.89	4.77	97.54	16.93	16.43	97.04
2007-08	4.67	6.45	138.11	4.87	2.88	59.13	9.54	9.33	97.80

* The offtake is reducing due to merging of SGRY districts to introduction of National Employment Guarantee Act

* offtake includes lifting against backlog quota.

Allocation upto 12.03.2008 and Offtake upto March 2008, furnished by FCI as on 22.4.2008.

SPECIAL COMPONENT OF SAMPOORNA GRAMIN ROZGAR YOJANA

Special Component of Sampoorna Gramin Rozgar Yojana aims at extending support to the people affected by natural calamities in States/UTs. Foodgrains are released under the special component of SGRY by the Ministry of Rural Development, being the nodal Ministry for the Scheme, after the approval of Department of Food and Public Distribution.

Allocation and offtake of foodgrains under the scheme during 2002-03 to 2007-08 is as under :-

(in lakh tonnes)

Year	Rice			Wheat					
	Allocation	Offtake	%age of offtake	Allo-cation	Off-take	%age of offtake	Total alloca-tion	Total offtake	%age offtake
2002-03	37.02	31.89	86.14	26.38	13.33	50.53	63.40	45.22	71.32
2003-04	43.05	32.55	75.60	22.79	21.89	96.05	65.84	54.44	82.68
2004-05	14.37	12.29	85.52	10.68	7.90	73.97	25.05	20.19	80.59
2005-06	5.99	7.44	124.20	7.15	9.82	137.34	13.10	17.26	>100
2006-07	4.94	5.92	119.83	1.70	0.21	12.35	6.64	6.13	92.32
2007-08	0.80	0.68	0.00	0.00	1.65	0.00	0.00	2.33	0.00

Offtake includes lifting against backlog quota

Offtake upto March, 2008 furnished by FCI as on 22.04.2008.

NUTRITIONAL PROGRAMME FOR ADOLESCENT GIRLS (NPAG)

A Pilot Project – “Nutritional Programme for Adolescent Girls” (NPAG) was launched by the Planning Commission initially for a period of two years, i.e. 2002-03 and 2003-04 in 51 identified districts, i.e. in two of the backward districts in each of the major States and most populous district (excluding the capital district) in remaining smaller States/UTs in the country. This scheme was restarted in 2005-06. Ministry of Women and Child Development administers the scheme at the central level and State/UT Governments implement the scheme.

As per the revised guidelines of the programme, adolescent girls (age group 11-19 years) as identified by weight would be covered irrespective of financial status of the family to which they belong. Free foodgrains @ 6 kg. per beneficiary per month is provided to the adolescent girls (weight < 35 kg.) initially for a period of three months. Those beneficiaries, who cross the cut off point for weight, would not receive foodgrains any further. Those who inspite of receiving foodgrains for three consequent months do not show improvement in nutritional status are investigated by Anganwari Workers and if necessary, referred to a doctor for investigation and treatment, but continue to receive free foodgrains for the next three months.

The funds for the year 2005-06 were given as 100% grant to States so that they can provide foodgrains through the Public Distribution System free of cost to the families of identified undernourished persons. Ministry of Finance releases Special Central Assistance to the States/UTs.

Department of Food and Public Distribution provides foodgrains at BPL rates to the States/UT Government for implementing the programme through Ministry of Human Resources Development. Annual allocation and offtake of foodgrains under the programme from 2002-03 to 2007-08 are as under :-

(in lakh tonnes)

Year	Rice			Wheat			Total allocation	Total offtake	%age of offtake
	Allocation	Offtake	%age of offtake	Allo-cation	Off-take	%age of offtake			
2002-03	0.40	0.11	27.50	0.22	0.87	3.95	0.62	0.98	>100
2003-04	2.22	0.63	28.37	0.29	0.00	0.00	2.51	0.63	25.09
2004-05	Programme was not in operation								
2005-06	0.68	0.40	58.82	0.35	0.08	22.85	1.03	0.48	46.60
2006-07	0.41	0.45	109.75	0.07	0.07	100.00*	0.48	0.52	108.33
2007-08#	0.45	0.35	77.78	0.07	0.03	42.86	10.52	0.38	73.07

* The offtake is on the increase due to directions of Supreme Court to implement the scheme vigorously.

offtake upto March 2008 furnished by FCI as on 24.04.2008

EMERGENCY FEEDING PROGRAMME (EFP)

Emergency Feeding Programme is a food-based intervention targeted for old, infirm and destitute persons belonging to BPL households to provide them food security in their distress conditions. This was introduced in May 2001. The Scheme is being implemented by Government of Orissa in eight KBK (Kalahandi Bolangir Koraput) Districts. The include Malkangiri, Nawarangpur, Naupada, Rayagada and Sonepur covering two lakh beneficiaries. Under the scheme, foodgrains (rice) at BPL rates is being allocated to State Government on the recommendation of Ministry of Social Justice and Empowerment since May 2001 by Department of Food and Public Distribution. 14,400 MT of rice is allocated for the said two lakh beneficiaries @ 6 kg/beneficiary/month upto August, 2006. From September, 2006 to March, 2007 an additional quantity of 2110 MT of rice was allocated for the 2 lakh beneficiaries @ 7.5 kgs/per beneficiary/month. Thus the total allocation for the year 2006-07 becomes 16510 MT for the period from September 2006 to March, 2007.

Cooked foods containing, *inter-alia*, rice-200 gms, Dal (pulse) - 40 gms, vegetables - 30 gms is provided in the diet of each EFP beneficiary daily by the State Government. The funds were provided from the Additional Central Assistance (ACA), but now it has been termed as Special Central Assistance (SCA). The scheme is being implemented in the KBK districts under the Revised Long Term Action Plan (RLTAP) and SCA is allocated by Planning Commission.

Following quantities of rice has been allocated from 2001-02 to 2007-08 under the Scheme :

(in '000' tonnes)

Year	Annual allocation	Offtake	% of offtake
2001-02	12.00	4.97	41.41
2002-03	14.40	13.41	93.12
2003-04	14.40	14.10	97.91
2004-05	14.40	14.18	98.47
2005-06	14.40	12.20	84.72
2006-07	16.51*	14.31	86.73
2007-08	19.96	16.37	96.41

* Includes additional allocation of 2110 MT.

VILLAGE GRAIN BANKS SCHEME (VCB SCHEME)

- A Centrally Sponsored Scheme of Grains Banks in Tribal villages was launched during 1996-97 by Ministry of Tribal Affairs in 11 States. During 1996-97 to 2004-05, Ministry of Tribal Affairs released Rs. 10.26 crores for establishing 4858 Grain Banks. Now the scheme has been transferred to Ministry of Food & Public Distribution.
- The revised Village Grain Bank Scheme for establishment of Grain Banks in chronically food scarce areas was approved by Ministry of Finance on 15.2.2006.
- The main objective of the scheme is to provide safeguard against starvation during the period of natural calamity or during lean season.
- The grain banks are to be set up in food scarce areas like the drought prone

areas, the hot and cold desert areas, tribal areas and the inaccessible hilly areas.

- The revised scheme envisages inclusion of all willing BPL/AAY families in the villages which will be identified by the State Government in food deficit areas. The quantity to be lent and the period of repayment would be decided by the Group themselves. To ensure recovery of grains lent, it is proposed to tie up the scheme with the entitlement of the members under TPDS.
- Village Panchayat/Gram Sabha, Self Help Group or NGOs etc. identified by the State Govt. shall be eligible for running the Grain Banks. Each such Executive Committee will have a woman as its member.
- A provision of Rs. 20.20 crores was made for 2005-06 (Plan) by Planning Commission out of which an amount of Rs. 19.76 crores was sanctioned for the establishment of 3282 grain banks in the States of Andhra Pradesh, Orissa, Chhattisgarh, Madhya Pradesh, Jharkhand, Tripura and Meghalaya. A provision of Rs. 50.00 crores was made for 2006-07 out of which Rs. 49.996 crores was sanctioned for the establishment of 7925 Grain Banks in the States of Uttar Pradesh, Assam, Sikkim, Himachal Pradesh, Gujarat, West Bengal, Nagaland, Andhra Pradesh, Uttarakhand, Chhattisgarh, Maharashtra and Manipur.
- The Status of Utilization Certificates for the Village Grain Banks sanctioned/ established during the period the scheme was under the administrative control of Ministry of Tribal Affairs and under Ministry of Food and Public Distribution is at statement II.
- The estimated cost of setting up one grain bank is as follows :

a)	Cost of foodgrains @ 1 quintal per family for average 40 families per grain	40 quintals of foodgrains at Rs. 13,762/- per MT (based on the aggregate present economic bank. cost of grains). i.e. Rs. 55,046/-
b)	Transportation cost @ Rs. 90/- per quintal	90 x 40 = Rs. 3,600/- (to be equally shared by the central and state government)
c)	Training expenses for trainers and trainees	Rs. 1400/- per bank
d)	Storage weights and scales etc.	Rs. 7000/- per bank
e)	Monitoring and Administrative Cost	Rs. 3000/- per bank
Total*		Rs. 70,246/- per bank
*	Cost of VGB to be borne by Central Government	Rs. 68,246 per bank or 68,250 per Bank
	Cost of Transportation to be borne by State Government	Rs. 1800 per Bank

Statement showing funds recommended/required for establishment of Grain Banks during 2005-2006, 2006-2007 and 2007-08.

Year	No. of Banks	Financial Assistance (Rs.)
2005-2006	3282	19,75,92,287
2006-2007	8191	51,79,41,277
2007-2008	2598	17,44,20,152

STATEMENT SHOWING FUNDS RECOMMENDED/REQUIRED FOR
ESTABLISHMENT OF GRAIN BANKS DURING 2005-06 IN SEVEN STATES

S. No.	State	No. of Banks recommended	Quantity of foodgrain (R/W) MT	Financial assistance for foodgrains* Rs.	Funds for establishment of Grain Banks** Rs.	Total Financial Assistance Rs.
1.	A.P.	1214	4856(R)	6,24,57,872	1,48,10,800	7,72,68,672
2.	Orissa	240	960(R)	1,23,47,520	29,28,000	1,52,75,520
3.	Chhattisgarh	262	1048(R)	1,34,79,376	31,96,400	1,66,75,776
4.	M.P.	926	3704	4,20,25,399	56,12,200	4,76,37,599
				(1852R + 1852W)		
5.	Jharkhand	583	2,332(R)	2,99,94,184	71,12,600	3,71,06,784
Total		3225				19,39,64,351
N.E. Region						
1.	Tripura	13	52(R)	6,68,824	1,58,600	8,27,424
2.	Meghalaya	44	176(R)	22,63,712	5,36,800	28,00,512
Total (NE)		57				36,27,936
Total		3282				19,75,92,287

* At economic cost : Rice : Rs. 12,862/- per MT & Wheat : Rs. 11276.30/- per MT

** @ Rs. 12,200/- per grain bank

STATEMENT SHOWING FUNDS RECOMMENDED/REQUIRED FOR
ESTABLISHMENT OF GRAIN BANKS DURING 2006-07

S. No.	State	No. of Banks recommended	Quantity of foodgrain (R/W) MT	Financial assistance for foodgrains* Rs.	Funds for establishment of Grain Banks** Rs.	Total Financial Assistance Rs.
1.	U.P.	500	2000	1,96,59,800	61,00,000	2,57,59,800
2.	Assam	100	400	51,44,800	12,20,000	63,64,800
3.	Sikkim	80	320	41,15,840	9,76,000	50,91,840
4.	H.P.	55	220	28,29,640	6,71,000	35,00,640
5.	Gujarat	226	272/632	1,06,25,086	27,57,200	1,33,82,286
6.	West Bengal	170	680	87,46,160	20,74,000	1,08,20,160
7.	Nagaland	150	600	77,17,200	18,30,000	95,47,200
8.	Andhra Pradesh	3743	14972	19,25,69,864	4,34,45,167	23,60,15,031

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9.	Uttarakhand	55	220	28,29,640	6,71,000	35,00,640
10.	Chhatisgarh	1642	6568	8,44,77,616	2,00,32,400	10,45,10,016
11.	Maharashtra	1111	4444	6,19,93,8000	1,35,54,200	7,55,48,000
12.	Manipur	93	372	47,84,664	11,34,600	59,19,264
Total		7925				49,99,59

* At economic cost : Rice : Rs. 12,862/- per MT & Wheat : Rs. 11,276.30/- per MT

** @ Rs. 12,200/- per grain bank

**Statement showing allocation and offtake of foodgrains under
Village Grain Banks Scheme**

(in lakh tonnes)

Year	Rice			Wheat			Total allocation	Total offtake	%age of offtake
	Allocation	Offtake	%age of offtake	Allocation	Offtake	%age of offtake			
2006-07	0.40	0.16	49.00	0.04	0.02	50.00	0.44	0.18	40.91

NATIONAL FOOD FOR WORK PROGRAMME (NFFWP)

The scheme for National Food for Work Programme was launched with effect from 13.10.2004. This programme is being implemented in 150 most backward districts of the country so that the generation of supplementary wage employment and providing of food security through creation of need-based economic, social and community assets in these districts is further intensified. Most of the backward districts, which would benefit from the scheme are in the tribal belts. The scheme will provide 100 days of employment at minimum wages for at least one able-bodied person from each household in the country. Allocation and offtake of foodgrains under the scheme during 2004-05, 2005-06 and 2006-07 is as under :

(in lakh tonnes)

Year	Rice			Wheat		
	Allocation	Offtake	% of offtake	Allocation	Offtake	% of offtake
2004-05	14.24	3.06	21.48	5.75	0.65	11.30
2005-06	6.65	6.59	99.09	2.53	4.08	161.26
2006-07	0.00	1.22	0.00	0.00	0.21	0.00

* Offtake include backlog quota.

TARGETTED PUBLIC DISTRIBUTION SYSTEM (TPDS)

In order to ensure availability of minimum quantity of foodgrains to the families living below the poverty line, the Government launched the TPDS in June 1997. It was intended to benefit about six crore poor families in the country for whom a quantum of 72 lakh tonnes of foodgrains was earmarked annually at the rate of 10 kg per family per month.

The allocation was increased from 10 kg to 20 kg from 1 April 2000. This was increased from 20 to 25 kg per family per month from July 2001. From 1 April 2002,

this allocation was further increased from 25 to 35 kg per family per month. The Central Issue Price (CIP) for BPL families is Rs 4.15 per kg for wheat and Rs 5.65 per kg for rice.

Allocation and offtake of Foodgrains

(in lakh tonnes)

Year	Allocation	Offtake
2003-04	712.52	239.31
2004-05	717	293.55
2005-06	716.21	311.06
2006-07	576.56	313.69
2007-08	392.98	332.81

ANTYODAYA ANNA YOJANA (AAY)

In order to make TPDS more focused and targeted towards the poorest section of population, the "Antyodaya Anna Yojana" (AAY) was launched in December, 2000 for one crore poor families. Initially AAY contemplated identification of one crore poorest of the poor families from amongst the BPL families covered under TPDS within the States and providing them foodgrains at a highly subsidised rate of Rs. 2/- per kg for wheat and Rs. 3/- per kg for rice. The States/UTs are required to bear the distribution cost, including margin to dealers and retailers as well as the transportation cost. Thus the entire food subsidy is being passed on to the consumers under the scheme.

The scale of issue that was initially 25 kg per family per month has been increased to 35 kg per family per month with effect from 1st April, 2002.

The AAY Scheme has been expanded in subsequent years and presently it is covering 2.5 crore households.

IDENTIFICATION OF FAMILIES AND ALLOCATION OF FOODGRAINS

Identification of the Antyodaya families and issuing of distinctive Ration Cards to these families is the responsibility of the concerned State/UT Governments. Detailed guidelines were issued to the States/UTs for identification of the Antyodaya families under the expanded AAY. Allocation of foodgrains under the scheme is being made to the States/UTs on the basis of distinctive AAY Ration Cards issued to the identified families. So far 2.43 crore AAY families have been identified, AAY ration cards issued to them and foodgrain are being distributed to them.

INTERNATIONAL CO-OPERATION

India is a member of International Grains Council, Food and Agriculture Organisation (FAO) of the UN including its Committee on World Food Security (WFS) and International Sugar Organisation. India has been an exporting member of the International Grains Council (IGC) since July, 2003. The Department of Food and Public Distribution has been participating in various conferences/meetings of the IGC from time to time. Representing the Government of India, this department participated in the 25th Session of the International Grains Council (IGC) on 11th June, 2007 and the IGC Grains Conference, on 12th June, 2007 held in London. The Department of Food & Public Distribution also allocates foodgrains under welfare/

development schemes to WFP assisted/supported projects in India at BPL rate. India is a member of the SAARC food Security Bank and its assessed share of foodgrains for the reserve of SAARC Food Security Bank is 1,53,200 MTs out of total reserve of 2,41,580 MTs. Department of Food & Public Distribution has also participated at the level of Secretary (F&PD) in the 3rd council session of International Sugar Organisation (ISO) held in Argartha during 27-29 May - 2008

STORAGE & WAREHOUSING

The storage capacity of the Central Warehousing Corporation (CWC) and 17 State Warehousing Corporations (SWCs) as on 1 April 2008 was as under:

STORAGE CAPACITY

(in Lakh MTs)

Agency	Constructed	Hired	Open/Plinth	Management	Total
C W C	67.63	12.17	14.68	4.30	98.78
SWCs	121.41	63.05	2.86	-	187.32

The CWC started its operations in 1956 with a capacity of 7,000 tonnes in hired godowns. It has steadily increased its warehousing capacity and is operating 490 centres with a total capacity of 98.78 lakh MT as on 1st April 2008. The CWC is also operating 75 Custom Bonded Warehouses with a total capacity of 15.18 lakh tonnes as on 1 April 2008.

The CWC has associates in State Warehousing Corporations in 17 States. The total investment of the CWC, which is a 50 per cent shareholder in the equity capital of State Warehousing Corporation, was 58.26 crore as on 1st April, 2008.

INTRODUCTION OF NEGOTIABLE WAREHOUSE RECEIPT SYSTEM IN THE COUNTRY

The warehousing receipts at present do not enjoy the industry trust of depositors and banks as there is fear of not being able to recover the loans in events such as fraud or mis-management on behalf of the warehouse or insolvency of depositor. The legal remedies are also time consuming and inadequate. Even if the banks wish to finance against warehouse receipt they are either limited to those operators whom they trust they have to incur high costs in screening out suitable warehouse operators.

In the context of the above problems, it was proposed to develop a negotiable warehouse receipt system for all commodities including agricultural commodities. and a Warehousing (Development and Regulation) Act came into force in September 2007. Necessary steps are being taken up to operationalise the Act and implement its provisions.

The salient features of the Act are as follows:

- (a) The registered warehouses can issue negotiable warehouse receipts.
- (b) Negotiability of warehouse receipts will make it a tradable and transferable instrument.
- (c) This will help farmers get better price at a later date when prices are high.
- (d) This will also encourage bankers to lend against receipt to the farmers.
- (e) The Act provides for certain standards to be maintained by warehouses which issue negotiable warehouse receipt.

- (f) There will be a regulatory authority namely Warehousing Development and Regulatory Authority which will also oversee the functioning of registered warehouses. The said Authority will also lay down standards for maintaining records in the warehouses.
- (g) The Authority will also regulate the functioning of accreditation agencies which in turn, will accredit the warehouses.

The Act also provides for warehouse receipts to be given in electronic form, which will encourage Commodity Exchanges in the trading of goods electronically across different locations.

The advantage to the farmers would be that they can hold on to their stocks for better price discovery in future while ensuring liquidity in the short-term for financing their current farm operations.

Accreditation of warehouses and various provisions for maintaining standards will encourage farmers to store their produce in the warehouses without the fear of losing their goods due to poor storage practices. With the assurance of getting back their goods and getting lending against the goods kept in the warehouse the farmers will be able to avoid distress sale in times of necessity either for buying agricultural inputs or for personal unavoidable expenditure.

The Act will spur involvement of bankers in financing agricultural produce and will also increase presence of Insurance Companies in the rural sector.

For implementation of the various provisions of the Act, Warehousing Development and Regulatory Authority is required to be set up in this context. Efforts are being made in this direction.

MANAGEMENT OF FOODGRAINS

SAVE GRAIN CAMPAIGN (SGC)

The scheme is implemented through a network of 12 SGC offices in close collaboration with the State Governments and NGOs. The main objective of the scheme is to transfer the technical know-how developed by Indian Grain Storage Management and Research Institute (IGMRI) to the farmers for minimising the post-harvest losses in foodgrains. Under the scheme an assistance for purchasing the metal bins and other inputs @ Rs 10,000 per nucleus village is provided to the farmers.

During 2006-2007, 29250 farmers were trained in stipendiary/non-stipendiary training programmes. 15,977 metal bins distributed, 15,711 non-metallic storage structures improved/constructed and 336 nucleus villages developed.

QUALITY STANDARDS FOR FOODGRAINS

The Government exercises due control over the quality of foodgrains procured for the Central/State Pool. The Quality Control Cell of the Ministry at New Delhi, Kolkata and Hyderabad monitor the quality of foodgrains being procured by FCI and State agencies for Central Pool as well as at the time of storage and distribution.

INDIAN GRAIN STORAGE MANAGEMENT AND RESEARCH INSTITUTE (IGMRI)

Indian Grain Storage Management and Research Institute (IGMRI), Hapur, is engaged in the training and R&D work relating to grain storage management. The Institute has three field stations at Hyderabad, Jorhat and Ludhiana. The IGMRI also conducts

various training courses on storage, inspection of foodgrains, pest control, etc. for the officers of storage agencies, pest control operators, etc.

During 2006-07, 30 long/short-term training courses and 13 artisan trainings were conducted, 2282 food grains samples for physical quality parameters, 712 samples for pesticide residue and 380 samples for mycotoxin contamination were analysed by IGMRI, Hapur and its field stations.

EDIBLE OILS

It has been the policy of the government to have an efficient management of edible oils so as to ensure its easy availability to consumers at reasonable prices, throughout the country. Oilseed production gained momentum with improving yields with the launching of the Technology Mission on Oilseeds by the Government in 1986. Potential of the secondary sources of edible oils like cotton seeds, copra, rice bran and oil bearing materials from tree and forest origin has also been exploited moderately and these sources are now contributing to the level of 25 per cent of the domestic vegetable oil production. The country has been resorting to import of edible oils to bridge the gap between the demand and supply. Edible Oils, which was in the negative list of imports was first decanalised partially in April 1994. The import policy was further liberalised from 1 April 1999 allowing import of all edible oils except coconut oil. In order to harmonise the interests of domestic oilseeds growers, consumers and processors and to regulate large import of edible oils to the extent possible, the duty structure on edible oils is revised from time to time. The prices of edible oil have been rising during the last one year. For increased availability and softening the prices of edible oils in the domestic market, Government has taken various measures which include lowering of import crude & refined oils, restriction on export of edible oils, supply of subsidized oil through State Government/UTs, imposing stock limits on edible oils/oil seeds etc.

STATUS OF VEGETABLE OIL INDUSTRY

The Vegetable Oil Industry is administered through the following control/regulation orders: (i) Vegetable Oil Products (Regulation) Order, 1998; (ii) Edible Oils Packaging (Regulation) Order, 1998; and (iii) Solvent Extracted Oil, De-Oiled Meal and Edible Flour (Control) order, 1967. These orders are statutory in nature and derive their powers from the Essential Commodities Act, 1955.

Vegetable Oil Industry was delicensed in July 1991. No industrial licence is required for activity relating to processing of vegetable oils subject to the condition of the locational policy angle. Crushing of oilseeds, namely, Groundnut, Mustard/Rapeseed and Sesame has been reserved for the small-scale industries, Agro-based industries and oilseeds growers co-operatives.

There are 258 Vanaspati units in the country with an annual capacity of 58 lakh MTs. The production of Vanaspati (including margarine and Bakery shortening) is around 11.50 lakh MTs and the capacity utilisation is around 19 per cent. There are 779 solvent extraction plants with an annual capacity of 419 lakh MTs (in terms of oil Bearing Material) in the country and the capacity utilization is around 31 per cent.

SUGAR

Sugar Production

The country had achieved an all time high-level of sugar production of 281.99 lakh tones (Provisional) during the sugar season 2006-07.

Installed sugar Mills

There were 615 installed sugar factories in the country as on 31st March 2008. the sector-wise breakup is as follows.

Sector	No. of sugar factories installed
(i) Public	62
(ii) Cooperations	317
(iii) Private	236

Sugar policy

A. Partial control : Sugar & sugarcane are essential commodities under the Essential Commodities Act, 1955. Government has been following a policy of partial control and dual pricing for sugar. Under this policy a certain percentage of sugar produced by sugar factories is requisitioned by the Government as compulsory levy at a price fixed by Government in every sugar season. The levy sugar so requisitioned is distributed under the Public Distribution System (PDS) The non-levy (free-sale) sugar is allowed to be sold as per the quota/quantity released by the Government under the regulated release mechanism.

B. Phased Decontrol of the Sugar Industry: The Government has taken steps for decontrol of the sugar industry which include reduction in the compulsory levy obligation of the sugar factories. Accordingly the levy obligation now stands reduced gradually from 40% (Prior to 01.01.2000) to 10% from 01.03.2002.

SUGARCANE PRICING POLICY

The Central Government fixes the Statutory Minimum Price (SMP) of sugarcane for each sugar season. The SMP is fixed on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP) and after consulting the State Governments and associations of sugar industry and cane growers. The Central Government had fixed the Statutory Minimum Price (SMP) of sugarcane for the sugar season 2007-08 at Rs. 81.18 per quintal linked to a basic recovery of 9% subject to a premium of 90 Paise for every 0.1 percent increase in the recovery above that level. The SMP of sugarcane for the sugar season 2008-09 was also fixed at the same rate and conditions.

BUFFER STOCK OF SUGAR

Due to record production of sugar in 2006-07 and anticipated high production of sugar in 2007-08 sugar season, the prices of non-levy sugar in the open market declined appreciably which constrained the capacity of sugar mills to pay cane price to sugarcane farmers. In order to ensure that the excess production of sugar does not lead to mounting cane price arrears, the Central Government created a buffer stock of 20 lac tonnes in April 2007 and another buffer stock of 30 lac tonnes in August 2007, both for a period of one year from 01.06.2007 to 30.04.2008 and 31.07.2007 to 31.07.2008 respectively. Under the scheme of buffer subsidy the sugar factories are reimbursed the interest, insurance and storage charges.

OBJECTIVES OF SUGAR DEVELOPMENT FUND

As provided under the Sugar Development Fund Rules, the Fund has to be utilized by the Government of India for the following :

- (a) Making loans for facilitating the rehabilitation and modernization of any sugar factory.
- (b) Making loans for the undertaking of any scheme for development of sugarcane in the area in which any sugar factory is situated.
- (c) Subsidy for the expenditure on internal transport and freight charges on export shipment of sugar.
- (d) Making loans for bagasse-based co-generation power projects.
- (e) Making loans for production of anhydrous alcohol or ethanol from alcohol/molasses.
- (f) Defraying expenditure for the purpose of building up and maintenance of buffer stock with a view to stabilize price of sugar.
- (g) Defraying any other expenditure for the purpose of the Act.

FOOD PROCESSING

Role and Objectives

The Ministry of Food Processing Industries (MFPI) was set up in July 1988 to give an impetus to development of food processing sector in the country. The Ministry is concerned with formulation and implementation of the policies & plans for the food processing industries within the overall national priorities and objectives. The Ministry acts as a catalyst for bringing in greater investment into this sector, guiding and helping the industry, and creating a conducive environment for healthy growth of the food processing industry. Within these overall objectives, the Ministry aims at better utilization and value addition of agricultural produce, minimizing wastage at all stages in the food processing chain by development of infrastructure for storage, transportation and processing of agro-food produce, induction of modern technology into the food processing industries, encouraging R&D in food processing for product & process development, providing policy support, promotional initiatives and facilities to promote value added exports, create the critical infrastructure to fill the gaps in the supply chain from farm to consumer.

Major Policy initiatives

- Food processing has been identified as industry with employment potential.
- Most of the processed food items have been exempted from the purview of licensing under the Industries (Development & Regulation) Act, 1951, except items reserved for small-scale sector and alcoholic beverages.
- To ensure easy availability of credit, Government has included food processing industries in the list of priority sector for bank lending. NABARD has created a refinancing window with a corpus of Rs. 1000 crore, especially for agro-processing infrastructure and market development.
- Rs. 150 crore earmarked for (National Horticulture Mission) NHM for terminal markets.
- Food processing industries were included in the list of priority sector for bank lending in 1999.
- Automatic approval for foreign equity upto 100% is available for most of the processed food items except alcohol and beer and those reserved for small scale sector subject to certain conditions.

- Excise duty on processed fruit and vegetables was brought down from 16% to zero level in the Budget 2001-02.
- In the budget of 2004-05 income tax holiday and other concessions announced for certain categories of food processing industries.
- Under Income Tax Act, a deduction of 100% of profit for five years and 25% of profits for the next five years allowed in case of new agro processing industries set up to process, preserve and package fruits and vegetables.
- In the Budget for 2007-08, the following fiscal incentives were announced:
 - Exemption limit of excise duty for small scale Industry (SSI) raised from Rs. 1 crore to Rs. 1.5 crores.
 - Excise duty on biscuits reduced from 8% to 0% whose retail price does not exceed Rs. 100 per Kg.
 - Excise duty reduced from 8% to 0% on all kinds of food mixes including instant mixes.
 - Soya bari (food supplements) and ready to eat packaged foods fully exempt from excise duty.
 - Excise duty on reefer vans (refrigerated motor vehicles) reduced from 16% to 8%. Customs duty also cut.
 - Custom duty on food processing machinery reduced from 7.5% to 5%.
 - Custom duty on sunflower oil (crude) reduced from 65% to 50% and of sunflower oil (refined) reduced from 75% to 60%.
 - Special additional duty of 4% waived in the case of refined edible oil.
 - Central sales tax reduced from 4% to 3% from April, 2007.
 - All services provided by Technology Business Incubators exempted from service tax.
 - Similarly their Incubatees whose annual business turnover does not exceed Rs. 50 lakhs exempted from service tax for the first three years.

Growth Rate

The average rate of growth of food processing sector during the first four years of the 10th Plan period was @13.25% at current prices and @ 6.75% at 1999-2000 prices.

Plan Schemes

During the 10th Plan, the Ministry implement Plan schemes for Technology Upgradation/Modernization/Establishment of Food Processing Industries, Infrastructure Development, Human Resource Development, Quality Assurance, R&D and other promotional activities.

In the 11th Plan, it has been proposed to continue assistance to the above schemes with higher levels of assistance. In the 11th Plan, the Ministry proposes to launch a revamped Infrastructure Scheme under which it will promote setting up of Mega Food Parks, cold chain infrastructure, value added centres and packaging centres. The Mega Food Park Scheme will provide backward and forward linkages as well as reliable and sustainable supply chain. The emphasis will be on building strong linkages with agriculture and horticulture, enhancing project implementation capabilities, increased involvement of private sector investments and support for creation of rural infrastructure to ensure a steady supply of good quality agri/

horticulture produce. It will provide a mechanism to bring farmers, processors and retailers together and link agricultural production to the market so as to ensure maximization of value addition, minimize wastages and improve farmers' income. The Mega Food Park would be a well-defined agri/horticultural-processing zone containing state of the art processing facilities with support infrastructure and well established supply chain. The primary objective of the proposed scheme is to facilitate establishment of integrated value chain, with processing at the core and supported by requisite forward and backward linkages. It is envisaged that the implementation of the projects would be assisted by professional Project Management Agencies (PMA) from concept to commissioning. In 11th Plan it is planned to support establishment of thirty (30) Mega Food Parks in various parts of the country.

Vision 2015 on Food Processing Industries

A vision, strategy and action plan has also been finalized for giving boost to growth of food processing sector. The objective is to increase level of processing of perishable food from 6% to 20%, value addition from 20% to 35% and share in global food trade from 1.6% to 3%. The level of processing for fruits and vegetables is envisaged to increase from the present 2.2% to 10% and 15% in 2010 and 2015 respectively. The Cabinet has approved the integrated strategy for promotion of agri business and vision, strategy and action plan for the Food Processing Sector, based on the recommendations made by the Group of Ministers (GOM).

Integrated Food Law

An Integrated Food Law, i.e. Food Safety and Standards Act, 2006 was notified on 24.8.2006. The Act enables in removing multiplicity of food laws and regulatory agencies and provide single window to food processing sector. Ministry of Health & Family Welfare has been designated as the nodal Ministry for administration and implementation of the Act.

National Institute of Food Technology Entrepreneurship & Management (NIFTEM)

The Ministry has set up a National Institute of Food technology Entrepreneurship & Management (NIFTEM) at Kundli (Haryana). The Institute will function as a knowledge centre in food processing. Certificate of Incorporation of NIFTEM as a section 25 Company under the Companies act 1956 has been obtained.

SECTORAL OVERVIEW OF FOOD PROCESSING INDUSTRIES

FRUITS AND VEGETABLE PROCESSING

The installed capacity of fruits and vegetables processing industry has increased from 11.08 lakh tons on 01.01.1993 to 21.18 lakh tonnes as on 01.01.2006 and 24.74 lakh tonnes as on 01.01.2007. The utilization of fruits and vegetables processing is estimated to be around 2.20% of the total production.

Over the last few years, there has been a positive growth in ready-to-serve beverages, fruit juices and pulps, dehydrated and frozen fruits and vegetable products, tomato products, pickles, convenience veg-spice pastes, processed mushrooms and curried vegetables. The domestic consumption of value added fruits and vegetable products is also low compared to the primary processed food in general and fresh fruits and vegetables in particular which is attributed to higher incidence of tax and duties including that on packaging material, lower capacity utilisation, non-adoption of cost effective technology, high cost of finance, infrastructural constraints, inadequate

farmers-processors linkage leading to dependence upon intermediaries. The smallness of units and their inability for market promotions are also other main reasons for inadequate expansion of the domestic market.

MEAT AND MEAT PROCESSING

In meat and meat processing sector, poultry meat is the fastest growing animal protein in India. The estimated production is 1500 thousand tonnes growing at (Compound Annual Growth Rate) CAGR of 13% through 1991-2005. Per capita consumption has grown from 870 grams in 2000 to about 1.68 kg in 2005. Buffalo meat production has been growing relatively less rapidly at a CAGR of 5% in the last 6 years. The current production levels are estimated at 1.9 million MT; of this about 21% is exported. Mutton and lamb is a relatively small segment, where demand is outstripping supply, which explains the high prices in domestic market. The production levels have been stagnating at 950,000 MT with annual exports of less than 10,000 MT. This has restricted large processing companies from developing business interests in this sector.

Indian consumer prefers to buy freshly cut meat from the wet market, rather than processed or frozen meats. A mere 6% of production (about 100,000 MT) of poultry meat is sold in processed form. Of this only about 1% undergoes processing into value added products (Ready-to-eat/ready-to-cook). Processing of large animals is mostly for the purpose of Exports. The Total processing capacity in India is over 1 million MT per annum, of which 40-50% is utilized.

India exports more than 500,000 MT of meat of which major share is that of buffalo meat. Indian buffalo meat is witnessing strong demand in international markets due to its lean character and near organic nature.

India is the 5th largest exporter of bovine meat in the world. Indian buffalo meat exports have the potential to grow significantly. Due to emerging health threats of the diseases communicable to human through meat, the meat consumers are more vigilant towards the wholesomeness of the meat and demanding meat and poultry products processed in clean and sanitary environment. In metros and urban areas there are upcoming demands for "convenience items" such as semi-cooked, ready-to-eat, ready-to-cook meat food products.

Processing of meat products is licensed under Meat Food Products Order (MFPO) 1973 which is being implemented by Ministry of Food Processing industries w.e.f. 19.03.2004. The main objectives of the MFPO, are to regulate production and sale of meat food products through licensing of manufacturers, enforce sanitary and hygienic conditions prescribed for production of wholesome meat food products, exercise strict quality control at all stages of production of meat food products, fish products including chilled poultry etc.

To develop necessary infrastructure for processing of meat and meat food products for domestic market as well as for Export market, Ministry of food Processing Industries is providing financial assistance by way of grant-in-aid. During the Year 2006-07 MFPI assisted 7 projects for manufacture of Meat and Meat food products.

DAIRY PROCESSING

It is a matter of pride that India is the number one milk producing country in the world, maintaining the top position since 1988, thanks to successful implementation of the operation flood programmes. World milk production is estimated at 613 million

tonnes growing at a CAGR of 1.1%. Indian production stands at 91 million tonnes growing at a CAGR of 4%. Hence, India contributes 4 million tones to the world's incremental production of 7.5 million tonnes. Despite a higher growth rate, the per capita availability of milk in India (229 grams per day) is lower than the world average (285 grams per day). Buffalo milk is estimated to account for 57% of the total milk production in India.

India has a unique pattern of production, processing and marketing/consumption of milk. Approximately 70 million rural households (primarily, small and marginal farmers and landless labourers) in the country are engaged in milk production. Over 11 million farmers are organized into about 0.1 million village Dairy Co-operative Societies (DCS) (about 110 farmers per DCS). The cumulative milk handled by DCS across the country is about 18 million kg of milk per day. These co-operatives form part of a national milk grid which links the milk producers throughout India with consumers in more than 700 towns and cities bridging the gaps on account of seasonal and regional variations in the availability of milk.

In India current annual growth rate in Milk production is primarily due to the initiatives taken by the operation flood programmes in organizing milk producers into cooperatives; building infrastructure for milk procurement, processing and marketing and providing financial, technical and management inputs by the Ministry of Agriculture & Ministry of Food Processing Industries to turn the Dairy sector into a viable self-sustaining organized sector. About 35% of milk produced in India is processed. In the organized sector, there are 676 dairy plants in the Co-operative, Private and Government sectors registered with the Government of India and the state Governments.

The Ministry of Food Processing Industries is promoting organized Dairy processing sector to accomplish upcoming demands of processed dairy products and helping to identify various areas of research for future product development and quality improvement to revamp the Indian dairy export by way of providing financial assistance to the dairy processing units. 32 Units were sanctioned financial assistance (Rs. 591 lakhs) under the plan scheme of the Ministry during the year 2006-07 (Upto December 2006).

FISH PROCESSING

With its long coast line of over 8000 kms., 50600 sq. kms. of continental shelf area and 2.2 million sq. km. of Exclusive Economic Zone, India is endowed with rich fishery resources.

Considerable infrastructure facilities for processing of marine products have been developed over a period of 50 years. At present, there are over 369 freezing units with a daily processing capacity of 10266 tonnes out of which 150 units are approved for export to EU. 499 units are engaged in production of frozen fish with a total storage capacity of 134767 tonnes. Apart from the above there are 12 surimi units, 5 canning units and 473 units are engaged in pre-processing and dry fish storage.

Ministry of Food Processing Industries extends financial assistance for setting up/technology upgradation/modernization of fish processing units. During the year 2006-07 (upto December 2006) 17 fish processing units were assisted.

GRAIN PROCESSING

The grain processing industries include milling of rice, wheat and pulses. Financial assistance has been provided for setting up/modernization/expansion of the units

before their commissioning. The question of providing financial assistance under the Plan Scheme for setting up/modernization in the grain/rice/pulses/flour milling sector has been reviewed. It was felt that priority should be given to processing and enhancing shelf life of perishable items so as to reduce wastage and encourage value addition in that sector. Considering that rice/pulses/flour are consumed in the processed form only and primary processing in these sectors adds little to shelf life, wastage control and value addition, it has been decided not to accept fresh proposal for these sectors, viz. Rice, Flour & Pulse Milling from the financial year 2004-05.

A Technical Committee had been constituted to review and make recommendations on benchmarks for latest and most efficient technology and processes and identification of minimum conditions to be laid down for assistance to rice/pulses/flour/oil sector. The committee has submitted its report, which has been accepted by the Ministry. These have been incorporated in the guidelines for the financial institutions for providing assistance keeping in view the value additions and technological benchmarks.

During 2006-07 (upto December 2006), the Ministry sanctioned financial assistance for 32 rice milling, 13 flour milling, 62 edible oil milling and 13 pulse milling units.

CONSUMER FOOD INDUSTRIES

Consumer Food Industry includes pasta, breads, cakes, pastries, rusks, buns, rolls, noodles, corn flakes, rice flakes, ready to eat and ready to cook products, biscuits etc. Bread and biscuits constitute the largest segment of consumer foods. Their production is about 4 million tonnes per year. Manufacturing of bread is reserved for SSI sector. Out of the total production of bread, 40% is produced in the organized sector and the remaining 60% in the unorganized sector. Similarly, production of biscuits in the organized sector is about 80% and in the unorganized sector is about 20%.

During the year 2006-07 (upto January 2007) 75 food-processing units relating to consumer industries were sanctioned financial assistance by MFPI and Rs. 16.34 crore has been released so far.

AERATED SOFT DRINK

Soft drinks constitute the 3rd largest packaged foods regularly consumed after packed tea and packed biscuits. The aerated soft drinks industry in India comprises over 100 plants across all states. It provides direct and indirect industry related employment to over 125,000 employees. It has attracted one of the highest foreign direct investments in the country. It has strong forward and backward linkages with glass, plastic, refrigeration, sugar and transportation industry. The installed capacity of sweetened/aerated water as on 01.01.2006 is reported to be 29.60 lakh tons per annum.

PACKAGED DRINKING WATER

There are 218 companies, which have been granted licence for manufacturing packaged drinking water and packaged natural mineral water. There has been a spurt in growth in the last 3-4 years, which can largely be attributed to a range of various packaged sizes to suit the consumers. 80% of the packaged water sale comes from the bulk containers (5 litres and above).

ALCOHOLIC BEVERAGES

India is the third largest market for alcoholic beverages in the world. The demand for spirits and beer is estimated to be around 373 million cases. There are 12 joint venture companies having a licensed capacity of 33919 Kilolitres per annum for production of grain based alcoholic beverages. 56 units are manufacturing beer under licence from the Government of India. The wine industry in India provides considerable opportunities for value addition and employment generation in the agro-processing sector.

CONSUMER AFFAIRS**PRICE MANAGEMENT**

The overall availability and prices of essential commodities generally remained satisfactory during the year 2007-08 except for rice, some pulses and edible oil. The annual rate of inflation in terms of Wholesale Price Index (WPI) number recorded a higher increase of 7.5% during the year 2007-08 as compared to 6.6% in the corresponding period a year ago. The modest increase in the inflation rate in the year was mainly attributed to increase in prices of some essential commodities like cereals, pulses (arhar and masur), Milk, edible oils etc. Government has given high priority to contain the rise in prices of essential commodities at reasonable level. Prices of 14 essential commodities are being closely monitored and reviewed at high levels. Commodities which are in short supply such as edible oil and pulses are being imported to supplement the domestic availability.

During the year 2007-08, monitoring of the retail price of 14 essential commodities, viz. rice, wheat, atta, gram dal, arhar dal, sugar, milk, groundnut oil, mustard oil, vanaspati, salt, tea, potato and onion was regularly carried out by the Department of Consumer Affairs on a daily basis. The wholesale prices of these commodities is monitored on a weekly basis covering 37 centres. The High Powered Price Monitoring Board (HPPMB), the Cabinet Committee on Prices (CCP) and Committee of Secretaries (COS) reviewed the prices and availability position of essential commodities at regular intervals, based on the agenda note on 'General Prices Situation and Availability of Essential Commodities' prepared by the Price Monitoring Cell (PMC) of the Department of Consumer Affairs. The HPPMB, CCP and COS meet periodically to review the price and availability scenario of essential commodities and direct concerned Ministries/Departments to take appropriate and necessary remedial action.

Movements in the Wholesale Price Index (WPI) number during 2007-08 indicated that WPI of Manufactured Products with a higher weight of 63.75 per cent in the overall index basket increased by 6.9% per cent, while the index number of Fuel, Power, Light and Lubricants with a lower weight of 14.23 per cent rose by 6.8 per cent.

COMMODITY-WISE PRICE TRENDS**Cereals**

The WPI of Cereals increased by 6.5% during 2007-08 mainly due to increase of 15.1% in jowar, barley 8.1%, in wheat 4% in rice 8.3% and 1.5% in bajra. The sharp increase in the prices of rice was due to a hike in the Minimum Support Price (MSP),

hardening in international prices, low level of stock position etc. The production of cereals for 2006-07 (final) was estimated to be higher at 203.08 million tonnes as compared to 195.2 million tonnes in 2005-06. Production of rice and wheat were also higher at 93.35 million tonnes and 75.81 million tonnes during 2006-07 as compared to 91.79 million tonnes and 69.35 million tonnes respectively in the previous year.

Pulses

The Whole sale Price Index (WPI) of pulses exhibited a decline of -2.2% during 2007-08 as against the rise of 15.3% in 2006-07. The gap in the demand and availability of the commodity is being bridged through imports. Import of pulses for the period of 2007-08 (April-February) was 2.62 million tonnes (provisional) as compared to 1.98 million tonnes during the corresponding period last year (Source: DGCI&S)

Edible oils

The Whole sale Price Index (WPI) of edible oils exhibited an increase of 19.9% during the financial year 2007-08 as compared to the rise of 13.81% in 2006-07 mainly due to decline in the domestic production of oil seeds during the last year coupled with increase in international prices. Imports of edible oil during 2007-08 (up to April-February) were 4.58 million tonnes as compared to 3.91 million tonnes during the corresponding period last year. (Source: DGCI&S).

Sugar

Sugar prices declined during the year 2007-08 mainly due to increased availability in the markets. In terms of WPI, the prices of sugar declined by 1.6% during 2007-08 as compared to the decline of 18.2% in a year ago. The production of sugar increased to 281.99 lakh tonnes during 2006-07 sugar season from 193.21 lakh tonnes a year ago.

Vegetables

ONION

Vegetable prices are subjected to variation depending on the availability and seasonal factors. Government has kept a close watch on the prices and availability of vegetables especially onion and potato. During 2007-08 prices of onion remained at lower level as compared to the previous year.

POTATO

Potato prices were higher till October-November 2007. The reason for higher prices was due to restricted supply from cold stores by farmers traders and some what less stored stock. (Source : NHRDF). Potato area and production during the year 2007-08 have increased in the major potato producing states like Uttar Pradesh, West Bengal, Punjab, Madhya Pradesh, Bihar and Gujarat. The reason for more area coverage during the year 2007-08 was farmers got better prices during the period.

Tea

The prices and availability of tea in the country remained satisfactory. Though the WPI of tea rose by 7.3% during 2007-08 as compared with the rise of 8% during 2006-07, the prices in the retail level indicated a steady trend. Exports of tea during 2007-08 (April-February) was 1799.85 lakh kg as against 1750.69 lakh kg in the corresponding period a year ago (source DGCI&S)

Steps taken by the Government

The Government has been taking effective steps to moderate the prices and increase domestic availability of essential commodities. It has taken a number of steps as listed below:-

- (i) To augment availability of wheat, Public Sector Agencies STC, MMTC, PEC imported about 18.0 lakh tonnes of wheat during 2007-08. Period of validity of import of wheat at zero duty was extended from 31.12.06 to 28.02.2007 and further to 31.12.07. It is now extended until further orders.
- (ii) In order to maximize procurement of wheat and paddy, the Government has been increasing MSPs and announcing bonus in the last 5 years. The Government fixed the MSP of wheat for Crop Year 2007-08 at Rs. 1000 per quintal. The Minimum Support Price (MSP) of 'common' and 'Grade A' varieties of paddy was increased by Rs 105 per quintal, to Rs. 850 per quintal and Rs 880 a quintal respectively during the Kharif marketing Season 2008-09.
- (iii) Export of non-basmati rice was banned in April 2008. Import duty on rice was cut to zero upto 31.3.2009. Government also directed that the order regarding removal of restrictions on licensing, stock limits and movement of rice be kept in abeyance for a period of one year.
- (iv) Government has protected vulnerable section of society through Targeted Public Distribution System (TPDS) and Antodaya Anna Yajana (AAY). Under the TPDS, wheat, rice, sugar and kerosene oils are allocated to State Governments for distribution through the Fair Price Shops.
- (v) The Central issue Price for rice and wheat has not been revised since 1.7.2002. For wheat it remains at Rs. 4.15 per kg for BPL, and Rs 2 per kg for AAY. For rice, it is Rs. 5.65 per kg for BPL and Rs. 3 per kg for AAY.
- (vi) Customs duty on import of pulses was reduced to zero on June 8, 2006 and the period of validity of import of pulses at zero duty was extended from 31.3.07 to 1.8.2007 and further to 31.3.09
- (vii) A ban was imposed on export of pulses with effect from June 22, 2006 (except export of kabuli chana w.e.f. 7.3.07).
- (viii) As per initiative of Government, the State agencies (NAFED, MMTC and STC) have contracted to import about 1.4. Million Metric Tonnes (MMT) of pulses during 2007-08.
- (ix) Department of Revenue vide its notification dated 01.04.2008 made the following changes in the import duty of edible oils:-
 - a. Import duty on crude edible oils cut to zero;
 - b. Import duty on refined and hydrogenated oils reduced to 7.5%.
 - c. Import duty on hydrogenated vegetable oils also reduced to 7.5%.
 - d. Customs duty on butter and ghee was reduced to 30%.
- (x) The Government has also withdrawn the 4% additional countervailing duty on all edible oils.
- (xi) Export of edible oils has been banned for a year up to 31.3.2009.

- (xii) Government directed that the order regarding removal of restrictions on licensing stock limits and movement of edible oils and oilseeds be kept in abeyance for a period of one year.
- (xiii) Government also directed that :
- i. The Tariff Rate Quota be removed on safflower oil
 - ii. The ban on export of castor oil, coconut oil and oils produced from minor forest produce, except sesame oil, be lifted and that such exports be closely monitored, and that the export of coconut oil be allowed only from Kochi port.
 - iii. The 'deemed export' of edible oils to 100% export oriented units be allowed with the condition that the final product be non-edible.
- (xiv) When the onion prices started flaring up, NAFED increased the MEP from USD 250 PMT in March/April 2007 to US\$ 495 PMT in October 2007 to increase the domestic availability of onion. The export of onion was also put under license through designated canalizing agencies vide Notification No. 22 (RE-2007) 2004-2009 dated 4th October 2007. Further more, Government also organised sale of onion through mobile centres operated by Delhi Government, NAFED), Kendriya Bhandar as well as Mother Dairy. These outlets numbering around 375, sold onion at Rs 17-18 per kg when the outside price was Rs 22-24 per kg. Subsequently, with the domestic prices of onion showing a declining trend, MEP was successively reduced. The export restriction was also lifted w.e.f. 16.11.07 in view of the increased availability of kharif onion.
- (xv) As a measure of abundant precaution, Forward Markets commission (FMC) on 23.01.07, directed the three National Exchanges, namely (a) Multi Commodity Exchange of India Ltd., (b) National Commodity & Derivatives Exchange Ltd., (c) National Multi Commodity Exchange of India Ltd., to delist all contracts of tur and urad and to close out all outstanding positions in all Tur and Urad contracts at the closing price on 23.01.07. FMC also stated that no further contract shall be launched without its prior approval and permission already granted to launch contracts in urad and Tur stands withdrawn.
- (xvi) Similarly, FMC on 27.2.2007, directed all the three National Exchanges that no new future contracts in wheat and rice shall be launched.
- (xvii) To contain volatility in the futures prices of wheat, pulses, etc, Forward Markets Commission (FMC) made regulatory measures such as imposition of limits on open position, reduction in limits on daily price fluctuations and imposition of additional/special margins more stringent.

Keeping in view the prevailing price situation, the Central Government had issued a Central Order dated 29.08.2006 under the Essential Commodities Act, 1955 to enable the State Governments to invoke Stock Limits in respect of wheat and pulses for a period of 6 months. By virtue of this Order, the State Government/UT Administrations were empowered to take effective action to bring out the hoarded stock of these items, to ensure their availability to the common people at reasonable prices. The order was subsequently extended upto August 2008. Edible oil, oilseeds and rice have now also been included within the ambit of the above Central order.

WEIGHTS AND MEASURES

One of the important reforms undertaken in the country after Independence was the standardisation of the system in weights and measures. Uniform standards of weights and measures, based on the metric system, were established in the country, under the Standards of Weights and Measures Act, 1956.

In order to establish the international system of units and to align our laws with international practices as well as to remove certain deficiencies, a comprehensive legislation, namely, the Standards of Weights and Measures Act, 1976 was enacted, replacing the 1956 Act. The 1976 Act contains among other things, provisions for regulation of pre-packed commodities sold to consumer so as to establish fair trade practices. Provisions of the Act relating to packaged commodities and the relevant rules, namely, the Standards of Weights and Measures (Packaged Commodities) Rules, 1977 were brought into force, since September 1977. According to these provisions every package intended for retail sale is required to carry information as regards the name of the commodity, name and address of manufacturer or packer, net quantity, month and year of manufacture/packing and retail price. Mandatory declaration of retail sale price is to be given in the form "MRP Rs. inclusive of all taxes". The Rules were reviewed and amended vide notification GSR 425(E) dated 17-7-2006. In the interest of consumers, inter alia, the following new provisions have been incorporated : 1) Retail dealers covered under Value Added Tax (VAT) and Turn Over Tax (TOT) and dealing in packaged commodities whose net content is by weight or volume or a combination there of have to maintain appropriate electronic weighing instrument with facility to issue printed receipt showing the weight of packages free of cost so that consumers can check the weight of packaged commodities purchased from the shop. 2) Every package shall bear names & address, phone number, e-mail (if available) of the person or the office which can be contacted in case of consumer complaints. The Rules have similar provision for regulation of packaged commodities imported into India like indigenous packages.

Under the provisions of the 1976 Act, the models of all weighing and measuring instruments should be approved before commencement of their production. Under the relevant rules, namely, the Standards of Weights and Measures (Approval of Models) Rules, 1987 recognised laboratories examine the models for their conformity to the standards. These Rules are in force since 1987.

The Forty-second Amendment of the Constitution brought the subject of 'Enforcement of Weights and Measure' from the 'State List' to the 'Concurrent List'. To ensure uniformity in the matter of enforcement in the country, a Central Act, namely, the Standards of Weights and Measures (Enforcement) Act, 1985 was brought into force. It contains provisions for effective legal control on weights, measures and weighing/measuring instruments used in commercial transaction, industrial production and in protection involving public health and safety.

To ensure iniformity in the matter of enforcement in the country, a Central Act, namely, the Standards of Weights and Measures (Enforcement) Act, 1985 was brought into force. In contains provisions for effective legal control on weights, measures and weighing/measuring instruments used in commercial transaction, industrial production and in protection involving public health and safety.

On the recommendation of the Parliamentary Standing Committee, a unified legislation, combining the existing two legislations on Weights and Measures (mentioned above) has been mooted.

India is a member of the International Organisation of Legal Metrology (OIML). This Organisation was set up in order to realize worldwide uniformity in laws relating to legal metrology (weights and measure) and to make international trade smooth and practical.

Legal standards of weights and measures of the States and Union Territories are calibrated in the four Regional Reference Standard Laboratories (RRSL) located at Ahmedabad, Bhubaneswar, Bangalore and Faridabad. These laboratories also provide calibration services to the industries in their respective regions. They are among the recognised laboratories for conducting the model approval tests on weights and measuring instruments.

Under a scheme to strengthen legal metrology laboratories of States, infrastructure assistance in the form of standard balances and a mobile kit for testing weighbridges is being provided by the Department to all States/Union Territories, for better enforcement.

During 2005-07 an amount of Rs. 8.1 crore was given to States/UTs as grant in aid for purchase of working Standard Balances. Supply of 59 sets of Secondary Standard Balances and 17 Mobile kits for testing weighbridges was completed in 2007-08.

The Indian Institute of Legal Metrology, Ranchi, under the administrative control of this Ministry, imparts training in legal metrology and allied subjects. Apart from the enforcement officials of States, nominees from African, Asian and Latin American countries also attend the programmes run by the Institute. To re-orient the activities of the Institute so as to fulfil its mandate more effectively and to make it a centre of excellence, a study has been entrusted to Indian Institute of Management, Kolkata.

NATIONAL TEST HOUSE

The National Test House (NTH) with its headquarters at Kolkata is a Government laboratory of national importance in the field of testing and evaluation of material and products of all engineering branches except Food, Pharmaceuticals and Arms and Ammunitions. It is also providing calibration services and actively assists BIS in the formulation of National Standards since independence. The objective of NTH is to improve Indian Products to meet the requirements of National/International Standards for their acceptability in the global market. The NTH with its headquarters in Kolkata functions through six regional laboratories located in Kolkata, Mumbai, Chennai, Ghaziabad, Jaipur and Guwahati.

16 Health and Family Welfare

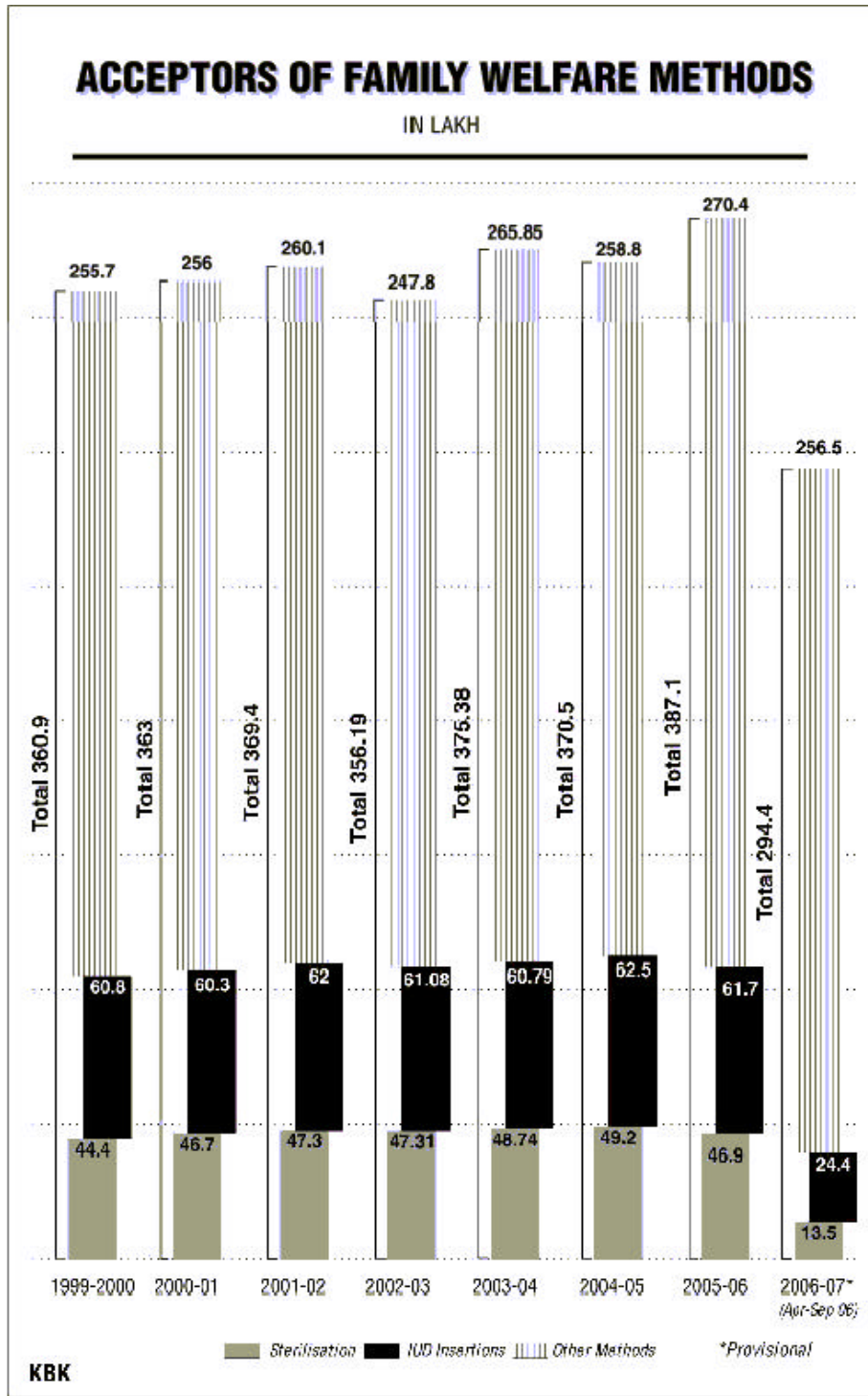
THE Tenth Plan period witnessed a transition in health care policies and strategies with the effecting of an architectural correction in the healthcare delivery system at the primary and secondary level and the steps taken to set in motion regional balance in the availability of tertiary healthcare facilities. Wide ranging reforms and policy initiatives have been taken for improving health infrastructure and addressing the healthcare needs of the population. Several initiatives have also been undertaken on the disease front to contain morbidity and mortality.

Healthcare is one of the 7 thrust areas under the National Common Minimum Programme (NCMP) and improvement in health continues to be an important part in the overall strategy for socio-economic development over the planning period. The special focus given to Health Sector in the NCMP has formed the core of the programmes formulated under both Health and Family Welfare. The National Rural Health Mission (NRHM) is the key plank for giving effect to the mandate of the NCMP. The NRHM also provides an overarching umbrella to the existing programmes of Health & Family Welfare including RCH-II, Vector Borne Disease Control Programme, TB, Leprosy, NPCB and the Integrated Disease Surveillance Project. It also addresses the issue of health in the context of a sector wide approach encompassing sanitation and hygiene, nutrition and safe drinking water as basic determinants of good health and also advocates greater convergence with related social sector Departments. The core strategies of the Mission include identification and selection of the Accredited Social Health Activist (ASHA), decentralized planning, strengthening of existing infrastructure like sub-centres, PHCs and CHCs, adoption of a sector wide approach, flexible financing, community participation, manpower development and partnership with non-government stakeholders. Maternal and child health will be given a basic thrust on the programme front. Monitoring would be community based and through stringent internal reviews and external surveys.

The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) is a major initiative for developing tertiary healthcare in the country, particularly to enable the availability of such facilities on a regional basis. It is also expected to reduce imbalance in human resources development by providing health care services through establishment of medical colleges and an improved delivery of services. Under PMSSY, 6 All India Institute of Medical Science (AIIMS) like institutions are to be set up and 13 medical colleges upgraded.

To tackle the menace of other communicable and non-communicable diseases, the Ministry of Health and Family Welfare continues to implement National Health Programmes throughout the country for Blindness, AIDS, Cancer, Mental Disorders, etc. A Disease Surveillance mechanism is also being put in place for communicable and non-communicable diseases and their risk factors to facilitate quick response and evaluate control strategies. Central Institutions and organisation engaged in health care, medical education and research are continuously being strengthened to tackle the emerging diseases.

The general condition of India's population has improved significantly since the 1990s. The average life expectancy at birth has increased from 59.7 years in 1991



to 63.7 years for males and 60.9 to 66.9 years during the same period for females. Infant mortality, crude birth rate and death rates have also registered a decline during the period. The strategies put in place in respect of the communicable diseases particularly leprosy and TB has met with sufficient success. In the case of Vector borne Diseases, concerted efforts are being made under the programme while under AIDS, the key strategy has been to build up infrastructure and go in for targeted interventions.

The major areas of current focus include continued high morbidity due to communicable diseases, rising disease burden due to non-communicable diseases and nutritional problems. The unmet need for contraception and high unwanted fertility are the other areas of major concern.

NATIONAL VECTOR BORNE DISEASE CONTROL PROGRAMME

The Directorate of National Vector Borne Diseases Control Programme is the national nodal agency for prevention and control of major vector borne diseases of public health importance namely Malaria, Filariasis, Kala-azar, Japanese Encephalitis (J.E.), Dengue/ Dengue Hemorrhagic fever (DHF) and Chikungunya.

MALARIA

Malaria is an acute parasitic illness caused by *Plasmodium falciparum* or *Plasmodium vivax*. Mosquitoes, of which there are 9 major species, transmit malaria in India. At the time of independence, there were an estimated 75 million malaria cases and 0.8 million deaths annually. GOI launched the National Malaria Control Programme (NMCP) in 1953. DDT spraying resulted in a sharp decline in the incidence of malaria in all areas under spray. In 1958, NMCP was converted to the National Malaria Eradication Programme (NMEP) with a view to eradicate malaria from the country. The strategy was highly successful and the cases were reduced to about one lakh and deaths due to malaria were eliminated by 1965-66. However, operational, financial and administrative constraints led to a countrywide increase in the number of cases after 1967 and in 1976, a total of 6.47 million malaria cases were recorded.

In 1977 the Modified Plan of Operation (MPO) was launched with the immediate objective of preventing deaths and reduce morbidity due malaria. The programme was integrated with the primary health care delivery system. The blanket approach of insecticidal spraying was changed to selective indoor residual spray by stratifying areas based on cases per 1,000 populations in a year i.e. the Annual Parasite Incidence (API) of 2 and above. The cases were reduced subsequently from 6.47 million in the year 1976 to around 2.5 to 3 million cases annually till 1996. Since 1997, a declining trend has been recorded. API declined to less than 2 for the first time in 2002 and since then it is reported to be less than 2.

The areas vulnerable to malaria are largely tribal, difficult, remote, forested and forest fringe inaccessible areas with operational difficulties. The high transmission areas are the North Eastern States and largely tribal areas of Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Madhya Pradesh, Maharashtra, Orissa and Rajasthan.

The State governments are responsible for the planning, implementation, supervision and monitoring of the programme. North Eastern states are being provided 100 per cent support by Centre for implementation of the programme including operational cost.

A Grant Agreement was signed with Global Fund for AIDS, Tuberculosis and Malaria (GFATM) on 27 June 2005 for the implementation of Intensified Malaria Control Project (IMCP) in NE States (except Sikkim), selected high risk areas of Orissa, Jharkhand and West Bengal with the objectives to increase access to rapid diagnosis and treatment in remote and inaccessible areas through community participation and to encourage use of bed nets treated with insecticides (ITNs) to reduce the risk of malarial transmissions and enhance awareness about malaria control and promote community, NGO and private sector participation.

In 100 districts in 8 states, namely Andhra Pradesh, Chhattisgarh, Jharkhand, Gujarat, Madhya Pradesh, Maharashtra, Orissa and Rajasthan, 1045 PHCs predominantly inhabited by tribals were also provided 100 per cent support including operational expenses under the Enhanced Malaria Control Project (EMCP) with World Bank assistance, since 1997. World Bank New Project on "Malaria Control and Kala-azar Elimination" for a period of 5 years w.e.f. 2008-09 (commencing from 1st September, 2008) has been approved by World Bank.

FILARIA

Lymphatic Filariasis is a serious debilitating and incapacitating disease. The transmission of filaria is through mosquitoes called *Culex quinquefasciatus*. This disease has been reported from over 250 districts in 20 States and UTs wherein over 500 million people live.

The disease is targeted for Global Elimination by 2020 through annual Mass Day Administration (MDA) of single dose of anti-filarial drug. In this context, a pilot project on single dose annual mass DEC drug administration was undertaken during 1997 in 13 districts of 7 endemic states, covering a population of about 41 million. By 2003, 31 districts were brought under MDA.

The National Health Policy (2002) envisaged a goal of Lymphatic Filariasis Elimination from the country by the year 2015. In pursuance to this, Government of India launched the campaign of an annual mass drug administration (MDA) with a single dose of Diethylcarbamazine citrate tablets - the antifilaria drug in the year 2004, to the eligible population living in the risk of lymphatic filariasis. In the year 2004, 202 endemic districts of 20 states in the country with a target population of 407 million were targeted for MDA. A population of 276.7 million was covered against eligible population of 378.1 (excluding pregnant women, children below 2 years and seriously ill persons) million indicating the coverage rate of 73.19% (against eligible population).

DENGUE FEVER/DENGUE HAEMORRHAGIC FEVER

Dengue fever is a viral disease, which is transmitted by the *Aedes aegypti* mosquitoes. The *Aedes* mosquitoes breed in clean water in man made containers such as water coolers, discarded tyres, disposable cups, flower vases and other water storage containers. The first out break of Dengue fever/DHF was reported from Kolkata in 1963. All the four serotypes of dengue are prevalent in India.

In recent years, Dengue is increasingly being reported from peri-urban and rural areas, due to expanding urbanization and lifestyle changes. The most affected areas are West Bengal, Delhi, Kerala, Tamil Nadu, Gujarat, Karnataka, Maharashtra, Rajasthan, Punjab and Haryana. As there is no specific treatment for Dengue, the emphasis is on avoidance of mosquito breeding conditions in homes, workplaces and minimizing the man-mosquito contact. Community awareness and participation

as well as inter-sectoral collaboration are crucial for effective control of Dengue. In addition, enactment and enforcement of appropriate Civic bye-laws and Building bye-laws should also be stressed upon in all urban areas to prevent mosquito-bred conditions in line with the Delhi, Mumbai, Goa and Chandigarh health administrations.

CHIKUNGUNYA

Chikungunya is a debilitating non-fatal viral illness which has occurred in outbreak form in India during 2006 after a gap of 32 years. It resembles dengue fever. It is caused by Chikungunya virus. It is spread by the bite of female *Aedes* mosquitoes, primarily *Aedes aegypti*.

JAPANESE ENCEPHALITIS (JE)

Japanese Encephalitis is an acute viral illness with high case fatality and long term complications. The vector breeds in large paddy fields and similar large water bodies. The vector is an outdoor rest and feeder. The disease has acquired serious magnitude in the states of Uttar Pradesh, Andhra Pradesh, West Bengal, Assam, Tamil Nadu, Karnataka, Kerala, Bihar, Goa, and Haryana. There is no specific treatment for JE. Efforts were made by states and Govt of India to contain JE outbreaks by instituting various public health measures including selective JE vaccination. Considering the value of vaccination in prevention of JE, the Centre launched a JE vaccination programme during 2006 for children between 1 and 15 years of age in 11 districts of the 5 states of Uttar Pradesh, Bihar, Assam, Karnataka and West Bengal with using single dose live attenuated SA-14-14-2 vaccine. The programme expanded to 27 districts in 9 states during 2008.

KALA-AZAR

Kala-azar is a parasitic disease caused by *Leishmania donovani* transmitted by sandflies *Phlebotomus argentipes*. The disease is prevalent among socio-economically poorer sections of the society living in rural areas. The disease is chronic and if not treated, leads to death. Kala-azar is endemic in Bihar, Jharkhand, West Bengal and parts of Uttar Pradesh. The Central Government initiated Kala-azar control Programme from 1990-91 incorporating assistance for procurement of insecticides and anti-leishmanial drugs. The National Health Policy 2002 envisaged a goal of Kala-azar Elimination by the year 2010. To pursue the goal of elimination of Kala-azar by the year 2010, the Govt of India is providing 100% support to endemic states since 2003, apart from regular technical guidance. Timely and quality Indoor Residual Spraying with DDT for vector control, complete treatment of patients as well as intensive social mobilization is being stressed upon. Govt. of India has accelerated the Kala-azar elimination by taking the following renewed efforts.

1. Intensification of Kala-azar Case Search through Kala-azar Fortnight.
2. Patient Coding Scheme initiated in all treatment centres to ensure complete treatment compliance.
3. Introduction of rapid diagnostic test (rk39) and oral drug miltefosine for early detection of Kala-azar and better treatment compliance.
4. Identification of Kala-azar activist amongst the affected communities and mobilization of the community for early reporting and treatment compliance.

TUBERCULOSIS

Tuberculosis is a major public health problem in India. India accounts for one-fifth of the global TB incidence and is estimated to have the highest number of active TB

cases amongst all the countries of the World. Every year there are approximately 18 lakh new cases in the country of which approximately 8 lakh are new smear positive and therefore infectious. Each sputum positive case if not treated, on an average, infects 10-15 persons in a year. Two persons die from TB in India every three minutes-more than 1,000 people every day.

To control TB, National Tuberculosis Control Programme (NTCP) is in operation in the country since 1962. This could not achieve the desired results. Therefore, it was reviewed by an expert committee in 1992 and based on its recommendations, Revised National TB Control Programme (RNTCP), which is an application to India of WHO-recommended strategy of Directly Observed Treatment Shortcourse (DOTS), was launched in the country on 26 March 1997. The objectives of RNTCP are (i) to achieve and maintain a cure rate of at least 85% among newly detected infectious TB cases and (ii) achieve and maintain detection of at least 70% of such cases in the population. RNTCP was implemented in the country in a phased manner and by 23rd March 2006 the entire country had been covered under RNTCP. The Programme is being implemented with assistance from World Bank, DFID, USAID, GDF and GFATM.

Overall performance of the RNTCP for the country has been excellent with cure/treatment completion rate consistently above 85% and death rate among patients registered for treatment reduced to less than 5%. More than ninety per cent of the new smear-positive cases detected are being put under DOTS. Till date, the RNTCP has placed more than 86.4 lakh patients under treatment, averting more than 15.5 lakh deaths. Every month, more than 1,00,000 patients are placed under treatment. In 2007 alone, India placed around 14.75 cases on DOTS, more than any country in a single year in the world. The Programme envisages to develop an effective partnerships with the health care providers outside the public health system including NGOs, Private Practitioners (PPs), Corporate sectors etc.

NATIONAL LEPROSY ERADICATION PROGRAMME (NLEP)

The National Leprosy Control Programme was launched by the Government of India in 1955 based on Depsone Monotherapy. Multi Drug Therapy (MDT) came into wide use from 1982 after which the programme was re-named as the National Leprosy Eradication Programme (NLEP) in 1983. The Programme was expanded with World Bank assistance from 1993-94 to 2003-04 with the objective to achieve elimination of leprosy as a public health problem by 2005, thereby reducing the case load to less than 1,10,000 population. NLEP was decentralized to States/ District and Leprosy services were integrated with General Health Care System 2001-2002 onwards. This helped in reduction of stigma & discrimination against persons affected with leprosy (PAL). Free Multi Drug Therapy (MDT) is being provided at all sub-centres, PHCs, Government Hospitals and dispensaries on all working days.

Subsequent to the introduction of NRHM, Leprosy programme has also been an essential part of the Mission. The institutional mechanism available under NRHM like Rogi Kalyan Samiti, Village Health & Sanitation Committee and Panchayati Raj Institutions are being utilized for providing leprosy services. The ASHAs are involved in referral of suspect leprosy cases to nearest health facility and follow-up for their treatment completion. They are paid incentive for their services.

India achieved the goal of elimination of leprosy as a public health problem i.e. to reduce the number of cases to < 1/10,000 population) at National level in the month of December 2005 as set by National Health Policy 2002. By March 2009, the prevalence rate (PR) of leprosy in the country declined to 9.72 per 10,000 population.

As on March 2009, 32 States/UTs have achieved the goal of leprosy elimination. The remaining 3 States/UT viz. Bihar, Chhattisgarh and Dadra and Nagar Haveli are having PR more than 1 per 10,000 population. 1.34 lakh leprosy cases were detected during 2008-09 with an Annual New Case detection Rate of 11.19 per lakh population. Out of total 1.34 lakh cases discharged during 2008-09, 1.24 lakh (92.5%) completed treatment and were released as cured.

In 2008-09, 3763 (2.8% of new leprosy cases detected) grade II disability cases were detected. Although the number of disability in leprosy affected persons has reduced substantially, yet quite a backlog of cases exist for correction of their deformity. The disability Prevention & Medical Rehabilitation activities have been accelerated by increasing the number of centres providing reconstructive surgeries (RCS) to leprosy affected persons with disabilities. This will also help in regaining the status of leprosy affected persons in the government and 33 NGOs in the country providing RCS services. In 2008-09, 2960 RCS operations were conducted for disability correction.

The IEC activities have been intensified and special IEC drive on the theme 'Towards leprosy free India' has been launched since January 2008. This drive focuses on further reduction in leprosy burden, early reporting of cases & treatment completion provision of quality leprosy services and reduction in stigma & discrimination.

The Ministry as a nodal agency is coordinating with other Ministries/ Departments for amendments of various laws/ Acts which are discriminatory against persons affected with leprosy and their family members.

NATIONAL PROGRAMME FOR CONTROL OF BLINDNESS

National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100% Centrally Sponsored scheme with the goal to reduce the prevalence of blindness to 0.3% by 2020. Rapid Survey on Avoidable Blindness conducted under NPCB during 2006-07 showed reduction in the prevalence rate of blindness from 1.1% (2001-02) to 1% (2006-07)

The objectives of the programme are :-

- a) to reduce the backlog of blindness through identification and treatment of the blind;
 - b) to develop Comprehensive Eye Care facilities in every district;
 - c) to develop human resources for providing Eye Care Services;
 - d) to improve quality of service delivery;
 - e) to secure participation of Voluntary Organizations/Private Practitioners in eye Care.
- (e) to enhance community awareness on eye care.

Pattern of Assistance during 11th Five Year Plan:

The following are main features of the pattern of assistance during 11th Five Year Plan:

- a) Keeping in view austerity measures and to avoid duplicity of work, State Ophthalmic Cell has been merged with State Blindness Control Society. Due to formation of National Rural Health Mission (NRHM), State Blindness Control Society (SBCS) under NPCB has been further merged with State Health society under NRHM. District Blindness control society (DBC) under NPCB has also been merged with District Health Society under NRHM.

- b) Increase in assistance for commodity to various facilities to increase their capacity for treatment of all types of eye ailments;
- c) Facility for India-ocular Lens (IOL) implantation expanded up to Taluka level;
- d) Marginal increase in grant-in-aid to Eye Banks, Eye Donation Centres and NGOs due to escalation of costs and to improve quality of services;
- e) In addition to cataract, assistance would also be provided for other eye diseases like glaucoma, diabetic retinopathy, management of laser techniques, corneal transplantation, vitreoretinal surgery, treatment of childhood blindness etc.
- f) Assistance for construction of dedicated Eye Wards and Eye Operation Theatres in North East States and few other states as per need;
- g) Assistance for appointment of Ophthalmic manpower - Ophthalmic Surgeons, Ophthalmic Assistants and Eye Donation Counsellors - on contractual basis;
- h) Assistance for involvement of Private Practitioners in sub-district, block and village levels;
- i) Assistance for involvement of Ophthalmic equipments supplied under the programme; Development of Mobile Ophthalmic Units with Tele-ophthalmology Network and some fixed tele-models to cover difficult hilly terrains and difficult areas;
- j) Critical posts of 228 Eye Surgeons and 510 Ophthalmic Assistants sanctioned during the 9th Plan and continued during 10th Plan, would be integrated within the State Plan in a phased manner;
- k) Strengthening of Management Information System and
- l) Intensification of IEC activities.

New Initiatives during 11th Five Year Plan

1. Construction of dedicated Eye Wards & Eye OTs in District Hospitals in North-Eastern States, Bihar, Jharkhand, J&K, Himachal Pradesh, Uttarakhand and few other States where dedicated Operation Theaters are not available as per demand.
2. Appointment of Ophthalmic manpower (Ophthalmic Surgeons, Ophthalmic Assistants and Eye Donation Counsellors on contractual basis).
3. Grant-in-aid to NGOs for management of other Eye diseases other than Cataract like Diabetic Retinopathy, Glaucoma Management, Laser Techniques, Corneal Transplantation, Vitreoretinal Surgery, Treatment of childhood blindness etc of Rs. 750 per case for Cataract/IOL Implantation Surgery and Rs. 1000 per case of other major Eye Diseases as described above.
4. Development of Mobile Ophthalmic Units in NE States, Hilly States & difficult Terrains for diagnosis and medical management of eye diseases.

5. Involvement of Private Practitioners in Sub District, Blocks and village Level.
6. Maintenance of Ophthalmic Equipments supplied to Regional Institutes of Ophthalmology, Medical Colleges, District/Sub-District Hospitals, PHC/ Vision Centres.

Pilot Project on Prevention and Control of Human Rabies

To prevent human deaths due to rabies a pilot project has been initiated as a 'New Initiative' in the 11th Five Year Plan since March 2008, to be completed by March 2010. National Institute of Communicable Diseases (NICD) is the nodal agency to coordinate various activities under the project. It is being carried out in five cities viz; Ahmedabad, Bangalore, Delhi, Pune & Madurai. The focus of the pilot project is on training of health professionals about rabies and animal bite management, ensuring timely and adequate post-exposure treatment to all animal bite victims, creating awareness in the community regarding rabies, animal bites and its prevention, strengthening laboratory diagnostic capabilities, facilitating introduction of intradermal route of vaccination and sensitizing veterinarians. A total amount of Rs. 3.26 crore has been allocated for the project. An amount of Rs. 1.81 crore was released during 2008-2009 to pilot project cities to carry out various activities under the project.

- 1 Two training courses for core trainers from pilot project cities have been conducted at NCDC. The core trainers have, in turn trained doctors & para-medical staff in their respective cities.
- 1 None of the pilot project cities was using id route of inoculation of cell culture vaccine. After the initiation of the project and training, Ahmedabad, Bangalore, Pune & Madurai have implemented intradermal route of inoculation in major ARCs.
- 1 Ahmedabad, Bangalore, Pune & Madurai have strengthened one laboratory each. They have procure fluorescent microscope & conjugate.
- 1 Training has been conducted for Doctors & Laboratory technicians on lab diagnostic techniques in October 2008.
- 1 Expert group meeting to develop prototype IEC material was held at NCDC, Delhi.
- 1 The pilot project cities have translated prototype IEC material in local languages and disseminated in the form of hoarding, posters & Radio Jingles.
- 1 Baseline data has been received form pilot project cities
- 1 Scientific advisory group has been constituted to monitor the implementation & progress of project.

Pilot Project on Prevention and Control of Leptospirosis

To prevent morbidity and mortality due to Leptospirosis in human, a pilot project has been initiated as a 'New Initiative' in the 11th Five Year Plan for two years (March 2008 to March 2010). NCDC is the nodal agency and the three states under the project are Gujarat, Kerala and Tamil Nadu. The focus of the project is on early diagnosis and treatment of Leptospirosis cases, Strengthening of Laboratory and patient management facilities, trained manpower, awareness in the community and inter-sectoral co-ordination. A total amount of Rs. 2.05 crore has been allocated for the project. An amount of Rs. 99 Lakhs was released during the year 2008-09. Rs. 95.50 lakhs was allocated to pilot project states to carry out various activities.

Utilization Certificate and Statement of expenditure of Tamil Nadu (Rs. 30.00 Lakhs) and Gujarat (Rs. 35.50 lakhs) has been obtained. In the current financial year 2009-10, a sum of Rs. 80.00 Lakhs has been allocated.

Summary of Progress of activities under the pilot project:-

- 1 Baseline data till August 2009 have been collected from all the three states.
- 1 In all the districts of the project states Laboratories were identified and being upgraded. Training of laboratory personnel have been done in NCDC in Laboratory Diagnostic technique in Leptospirosis.
- 1 2 courses have been conducted to train the core trainers and in all 298 health professionals have been trained in all the three states till August 2009.
- 1 Assessment of patient management facilities was done by officials from NCDC. Uniform guidelines formulated and 5000 copies printed and disseminated.
- 1 Prototype material was developed and provided to the states for translation in local language. The material was translated and displayed at strategic points.
- 1 Intersectoral meetings were conducted in all the three project states for spreading awareness among Veterinarian and agricultural personnel.

National Tobacco Control Programme

A comprehensive tobacco control legislation titled "The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 was notified in the official gazette on 19th May, 2003. The Act is applicable to whole of India and covers all types of tobacco products. The main provisions of the Act are as follows:

- a) No person shall engage in smoking in a public place; **(Revised Rules have been notified and came into effect on 2nd October, 2008).**
- b) To prohibit direct and indirect advertisement of and provide for regulation of the trade and commerce in, production, supply and distribution of all tobacco products.
- c) There shall be a total ban on sponsoring of any sport/cultural events by cigarette and other tobacco product companies.
- d) No person shall sell tobacco products to any person below the age of 18 years. **(implemented w.e.f. 1st May 2004)**
- e) Ban of sale of tobacco products within a radius of 100 yards of educational institutions. **(implemented w.e.f. 1st December 2004)**
- f) No person shall trade in any tobacco products including imported products unless the specified warnings are indicated. **(Rules have been notified and have come into effect from 31st May, 2009)**

In order to effectively implement the tobacco control Act/Rules, create awareness about ill effects of tobacco and as an obligation for the WHO Framework Convention on Tobacco Control (FCTC) the pilot phase of National Tobacco Control Programme was launched in 2007-08 in 18 Districts of 9 States and also further upscaled to cover 24 districts of 12 States during the 2008-09. The proposed programme broadly envisages-

1. Mass media anti-tobacco campaign
2. Establishing tobacco product testing labs
3. Capacity building at the State and District level by setting up State Tobacco Control Cells and District tobacco control programme. This component would be integrated with NRHM activities.
 - a. Train the health workers, school teacher etc. on ill effects of Tobacco.,
 - b) Engage NGOs, to carry out school health campaign in the Government Schools.
4. Monitoring and evaluation including Adult Tobacco Survey (ATS)
5. Collaboration with ICAR / DARE for alternate crop to tobacco and will Ministry for Rural Development on alternate livelihood to bidi workers.

NATIONAL AIDS CONTROL PROGRAMME (NACP)

HIV/AIDS Situation in India

- a. As per revised estimates carried out during 2006 using multiple data sources, including National Family Health Survey, the number of persons living with HIV in the country is 2 to 3.1 million with an estimated adult HIV prevalence of 0.36%.
- b. The adult prevalence rate of HIV infection in the country has stabilized over the last three years. (0.41% in 2004, 0.39% in 2005 and 0.36% in 2006).
- c. Andhra Pradesh, Karnataka, Maharashtra & Tamil Nadu contribute 63% of the HIV infected persons in the country.
- d. 39.3% of the infections are in women and 3.8% in children.
- e. 84.6% of the infections were transmitted through the sexual route and peri-natal transmission accounted for 4.34% of infections. 1.8% and 1.9% of infections were acquired through injection drug use and contaminated blood and blood products respectively.
- f. The HIV prevalence among high risk groups continues to be nearly 6 to 8 times greater than that among the general population. Based on the sentinel surveillance data for 2004-2006, the districts have been classified into 4 categories. There are 156 districts in category A, 39 districts in category B, 296 in C category and 118 in D category.

NATIONAL RESPONSE UNDER VARIOUS INTERVENTIONS

Targeted Interventions for Population at High Risk

The Targeted Intervention (TI) projects aim to interrupt HIV transmission among highly vulnerable populations. Such population groups include—commercial sex workers, injecting drug users, men who have sex with men, truckers and migrant workers. As on date, 871 Targeted Interventions are operational in various states and UTs in the country. Saturation of all high risk groups through 2100 TIs and development of 50% of TIs into CBOs is the target under NACP-III. Recently, Oral Substitution Therapy (OST) has been introduced in the National Programme as a part of the Harm Reduction Strategy to bring down HIV infection among injectible drug users. The total to be covered under OST is 40,000 persons for Rs. 136 crore.

Blood Safety

About 1.1% of the transmission is through contaminated blood. The goal is to reduce the transmission through blood to less than 1%. Over 1088 blood banks have been modernized, over 59% of the total blood units collected through Voluntary Blood Donation and a system of mandatory screening of blood for HIV, Hepatitis B&C, malaria and syphilis is enforced. This has enabled reducing transmission of HIV infection through contaminated blood from about 6.07% (1999), 4.61% (2003), 2.07% (2005), 1.96% (2006) to 1.1% (2007).

The blood safety activities constitute an important component of National AIDS Control Programme, as the gap in supply and demand needs to be met to ensure availability of quality blood and blood products. The vision of blood safety activities is to ensure provision of adequate, safe and quality blood to every patient in need of transfusion in the country through a well coordinated National Blood Transfusion Services. The specific objective is to ensure reduction in sero-reactivity among Blood donors to less than 1%. Under the existing regulatory framework, all the blood units are mandatorily tested against five Transfusion Transmissible Infections (TTIs) i.e. HIV, Hepatitis-B, Hepatitis-C, Syphilis and Malaria. Only the blood units free from these TTIs are used for transfusion purposes.

4 new initiatives have recently been taken:

- 1) Constitution of 4 state of the Antiretroviral Treatment (ART) Blood Banks in the metros each with a capacity of daily collection of 1 lakh units for an outlay of Rs. 400 crore. It is under submission to the Cabinet Committee on Economic Affairs (CCEA) for approval.
- 2) A Fractionation Plant for Rs. 250 crore—under submission to the CCEA for approval.
- 3) A draft Law to regulate standards in Blood Safety—under submission to Ministry of Law.
- 4) Establishment of a National Blood Transfusion Authority.

Integrated Counseling and Testing Centres (ICTC)

About 70% of HIV infected are not aware about their status and there is need to extend access to the counseling and testing facilities and increase demand generation. The ICTCs have been established at medical colleges, district hospitals, sub district level hospitals and few community health centres and it is proposed to further extend the services to all the CHCs and 24 hours PHCs in the country.

Prevention of Parent to Child Transmission

All the ICTCs centres are now providing counseling and testing services to pregnant women. Hospitals with large number of ANC's & institutional deliveries provide an ICTC in the Obstetrics & Gynaecology department. The programme aims at increasing the proportion of women counseled and tested, specially in category A&B districts and the coverage of HIV positive women with nevirapine to 70% in the next year. The high dropout rates need to be addressed and awareness levels and demand for services improved.

Sexually Transmitted Infections (STI)

The number of STI clinics being supported by NACO has increased from 815 in 2005 to 895 in 2007. The reported number of patients treated for STI in 2005 was over 16.7

lakh, in 2006, 20.2 lakh and in 2007, it has increased to 25.9 lakh. The baseline survey carried out in 2001 indicated that at any given time 6% of the adult population had symptoms of STI. There is, thus, very large gap between the estimated number of STI patients and those reported to have sought treatment in government health facilities. During 2006, NACO and RCH division jointly a manual on management of STIs, so as to strengthen the services in the government health facilities and also to involve the physicians working in the private sector. Joint training material has also been developed. A package for involvement of private physicians in the Category A&B districts has been developed. Medicines are under procurement in coloured cartons for each STI syndrome to facilitate the management of STI in the peripheral health facilities.

Care and Support

Government of India announced a policy cum programme commitment for providing free ART with effect from 1st April, 2004. Antiretroviral treatment (ART) is a combination of at least 3 ARV drugs that is given to HIV infected individuals once they reach a stage of advanced immuno-suppression. At present there are 174 ART centres in the country. More than 1.46 lakh patients are receiving free ART at these centres (May, 2008). In addition nearly 35,000 patients are receiving ART in private and NGO sector. Second line ARV drugs are being provided free of cost at Mumbai and Chennai from 2008. A total of 159 community care centres have also been established in high prevalence states to enable People Living with HIV/AIDS (PLHA) to get used to ART, to provide Counseling & follow-up advice on drug adherence, management of opportunistic infections and Nutrition Counseling, to provide pre-ART care for those PLHA who are not yet on ART through outreach and home-based services. To reduce inconvenience and indirect expenditures of patients, 46 drug dispensing centres have been established linked to the ART centre. These link centres will require the patients to go to the ART centres only 2 times instead of 12 as at present. Second line treatment has been introduced on a pilot basis in 2 centres and 42 persons are being treated.

National Paediatric AIDS Initiative

In order to provide comprehensive Care & Support (including ART) to children infected and affected by HIV, NACO has launched National Paediatric AIDS Initiative on 30th November, 2006. For this initiative NACO, along with the Indian Academy of Paediatrics (IAP), UNICEF, WHO and Clinton Foundation, has developed guidelines for paediatric ART. ARV drugs in paediatric formulations are available at all ART centres. Number of children receiving ART increased from 1800 before October 2006 to 9925 in May 2008. 32,500 are reported and being monitored. Other activities under this initiative include establishment of seven Regional Paediatric Centres, free CD4 monitoring, free DNA PCR test for children up to 18 months, liquid formulations for babies weighing less than 5 kg, diagnosis and treatment of opportunistic infections and micro nutrient supplementation. The initiative also includes training of paediatricians and counselors, establishing laboratories for diagnosis, introduction of Dried Blood Support system to transport dried blood samples. Care and Support for CLHA (Children Living with HIV/AIDS) orphans and vulnerable children forms an integral part of NACP III.

Condom Promotion

Condom programme is central to HIV/AIDS prevention at the intervention level. The use of condoms is promoted as a protection against STIs and HIV/AIDS in addition,

to Family Planning. Condom use is promoted and condoms provided at all ICTCS and ART centres and also the STI clinics. In 2006, 1250 million condoms were supplied free, 604 million were distributed through social marketing while 389 million through commercial marketing. 11025 Condom Vending Machines have been installed and another 11000 are in the process of being installed. 3.5 billion condoms are targeted to be distributed through 3 million outlets during NACP-III.

Information , Education and Communication activities (IEC)

NACO is working on a communication strategy which is a shift from awareness generation to bringing about behaviour change. NACO has focused on reduction of stigma and discrimination, promotion of services viz., counseling & testing, ART, routinisation of condom use and blood safety. Special emphasis has been given to youth and women who are more vulnerable to HIV infection. A cadre of village level Link workers are going to be set up in A & B category districts for focused interventions of BCC. Intensive IEC among general populations has resulted in increasing awareness of HIV/AIDS among rural populations to about 75% (BSS 2006). Under the adolescent education program, over 1,14,345 high schools have been covered with HIV/AIDS and life skill education programs. The Red Ribbon Express launched on 1.12.2007 has traversed over 180 stations and 27,000 kms. It has drawn huge crowds at all the stations.

Mainstreaming

In order to reiterate the Government's multisectoral response to prevent the spread of HIV and to facilitate a strong multi-sectoral response to combat it effectively, a National Council on AIDS (NCA) has been constituted, under the chairmanship of Hon'ble Prime Minister with representation of 33 ministries and departments. Private sector, civil society organisation, PLHA networks and government departments would all play crucial role in prevention, care, support, treatment and service delivery.

National Iodine Deficiency Disorders Control Programme

Iodine is an essential micronutrient with an average daily at 100-150 micrograms for normal human growth and development. Deficiency of Iodine can cause physical and mental retardation, cretinism, abortions, stillbirth, deaf mutism, squint & various types of goiter. Results of sample surveys conducted in 325 districts covering all the States/Union Territories have revealed that 263 districts are endemic where the prevalence of Iodine Deficiency Disorders is more than 10%. It is estimated that more than 71 million persons are suffering from goiter and other Iodine Deficiency Disorders.

The Government is implementing the National Iodine Deficiency Disorders Control Programme (NIDDCP) formerly known as National Goitre Control Programme (NGCP) since 1962 a 100% centrally assisted programme with a focus on the provision of iodised salt, IDD survey/resurvey, laboratory monitoring of Iodated salt and Urinary Iodine excretion, health education and publicity. The annual production of Iodated salt is about 52.00 lakh M.T. Government of India has banned the sale of non-iodated salt in the entire country for direct human consumption under Prevention of Food Adulteration Act, 1954 with effect from 17th May, 2006.

For effective implementation of the Programme at the State level, the Ministry of Health is providing financial assistance to all the States/UTs for establishment of an IDD Control Cell and IDD Monitoring Laboratory in addition to assistance for conducting surveys and Health Education & Publicity for consumption of iodated salt by the population.

The Ministry of Health is also conducting Information, Education and Communication.

National Mental Health Programme (NMHP)

Severe mental disorders that include schizophrenia, bipolar disorder, organic psychosis and major depression affect nearly 20 per 1000 population. This is a population that needs continuous treatment and regular follow-up attention. Close to ten million severely mentally ill are in our country without adequate treatment by this estimate. More than half remain never treated. Lack of knowledge on the treatment availability & potential benefits of seeking treatment are important causes for the above. With a large population in our country on one hand and very few psychiatrists being available on the other hand, less than one psychiatrist is available for every 3 lacs population. The psychiatrist/population ratio in rural areas that account for 70% of country's population, could well be under one for every million.

To address this huge burden National Mental Health Programme was started in 1982 with the following three objectives:

- 1 To ensure availability and accessibility of minimum mental health care for all in the near foreseeable future, particularly to the most vulnerable sections of the population.
- 1 To encourage mental health knowledge and skills in general health care and social development.
- 1 To promote community participation in mental health service development and to stimulate self-help in the community.

A model delivery of community based mental health care at the level of district was evolved and field tested in Bellary district of Karnataka by NIMHANS between 1986-1995. This model was adapted as the District Mental Health Programme (DMHP) and it was implemented in 27 Districts across 22 states/UTs in the IXth plan beginning in the year 1996.

During the 10th Five Year Plan, NMHP was restructured and it became from single pronged to multi-pronged programme for effective reach and impact on mental illnesses, main strategies were as follows :

- 1 Expansion of DMHP to 100 districts all over the country.
- 1 Modernization of Mental Hospitals.
- 1 Upgradation of Psychiatry wings of Govt. Medical Colleges/General Hospitals.
- 1 IEC Activities.
- 1 Research & Training in Mental Health for improving service delivery.

Currently, the District Mental Health Programme is under implementation in 123 Districts throughout the country. Grants have also been released for upgradation of Psychiatric wings of 75 Government Medical Colleges/General Hospitals and modernization of 26 Mental Hospitals.

During the 11th Five Year Plan an allocation of Rs. 1000 crore has been made for the National Mental Health Programme. During the 11th Five Year Plan, it has been proposed to decentralize the Programme and synchronize with National Rural Health Mission for optimizing the results. The main components of NMHP have been proposed are as under :

- (i) To establish Centres of Excellence in Mental Health by upgrading and strengthening of identified existing mental hospitals for addressing acute manpower shortage.
- (ii) To provide impetus for development of Manpower in Mental Health, other training centres (Govt. Medical Colleges/General Hospitals etc.) would also be supported for starting PG courses in Mental Health or increasing intake capacity.
- (iii) Spill over of 10th Plan schemes for modernization of state run mental hospitals and upgradation of psychiatric wings of medical colleges/general hospitals.
- (iv) District Mental Health Programme with added components of Life Skills training and counseling in Schools, counseling service in colleges, work place stress management and suicide prevention services.
- (v) Research—There is huge gap in research in mental health which needs to be addressed.
- (vi) IEC—A lot of stigma is attached to mental illnesses. It needs to be stressed that the mental illness is treatable. An intensive media campaign is planned for 11th Plan duration.
- (vii) NGOs and Public Private Partnership for implementation of the Programme. This would increase the outreach of community mental health initiatives under DMHP.
- (viii) Monitoring Implementation & Evaluation—Effective monitoring at Central/State/District level will facilitate implementation of various components of NMHP.

Yaws Eradication Programme (YEP)

- 1 Yaws Eradication Programme (YEP) was launched as a centrally sponsored scheme in 1996-97 in Koraput district of Orissa, which was subsequently extended to cover all 51 yaws endemic districts in ten states (Andhra Pradesh, Orissa, Maharashtra, Madhya Pradesh, Chattisgarh, Tamil Nadu, Uttar Pradesh, Jharkhand, Assam and Gujarat) during 9th Plan period.
- 1 The programme basically aims to reach the un-reached tribal areas of the country.
- 1 National Centre for Disease Control (NCDC) (formerly: National Institute of Communicable Diseases) has been identified as the nodal agency for the planning, monitoring and evaluation of the programme. The Programme is implemented by the endemic State Health Directorates through the existing health care system.
- 1 Strategy for YEP included:
 - ¶ Case finding: Active case search, passive surveillance, rumor reporting
 - ¶ Treatment of cases and contacts.
 - ¶ Manpower development
 - ¶ IEC activities
 - ¶ Multisectoral approach
- 1 As a result of YEP, the number of reported cases has come down from 3,571 in 1996 to 46 in 2003. No Yaws case reported from 2004 till date.

- 1 Yaws elimination was declared on 19th September 2006.
- 1 Under the programme twice a year house-to-house search is being organized for detection and treatment of yaws cases and contracts.
- 1 Steps to take the sero-survey (1-5 year old children) following the Yaws elimination have been initiated to confirm that transmission of Yaws has stopped in endemic areas of the country.

Guinea Worm Eradication Programme (GWEP) in India

- 1 In 1983-84, National Institute of Communicable Diseases (NICD) was made the nodal agency by the Ministry of Health & Family Welfare, Govt. of India, for planning, co-ordination, guidance and evaluation of Guinea Worm Eradication Programme (GWEP)
- 1 At the beginning of the Programme i.e. in 1984, about 40,000 GW cases were reported annually in 12,840 guinea worm endemic villages across 89 districts of the then endemic states, viz. Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra and Rajasthan. The State of Tamil Nadu remained free from GW disease since 1982. The last case from Maharashtra occurred in 1992 and in 1994 in Karnataka and Madhya Pradesh. Andhra Pradesh and Gujarat reported their last cases in 1990. The last guinea worm case was reported in July 1996 Jodhpur district of Rajasthan.
- 1 Simple technologies like filtering drinking water through a cloth and by providing basic health education enabled India to achieve Dracunculiasis Eradication. There is no other disease education or elimination effort that is being achieved with such a cheap & simple method.
- 1 International Certification Team (ICT) of International Commission for Certification of Dracunculiasis Eradication (ICCDE), World Health Organization certified India as free from guinea worm disease on 15th February, 2000. However, team recommended routine surveillance and IEC to be continued till global eradication of the disease, which are being undertaken in all formerly guinea worm disease endemic states.
- 1 A monograph "Guinea Worm Disease in India" was published and released in 2001 by the Ministry of Health and Family Welfare, Govt. of India.
- 1 No case has been reported so far.

NATIONAL CANCER CONTROL PROGRAMME

Cancer is an important public health problem with 7 to 9 lakh cases occurring every year. At any point of time, it is estimated that there are nearly 25 lakh cases in the country. Four lakh deaths are estimated to occur every year due to cancer. Forty per cent of the cancers in the country are due to tobacco. Hence Tobacco-related cancers are very common among males, namely, cancer of the lungs and oral cavity. Among women, cancer of uterine cervix and breast are common.

The National Cancer Control Programme was launched in 1975-76 with the objectives of primary prevention, early detection, treatment and rehabilitation. In order to cater to the changing needs of the disease, the programme has undergone three revisions with the third revision completed in December 2004. Under the revised

programme, the primary focus is on correcting the geographic imbalance in the availability of cancer care facilities across the country. The scope of the programme and the quantum of assistance under the various schemes have been increased. There are 5 schemes under the Revised Programme :-

1. Recognition of new Regional Cancer Centres (RCCs) by providing a one-time grant of Rs. 5 crore.
2. Strengthening of existing RCCs by providing a one-time grant of Rs. 3 crore.
3. Development of Oncology Wings by providing enhanced grant of Rs. 3 crore to the Govt. institutions (Medical Colleges as well as government hospitals).
4. District Cancer Control Programme by providing the grant-in-aid of Rs. 90 lakh spread over a period of 5 years.
5. Decentralized NGO scheme by providing a grant of Rs. 8000 per camp to the NGO for IEC activities.

Guidelines for the durable scheme are available on the officers report of the Ministry of Health :

- 1 As of now, there are 25 Regional Cancer Centres providing comprehensive cancer care services. There are 210 institutions possessing radiotherapy installations.
- 1 A National Strategic Task Force has been constituted to formulate a strategy for the National Cancer Control Programme for the Eleventh Five year Plan.
- 1 Training: In order to increase the capacity of the health staff at all levels of health care, training manuals have been developed in cancer control, tobacco cessation, cytology and palliative care.
- 1 Onconet-India: C-DAC Trivandrum has been entrusted with the responsibility of preparing the DPR for Operationalisation of Onconet India. Under the project all 25 RCCs will be linked with each other and also each RCC would in turn be linked to 5 peripheral centres.
- 1 Membership of IARC: India has become a member of the International Agency for Research in Cancer that shall provide a fillip to cancer research in the country.
- 1 National Cancer Awareness Day : November 7th, the birth anniversary of Madame Curie is observed as the National Cancer Awareness Day. Number of banners are displayed for creating awareness among the general masses about cancer on the day.

HEALTH MINISTER'S CANCER PATIENT FUND UNDER "RAN"

The "Health Minister's Cancer Patient Fund" (HMCPF) within the Rashtriya Arogya Nidhi (RAN) Scheme has also been set up in 2009. In order to utilize the HMCPF, it is proposed to establish the revolving fund like RAN in the Various Regional Cancer Centre(s) (RCCs) which are getting fund for equipments from Cancer Programme of Govt. of India. Such step would ensure and speed up financial assistance to needy patients and would help to fulfil the objective of HMCPF under RAN. The Financial Assistance to the Cancer Patients up to Rs. 1,00,000/- (Rs. one lakhs only), would be processed by the concerned Institute/Hospitals on whose disposal, the revolving fund has been placed. The cases of financial assistance above this limit would be referred by the Hospitals/Institutes for assistance from Central Funds. Initially, 27 Regional Cancer Centres have been proposed, for whom revolving funds of (Rs.10.00 lakhs) have been released.

EMERGENCY MEDICAL RELIEF

In 2008, in Bihar, due to a breach in the river Kosi near Indo-Nepal border, its course changed and shifted over 120 km eastwards. As a result, large areas of Supaul, Madhepura, Katihar, Saharsa and Araria were inundated and affected severely. Emergency Medical Relief measures included assessment of the situation by a high level team which recommended strengthening the public health system to prevent water borne, vector borne and respiratory diseases, stationing of six central public health teams in worst affected districts to monitor public health measures. The activities included measles vaccination for the age group of 6 months to 14 years and maternal healthcare and vector control measures. All logistic support were provided by supplying essential medicines. In addition to this 50 ambulances were mobilized from Gujarat, Andhra Pradesh, Delhi and Central Govt. Hospitals and deployed in the affected areas for more than a month. The State of Orissa was also affected by floods and State was supported with Emergency medical supplies. The public health situation was monitored in the flood affected States and there was no outbreak of diseases.

Ministry of Health and Family Welfare was represented in the central damage assessment teams of the Ministry of Home Affairs which visited flood affected states of Punjab and Bihar.

Advanced HAZMAT Life Support (AHLS) is the most comprehensive training program available in USA to provide the critical skills needed to treat victims exposed to toxic substances and covers acts of terrorism, industrial accidents, chemical spills etc. The program enables the hospital and pre-hospital medical professionals to be able to rapidly recognize the symptoms of toxic exposure and immediately provide appropriate treatment. This training course was organized in New Delhi from 5th to 9th March, 2009. Two providers course led to training of 77 doctors in AHLS. Twenty one of them have been identified for instructor course and trained. Instructors have been identified in apex training institutes for future training. This training has enhanced specialized capability in health sector for the Commonwealth Games-2010.

EMR division coordinated outbreak investigations in the States of Manipur and West Bengal [children deaths], Gujarat and Andaman Nicobar Islands [leptospirosis] and Assam [Cholera]. Ministry of Health & Family Welfare deputed a high level central team to the affected areas and assessed the situation. The concerned state governments were advised on prevention and containment measures.

Avian Influenza preparedness plan has been reviewed. Necessary logistics in terms of Oseltamivir [drug for prophylaxis and treatment of human cases of Avian Influenza] Personal Protective Equipments and Ventilators have been stockpiled. The IEC campaign was launched over prime channels. IEC material has been translated in regional languages. Logistic support has been provided to all Avian Influenza affected States. Financial assistance has been provided to Govt. of West Bengal and Assam.

Training activities for all the States have been completed. This includes. Table Top exercises for the States health administrators to review their plan, refresher training for Rapid Response Teams and training of clinicians have been carried out on regional basis.

Avian Influenza outbreak were notified in West Bengal, Sikkim, Assam and Tripura and the outbreaks were contained.

Prevention of Food Adulteration Programme

The Ministry of Health and Family Welfare is responsible for ensuring safe food to the consumers. Keeping this in view, a legislation called "Prevention of Food Adulteration Act, 1954" was enacted. The objective envisaged in this legislation was to ensure pure and wholesome food to the consumers and also to prevent fraud or deception. The Act has been amended thrice in 1964, 1976 and in 1986 with the objective of plugging the loopholes and making the punishments more stringent and empowering Consumers and Voluntary Organisations to play a more effective role in its implementation.

The subject of the Prevention of Food Adulteration is in the concurrent list of the constitution. However, in general, the enforcement of the Act is done by the State/U.T Governments. The Central Government primarily plays an advisory role in its implementation besides carrying out various statutory functions/duties assigned to it under the various provisions of the Act.

The laws regulating the quality of food have been in force in the country since 1899. Until 1954, several States formulated their own food laws. But there was a considerable variance in the rules and specifications of the food, which interfered with inter-provincial trade. The Central Advisory Board appointed by the Government of India in 1937 and the Food Adulteration Committee appointed in 1943, reviewed the subject of Food Adulteration and recommended for Central legislation. The Constitution of India provided the powers to Central Government for making such legislation as the subjects of Food and Drugs Adulteration are included in the concurrent list. The Government of India, therefore, enacted a Central Legislation called the Prevention of Food adulteration Act (PFA) in the year 1954 which came into effect from 15 June, 1955. The Act repealed all laws, existing at that time in States concerning food adulteration.

In India, a three-tier system is in vogue for ensuring food quality and food safety. They are:(a) Government of India; (b) State/UT Governments;(c) Local Bodies.

The Prevention of Food Adulteration Act is a Central legislation. Rules and Standards framed under the Act are uniformly applicable throughout the country. Besides, framing of rules and standards, the following activities are undertaken by the Ministry of Health and Family Welfare.

- (1) Keeping close liaison with State/local bodies for uniform implementation of food laws .
- (2) Monitoring of activities of the States by collecting periodical reports on working of food laws, getting the reports of food poisoning cases and visiting the States from time to time.
- (3) Arranging periodical training programme for Senior Officer/Inspector/Analysts.
- (4) Creating consumer awareness about the programme by holding exhibitions/seminars/training programmes and publishing pamphlet'.
- (5) Approving labels of Infant Milk Substitute and Infant food, so as to safeguard the health of infants.
- (6) Coordinating with international bodies like ISO/FAO/WHO and Codex.
- (7) Carrying out survey-cum-monitoring activities on food contaminants like colours.
- (8) Giving administrative/financial/technical support to four Central Food Laboratories situated in Kolkata, Ghaziabad, Mysore and Pune and providing technical guidance to the food laboratories set up by the States/Local Bodies.
- (9) Holding activities connected with National Monitoring Agency vested with powers to decide policy issues on food irradiation.
- (10) Formulation of Manual on food analysis method.

The Ministry of Health and Family Welfare is designated as the National Codex Contact Point in India to examine and formulate India's views on the agenda for the various meeting of Codex Alimentarius Commission, a joint venture of FAO/WHO dealing with International Food Standards and its subsidiary committees. The Ministry of Health and Family Welfare constituted a National Codex Committee (NCC) and an Assistant Director General (PFA) has been working as Liaison Officer for NCC. The NCC has further constituted 24 Shadow Committees corresponding to various Codex commodities committees for preparation and finalization of India's stand.

India has been regularly attending the various sessions of the Codex Alimentarius Commission and various Codex Commodity Committees to put forward her views and defend these views.

Harmonisation of PFA with Codex : After signing the Sanitary and Phytosanitary (SPS) and Technical Barrier to Trade (TBT) agreements by India and removal of quantitative restrictions on import of food products into India, the exercise of harmonization of standards for food products, use of food additives, microbiological requirements, harmonization of regulations, in line with international standards prescribed by Codex Alimentarius Commission and International Standards Organisation (ISO) had been initiated.

Role of State/UT Governments: Enforcement of the food laws primarily rests with the State/UTs. There are 28 States and 7 Union Territories in the country. The implementation of the Act in most of the States is under the administrative control of the Directorate of Health Services, whereas, in a few States, the implementation is being combined with Drugs Administration under the Joint Food and Drug Administration. The implementation has been left to the administrative setup of the States, but it has been stressed on the States that whatever the structure be, there should be a whole-time Senior Officer duly qualified and experienced in Food Science, Food Technology, Food Analysis with other supporting officers and inspectors. State Governments are also empowered to make rules laying down details of licensing conditions of food, the establishments of food industries and prescribing licence fees.

The provisions under PFA Rules have been amended nearly 360 times and standards of around 250 articles of food which are of mass consumption have been prescribed. While making amendments, standards formulated by Codex/ technological development in the food industry sector/dietary habits/nutritional status of our population, social/cultural practices are taken into consideration.

By and large, in most of the States, implementation in corporation/municipal area rests with the Local Bodies which employ their own food inspectors. Licensing of food industries/establishments is also left to them.

There are 72 food laboratories in the country at District/Regional or State level in addition to four Central Food Laboratories set-up by the Central Government. Almost every State has got one or more laboratory depending upon its need. About 12 of these laboratories are under the administrative control of the local bodies whereas the remaining ones are under the administrative control of the State Government.

Following constraints have been noticed in the programme: -

- (1) Shortage of Food Inspectors with the States/Local Bodies,
- (2) Deficiency in the testing laboratories on the following counts:
 - (a) Inadequate trained manpower,

- (b) Inadequate testing facilities,
 - (c) Non-availability of sophisticated equipment,
 - (d) Inadequate budgetary provision,
 - (e) Non-availability of reference standard material,
- (3) Non-availability of programme officer for PFA with the State/Local Bodies at State and District levels,
 - (4) Non-availability of separate legal cell for trial of PFA cases with the State/Local Bodies,
 - (5) Non-availability of regular refresher training programme for all the functionaries.

Efforts of Central Government for Solving the Constraints:

- (1) Refresher training programmes are being arranged for all the functionaries namely:- (a) Food Inspectors, (b) Local (Health) Authorities, (c) Food (Health) Authorities, (d) Public Analyst and Chemist. Training for Analysts and Chemists are being organized in their own laboratories by trainer deputed by the Central Government. These trainers stay in one lab for six working days and first of all they setup the laboratory as per Good Laboratory Practices and thereafter, the specific training is organized.
- (2) Sophisticated equipments are being supplied to State Food Testing Laboratories so that at least one laboratory in each State is appropriately strengthened. Efforts are being made to ensure that warranty of the equipment so supplied are for minimum 3 years along with consumables and proper trainings is provided to the analysts/chemists by the supplier for handling and running the equipment.
- (3) Efforts are also being made to ensure that each State is linked electronically with its District Headquarters. The expenditure for this is proposed to be provided from the World Bank Assisted Capacity Building Project for food and drugs being implemented by the Central Government. This will facilitate smooth sharing of information and networking.
- (4) Efforts are being made to provide at least one analyst from the Central Budget through the World Bank Assisted Project in each Food Testing Lab for a period of 5 years.
- (5) Standard reference material for pesticides, listed under Rule 65 of PFA Rules, all the metals listed under Rule 57 of the PFA Rules and aflatoxin are being supplied to one lab in each State.
- (6) Books on methods of analysis like AOAC, Pearson, Food Chemical Codex, have already been supplied to a majority of the laboratories.
- (7) Training programme for consumers, traders, vendors and street food hawkers have been organized and will be organized in future as a consumer education programme on food safety.
- (8) Sensitisation training programmes have been organized for Port (Health) Officers/Customs Officers/Customs House Clearing Agents and importers on various provisions of PFA Act/Rules and other provisions namely packaged Commodity Order and Customs Act, so that these officers may appropriately handle the imported food product.

The Food Safety and Standards Act, 2006: With the coming into effect of the Food Safety and Standards Act, 2006 (FSSA) enacted by Parliament in August 2006, the Prevention of Food Adulteration Act, 1954 stands repealed from the date on which Food Safety and Standards Act comes into force on such date as the Central Government may, by notification in the Gazette.

Notwithstanding the repeal of the enactment and Orders specified in the Second Schedule, the standards, safety requirements and other provisions of the Act and the rules and regulations made there under and Orders listed in that Schedule shall continue to be in force and operate till new standards are specified under this Act or rules and regulations made thereunder.

Provided that anything done or any action taken under the enactment and Orders under repeal shall be deemed to have been done or taken under the corresponding provisions of this Act and shall continue in force accordingly unless and until superseded by anything done or by any action taken under this Act.

World Bank Assisted-Capacity Building Project on Food Safety

As trade in food commodities expands globally, food safety can no longer be considered a mere domestic issue. The agreements under the WTO require the development of modern food control and safety programs by national Governments. The issue does not relate only to end product parameters but also to process control.

In order to strengthen the food safety infrastructure in the country, a 5 year World Bank Aided Capacity Building Project for Food Safety and Quality Control of Drugs has been launched by the Central Government.

The Project Objectives/Components are as below: (i) To enhance the capacities of laboratories at the State and Central levels through infrastructure strengthening and training of personnel to upgrade their existing skills. It is separately proposed that only those labs be allowed to do statutory testing which are accredited to NABL (National Accreditation Board for Testing and Calibration Laboratories). (ii) To introduce GMP (Good Manufacturing Practice) and HACCP (Hazard Analysis and Critical Control Points) in the medium and small-scale food processing operations and upgrade facilities in the laboratories including testing for microbiological contamination. (iii) to create greater awareness of food safety and hygiene in the small, cottage and unorganised sectors including the street food sector through training. (iv) to develop a system of continuous surveys of households to get client perceptions which will provide substantive inputs for policy development and program improvements. (v) Setting up of Management Information System and electronic linkages between Central and State Offices and Central and State Labs in the area of food to ensure better monitoring and data collection.

MEDICAL COUNCIL OF INDIA

The Medical Council of India (MCI) was established as a statutory body under the provisions of the Indian Medical Council Act 1933 which was later repealed by the Indian Medical Council Act 1956 with minor amendments in 1958. A major amendment the I.M.C. Act 1956 was made in 1993 making it mandatory for obtaining the approval of the Ministry of Health & Family Welfare for opening new medical colleges/increasing seats, starting new courses in order to regulate the standard of medical education in the country. The I.M.C. Act 1956 was further amended in 2001 to enable the Medical Council of India to conduct Screening Tests for Indian nationals holding foreign medical qualifications to test their skill before granting them

registration to practice medicine in India. Through the same amendment Act, it has been made mandatory for Indian students desirous of taking admission in an undergraduate medical course in an Institute abroad to obtain an Eligibility Certificate from the MCI stating that he/she conforms to the norms laid down by the MCI for this purpose. The main functions of the Council are maintenance of uniform standard of medical education both at the undergraduate and the postgraduate levels; maintenance of Indian Medical register; reciprocity with foreign countries in the matter of mutual recognition of medical qualifications; continuing medical education and granting of provisional/permanent registration of doctors with recognized medical qualifications, registration of additional qualifications and issue of Good Standing Certificate for doctors going abroad to Commonwealth countries. At present there are 264 medical colleges in the country out of which 185 medical colleges have been recognized by MCI and 90 new medical colleges have been permitted by the Central Government to conduct MBBS courses. The admission capacity in these colleges is approximately 30,122 students per year.

CENTRAL HEALTH EDUCATION BUREAU

Central Health Education Bureau (CHEB) is an apex institution which had a humble beginning on 6th of December in 1956 under Directorate General of Health Services (DGHS), Ministry of Health and Family Welfare, Government of India, for the health education and health promotion in the country with the following Objectives: (a) Interpret the plans, programmes and achievements of the Ministry of Health and Family Welfare. (b) Design, guide and conduct research in health behavior, health education process and aids. (c) Produce and distribute "Proto-type" Health Promotion and Education material in relation to various health problems and programmes in the country. (d) Train key health and community welfare functionaries in health education and research methods and evolve effective methodology and tools of training. (e) Help schools and teacher training institutes for health education of the school population. (f) Provide guidelines for the organizational set-up, functioning of health education units at the state, district and other levels. (g) Render technical help to official and non-official agencies engaged in health education and coordinate their programmes. (h) Collaborating with international agencies in promoting health education activities.

The Bureau, located in New Delhi, is headed by a Director, an SAG level officer who is assisted by a team of officers in different disciplines. CHEB is accessible through internet at website- <http://.cheb.nic.in> and with e-mail : dir.cheb@nic.in

Responding to the current challenges and needs in the field of health education and promotion, CHEB has reorganized its divisions into four technical and one administrative Division. Each division is headed by a senior officer.

The key functions of CHEB presently include imparting long-term and short-term training programmes to different levels of health and non-health professionals. The Bureau is conducting a two-year Post Graduate Diploma in Health Education (DHE) which is recognized by the Medical Council of India and is affiliated to Delhi University.

The Bureau produces prototype health education and health promotion materials on different health issues both in print and electronic media like posters, leaflets, pamphlets, audio- visual spots (for telecasting on TV Channels, and narrowcast in events such as Health melas/exhibitions health awareness campaigns).

The Bureau participates in various health meals/ national level exhibitions and puts up exhibitions on various health issues for mass awareness. Press advertisements are given as apart of the observance of commemorative days and weeks.

RASHTRIYA AROGYA NIDHI (RAN)

Rashtriya Arogya Nidhi was set up under the Ministry of Health & Family Welfare in 1997. The scheme provides for financial assistance to patients, living below poverty line who is suffering from major life threatening diseases, to receive medical treatment at any of the super specialty hospitals/institutes or other Govt. hospitals. The financial assistance to such patients is released in the form of "one time grant" to the Medical Superintendent of the hospital in which the treatment is being received. For providing financial assistance to the needy patients, an advanced of Rs. 10.00 to 40.0 lakhs are kept with the Medical Supdts. of the AIIMS, New Delhi, Dr. RML Hospital, Safdarjung Hospital, Lady Harding Medical College & Smt. S.K. Hospital, New Delhi, PGIMER, Chandigarh, JIPMER, Puducherry, NIMHANS, Bangalore, CNCI, Kolkata, SGPGIMS, Lucknow, Gandhi Memorial & Associated Hospitals (KGMC) Lucknow, RIMS, Imphal and NEIGRIHMS, Shillong to enable sanction of an amount up to Rs. 1,00,000/- in each deserving case reporting for treatment in the respective Hospitals/ Institute. Under the scheme, Central Government also provides Grant in aid to States/Union Territories (with legislature) to set up state illness fund to the extent of 50% of contribution made by State Govt/Union Territories. Govt. of Andhra Pradesh, Maharashtra, Mizoram, Rajasthan, Sikkim, Tamil Nadu, Tripura, West Bengal, Himachal Pradesh, Gujarat, Bihar, Goa, Chhattisgarh, Madhya Pradesh, Jharkhand, Uttarakhand, Haryana, Uttar Pradesh and Punjab including NCT of Delhi and Union Territory of Puducherry have set up such funds. Financial Assistance is given to patients living in their respective States/UTs under State illness fund up to Rs. 1.5 lakhs in an individual case. However, in cases where the quantum of financial assistance is likely to exceed Rs. 1.5 lakhs, those are referred to RAN for consideration. As per recent decision. all applicants receiving treatment in Delhi Hospitals are Eligible for receiving Grants under Rashtriya Arogya Nidhi.

EMERGENCY FACILITIES ON NATIONAL HIGHWAYS

Under the project for the up-gradation and strengthening of emergency facilities of State Hospital of towns/cities located on National Highways, the government provides financial assistance to the maximum of Rs. 1.50 crore or the actual requirement of the hospital, whichever is less, to augment and upgrade the Accident and Emergency Services in selected State Government Hospitals which fall in most accident prone areas of National Highways. The aim of the scheme is to augment the Accident and Emergency Services by release of grants-in-aid direct to the Government Hospitals/ Institutions of State Government/UT Administration for: (i) Purchase of well-equipped ambulances and basic essential equipment required for Accident and Trauma Services; (ii) Communication System;(iii) Infrastructure (Blood Bank, Examination Room, Resuscitation, ICU & Burn Beds (7), X-Ray Room, Reception, Control, Minor OT; and (iv) Beds and Equipment.

NATIONAL ACADEMY OF MEDICAL SCIENCES (INDIA), NEW DELHI

The National Academy of Medical Sciences (NAMS), New Delhi was established in 1961 as a Non-Official body of Bio-Medical scientists with the object of promotion and encouragement of merit in medical sciences. The fellowship of the Academy became a coveted hallmark of distinction accorded in recognition for outstanding

achievements in sciences, education, services, etc. The Academy awards Fellowships to the most distinguished men of science. The Academy has also been implementing the Continuing Medical Education (CME) Programme since 1982. As on 25th June 2008, the NAMS has on its rolls 6 Honorary Fellows, 756 Fellows (FAMS), 4203 Members.

Pharmacy Council of India

The Pharmacy Council of India is a statutory body constituted under the Pharmacy Act, 1948. It is responsible for the regulation of pharmacy education and practice of profession in the country for registration as a pharmacist. At present, there are 497 approved institutions imparting Diploma in Pharmacy to 29,958 students per annum and 276 approved institutions imparting Degree in Pharmacy to 15,815 students per annum. At present about 5.76 lakh pharmacists are registered with various State Pharmacy Councils.

INTEGRATED DISEASE SURVEILLANCE PROJECT (IDSP)

Background : The integrated Disease Surveillance Project (IDSP) was launched by the Ministry of Health and Family Welfare in November 2004. It is intended to detect early warning signals of impending outbreaks and help to initiate an effective response in a timely manner. Total Budget for the project from 2004-09 was given as Rs. 399.70 crores.

Objectives:

- 1 To establish a decentralized state based surveillance system for communicable diseases to detect the early warning signals, so that timely and effective public health actions can be initiated in response to health challenges in the country at the district, state and national level.
- 1 To improve the efficiency of the existing surveillance activities of disease control programs and facilitate sharing of relevant information with the health administration, community and other stakeholders so as to detect disease trends over time and evaluate control strategies.

Project components :

- n Integrating and decentralization of surveillance activities through establishment of surveillance units at centre, state and district level.
- n Human Resource Developments - Training of State Surveillance Officers, District Surveillance Officers, Rapid Response Team, other medical and paramedical staff on principles of disease surveillance
- n Use of Information Communication Technology for collection, collation, compilation, analysis and dissemination of data.
- n Strengthening of public health laboratories.

Data Management

Under IDSP, data is collected on weekly epidemic prone diseases (Monday-Sunday) basis. The information is collected on these specified reporting formats, namely "S" (suspected cases), "P" (presumptive cases) and "L" (Laboratory confirmed cases) filled by Health Workers, Clinician and Clinical Laboratory staff. The weekly data gives the disease trends and occurrence of new disease.

Whenever there is a rising trend of illnesses in any area, it is investigated by the Medical Officers/Rapid Response Teams (RRT) to diagnose and control the outbreak.

Data analysis and action are undertaken by respective units. Emphasis is laid on reporting of surveillance data from major hospitals both in public and private sector and also Infectious Disease hospitals. IDSP in presently receives weekly disease surveillance data from 306 of 606 districts (51%) of phase I,II & III states.

Outbreak Surveillance and Response

Central surveillance Unit, IDSP receives disease outbreak reports from the states/ UTs on weekly basis. Even NIL weekly reporting is mandated and the compilation of disease outbreaks/alerts is done on weekly basis for sharing with the stakeholders and other higher officials including Prime Ministers Office, Health & Family Welfare Minister, Minister of State (HFW), Secretary (H&FW), DGHS (H&FW), Addl. Secretary & Mission director (NRHM), Addl. Secretary (GB) and Joint Secretary (RSS). On an average 10 to 12 outbreaks are reported to CSU weekly. A total of 43 outbreaks consisting majority of Acute Diarrhoeal diseases (41%), Malaria (11%) and Chikunguniya, Dengue, Food poisoning (9%) were detected and responded to by the states/ UTs through IDSP in the month of September 2009.

Contribution of IDSP in Influenza A HINI

Community surveillance to detect clusters of influenza like illness is being done through IDSP. The Project acts as a focal point in States to look for and report clusters of ILI and pneumonia. Outbreak Monitoring Cell on 24x7 basis has been established at NCDC for monitoring the situation. Private Practitioners, Nursing homes and hospitals have been requested to report such events to IDSP Call Centre on 1075 (Toll free number). Labs have been identified for testing clinical samples at NCDC Delhi, NIV Pune and other labs in different regions of the country. States have been asked to strengthen the isolation facility at district level. Funds have been released to 18 states for conducting trainings; funds for other states are being released. State and District RRTs have been alerted to investigate and manage suspected outbreaks. During cluster containment, IDSP has a vital role in tracing all contacts and put them on home quarantine and provide chemoprophylaxis. Guidance issued to States on clinical management, infection control practices, laboratory support, Death summary format has been designed and distributed to states/ districts for reporting any death due to Influenza A HINI. Epidemiological analysis of deaths is being carried out on a regular basis.

Media Scanning and Verification Cell

Media scanning is one of the important systems of surveillance in detecting the Early Warning Signals. With this background, media scanning and verification cell receives an average of 4-5 media alerts of unusual health events which are being detected and verified per week and for the month of September '09, 40 alerts were detected and verified.

Information & Communication Networks (ICT)

ICT plays an integral and most powerful role in implementing IDSP across the country. One of the important components of the project is data management, analysis and rapid communication in case of impending outbreaks.

Data Centre

National Informatics Centre (NIC) has established broadband connectivity at 760 out of 796 sites. The objective of Data Centre is online entry of data to central servers for speedy data transmission.

Training Centre

Training centre equipments have been installed at 332 out of 396 sites. State to district communication is possible by NICs E-Learning Portal (<http://e-learning.nic.in/lms>), which has facility in managing life virtual classrooms for training (State/Area specific discussion on disease surveillance activities), e-learning, interactive electronic discussion (Chat rooms, Boards, Mailing Lists) and reviewing & monitoring project related activities.

Video Conferencing

Indian Space Research Organization (ISRO) has installed 345 out of 400 EDUSAT/V-SAT sites. In States, Medical Colleges, Video conferencing (VC) has been used for discussion with SSOs/SRRT/DSOs/ DRRT on outbreak investigation, verification and documentation with expert panels, project review and monitoring, training of data managers and data entry operators on data reporting and analysis. A total of 13 Video Conferencing sessions had been done at the CSU with various States and Districts for the month of September 2009.

Call Centre

A 24X7 call centre has been established to receive disease alerts from anywhere in the country on a toll free number 1075 for verification and initiating appropriate actions of public health measure. Multiple language calling and answering capability has led to receiving toll free calls from across the country. The call centre also has a response mechanism for informing respective health officials at concerned districts for early detection and prompt action. Total number of calls received for September 2009 is 8425 and with respect to Influenza A (HINI) calls were 2758.

IDSP Portal

The IDSP portal is a one stop portal which has facilities for data entry, view reports, outbreak reporting data, analysis, training modules and resources related to disease surveillance. A total of 21 States have started reporting in the portal

Training:

The Training in IDSP is three-tiered:

- Master Trainers State & District Surveillance Officers and RRT members are trained at identified 9 national level institutes.
- The Medical Officers and District Lab Technicians are trained by Master Trainers at state level.
- Health Workers & Lab Technician/Assistants at Peripheral institutions are trained by District officers/Medical Officers at district level.

Training of State/District Surveillance Teams has been completed for 9 States of Phase-I & 14 States of phase II and 6 states in Phase-III.

State Level Training Status

Category	Phase I	Phase II	Phase III	Total
Medical Officers	14,051	10,203	1811	26065
Health Workers	71,740	64,320	2,712	1,38,772
Laboratory Technicians	4,500	3,652	163	8,315

The main focus of training for state level participants is on basics of disease surveillance, concepts of epidemiology and data managements, whereas the district training only focus on correct procedures of data collection, compilation and reporting. A need based special two week Disease Surveillance and Field epidemiology Training Programme (PETP) has been initiated for the District Surveillance officers. 188 District Surveillance Officers have already been trained in this special 2 weeks PETP.

National Health System Resource Centre (NHSRC), a technical support body to NRHM has been given the responsibility of recruiting epidemiologists at state and district headquarters, microbiologists at identified laboratories and entomologists at state HQs.

Strengthening of Laboratories

Fifty priority district laboratories are being focused for strengthening in the country for laboratory diagnosis of epidemic prone diseases. A referral laboratory network is being established in 7 priority states on a pilot basis to provide access to diagnostic facilities during outbreaks in the remaining districts of the state. 48 priority labs have been identified in 33 States/UT. Comprehensive guidelines for the procurement of equipment for the priority district labs have been sent to 33 states. The process of procurement in 4 states has been completed (Rajasthan, Puducherry, Assam, Sikkim).

Guidelines and MoU for making state referral laboratory network firmed up. Sensitization meetings held at Karnataka and Tamil Nadu finalised for referral network plans. Guidelines were sent to other 5 states and draft plans received have to be finalised.

NCD Risk Factors survey

NCD Risk factor survey is done under this projects in a phased manner. NCD risk factor survey Phase I was done by ICMR. The risk factors to be studied are Height, Weight, Waist Circumference, Physical activity, Diet, Socio Demographic Profile, Fasting Plasma Glucose, Cholesterol, an consumption of Alcohol and Smoking. The survey was taken up in 7 states i.e. Andhra Pradesh, Tamil Nadu, Kerela, Maharashtra, Madhya Pradesh, Utrakhand and Mizoram in 2007-2008 and is completed. Final report surveyed in Phase I with minor modification to be done by ICMR as suggested by World Bank. Further other states survey will be carried out by NCD cell of MOH & FW.

Urban Surveillance

Urban Surveillance is proposed for 4 metropolitans of Delhi, Mumbai, Chennai and Kolkata. In the cities of Mumbai, Kolkata & Chennai Urban Surveillance plans have been developed. Kolkata, Mumbai and Chennai have signed MOU and funds are released. Kolkata and Mumbai have begun the urban surveillance activities.

Community Based Surveillance

It is planned to strengthen community based surveillance through active involvement of community institutions and volunteers, utilizing the large number of community groups/institutions present in districts such as the Panchayati Raj Institutions, Village Health and Sanitation Committees, Mahila Mandals, Self Help Groups (SHG), Youth Clubs, Schools (Primary and Secondary), NGOs, Traditional/Private Health Care providers.

IDSP has started a pilot project for strengthening community based disease surveillance in 3 states (Maharashtra, Orissa and Karnataka), Dashamantapur

(Koraput-Orissa), Similiguda (Koraput-Orissa), Akkalkuwa (Nandurbar-Maharashtra) and Taloda (Nandurbar-Maharashtra) have started community based surveillance activities.

Infectious Disease Hospital Surveillance Network

Seven Infectious Disease Hospitals, one each in four metros and Bangalore, Ahmedabad and Hyderabad have been given funds for strengthening reporting from ID Hospitals. EDUSAT network has been installed and recruitment is completed except in Bangalore. Mumbai, Chennai and Kolkata have started reporting.

INTEGRATED DISEASE SURVEILLANCE PROJECT-SEPTEMBER 2009

- 1 IDSP is World Bank assisted Project, launched in November 2004 with the objective to detect and respond to early warning signals of disease outbreaks.
- 1 IDSP receives weekly disease surveillance data from 306 out of 606 districts (51%) districts of phase I, II & III states. A total of 43 outbreaks were detected during this month, including Acute Diarrhoeal diseases (41%), Malaria (11%) and Chikungunya, Dengue, Food poisoning (9%).
- 1 IDSP has reported and verified 40 health alerts through Media Scanning and Verification Cell which plays a vital role in detecting and verifying unusual health events through media.
- 1 Community of surveillance to detect clusters of influenza like illness is being done through IDSP. IDSP acts as a focal point in States to look for the report clusters of ILI and pneumonia. Outbreak Monitoring Centre established at NCDC, Private Practitioners, Nursing homes and hospitals are requested to report such events to IDSP Call Center on 1075 (Toll free number). Labs identified for testing clinical samples at NCDC Delhi, NIV Pune and other labs in different regions of the country and funds have been released. State and District RRTs alerted to investigate and manage suspected outbreaks. IDSP has a vital role in tracing all contact and put them on home quarantine and provide chemoprophylaxis. Guidance issued to states on clinical management, infection control practices, laboratory support. Death summary format have been designed and distributed to states and districts for reporting of any death due to Influenza A H1N1.

Surveillance on Vector Borne Diseases

Vector borne diseases like Malaria, JE, Dengue, Kala-azar etc are major public health concern. Every year outbreak/ epidemics occur in different parts of the country leading to high morbidity and mortality. Entomology unit was established in December '08 with the objective of updating the entomological surveillance of vector borne diseases in the country. Up to the month of September 2009 a total of 69 EWS (18 Malaria, 8 Dengue, 41 Chikunguniya and 2 JE) were reported from 24 states.

Prevention and Control of Avian Influenza

A networking model has been developed with 10 laboratories and ICMR with its four branch laboratories. IDSP is supporting activities related to avian Influenza with total outlay of Rs. 20.83 crores for three years (2006-09) for Human Component. MoU is being modified with respect to regional laboratory. The procurement of equipments for these labs is in progress.

Finance

IDSP was launched during 2004-05 with the World Bank assistance (through a soft loan of 68 million US \$) with financial allocation of Rs. 408.36 crores as under

- 1 The IT network has been established for data entry, training, video conferencing, and outbreak discussion. Data centre has been established and working in 760 out of 796 sites, which help in online entry of data and speedy data transfer. Training centre has been established at 332 out of 396 for live virtual classrooms for training at state and district levels. Video conference facility has been established in 345 out of 400 sites at states, districts and medical colleges for outbreak verification, review and monitoring of the project.
- 1 A 24x7 call centre receives disease alerts from the country on a toll free number 1075. Total number of calls received for September '09 is 8425 and with respect to Influenza A (H1N1) calls were of 2758.
- 1 IDSP has started one stop portal ([http://www/idsp.nic.in](http://www.idsp.nic.in)) for data access and transmission, trend analysis and free resources like guidelines, advisories for health personnel related to disease surveillance.
- 1 48 priority labs are in the process of strengthening in 33 States/UT. One priority lab in Lakshadweep has been identified. In 7 states a network of referral laboratories linking the remaining districts is being developed on an output based basis utilizing the functioning laboratories in Medical colleges existing public health laboratories.
- 1 The process of selection of 599 Technical consultants (491 Epidemiologists, 85 Microbiologists and 35 Entomologists) to be appointed at State and District level under IDSP by NHSRC is completed.
- 1 ICMR has been given the entire responsibility to undertake NCD risk factor survey under IDSP; the survey has been completed and draft report has been submitted to CSU, final report is awaited for dissemination. Phase-II survey of NCD Risk Factor survey for 12 States is under process.
- 1 For the cities of Mumbai, Kolkata & Chennai, Urban Surveillance plans have been developed. Urban Surveillance activity in Kolkata and Mumbai has begun.
- 1 All the 4 Metro cities and Bangalore, Ahmedabad and Hyderabad have been given funds for strengthening reporting from ID Hospitals.
- 1 Entomology unit was established in December 2008 with the objective of updating the entomological surveillance of vector borne diseases in the country. A total of 69 EWS (18 Malaria, 8 Dengue, 41 Chikunguniya and 2 JE) have been reported from 24 states.
- 1 IDSP has started a pilot project for strengthening community based disease surveillance in the 3 states of Maharashtra, Orissa and Karnataka. Dashamantapur, Similiguda (Koraput-Orissa), Akkalkuwa, Taloda (Nandurbar-Maharashtra) have been started community based surveillance activities.
- 1 IDSP was launched during 2004-05 with the World Bank assistance (through a soft loan of US \$ 68 million) with financial allocation of Rs 408.36 crore as under

Budget allocation for five years: Rs. 408.36 crore

- 1 World Bank Loan amount Rs. 306.24 crore
- 1 GOI funding Rs. 93.46 crore

Year wise Budget and Expenditure

Sl. No.	Year	Budget Estimates	Actual expenditure	% of expenditure w.r.t BE
1	2004-05	27.00	25.01	92.62
2	2005-06	38.00	39.26	103.32
3	2006-07	102.00	12.93	12.67
4	2007-08	80.00	41.36	51.70
5	2008-09	72.00	21.75	30.20
6	2009-10	48.50	13.61	
	Total	367.50	140.31	

DENTAL COUNCIL OF INDIA

Dental Council of India is a statutory body established under the Dentists Act, 1948 with the prime objective of regulating dental education, profession and its ethics in the country. It periodically carries out inspections of dental institutions to ascertain the adequacy of teaching facilities. 243 Dental College are functioning in the country with an annual intake capacity of about 18,450 students in the BDS course during the academic session 2007-2008.

NATIONAL RURAL HEALTH MISSION (NRHM)

ASHAs Link Workers

- 1 Selection of 7.30 lakh ASHAs has been done in the entire country, out of which 6.78 lakh ASHAs received 1st module of training and 5.25 lakh completed training up to 4th module.
- 1 4.67 lakhs ASHAs have been provided with drug kit as well.

INFRASTRUCTURE

- 1 1.46 lakhs Subcentres in the country are provided with untied funds of Rs. 10,000 each. 3,78,090 Subcenters & VHSC have operational joint accounts of ANMs and Pradhans for utilization of annual untied funds. 38,832 Subcentres are functional with second ANM.
- 1 Out of 4276, Community Health Centres, 2949 CHCs have been selected for upgradation to IPHS and facility Survey has been completed in 2869 CHCs.
- 1 28,877 Rogi Kalyan Samities have been registered at different level of facilities.
- 1 New constructions/Upgradation taken up in 28,686 HSCs, 5407 PHCs, 4937 CHCs/SDHs and 444 District Hospital.
- 1 5520 PHCs have 3 Staff Nurses.

MANPOWER

- 1 9874 Doctors and specialist, 44,429 ANMs, 24,494 Staff nurses, 13,278 paramedics have been appointed on contract by States to fill in critical gaps.

MANAGEMENT SUPPORT

- 1 1665 professionals (CA/MBA) have been appointed in the State, 617 District level Program Management Units (PMU) and 3560 blocks level Program Management Units (BPMU) have been established to support NRHM.

MOBILE MEDICAL UNITS

- 1 Funds for one Mobile Medical Unit (MMU) per district released. Mobile Medical Units operationalized in 354 districts.

IMMUNIZATION

- 1 Intense monitoring of Polio Progress—Services of ASHA useful.
- 1 JE vaccination campaign was completed in 11 districts in 4 states covering 93 lakh children in 2006-07. During 2007-08, nine states covering 27 districts were undertaken in JE Vaccination campaign. In 2009-10, 30 districts are proposed to be undertaken for JE vaccination campaign out of which 18 districts have completed the campaign. In the rest of the 12 districts campaigns are ongoing. So far 82 districts of 11 states have been covered. JE vaccine have been introduced in RI to vaccinate the new cohort between 1-2 years of age.
- 1 House tracking of polio cases and intense monitoring.
- 1 Neonatal Tetanus declared eliminated from 15 states/UTs in the country.
- 1 Full immunization coverage evaluated at 54.1% at the national level. (DLHS-III)
- 1 Accelerated Immunization Programme taken up for EAG and NE State.

INSTITUTIONAL DELIVERY

- 1 Janani Suraksha Yojana (JSY) operationalised in all the States. 7.04 lakh women benefited in the year 2005-06, 29.31 lakh in 2006-07, 70.69 lakh in 2006-07 and 83.84 lakh in the year 2008-09, 19.26 lakh will benefit in the year 2009-10.

NEONATAL CARE

- 1 Integrated Management of Neonatal and Childhood illnesses (IMNCI) started in 269 districts.
- 1 With the help of Neonatology Forum over 211316 health care personnel were trained in Newborn Care in the country.

CONVERGENCE

- 1 Monthly Health and Nutrition Days organized more than 35 lakh in (2006-07), 49 lakh in 2007-08 and 56 lakhs in 2008-09, 12 lakhs in 2009-10 at the Anganwadi Centres in various states.
- 1 The States have constituted 4,27,955 Village Health and Sanitation Committees. They are being involved in dealing with disease outbreak.
- 1 Convergence with ICDS/Drinking Water/Sanitation/NACO/PRIs ground work completed.
- 1 School health programmes initiated in over 20 States

SERVICE DELIVERY

- 1 CRM reported increase in outpatient, inpatient diagnostic service, institutional deliveries.
- 1 10 States have Emergency Medical system.
- 1 3606 CHCs, 1664 Sub-Divisional Hospital/Taluka Hospitals, 7613 PHCs functional 24x7.

HEALTH ACTION PLANS

- 1 State PIP received from 31 states during 2006-07 and 35 in the year 2007-08, 35 in the year 2008-09 and 35 State PIPs received in the current year 2009-10. Project Implementation Plan (PIPs) of the States under NRHM have been appraised and funds realised for the year 2009-10.
- 1 The first cut of Integrated District Health Action Plans (DHAP) has been finalized for 617 districts.

MAINSTREAMING OF AYUSH

- 1 Mainstreaming of AYUSH has been taken up in the States. 8248. AYUSH facilities are available at District and below district level health institutions. AYUSH person are part of State Health Mission/Society as members.

TRAININGS

- 1 Trainings in critical areas including Anaesthesia, Skilled Birth Attendance (SBA) taken up for MOs/ANMs. Integrated Skill Development Training for ANMs/LMV/MOs, Training on Emergency Obstetrics care and No Scalpel Vasectomy (NSV) for MOs, Professional Development Programme for CMOs are on full swing.
- 1 ANM Schools being upgraded in all States.
- 1 New Nursing schools taken up.

MOTHER NGOs

- 1 321 Mother NGOs appointed for 407 districts till date are fully involved in ASHA training and other activities.

HEALTH RESOURCE CENTRES

- 1 National Health Systems Resource Centre (NHSRC) set up at the National Level.
- 1 Regional Resource Centre set up for NE.
- 1 State Resource Centre being set up by States.

MONITORING AND EVALUATION

- 1 Independent evaluation of ASHAs/JSY by UNFPA/UNICEF/GTZ in 8 States.
- 1 Immunization coverage evaluated by UNICEF.
- 1 Independent monitoring by identified institutions like Institute of Public Auditors of India.
- 1 Ground work for community monitoring completed.

SURVEYS

- 1 NFHS III and DLHS II completed.
- 1 It has been decided to take Annual Health Survey for 284 districts in 9 high focus states through the RGI

FINANCIAL MANAGEMENT

- 1 During the FY 2007-08, out of total allocation of Rs. 10890 crore for the ministry an amount of Rs. 10,189.4 crore was released as part of NRHM.
- 1 During the FY 2008-09, out of total allocation of Rs. 11,930 crore for the ministry, an amount of Rs. 11,200 crore was released as part of NRHM.
- 1 During the FY 2009-10, an amount of Rs. 13,930 crore for the ministry, an amount of Rs. 6,036.6 crore was released as part of NRHM.

AREAS OF IMPROVEMENT**EVIDENCE FROM THE STATES**

1. Out patient Cases : Reports from States indicate significant improvement. In Bihar, the average number of patients visiting a Primary Health Centre every month has gone up from 39 in January 2006 to 3015 in August 2006. In Punjab, with the Alternate Health Delivery involving service providers under PRIs at 1310 Subsidiary Health Centres, out patient cases have gone up by 290% between June to October 2006. 39.6% improvement in cataract operations performed, 11.8% increase in new TB cases detected, and 25.1% increase in students examined under the School Health Programme has been reported.

2. Institutional Deliveries : Reports from States indicate significant increase in institutional deliveries because of demand side financing under Janani Suraksha Yojana. From 6 lakh JSY cases last year, the number has already reached more than 21 lakhs so far. In 1152 PHCs in 50 Blocks of Madhya Pradesh under the Dhanwantari Yojana, institutional deliveries recorded more than 100% increase (From 26% to 53%). In Orissa, figures from 3 CHCs in Malkangiri and Koraput districts of the KBK region, shows increase in institutional delivery from 88 to 149, 59 to 120 and 97 to 169 respectively over a corresponding time period. In Haryana, with the innovative delivery hut scheme, the institutional deliveries went up from 28% in 2004-05 to 43.60% in 2005-06.

3. Availability of medicines : States have put in place effective systems of procurements of drugs. NRHM has advocated decentralized procurement in line with the successful Tamil Nadu Medical Supplies Corporation. Funds for procurement under NRHM were released to States. Even a state like Bihar, where procurement was ineffective, has put in place a very efficient and effective drug procurement arrangement for drugs on the essential drug list. States of Uttar Pradesh and Jharkhand revised the per capita allocation for drugs in out patient facilities, leading to better availability of drugs at health facilities. A few North Eastern States like Assam are procuring drugs from the TNMSC.

4. Immunization : Serious efforts have been made to ensure improvement in immunization coverage by promoting alternate vaccine delivery wherever required, providing incentives for immunization sessions, conducting catch up rounds and ensuring proper maintenance of the cold chain. Recent UNICEF evaluation shows improvements in States like Uttar Pradesh, Bihar and Jharkhand. With popularization

of the Monthly Health Days at Aanganwadi Centres, routine immunization has got a further fillip.

5. Monthly Health Days : More than 45 lakh Monthly health Days have been organized at Aanganwadi Centres, facilitating ANCs/PNCs, immunization, availability of basic drugs, etc. Evidence of successful Monthly Health Days in the presence of ANMs/AWWs are being reported from all States, including States like Tripura, Orissa, Madhya Pradesh, Rajasthan, Chhatisgarh, etc. Orissa uses the Monthly Health Days for malaria chaemophylaxis as well in the malaria affected areas. With Village Health and Sanitation Committees being set up in every village, public health measures will be the focus of these Monthly Health Days.

6. Resident Community workers / functional Sub Centres : More than 4.5 lakh ASHAs, Community Workers, Mitanins, Link Workers have been selected and are at various stages of selection. They are playing a key role in community mobilization, seeking immunization and other health services, JSY, public health measures, advocacy, nutrition and health education and improving health seeking behaviour of households. By engagement of contractual ANMs wherever required and by provision of Rs. 10,000 annual untied grant, nearly all 1,44,988 Sub Health Centres have been made functional. Sub Centres have judiciously used the untied funds as per need, from buying B.P. Equipment, weighing machine, to repairing the examination table, cleaning the Sub Centre, etc. Early evidence suggests that deliveries have started taking place in a few Sub Centres because of the untied grants. A second ANM is in place in 7877 Sub Centres.

7. 24X7 PHCs with 2 additional Nurses : 2297 PHCs have been made 24X7 with a provision of two additional Nurses. Of these 780 have been made 24X7 in Tamil Nadu itself.

8. Community pressure for services from CHCs/Sub District/ District Hospitals: Demand side financing under JSY and ASHAs/ Community Workers are putting pressure on services from CHCs/Sub District and District Hospitals in all the States. The community pressure is putting pressure on the Health Facility to improve its performance. Rupees twenty lakhs have been provided to all the 3910 CHCs as a first installment to move towards Indian Public Health Standards. 2101 CHCs have carried out Facility Surveys to plan for the gaps as per IPHS. Facility Surveys of CHCs are available on this Ministry's website. Rs. 50,000 Annual Maintenance Grant and Rs. 25000 as untied grant for PHCs have been sanctioned for each of the 22669 PHCs, to be used under the supervision of the RKS. Works have been completed in some facilities and are under way in a large number of them. It has taken a little time as Facility Surveys had to be completed as a prerequisite.

9. Rogi Kalyan Samitis : More than 13,000 Rogi Kalyan Samitis/Hospital Development Committees have been set up in the country. Nearly all District/ Sub District Hospitals and CHCs have opened their own Bank Accounts. PHCs are also in the process of doing so. Rs. 5 lakhs has been provided for District Hospital RKSs and Rupees One lakh for Sub District/ CHC/ PHC Hospitals/Centres. They are expected to make the functioning of the Hospitals more accountable, transparent and need based.

10. Improved outreach through MMUs : States have already operationalised more than 129 Mobile Medical Units from their own sources/NRHM. NRHM has approved MMUs for 314 districts and most of these units are expected to become operational very soon. NGOs are involved in such arrangements in many States. Gujarat, Andhra

Pradesh, West Bengal, Orissa have set up effective systems for mobile units to improve outreach of services in remote areas.

11. Partnerships with Non Governmental Providers : Useful partnerships with non governmental providers have been attempted in every State. Reputed NGOs like VHAI and Karuna Trust have taken the responsibility of running PHCs in remote locations of Arunachal Pradesh. Non Governmental Specialists are being paid on a per case basis for work done in Government Hospitals. Under the Chiranjeevi Scheme in the 5 tribal districts of Gujarat, institutional delivery of BPL women is taking place in nursing homes of private gynaecologists at government's cost. NGOs are playing a very important role in facilitating ASHAs and community workers and in their capacity building efforts in every State. 2277 non-governmental providers have been accredited under the Janani Suraksha Yojana.

12. Capacity Building initiatives : More than 1200 Programme Management, Finance Management and Data Management professionals have joined the system at State and District levels. More are joining as Block Public Health Managers in a few States. The introduction of these skills has improved programme management, monitoring and evaluation, financial reporting and record keeping. The National, the NE Regional and State Resource Centres are further strengthening this process. IMNCI training for management of neo-natal and childhood illnesses has been initiated in more than 25 States. Skilled Birth Attendant Training of MOs and ANMs, Training of MOs for Anaesthesia for emergency Obstetric Care, Training of MOs for Obstetric care, professional development programmes for MOs, District Planning and Appraisal programmes for NRHM State level teams, have been taken up on a large scale.

13. Decentralized planning and appraisal of District Health Action Plans : The process of decentralized planning has been initiated across the country with planning village upwards. Each and every district of Madhya Pradesh and Chhattisgarh has completed the District Planning process. The other States are also at an advanced stage of district planning. These District Health Action Plans have been prepared through a consultative process involving communities and health functionaries at each level. Chhattisgarh has undertaken the innovative exercise of developing a human development index for each Panchayat and for awarding Panchayats on the basis of their Human Development ranking.

14. Effective monitoring and evaluation : NRHM has set up effective systems of monitoring and evaluation. A detailed MIS that provides disaggregated information about performance with respect to vulnerable groups like SCs and STs, has been operationalized. An effective Financial Management Reporting System has become functional with quarterly, activity wise reports from States. A pilot initiative on community monitoring is being initiated in partnership with NGOs. The Institute of Public Auditors of India has started field work in five States (Bihar, Assam, UP, Tamil Nadu and Kerala). Assessment of ASHA programme in MP, Rajasthan, Orissa, UP, Bihar is under way with the support of UNFPA/Unicef. A system of independent assessment of performance of States by institutions of excellence is in the process of finalization. An intensive field based joint review mechanism is in place for the RCH - II that covers core areas of NRHM as well. Three such reviews have already been conducted.

The Way Ahead

A lot has been achieved in the field of health and family welfare in the last two years in partnership with States. This is a sector that requires simultaneous action on

many fronts. The institutional platform of Village Health and Sanitation Committees, the Rogi Kalyan Samitis and the Panchayati Raj Institution committees at various levels are providing a rare opportunity for convergent action on all determinants of health. An army of locally resident Accredited Social health Activists with strong referral links with the strengthened health system will put even greater pressure on the public sector health system to deliver quality services. Along with need based and transparent partnerships with non governmental providers for public health goals, the strengthened system will have positive consequences for all interventions, whether they are for family welfare, disease surveillance, National Health Programmes, etc. The innovative engagement of human resource as per need and the arrangements for incentives at each level will help craft a new and innovative system of public health delivery. The experience of the last two years gives us the confidence that we are on the right track and that we need to deepen institutional reforms and effective decentralization through a concerted effort at capacity building. The setting up of a National Health System Resource Centre is a step in that direction. States are also in the process of setting up their resource Centres. The North Eastern Regional Resource Centre is already playing a crucial role in developing need based programmes in the eight North Eastern States.

TRAINING DIVISION

Availability of qualitative services to the community depends largely upon the efficacy with which health functionaries discharge their responsibilities, which, in turn would depend mainly upon their education and training. Department of Family Welfare had recognized the crucial role of training of health personnel in providing effective and efficient health care to the rural community from the very beginning of the Five Year Plans.

The pre-service and in-service training for different categories of health personnel are imparted through the following schemes/activities:

Training of ASHA under NRHM

The Government of India in April 2005 launched the NRHM to improve access of people, especially the poor women and children to quality primary health care services. Accredited Social Health Activist (ASHA) is a major strategic intervention under the mission.

ASHA is envisaged as a trained woman community health volunteer who will reinforce community action for universal immunization, safe delivery, the care of the new born, prevention of water borne and communicable diseases, improved nutrition and promotion of household sanitary toilets.

Capacity building of ASHA is critical in enhancing their effectiveness and this has been seen as a continuous process. The induction training of ASHA would be completed in 23 days spread in five rounds over a period of 12 months to be followed by periodic re-training for about two days once every alternate month. 265024 ASHAs are trained in 18 high focus States.

The scheme which was initially introduced for only 10 high focus states namely, Uttar Pradesh, Uttaranchal, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Orissa, Rajasthan, Assam and Jammu & Kashmir under NRHM, has been extended to NE states and tribal areas of other states. Whereas in rest of the country states Governments may opt for Link Workers (similar as ASHA) in their Project Implementation Plan (PIP) under RCH-II.

Progress made in selection and training of ASHAs is given in the following table:

Sector	No. of ASHAs proposed for the Mission period 2005-10	No. of ASHAs selected during 2005-06	No. of ASHAs selected during 2006-10	Total selected	Total Trained
In 10 High focus States	406530	119983	252249	356610	249859
In NE High focus States	467979	9058	24871	33929	15165
In Tribal areas of others states	21643	0	0	0	0
Link Workers in other areas	116934	0	91013	91013	81275
Total	592086	129041	368133	481552	346299

Centrally Sponsored Scheme of "Basic Training of ANM/LHV"

ANMs/LHVs play a vital role in MCH and Family Welfare Services in the rural areas. It is therefore, essential that proper training be given to them so that quality services be provided to the rural population. For this purpose Department of Family Welfare provides financial assistance under the scheme, to the states, to run 336 ANM/Multipurpose Health Workers (Female) schools with an admission capacity of approximately 13,000 and 42 promotional training schools for LHV/ Health Assistant (Female) with an admission capacity of 2600.

These training institutions impart pre-service training to prepare required number of ANMs and LHVs to man the Sub centres, Primary Health Centres, Community Health Centres, Rural Family Welfare Centres and Health posts in the country. The duration of the training programme of ANM is one and half years and minimum admission requirement for this course is 10th pass. Senior ANM with five years of experience is given six months promotional training to become LHV/ Health Assistant (Female). The staffing pattern of the school for which financial assistance is provided by the Department of Family Welfare, varies according to the annual admission capacity of the school.

Centrally Sponsored Scheme of "Basic Training for the Multi Purpose Health Worker (Male)"

The Basic Training of the Multi Purpose Health Worker (Male) scheme was approved during the 6th Five-Year Plan and taken up since 1984, as a 100% Centrally Sponsored Scheme. This pre-service training is provided through Health & Family Welfare Training Centres and also through basic training schools of Multipurpose Health Workers (Male). The training is of one-year duration and on successful completion of the training, the Male Health Worker is posted at the Sub-Centre along with an ANM/ Health Worker (Female).

Maintenance of Health and Family Welfare Training Centres

Forty seven Health and Family Welfare Training centres were established in the country in order to improve the quality and efficiency of the Family Planning Programmes and to bring about changes in the attitude of the personnel engaged in the delivery of health services through in-service training programmes. These training centres are supported under the Centrally Sponsored Scheme of "Maintenance of Health and Family Welfare Training Centre".

These training centres are now conducting various in-service training programmes of the Department of Family Welfare. Apart from in-service training,

some of the selected centres are also responsible for conducting the basic training of Male Health Worker's course of one year. Apart from the salary of the staff of the training centres, other assistance under the scheme includes contingency for purchase of educational material, rent for training centres and payment to the guest faculty.

Strengthening of Basic Training Schools

This scheme was launched in 10th plan period with a plan period allocation of 10 crores. The main objective of the scheme "Strengthening of Basic Training School" was physical strengthening of the ANM/LHV training schools. The provision under the scheme was maximum of Rs. 21.5 lakhs per ANM/LHV School for Repair/up-gradation for the buildings - Training Centre, hostel and the field practice area, furniture and equipment and books/A.V. aids.

During the year 2005-06, Rs.203.86 lakh were released to the 4 states of Mizoram, Tamil Nadu, Nagaland and Orissa for strengthening of 13 ANM Training Schools under the scheme and during 2006-2007 Rs.207.89 lakh were released to the 4 states of Kerala, Karnataka, Goa and Assam for strengthening of 12 ANM Training Schools.

CHILD HEALTH PROGRAMME

The Reproductive and Child Health programme (RCH) II under the National Rural Health Mission (NRHM) comprehensively integrates interventions that improve child health and address factors contributing to infant and under-five mortality. Reduction of infant and child mortality has been an important tenet of the health policy of the Government of India and it has tried to address the issue right from the early stages of planned development. The National Population Policy (NPP) 2000, the National Health Policy 2002 and the Eleventh Five Year Plan (2007-12) and National Rural Health Mission (NRHM - 2005 - 2012) have laid down the goals for child health.

Key Strategies under RCH II for New Born & Child Health

1. Increase coverage of skilled care at birth for newborns in conjunction with maternal care.
2. Implement, by 2010, a newborn and child health package of preventive, promotive and curative interventions using a comprehensive IMNCI approach.
3. Strengthen and augment existing services (care at birth/Essential new born/care, ARI and diarrhea control) in area where IMNCI is yet to be implemented.
4. Implement the multiyear strategic plan for the UIP (Universal Immunization Program)

Child Health Situation in India:

- 1 Of the 9.7 million under-five deaths globally, 2.1 million are in India alone. Approx 25 million births occur every year in India out of which approx. 1.57 million children die before one year of age and approx 1 million newborns die within one month of birth.
- 1 52 percent of under-five deaths continue to occur in the first month of life. 75% of neonatal deaths occur in first week of life, which means that the proportion of U 5 deaths by neonatal causes is disproportionately high.
- 1 37 per cent of all infant deaths in India are concentrated in two states (Uttar Pradesh [UP] and Bihar.

- 1 70 per cent of all infant deaths in India are concentrated in eight states (Bihar, UP, Madhya Pradesh, Orissa, Rajasthan, Andhra Pradesh, Maharashtra and Gujarat).
- 1 Regional disparities remain a concern, with the IMR varying greatly between rural and urban areas (61 and 37, respectively) and states (ranging from 72 in Madhya Pradesh to 12 in Manipur)
- 1 The Primary causes of neonatal deaths are :
 - sepsis,
 - low birth weight and
 - Asphyxia.
- 1 The primary causes of child deaths are :
 - Pneumonia,
 - Diarrhoea and
 - In some states Malaria, Meningitis and Measles.

Situation Analysis:

- 1 38 per cent of new borns in the developing countries start breastfeeding within one hour of birth while only 25% of mother initiate breastfeeding within 1 hr of birth: the proportion has however increased significantly in all states in last two years.
- 1 46% of children are exclusively breastfed for six months. While 53% of children receive for 6-23 months initiated timely complementary foods.
- 1 Only 21% received appropriate complementary foods (minimum no. of times, minimum no. of food groups). Exclusive breast feeding rates remain low in virtually all the states.
- 1 In India 43 per cent of children under age five are underweight. 8.3 million infants in India have low birth weight (less than 2500 grams)
- 1 According to SRS 2007, Infant Mortality is highest in Madhya Pradesh (72), and Orissa (71) and the lowest in Manipur (12), Goa (13) and Kerala (13) RGI, SRS (2007).
- 1 According to NFHS III (2005-06) Infant mortality is highest in Uttar Pradesh (73) and lowest in Kerala and Goa (15)
- 1 With respect to under-five mortality, Uttar Pradesh has the highest rate (96) and Kerala has the lowest rate (16).

Components of child health care include:

- 1 Essential newborn care
- 1 Immunisation
- 1 Infant and young child feeding
- 1 Vitamin A, Iron and Folic Acid supplementation
- 1 Early detection and appropriate management of Acute Respiratory Infections, Diarrhoea and other infections.
- 1 Integrated management of neonatal and childhood illnesses (IMNCI) and Pre-Service.

- 1 Facility Based New Born Care
- 1 Home Based care of Newborns
- 1 Management of children with malnutrition.

Child Health Strategies

Essential Newborn Care

As the majority of births in India still occur at home and 66% of all deaths in age occur in the first month of life, it is essential to ensure that skilled health care is provided to babies at birth. Further appropriate referral health care must be made available and accessible at health facilities. Hence field level workers have to be trained in essential newborn care i.e. care which every new born needs, like initiation of breastfeeds within half an hour of birth, rooming in, keeping the baby warm, no bathing at birth and immunization. Since 23% of neonatal mortality is at birth, asphyxia resuscitation at birth becomes important.

Infant and young child feeding

Promotion of early initiation of breast feeding (within one hour of delivery) and exclusive breast feeding till 6 months and timely complementary feeding with continued breast feeding is emphasized under infant and young child feeding. Early and exclusive breast feeding for the six months of age and timely complementary feeding with continued breastfeeding for 2 yrs is the single most preventive intervention for child survival.

Vitamin - A

The policy has been revised with the objective of decreasing the prevalence of Vitamin A deficiency to levels below 0.5%, the strategy being implemented is:

- 1 1,00,000IU dose of Vitamin A is being given at nine months
- 1 Vitamin A dose of 2,00,000 IU (after 9 months) at six monthly intervals up to five years of age.
- 1 All cases of severe malnutrition to be given one additional dose of Vitamin A.

Iron and Folic Acid supplementation

To manage the widespread prevalence of anaemia in the country, the policy has been revised.

- 1 Infants from the age of 6 months onwards up to the age of five years shall receive iron supplements in liquid formulation in doses of 20mg elemental iron and 100meg folic acid per day per child for 100 days in a year.
- 1 Children 6-10 years of age shall receive iron in the dosage of 30 mg elemental iron and 250meg folic acid for 100 days in a year.
- 1 Children above this age group would receive iron supplements in the adult dose

Management of Diarrhoea

In order to control diarrheal diseases the Government of India has adopted the WHO guidelines on Diarrhoea management.

- 1 India is the first country in the world to introduce the low osmolarity Oral rehydration Solution (ORS), as recommended by WHO for the management of diarrhea.

- 1 Zinc has been approved as an adjunct to ORS for the management of diarrhea. Addition of Zinc would result in reduction of the number and severity of episodes and the duration of diarrhoea
- 1 New guidelines on management of diarrhoea have recently been modified.

Integrated Management of Neonatal and Childhood Illness and Pre Service IMNCI

- 1 Integrated Management of Neonatal and Childhood Illness (IMNCI) strategy is one of the main interventions under the RCH II/NRHM. The strategy encompasses a range of interventions to prevent and manage the commonest major childhood illnesses which cause death i.e. neonatal illnesses, Acute respiratory Infections, Diarrhoea, Measles, Malaria and Malnutrition. It focuses on preventive, promotive and curative aspects, i.e. it gives a holistic outlook to the programme. The objectives is to implement IMNCI package at the level of household and Sub-centre (through ANMs), Primary health centres (through medical officers, nurse and LHVs), to provide a comprehensive newborn and child health services to address major neonatal and childhood illnesses.
- 1 Pre Service IMNCI has been accepted has an important strategy to scale up IMNCI by the Centre and is being included in the curriculum of Medical colleges of the country. This will help in providing the much required trained (IMNCI) manpower in the public and the private sector.

Facility Based New Born Care (FBNC)

- 1 As more and more sick children are screened and detected at the peripheries through IMNCI and referred to the health facilities, care of sick newborn and child at health facilities (CHCs FRUs, District Hospitals and Medical College Hospitals) assumes priority. Building up the capacity of the Medical Officer at these facilities to handle such cases thus becomes important. The FBNC is consistent with latest available scientific evidence and supports the IMNCI training materials for outpatient management of sick children. The manual complements standard comprehensive pediatric textbooks.
- 1 In the districts not implementing IMNCI, the vertical programmes for control of the commonest causes of mortality, i.e. diarrhoea and pneumonia, shall continue to be implemented. The incidence of diarrhoea is reduced by provision of safe drinking water, and diarrhoea cases are managed by Oral Rehydration Salt solution during diarrhoea to prevent dehydration. Pneumonia cases are managed by antibiotics.

Home Based New Born Care

- 1 Home based Newborn Care has been developed for the use of ASHAS in the states of Rajasthan, Bihar, Madhya Pradesh and Orissa. Uttar Pradesh has integrated this aspect with IMNCI for the training of ASHAS and ANMs and named it Comprehensive Child Survival Programme (CCSP) which has been initiated in 18 of its 70 districts.

Progress

- 1 The Under-5 Mortality Rate is the probability (expressed as a rate per 1000 live births) of a child born in a specified year dying before reaching the age of five if subjected to current age specific mortality rates. Under Five Mortality Rate (U5MR) at national level has declined during the last decade. It has come down from 109 per thousand (NFHS I - 1992-93) to 74 per thousand during the period (NFHS III-2005-06).

- 1 Infant mortality (the probability of a child dying before the first birthday) expressed as a rate per 1000 live births in a specified year has shown a continuous decline. It stood at 192 during 1971, 114 in the year, 1980 and 55 in 2007. The decline in IMR has been noticed both for male and female during the period. However, the rate of decline is more pronounced in the case of male as compared to female. This implies that the government's child health programme is being successfully implemented.

Infant Mortality Rate by Sex (Per 1000 live births)

Year	Total
1980	114
1985	97
1990	80
1993	74
1996	72
2000	68
2003	60
2005	58
2006	57
2007	55

Source : Office of the Registrar General of India 2007

Policy Decisions

- 1 Iron and Folic Acid supplementation guidelines updated to include children from 6 months to 60 months with the inclusion of 20 mg of iron and 100 meg of folic for 100 days. Children 6 -10 (30 mg of Iron and 250 meg of Folic acid) and Adolescents 11-18 yrs have been included for IFA supplementation.
- 1 Vitamin A supplementation guidelines updated to include children up to five years (1,00,00 International Units (IU) for below one year old children and 2,00,00 I.U. for older children).
- 1 Use of Zinc as an adjunct along with WHO new ORS to address high diarrhoeal morbidity and mortality among children.
- 1 Diarrhoea Guidelines updated to include management of cholera out-break and use of ciprofloxin (antibiotic) for resistant cases.
- 1 Acute Respiratory Infection Guidelines updated to address high Respiratory Infection and Pneumonia morbidity and mortality among children.
- 1 De-worming guidelines formulated.

IMNCI

The Child survival strategy of IMNCI has been introduced in 258 district of the country and 202015 health persons have been trained.

Pre - Service IMNCI

IMNCI has been introduced in to the curriculum of 79 Medical colleges and some 4000 students have been trained in IMNCI.

FBNC

146 SNCU have been setup to address sick new born care at facilities.

HBNCC

HBNCC has been incorporated into the ASHA training and duties.

Nutritional Rehabilitation Centres

582 Nutritional Rehabilitation Centres have been established to address malnutrition among children.

New Initiatives

- 1 Neonatal and Child Health Policy under process for greater focus.
- 1 Facility based care for new born and children and Integrated Management and childhood Illness (F-IMNCI) as an integrated package to take care of referrals and to enhance capacity of all health personnel at facilities as well as at community level to address sick new born and sick child.
- 1 Setting up Sick New Born Care units at District Hospitals to cater to the referred sick newborns
- 1 Setting up Nutrition Rehabilitation Centres (NRCs) in states with large magnitude of the problem of malnutrition.
- 1 Indian Public Health Standards (IPHS) updated to conform to the requirement of Child Health norms at facilities.
- 1 School health progress with focus on health promoting schools and greater convergence between Ministries and department to ensure a healthy child and adolescent.

Annexure II**NFHS III**

No.	Indicators	India (NFHS-2)	India (NFHS-3)
1.	% of neonates breastfed within one hour of life	16.0	23.4
2.	% of infants breastfed exclusively till 6 months of age	NA	46.3
3.	% of infants receiving complementary feeds apart from breast feeding at 9 months	NA	55.8
4.	% of children 6-35 months of age who are anaemic	74.2	79.1
5.	% of children under 3 years age with diarrhoea in the last 2 weeks who received ORS	26.9	26.2
6	% of children under 3 years age who are underweight	46.7	45.9

IMNCI

	Total	High Focus- Non NE	High Focus NE	Non High Focus- Large	Non High Focus Small
No. of districts implementing IMNCI	258	123	25	106	04
No. of People trained on IMNCI	202015	115761	1461	84770	23

Pre - Service IMNCI

State	No. of Medical colleges implementing IMNCI
Gujarat	12
Tamil Nadu	14
Maharashtra	38
MP	5
Karnataka	9
Punjab	1
Total	79

Status of Sick Newborn Care Units (SNCUs) and Nutritional Rehabilitation Centres (NRCs) (30.4.09)

States	SNCUs	NRCs
Assam	1	0
Chhattisgarh	1	2
Delhi	0	2
Karnataka	108	0
Kerala	12	
Madhya Pradesh	5	121
Orissa	1	0
Bihar	1	8

Rajasthan	1	9
Tamilnadu	17	2
Tripura	20	0
Uttarkhand	2	0
Jharkhand	1	0
West Bengal	6	0
Maharashtra	0	438
	160	582

Janani Suraksha Yojana

JSY is a safe motherhood intervention under the National Rural Health Mission (NRHM) being implemented with the objective of reducing maternal and neo-natal mortality by promoting institutional delivery among the poor pregnant women. JSY is a 100 % centrally sponsored scheme and it integrates cash assistance with delivery and post-delivery care. The scheme focuses on the poor pregnant woman with special dispensation for states having low institutional delivery rates namely the States of Uttar Pradesh, Uttaranchal, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Assam, Rajasthan, Orissa and Jammu and Kashmir. Each beneficiary registered under this Yojana should have a JSY card along with a MCH card. ASHA/AWW/ any other identified link worker under the over all supervision of the ANM and the MO, PHC should mandatorily prepare a micro-birth plan. This helps in monitoring antenatal check-ups, and the post delivery care.

With nearly 83.78 lakh beneficiaries in 2008-09, JSY has been a sharp off take in the country, up from 7.39 lakhs, 31.58 lakhs and 73.29 lakh beneficiaries in 2005-06, 2006-07 and 2007-08 respectively.

An evaluation of JSY was carried out in 5 states in December 2008 (Uttar Pradesh, Rajasthan, Madhya Pradesh, Orissa, and Bihar). Major findings include:

- i. Good awareness of the scheme
- ii. Institutional deliveries have substantially increased
- iii. Shift of institutional deliveries from district hospitals/DHs to CHCs and PHCs (accounting for >70%), thus easing the load on the DHs.
- iv. Increased utilization of ANC services.
- v. Social Equity issues are being addressed.
- vi. Post natal care coverage is high.
- vii. High coverage of zero dose polio and BCG.
- viii. At least two-day stay post delivery is not adequately ensured.
- ix. Delay in payments to beneficiaries.

Another key aspect is that the full potential of JSY in terms of provision of essential new born care and post partum family planning counselling is yet to be realised.

Several steps are being undertaken to strengthen JSY implementation and monitoring, including:

- a. Payment prior to discharge through bearer cheque.
- b. Monitoring of JSY/ verification of beneficiaries by officials at different levels.
- c. Public disclosure of beneficiaries at the facility, and setting up of grievance redressal mechanism for JSY.
- d. Two days stay after delivery to be promoted, and essential newborn care and post partum counselling to be focused upon in high volume facilities.
- e. Quality of deliveries at public health facilities to be monitored; private sector facilities accredited and monitored. By the end of 2007-08, 3154 private facilities across the country have been accredited to provide antenatal care and delivery services under JSY.
- f. Programmes for local awareness.

The Table on the following page shows the number of JSY beneficiaries across states during 2005-09.

Table 1: Physical progress under JSY 2005-09 (No. of beneficiaries)

S. No.	Name of States/URs	2005-06	2006-07	2007-08	2008-09
1.	Bihar	0	89839	838481	1051376
2.	Chhattisgarh	3190	76677	175978	225000
3.	Himachal Pradesh	1585	6303	10171	11323
4.	Jammu & Kashmir	2134	13127	10568	7364
5.	Jarkhand	0	123910	251867	477890
6.	Madhya Pradesh	68252	401184	1115941	1138000
7.	Orissa	26407	227204	490657	309000
8.	Rajasthan	10085	317484	774877	917000
9.	Uttar Pradesh	12127	168613	797505	1563516
10.	Uttarakhand	1360	23873	69679	66202
11.	Andhra Pradesh	167000	429000	563401	450000
12.	gujarat	0	121153	185956	213000
13.	Haryana	1825	23123	35441	48000
14.	Karnataka	50542	233147	283000	331000
15.	Kerala	0	56072	162050	136000
16.	Maharashtra	5650	97390	375000	224000
17.	Punjab	11595	16079	9917	68000
18.	Tamil Nadu	321567	288224	229609	386700
19.	West Bengal	31363	224863	572651	317000
20.	A & N Islands	314	600	354	0
21.	Chandigarh	0	14	1215	458
22.	Dadra & Nagar Haveli	146	76	270	157

23.	Daman & Diu	0	0	0	0
24.	Delhi	0	242	7238	23829
25.	Goa	57	483	898	688
26.	Lakshadweep	114	42	200	200
27.	Puducherry	379	2284	4389	4807
28.	Arunachal Pradesh	794	1433	7689	7782
29.	Assam	17523	1903334	304741	327894
30.	Manipur		7602	8664	10726
31.	Meghalaya	471	4257	1003	10600
32.	Mizoram	1056	7462	13371	14290
33.	Nagaland		1301	8457	14344
34.	Sikkim	1128	1719	1616	3161
35.	Tripura	2247	3203	15547	18350
	Total	738911	3158317	7328601	8377657

Village Health and Nutrition Day: Organizing of Village Health & Nutrition Day (VHNDs) at Anganwadi center at least once every month to provide ante natal/ post partum care for pregnant women, promote institutional delivery and health education apart from other various services. As per information from the states 19.95 lakhs of VHNDs have been organized till March 2007.

Indian Public Health Standards (IPHS): Implementation of Indian Public Health Standards (IPHS) for Primary Healthcare Facilities, will ensure quality services by providing infrastructure, equipments and specialist man-power.

FAMILY PLANNING PROGRAMME

In order to achieve population stabilization, the National Population Policy 2000 and the Tenth Five Year Plan laid great emphasis on addressing the unmet need for contraception. NFHS -III (2005-06) indicate that the unmet demand (currently married women who want no more children but are not using a method of contraception), both for limiting and spacing, continue to remain high in most states.

The performance figures for sterilization operations have shown a dip of 3.8 % from 2005-06 to 2006-07. IUD insertions too declined by 3.6% and condom acceptance declined by 0.4%. OP usage alone has gone up by 9.2% (in case of condoms and OP the usage figures account for both free distribution and supply via social marketing).

The achievements with regard to contraceptive usage in the two subsequent years are as follows:

Methods	Achievement (in lakhs) 2006-07	Change in % 2005-06	
Sterilization	4,514,092	4,691,975	-3.8
IUD insertions	5,945,859	6,168,584	-3.6
Condom users	20,630,468	20,718,296	-0.4
OP	8,946,014	8,194,545	9.2

Other Methods

The acceptance of spacing methods in the country is still very low in spite of the large unmet need. IUD 380A was introduced in India in 2002 replacing the earlier CUT 200 in view of its efficiency, longer effectiveness and cost effectiveness. However, there has been no increase in the acceptability of IUD and one of the reasons is lack of skilled manpower.

To address this problem an Alternative Methodology of Training in IUD services is being launched using Zoe anatomic pelvic models. The pilot phase of this intervention is currently being started in one district each of 12 states spread all over the country.

Emergency Contraceptive Pills (ECP) were introduced for the first time in the NFWP '02-'03. It prevents unwanted pregnancy after an unprotected act of sexual intercourse. A manual is being formulated to provide guidelines for the administration of ECPs to all service providers.

No Scalpel Vasectomy(NSV)

The male sterilization was the most accepted contraceptive method during the sixties in India forming nearly 70-80% of the total sterilizations. However, this high acceptance came down to around 2-3% of the total sterilization due to various reasons. With the aim to bring men to the forefront in population and reproductive health programmes and share the responsibility of family planning special budgetary provisions have been made in the tenth plan under the Male Participation which will also address gender equity concerns.

To overcome the main problem of lack of skilled service providers in NSV, the GOI has come out with a District Trainers Training strategy wherein every district is to be provided with 1 district trainer who would be responsible for providing service to the acceptors as well as training to other doctors . Under this, 264 districts have been covered till date.

To mainstream the training for NSV in Medical education, training of faculty members of the Surgery departments of Medical Colleges is being taken up at 7 centers across the country.

The GOI has also enhanced the Compensation package to be paid to the acceptors of sterilization services to compensate for their loss of wages incurred while accepting the procedure.

The GOI has also started the National Family Planning Insurance Scheme in November 2005 wherein compensations are paid to the clients or their dependants in the unlikely and unfortunate events of deaths, complications and failures and the surgeons are also covered under an indemnity insurance to take care of any litigation they may face for any case of death, complication or failure

PROHIBITION OF PRE-CONCEPTION AND PRE-NATAL SEX DETERMINATION

In order to check female foeticide, the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994 was enacted and brought into operation from 1st January, 1996. The Act prohibits determination and disclosure of the sex of the foetus. It also prohibits any advertisements relating to pre-natal determination of sex. Punishments are prescribed for contravention of any of its provisions, like imprisonment up to 5 years and fine up to Rs.1,00,000/- in addition to cancellation of

the registration/license in the case of medical professionals/diagnostic centres, clinics, etc..

The Act and the Rules framed thereunder have been amended with effect from 14th February, 2003 to ban selection of sex before or after conception and to remove difficulties in the implementation of the Act keeping in view certain directions of the Hon'ble Supreme Court of India.

Appropriate Authorities at the District level implement the Act. A National Inspection and Monitoring Committee has also been constituted at the Centre to take stock of the ground realities by field visits to the problem States. A National Support & Monitoring Cell (NSMC) has been constituted to strengthen implementation of the Act in the country.

A national level need on 'Save the Girl Child' was organized at New Delhi on 28.4.2008 to bring the centre stage the magnitude of the problem of female foeticide and the resultant decline in Child Sex Ratio and its debilitating impact on the society. The meet was inaugurated by Dr. Manmohan Singh, hon'ble Prime Minister of India.

On the same occasion, a Toll Free Telephone, i.e. 1800 110 500, and website, 'i.e. pndt.gov. in' were launched to facilitate the public to access PNDT related information and to lodge complaint against any violators of the provisions of the PC & PNDT Act, 1994. The website incorporates the facility for the clinics across the country to file 'Form-F' online and uploading and retrieval of data from district level to the national level.

In order to make the Pre-Conception & Pre-Natal Diagnostic Techniques Act and the rules framed thereunder even more effective and stringent; the Central Government is considering to further amend the Act and the Rule.

Safe Abortion Services/ Medical termination of Pregnancy (MTP)

Provision of Safe Abortion Services in accordance with the MTP Act is an important component of the ongoing RCH Programme Phase II and it is one of the means of reducing maternal mortality. As per the latest Survey Report of the office of RGI (RGI-SRS 2006), 8% of maternal deaths are due to unsafe abortions. For expanding and strengthening safe abortion services under the RCH Programme, the MTP Act 1971, Rules and Regulations have been amended in 2002-03 for delegation of powers to recognize MTP centres to the district level and also provides for specific punitive measures for performing MTPs by unqualified persons and in places not approved by the government. Provision of MTP services at 24 X 7 PHCs, CHCs and FRUs are being strengthened by training of medical manpower in techniques of MTP by the States.

Routine Immunization Programme

Immunization programme is one of the key interventions for protection of children from life threatening conditions, which are preventable. Immunization Programme in India was introduced in 1978 as Expanded Programme of Immunization. This gained momentum in 1985 as Universal Immunization Programme (UIP) and implemented in phased manner to cover all districts in the country by 1989-90. UIP became a part of Child Survival and Safe Motherhood Programme in 1992. Since 1997, immunization activities have been an important component of National Reproductive and Child Health Programme. Immunization is one of the key areas under National Rural Health Mission (NRHM) launched in 2005.

Under the Immunization Programme, Government of India is providing vaccination to prevent six vaccine preventable diseases i.e. Tuberculosis, Diphtheria, Pertussis, Tetanus, Polio, and Measles. The vaccination schedule is as under:

BCG (Bacillus Calmette Guèrin)- Birth

DPT (Diphtheria, Pertussis and Tetanus Toxoid)- 6,10,14 weeks and at 16-24 months of age

OPV (Polio)- 6,10,14 weeks & 16-24 months of age and birth dose for institutional delivery

Measles - 9-12 months of age

DT (Diphtheria and Tetanus Toxoid) - 5 years of age

TT (Tetanus Toxoid) - 10 years and 16 years of age

TT - for pregnant woman two doses or one dose if previously vaccinated within 3 years

To further strengthen the Routine Immunization, with the aim to improve the coverage, Government of India has taken the following initiatives as part of NRHM since 2005-06:

- 1 Introduction of AD syringes for all immunization replacing the existing glass syringe and needles.
- 1 Downsizing the BCG vial from 20 dose to 10 dose.
- 1 Plans for alternate vaccine delivery from PHC to Sub centre and outreach sessions.
- 1 Outsourcing immunization activities in urban slums and under served areas.
- 1 Strengthening supervision and monitoring.
- 1 Mobility support to District Immunization officer for supportive supervision and monitoring.
- 1 Review meeting at the State level with the districts on 6 monthly basis.
- 1 Mobilization of children to immunization session sites by Accredited Social Health Activist. (ASHA), Link workers, Women Self Help Groups etc.
- 1 To improve the immunization coverage in low performing state viz. EAG States and N.E. States, Special Immunization Weeks / Catch-up Rounds are being observed in these States.

All the States/UTs are asked to prepare their own State Programme Implementation Plan (PIP) for Immunization as part 'C' of NRHM PIP from the year 2005-06 to address specific needs.

INDIAN NURSING COUNCIL

The Indian Nursing Council is a statutory body constituted under the Indian Nursing Council Act, 1947. The Council is responsible for regulation and maintenance of uniform standards of training for nurses, midwives, ANMs and Lady Health Visitors in India. The Council prescribes the syllabi and regulations for various Nursing courses. At present 1602 GNM schools, 440 ANM schools, 817 colleges of nursing for conducting graduation programmes and 91 colleges of nursing for conducting post graduate courses in nursing are functioning in the country. On an average 25-30 thousand nurses and 10-12 thousand ANMs qualify every year. So far 9,28,194 GNM

and 5,26,242 ANMs have been registered with various State Nursing Councils up to 31st December 2006.

PULSE POLIO IMMUNIZATION

In the pursuance of the World Health Assembly resolution of 1988, in addition to administration of routine OPV through the Universal Immunization Programme, the Pulse Polio Immunization (PPI) Programme was launched in 1995-96 to cover all children below the age of 3 years. In order to accelerate the pace of polio eradication, the target age group was increased from 1996-97 to all children under the age of 5 years. Till 1998-99, the PPI programme consisted of vaccination of children at fixed booths on the National Immunization Days (NIDs) held twice, separated by six weeks, during the winter season.

In spite of very good coverage during NIDs 5-6 per cent of children were being missed even in the PPI programme. During 1999-2000 therefore, in addition to booth immunization, a house-to-house search of missed children and vaccinating them on the next 1-3 days following each NID/Sub NID was undertaken. This house-to-house programme resulted in identification and vaccinating 2.3 crore children who had never been vaccinated before. Total number of children vaccinated during each NID round in the country is about 17 crore.

Significant progress has been achieved in controlling transmission of Wild Poliovirus. Type-2 Polio Virus has been eliminated since 1999. Type-3 circulation is restricted mainly in West U.P. districts. Type-1 Polio Virus circulation is also limited to the endemic districts of Uttar Pradesh and Bihar.

During 2007, (till 27th July 2007) 124 cases were reported -39 were of wild polio virus type 1 (WPV1) and of wild polio virus type 3 (WPV3). The geographical spread was restricted to 39 districts.

Nutrition

The Nutrition Cell in the Directorate General of Health Services provides technical advice in all matters related to policy making, programme implementation, monitoring & evaluation, training content for different levels of medical and para medical workers. It takes up technical scrutiny of standards and labels for foods, proposals, project evaluation, review of research projects, etc.

The cell has been making efforts in creating awareness regarding prevention of micronutrient deficiency disorders, diet related chronic disorders and promotion of healthy life style through dissemination of various types of IEC material. So far, posters and pamphlets on the above mentioned issues, video spots on IDD were developed. Production of video film on Undernutrition and Promotion of Healthy Life Styles and 'reviewing & updating the publication entitled 'Guidelines for Standardized Hospital Diets' activities are under active process.

The Cell organizes meetings and workshops (National & Regional levels workshops) on core issues related to nutrition i.e. micronutrient, hospital dietwts, fluorosis. Diet related chronic disorders & promotion of healthy life style fast/junk food etc.

In order to address the problem of fluorosis in the country a new initiative i.e. "National Programme for Prevention & Control of Fluorosis (NPPCF)" has been

approved for implementation in 100 districts with financial allocation of Rs. 68 crores during the 11th Five Year plan. The 1st phase of the programme will be launched & implemented in the current financial year in one district of each five States.

The Nutrition Cell also keeps State Nutrition Division, located in 17 States/UTs, updated on developments in the field of nutrition, micronutrient deficiencies, diet related chronic non-communicable disease, junk/fast foods etc.

FAMILY WELFARE LINKED HEALTH INSURANCE SCHEME

As a measure to encourage people to adopt permanent method of Family Planning, this Ministry has been implementing a Centrally Sponsored Scheme since 1981 to compensate the acceptors of sterilization for the loss of wages for the day on which he/she attended the medical facility for undergoing sterilization.

1. Apart from providing for cash compensation to the acceptor of sterilization some States/UTs were apportioning some amount for creating a miscellaneous purpose fund utilized for payment of ex-gratia to the acceptor of sterilization or his/her nominee in the unlikely event of his/her death or incapacitation or for treatment of post operative complications attributable to the procedure of sterilization, as under:-
 - i) Rs. 50,000/- per case of death
 - ii) Rs. 30,000/- per case of incapacitation.
 - iii) Rs. 20,000/- per case of cost of treatment of serious post operation complication.
1. Any liability in excess of the above limit was being borne by the State/UT/NGO/Voluntary Organization concerned from their own resources.
1. The Supreme Court of India in its Order dated 1.3.2005 in Civil Writ Petition No. 209/2003 (Ramakant Rai V/s Union of India) has, *inter alia*, directed the Union of India and States/UTs for ensuring enforcement of Union Government's Guidelines for conducting sterilization procedures and norms for bringing out uniformity with regard to sterilization procedures by :
 - a) Creation of panel of Doctors/health facilities for conducting sterilization procedures and laying down of criteria for empanelment of doctors for conducting sterilization procedures.
 - b) Laying down of checklist to be followed by every doctor before carrying out sterilization procedure.
 - c) Laying down of uniform proforma for obtaining of consent of person undergoing sterilization.
 - d) Setting up of Quality Assurance Committee for ensuring enforcement of pre and postoperative guidelines regarding sterilization procedures.
 - e) Bringing into effect an insurance policy uniformly in all States for acceptors of sterilizations etc.
1. With a view to do away with the complicated process of payment of ex-gratia to the acceptors of sterilisation for treatment of post operative complications,

incapacitation or death attributable to the procedure of sterilization, the Family Planning Insurance Scheme was introduced w.e.f. 29th November, 2005 for a period of one year to take care of the cases of failure of sterilisation, medical complications or death resulting from sterilisation and also provide indemnity cover to the doctor / health facility performing sterilisation procedure, with Oriental Insurance Co. and was subsequently renewed for one more year from 29.11.2006 to 31.12.2007 with OIC.

The benefits extended under the scheme were as follows:-

Policy period 29.11.2005 to 28.11.2006 (First Year)

a) Death due to sterilization in hospital:	Rs. 1,00,000/-
b) Death due to sterilization within 30 days of discharge from hospital	Rs. 30,000/-
c) Failure of sterilization (including first instance of conception after sterilization)	Rs. 20,000/-
d) Expenses for treatment of medical complications due to sterilization operation (within 60 days of operations)	Rs. 20,000/-
e) Indemnity Insurance per Doctor/facility but not more than 4 cases in a year	Upto Rs. 2 lakh per claim

* Total liability of the insurance Company shall not exceed Rs. 9 crores in a year under each section.

Benefits after renewal of the scheme w.e.f. 29th November, 2006 to 31.12.2007 (2nd Year)

Section	Coverage	Limits
I	IA Death following sterilization in hospital	Rs. 2 lakh
	IB Death following sterilization within 8-30 days from the date of discharge from the hospital	Rs. 50,000/-
	IC Failure of Sterilization	Rs. 25,000/-
	ID Cost of treatment upto 60 days arising out of complication from the date of discharge.	Actual not exceeding Rs. 25,000/-
II	Indemnity Insurance per Doctor/facility but not more than 4 cases in a year	Upto Rs. 2 lakh per claim

Total liability of the insurance Company shall not exceed Rs. 9. crores in a year under each section.

- 1 Renewal for third/Fourth year 1.1.2008 to 31.12.2990: Continuation/renewal of the Scheme/Policy for the period 1.1.2008 to 31.12.2009 has been done with ICICI with the increase in the amount for sterilization failure from Rs. 25,000 to Rs. 30,000 and other benefits to the acceptors and indemnity cover to the doctors remaining the same as in the previous year policy, i.e. table as above.
- 1 The scheme is applicable to all acceptors undergoing /undergone sterilization operation irrespective of BPL/APL status.

- 1 Expenditure incurred by GOI on Family Planning Insurance Scheme and performance regarding reporting/settlement of claims is placed as follows:

Year	Insurer	Estimated Number	Premium per person without ST	Total Premium without ST	Total Premium with ST
29/11/05 to 28/11/08	OIC*	50 lakhs	Rs. 15	Rs. 75,00,000	Rs. 8,26,50,000
29/11/06 to 31/12/07	OIC **	45 lakhs	Rs. 9.60	Rs. 4,32,00,000 after adjustment of a refund of Rs. 2,46,95,000	Rs. 8,26,30,000
1/1/08 to 31/12/09	ICICI	50 lakhs	Rs. 5.65	Rs. 2,82,50,000	Rs. 3,17,41,700
1/1/09 to 31/12/09	ICICI	45 lakhs	Rs. 9.75	Rs. 4,38,75,000	Rs. 4,92,97,951

The premium paid by GOI is based on the expected number of sterilizations subject to actual reporting sterilizations.

- * For the period 29.11.2005 to 28.11.2006, the premium was paid to OIC based on expected 50 lakh sterilizations.

However, the premium paid was adjusted in the subsequent year (29.11.06 - 31.12.07) due to less number of sterilization i.e. 35 lakhs.

- ** In the second year based on 35 lakhs accepters a refund of Rs. 24695000 was allowed which was adjusted with actual premium of Rs. 4,32,00,000 and Rs. 2,36,92,680 was paid for the period 29.11.2006 to 31.12.2007.

Premium paid to ICICI for the period 1.1.2008 to 31.12.2008 was based on expected 50 lakh sterilizations and for the period 1.1.2009 to 31.12.2009 was based on expected 45 lakh sterilizations.

Details of premium paid and Performance regarding reporting /settlement of claims upto 30th Sept, 2009:

S. N.	Insurance Co.	Period	Reported	Status of Claims			
				Paid/ Amount	Rejected	Closed	Out standing
1	OIC	29.11.05 to 31.12.07	3409	1878 Rs. 5.5 cr.	623 Rs. 1.45 cr.	381 Rs. 1.25 cr.	527
Status of claims upto 30th June, 2009 under policy 2008 & 2009							
2.	ICICI	1.1.2008 to 31.12.08	4128	2232 Rs. 8.34 cr.	1710 Rs. 5.17 cr.	-	186 Rs. 0.57 cr.
3.	ICICI	1.1.2009	1570	607 Rs. 2.32 cr.	534 Rs. 1.85 cr.	-	432 Rs. 1.71 cr.

- 1 Encouraged with the responses, GOI replicated the scheme in whole of the state in phased manner covering total 1.85 crores BPL families i.e. 6.55 crores BPL population.

- 1 Now scheme is covering Heart, Lung, Liver, Pancreas, Renal diseases, Neuro-Surgery, Pediatric Congenital Malformations, burns including Post Burn Contracture Surgeries for Functional Improvement, Prostheses (Artificial limbs), Cancer treatment (Surgery, Chemo Therapy, Radio Therapy) and Poly trauma covering 330 interventions.
- 1 Use of both public and private health facility. Health Melas being the major areas of thrust under this scheme are organized by the net-worked hospitals for identification of patients.

Results indicate the following as on 30/08/2009

S.No.		
1	Implementation date	01/04/07
2	Districts covered	23 in 5 phase
3	Camps organized	10736
4	Patient screened	18.16 lakhs
5	Patient registered	9.3 lakhs
6	Inpatient	3.50 lakhs
7	Pre authorization	3.14 lakhs
8	Amount Approved	Rs. 956.94 cr.
9	Total Surgery	3.06 lakhs
10	OPD Cases	4.11 lakhs

RAJEEV AAROgyASRI HEALTH INSURANCE SCHEME, ANDHRA PRADESH

The State Government felt a need of introducing the health insurance to provide medical assistance to BPL families for treatment of critical illness as cancer, kidney failure, heart and neuro etc requiring hospitalization. Many people approached the Government for financial assistance to meet the medical/surgical expenses. During the period from 14/05/04 to 26/06/07 Rs. 168.52 crores were provided from CM's Relief fund for 55361 cases.

- 1 Rajeev Aarogyasri Trust, a body constituted by the State for implementation, policy decision and financial control of Health Insurance Scheme is headed by Executive Director. The Scheme is implemented through Star Health Insurance Company.
- 1 BPL population is identified by biometric ration card issued by Civil Supplies department. Trust is also issuing the health card to all BPL families.
- 1 Government of Andhra Pradesh introduced a health Insurance scheme in three districts w.e.f. 1/04/07 on pilot basis in Phase I for Heart, Cancer, Neuro Surgery, Renal diseases, Burns and Poly Trauma (not covered by MV Act) covering mostly 163 surgical interventions through health insurance company with public private partnership of health providers. Sum Insured is Rs. 1.50 lakh with a buffer of Rs. 50,000 per family.
- 1 All diseases under the scheme are covered from day one. A person suffering from any disease prior to the inception of the policy is also covered.

- 1 Package rates are from date of reporting to hospital up to 10 days from the date of discharge from the hospital. In case of kidney transplantation the postoperative care under package is upto 1 year.
- 1 Minimum one free Health Camp in village in a week for the screening of the BPL patient suffering from the identified ailments is being arranged by each network hospital with diagnostic equipments and team of doctors as specified by the Trust for this purpose.
- 1 Cost for cochlear Implant Surgery with Auditory-Verbal Therapy will be reimbursed by the Trust to the Network Hospital on actual basis up to a maximum of Rs. 6.50 lakhs for each case and Insurance Company shall service the cases under the scheme. The cost of this treatment is born by the state only. This is not a part of insurance scheme.
- 1 Funds are provided annually by the State Government to the District for providing the benefit of the scheme. A total allocation of Rs. 39.5 crore was made for the year 2007-08.
- 1 The Department of Public Health and Family Welfare, Government of MP is the Implementing Agency for the Scheme in the State. Monthly progress reports of the scheme are generated at the hospital, compiled block-wise and sent to the State directorate.
- 1 The average benefit availed is under Rs. 1,000/- per family per annum.
- 1 Family Health Cards have been issued to 50 lakh families. The details of beneficiaries are as follows:

Year	SC	ST	GEN	Total
2004-05	7367	3720	0	11087
2005-06	68763	50347	0	119110
2006-07	118855	97488	51698	268041
2007-08	153579	155177	247869	556625
2008-09	153617	158190	277796	589603
Total	502181	464922	577363	1544466

The Expenditure made for purchase of medicines under the scheme is as follows:

Year	Exp in crores
2004-05	0.25
2005-06	3.78
2006-07	7.58
2007-08	17.14
2008-09	17.60

This is a self-funded scheme of the state and taking the support from NRHM also. This does not allow the members to access the private health facilities.

DIN DAYAL ANTYODAY UPCHAR YOJANA MADHYA PRADESH

The Government of Madhya Pradesh is providing social security to the under privileged section of the society and launched the Din Dayal Antyoday Upchar Yojana on 25th September 2004 and providing medicinal facility to 57 lacs PBL families and 10 lacs other families in Madhya Pradesh.

- 1 All members of the primitive tribal groups irrespective of their economic status and families of holders "Mukhya Mantri Mazdoor Suraksha Card" & "Nirman Shramik Card" are also covered.
- 1 Presently there are 57 lakh BPL families and 10 lakh other families are covered. Eligible family is provided with a family health card along with a photograph of the head of the family and details of all the members in it.
- 1 The scheme provides free treatment and investigation facility on hospitalization without any exclusion up to a limit of Rs. 20,000/- per family per annum in all government health facilities.
- 1 The benefit is provided for all diseases and conditions including delivery, without any exclusion.
- 1 Benefit is also available for services provided by private providers for X-Ray, USG, Pathology etc. Other costs such as bed charges and physician's fees etc. are not accounted for.
- 1 In case of seriously ill patients, the limit is being extended to Rs. 30,000/- per family per annum. Benefit is also available for services provided by private providers for X-Ray, USG and Pathology etc.
- 1 The cost of medicines/ material/ investigations is entered in the card whenever a patient with family health card is hospitalized. The card once issued does not require renewal. Additional names can be added on providing sufficient proof.
- 1 All State Government Hospitals, those providing hospitalization facilities are eligible under the scheme.

"MUKHYA MANTRI RAKSHA KOSH" FOR BPL POPULATION OF RAJASTHAN

"Mukhya Mantri Jeevan Raksha Kosh" (MMJRK) scheme is launched in the state of Rajasthan with effect from January 1, 2009 for BPL population to take care of their health related in-patient and out-patient care.

- 1 The Mukhya Mantri Jeevan Raksha Kosh has been implemented through all public health institutions of Rajasthan to provide free in-patient care and out-patient care to BPL families.
- 1 BPL card holder will get free of cost cash less health care facilities in Medical Colleges, District hospitals and CHCs of the district for in-patient care for any ailment and OPD care. Further, if high end care facility not available in the state for such ailment, they may be sent out of the state in AIIMS, New Delhi and Chandigarh for such treatment.
- 1 Each Medical College (Rs. 50 lakh to Sawai Madho Singh College and Rs. 25 lakh each to other medical colleges), District-Hospital (Rs. 5.00 lakh) and CHC (Rs. 1.00 lakh) having Medical Relief Society are given fixed advance funds for medicines and consumables. After spending the 75% of the funds, they are

given further amount to keep maintaining the balance in their account. The required medicines and other artificial organ/ equipments is being purchased through Medicare Relief Society (MRS).

- 1 A facilitation desk under the scheme is provided to help all BPL patients at the public health institutions for 24 hours/ day and comprises a project manager and 3 Rogi Mitras at the Medical Colleges and District Hospitals (1 per shift) and lesser levels of deployment at the CHCs to assist the BPL.
- 1 It is also proposed that the technical preparedness for monitoring the scheme is higher than the other schemes that the State government has implemented so far. With 7 medical colleges being brought into the fold and application software for Rogi Mitras to be established under the current scheme at various government hospitals across the State, the monitoring and implementation of this scheme will be substantially stronger than in the past.
- 1 The District Collector/Commissioner will be the chairperson of the society and will monitor the scheme.
- 1 Following officials can be approached by the beneficiaries in case of finding any difficulty in getting the benefit under the scheme:
 - 1 Mission Director, NRHM
 - 1 Commissioner/District Collector
 - 1 Director, Hospital Administration, Medical & Health Services.
 - 1 Principal/Controller of Medical College
 - 1 Chief Medical Officer of the district hospital
 - 1 Chief Medical & health Officer
- 1 Performance regarding reporting/settlement of claims from 1/01/2009 to 31/05/2009 is as under:

S.No.	Head	No. Amount
1	Total BPL benefited	Rs. 6.54 lakhs
2	Total expenditure	Rs. 11.64 cr
3	IPD	Rs. 0.98 lakhs
4	Amount	Rs. 8.82 cr
5	OPD	Rs. 5.56 lakhs
6	Amount	Rs. 2.82 cr
7	Treatment given in	
a	Medical colleges	Rs. 0.88 lakhs
b	District hospitals	Rs. 1.92 lakhs
c	CHCs	Rs. 2.71 lakhs
d	PHCs	Rs. 1.03 lakhs

YESHASVANI CO-OPERATIVE FARMERS HEALTH CARE SCHEME - KARNATAKA

Yeshasvani Co-Operative Farmers Health Care Scheme provides necessary treatment to medical/surgical procedures by becoming a member of a scheme. The scheme

aims to provide cost effective quality health care facilities to the co-operative farmers spread across the state of Karnataka.

- 1 The scheme operates under the aegis of the Karnataka state Co-operative Department. Being a self-funded scheme the governing body for implementation, policy decision and financial control lies with the special purpose Trust named Yeshasvani Trust headed by Principal Secretary of the Co-operative department. M/s Family Health Plan is the implementing agency.
- 1 Beneficiaries are offered cash less treatment at the net work of over 135 hospitals spread across the state of Karnataka. Coverage is limited to Rs. 2.00 lakh per annum per individual and sub-limit of Rs. 1.00 lakh per surgery per individual with category limit.
- 1 1600 surgical procedures at tariff pre-negotiated with participating hospitals. All procedures are limited to one incidence per year. However, it excludes prosthesis, implants, joint replacement surgeries, transplants, chemotherapy, cosmetic surgeries, burn cases, dental surgeries and several other events and items.
- 1 Coverage for stabilization of defined medical emergencies like dog bite, snake bite, bull-run injury, drowning, accidental poisoning, electric shock, accident while working with agriculture implements, road traffic accidents and burns limited to two days of hospitalization up to a maximum of Rs. 1500 per member per incidence.
- 1 Maternity cover to a women member above 18 years limited to Rs. 600 per birth. In addition the neo natal is also covered.
- 1 Free OPD consultation, discounts on investigation charges and on the tariff for non-covered hospitalization is also available.
- 1 Each member to contribute Rs. 120 per annum. 15% rebate for family of five or more members having minimum 6 months membership in the co-operatives societies. The plan is open to all members on a voluntary basis.
- 1 State government is also providing the financial support to the scheme based on the requirement on yearly basis. The status of the scheme upto 31/03/09 is as under:

Sr. No. June 08 - March 09		
1	Members enrolled	3047877
2	Contribution	Rs. 36.10 cr.
3	Govt. contribution	Rs. 25.00 cr.
4	Authorization Approved (72440)	Rs. 62.34 cr.
5	Surgeries (59453)	Rs. 48.51 cr
6	Claims paid (56715)	Rs. 46.47 cr.

RASHTRIYA SWASTHYA BIMA YOJANA

Rashtriya Swasthya Bima Yojana (RSBY), a scheme of Ministry of Labour was launched on October, 1, 2007 and rolled out from 1st April, 2008 in a phased manner. The scheme is implemented in most of the states, initially on pilot basis. However, the Government has decided to take up all the districts in 2009-10 itself.

- 1 Maximum contribution is Rs 725 per family (75%. 25%) [Central: State share]). The beneficiary would pay Rs. 30/- per annum as registration/renewal fee.
- 1 The main objective of this scheme is to provide health insurance cover to the below poverty line (BPL) workers and their families in the unorganized sector and to improve access of BPL families to quality medical care for treatment of diseases involving hospitalization and surgery through an identified network of health care providers as cashless.
- 1 The scheme provides the coverage for meeting expenses of primary inpatient hospitalization for medical and/or surgical procedures including maternity benefit and new born child, to the BPL families up to Rs. 30,000 per family.
- 1 It covers all pre-existing conditions/diseases from day one with a provision for transport allowance.
- 1 The main object of this scheme is to provide the health care facility as cashless. Reimbursement to hospitals shall be based on the electronic transaction data received from hospitals.
- 1 Unit of enrolment is family up to a unit of five members. This would comprise the Household Head, spouse, and up to three dependents. The dependents would include such children and/or parents of the head of the family as are listed as part of the family in the BPL data base. The enrolment of BPL beneficiaries based on the soft data provided by the State Government/Nodal Agency and issue Smart card as per Central Government specifications.
- 1 The scheme has 725 identified common surgical packages apart from medical procedures. In addition to the package list other procedures are also covered. This covers entire cost of treatment of the patient from date of reporting to his discharge from hospital and 5 days after discharge and any complication while in hospital, making the transaction truly cashless to the patient.
- 1 Fixing of treatment protocol and costs, treatment authorization to keep the administering at the lowest and making full use of the resources available in the Government/Private health systems.
- 1 For effective operation of the scheme, partnership is envisaged between the Insurance Company, public and the private sector hospitals and the State agencies.
- 1 As on 30/06/2009 scheme has been rolled out in 120 districts of 18 States on various dates in 2008-2009. Total 60,59,599 family smart cards have been issued covering 307, 97,995 members.

NATIONAL COMMISSION ON POPULATION

The National Commission on Population was constituted in May 2000 to review, monitor and give directions for the implementation of the National Population Policy (NPP), 2000 with a view to meeting the goals set out in the Policy, to promote inter-sectorial coordination, involve the civil society in planning and implementation, facilitate initiatives to improve performance in the demographically weaker States in the country and to explore the possibilities of international cooperation in support of the goals set out the National Population Policy. The first meeting of the Commission

was held on 22.7.2000 and last on 23.7.2005. In the first meeting of the Commission the then Hon'ble Prime Minister had announced the formation of an Empowered Action Group within the Ministry of Health and Family Welfare for paying focused attention to States with deficient national socio-demographic indices and establishment of National Population stabilization Fund to provide a window for canalizing monies from national voluntary sources to specifically aid projects designed to contribute to population stabilization. The National Commission of Population has been reconstituted on 11th April, 2005 with 40 members under the Chairmanship of the Hon'ble Prime Minister. Minister of Health and Family Welfare FW and the Deputy Chairman of the Planning Commission are Vice Chairman of the Commission. The present membership also includes the Chief Ministers of the States of Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, Jharkhand, Kerala and Tamil Nadu.

DIRECTIONS AND ADMINISTRATION

Under this scheme, norms for contingent expenditure for District and State Family Welfare Bureau, Rural Family Welfare Centers and Vehicle with POL charges had been revised after a gap of more than thirty years. Flexibility had been also allowed to all States to review existing staff position and to abolish posts that have become irrelevant and to create the posts, which are utmost necessary, within the grant available from the Government of India for this purpose. Releases to State/UTs are made as per audited expenditure for the respective period of previous financial years.

STERILIZATION AND IUD INSERTION (COMPENSATION SCHEME)

Since the compensation Scheme has been put under flexible pool of RCH.II. no specific B.E. was made under separate head for this scheme for releases to States/UTs for the year 2007-08. However, with further revision in the compensation package to acceptors of sterilization with particular boost to male participation in family Planning i.e. Vasectomy from existing Rs. 800 to Rs. 1500/- and tubectomy from Rs. 800/- to Rs. 1000 in public facilities and to Rs. 1500/- for both Vasectomy and tubectomy in accredited private health facilities to all categories in High focus States and BPL/SC/ST in Non High focus States.

HEALTH INSURANCE

Under the National Rural Health Mission (NRHM), the MOHFW has set up a task force to explore new health financing mechanisms. The terms of reference for this task force include review of existing mechanisms to include health financing, human resource implications to manage health financing and risk pooling schemes, extent of subsidies required, ensuring equity and non-discrimination, feasibility in various states, suggested design of pilots and sites to launch community based health insurance models, and required modifications of existing structures to introduced health financing schemes.

This Ministry has advised the State/UT Governments to prepare Health Insurance models as per their local needs to be run on pilot basis. State Governments of Andhra Pradesh, Rajasthan, Madhya Pradesh and Mizoram have sent proposals for funding the above pilot projects. The details are give as under:-

(a) Andhra Pradesh : Pilot Project for implementation of Health Insurance scheme from Andhra Pradesh for Anantapur, Mahboobnagar and Srikakulam districts was received with request for providing funds to the tune of Rs. 46.20 Crores. An amount

of Rs. 10 Crores was agreed to as share of the Union government during the year 2007-08. Government of Andhra Pradesh implemented the Aarogyasri community health Insurance Scheme in five more districts of chittoor, east Goadavari, West Godavari, Nalgonda and Ranga Reddy in Second Phase from 5th December, 2007. Proposal for extension of the scheme to 15 more districts during the year 2008-09 in three phases has been received from the State Government.

(b) Assam : State Government has included proposal for introduction of Health Insurance in the state PIP for 2008-09. Detail proposal was not given in PIP. State Government has been requested to provide details of the pilot projects in this regard as per framework.

(c) Rajasthan : Pilot project received from State Government of Rajasthan is in respect of Sriganganagar, Udaipur, Chittorgarh, Dungarpur and Banswara districts of Rajasthan. The proposal has been considered in the Ministry and an amount of Rs. 23.64 Crores (75% of total premium) against the total premium of Rs. 37.82 crores has been provided to the State Government, under the NRHM Flexipool for the year 2007-08 with the condition that number of BPL families should be as per the guidelines of Planning Commission, Government of India.

(d) Madhya Pradesh : A proposal was received from Government of Madhya Pradesh to introduce health insurance scheme for families below poverty line in March 2007. Since full details regarding the scheme as per framework suggested by the Ministry was not furnished by the State Government, they were requested to furnish the same and include the proposal in Programme Implementation Plant under NRHM for the year 2008-09.

(e) Mizoram : Hon'ble Chief Minister of Mizoram has requested Union Minister for Health and family welfare to approve the Health Insurance Scheme in the State of Mizoram and release necessary funds under National Rural Health Mission. The pilot scheme for launch of Health Insurance scheme for BPL families in the State was received the State has been requested to formulated the Scheme as per guidelines circulated by this Ministry.

STATISTICS DIVISION

Statistics Division is mainly concerned with Monitoring & Evaluation of various programmes launched by Ministry of Health & Family Welfare with a view to attempting appropriate midcourse corrections. Ministry is implementing the Phase II of the Reproductive Child Health (RCH which is a crucial component of the National Rural Health Mission (NRHM). The monitoring the progress of implementation of the programme is not only essential but integral to evaluate the impact of the programmes. Monitoring and Evaluation is an effective management and quality assessment tools. The focus of monitoring is on processes and quality of services rendered under RCH-II/NRHM. The main components of MIS Scheme include MIS-Performance; Community monitoring; Quality Assurance; Triangulation of M&E; Concurrent Evaluation; E-governance; Training etc.

The details of the activities undertaken by the division are as follows:

- 1 **HMIS:** For capturing information on the service statistics from the peripheral institutions, an exercise was undertaken to rationalise the data capturing format by removing redundant information, reducing the number of forms and focussed on facility based reporting. The revised forms were finalised in September, 2008 and disseminated to the States. A web based Health MIS (HMIS) Portal was launched in October, 2008 too facilitate data capturing at the District level. The National Health System Resource Centre (NHSRC) was involved in training of State and District officials on the new HMIS system. Thee HMIS Portal has led to faster flow of information from the district level and consolidation of Reports at the State and National level. The Portal captures both physical and financial performance under NRHM from the districts. Around 95% of the Districts have already entered data for the fiscal year 2008-09 and the NRHM related reports would be brought out through this Portal. The Bulletin on Rural Health Statistics (RHS) for 2009 and Family Welfare statistics In India 2009 will be brought out based on the Portal data. After stabilisation of the system in terms of data etc, the web based application will be further expanded to capture data from the facility level and incorporating GIS initiatives in the next phase.
- 1 **Surveys:** The Ministry coordinated the activities of the, National Family Health Survey (NFHS) District Level Household Survey (DLHS) for assessing the impact of the health programmes and generating various health related indicators at the National, State/District 1. National reports of NFHS-3 was released in September 2007. State and District Fact Sheet for the results of the DLHS-3 have been released during 2008 and hosted on the Health MIS Portal for use by the health officials and other stakeholders for improving and realigning the health interventions. In addition an Annual Health Survey is also being planned for preparing a District Health Profile of the high focused States to yield vital rates and indicators at the district level annually. The expenditure Finance Committee (EFC) has approved the proposal 108 posts have already been created in the office of RGI for conducting the survey. Field work is likely to start in 2010.
- 1 **Quality Assurance :** Quality of health care is an integral component of the NRHM and a pilot was undertaken in six States viz. UP, Uttaranchal, West Bengal, Assam, Maharashtra and Karnataka. The pilot study involved deploying the quality assurance tools to a district and laying down the protocols for ensuring quality of services in the facilities and institutionalising mechanisms for taking corrective action. As such the QA process is highly structured and includes basics like gap analysis, prioritisation of actions, development of standard protocols and implementation of specific strategies like - patients charter, NABH, Licensing, accreditation etc. These tools were shared with all the States and based on the results of the pilot study, several States like Assam, Jharkhand, Rajasthan, Uttar Pradesh, Uttarakhand and West Bengal have decided to initiate the quality assurance protocols in several districts. It is expected that the outcome of this exercise would snowball into a State-wide exercise where not only the quantum but also the quality of health services is improved. Efforts are on to integrate the Quality Assurance process as a part of the existing Quality Assurance Committees at the District level.
- 1 **Evaluation Activities:** One of the strong pillars of NRHM is to involve the community and NGOs in partnership for evaluation of the NRHM as an external agency. Thus while the Advisory Group on community Action (AGCA) is

evolving protocols for Community Monitoring of the health facilities and the services provided; the Ministry is also engaging a number of consulting agencies for Concurrent Evaluation of the NRHM. The Ministry sought an Expression of Interest from interested agencies for this exercise and around 76 agencies submitted proposals for undertaking this exercise. These proposals were evaluated and the contract was awarded to the shortlisted agencies. The field work for this exercise is almost complete and the reports are expected by November, 2009. The International Institute for Population Sciences (IIPS), Mumbai has taken up the responsibility for coordinating the work at the National level. In addition, there are 7 Regional Evaluation Teams located in the Regional Office of the Ministry which undertake evaluation of the NRHM activities on a Regional Office of the Ministry which undertake evaluation of the NRHM activities on a sample basis by visiting the selected Districts and interviewing the beneficiaries. The format for evaluation of various health facilities in the States/UTs by the RET has been thoroughly revised.

- 1 **Triangulation of Data:** The Ministry is also undertaking an exercise of Triangulation of Data from various sources (MIS, surveys and Evaluation etc.) so as to improve the quality and validity of data. Information technology would be leveraged to evolve a protocol for triangulation of data, where after it would be piloted in a few states/districts. An Expert Group has been established to mentor the triangulation process. Subject areas of triangulation and experts to be involved for this exercise have already been identified by the expert group and work is in progress.
- 1 **E-Governance Initiatives :** The E-Governance activities undertaken in the past by the Ministry were in selected areas. With a view to integrating the E-governance and IT initiatives in the Ministry, a Consultancy organisation has been engaged by the Ministry for preparing an IT an E-Governance Road Map for the Ministry. This will be prepared in consultation with the various Programme Divisions and Departments in the Ministry.
- 1 **Clearing House for Information:** The Health Sector has had several programmes initiated in the past and with each programme an associated monitoring system or report or format. It has been observed that various new forms get introduced in the system with little or no efforts to withdraw the earlier forms. With a view to streamlining the data capturing system, a Clearing House for Information has been established under the chairpersonship of Secretary (HFW) primarily for rationalisation of the existing reporting mechanism and for ensuring that any new data item or report to be introduced in the system passes the rigorous required for collecting that information with adequate justification.
- 1 **Research and Academic Activities :** The Division is also responsible for coordinating the activities of the International Institute for Population Sciences (IIPS), Mumbai; National Institute for Health & Family Welfare (NIHFW), Delhi; and 18 Population Research Centres (PRC) located in various Universities and Institutions. The IIPS organise courses in various areas of population studies and health surveys. NIHFW is an apex technical institution for promotion of health and family welfare programmes and undertakes activities like education and training, research, evaluation, projects consultancy services etc. in the field of public health. The 18 Population Research Centres undertake research work and survey work for the Ministry in the field of family welfare programmes,

NRHM, population studies etc. The PRCs are also currently involved in study on rapid appraisal of NRHM.

MIS SCHEME

The MIS Scheme is mainly concerned with Monitoring & Evaluation of various programmes launched by the Ministry with a view to attempting appropriate midcourse corrections. Thus monitoring the progress of implementation of the programme is not only essential but integral to evaluate the impact of the programmes. The focus of monitoring will be on processes and quality of services rendered under RCH-II/NRHM.

The main components of MIS Scheme include Routine Monitoring, Surveys, Programme Management; Quality Assurance; Triangulation of M&E; Evaluation; E-governance; CNAAs Cells, Training through Surveys/Studies.

a) Routine Monitoring :

- i) To retrieve MIS information periodically in a duly revised format from districts/states. The format has been sent to all States/UTs for transmission of information to Centre. The emphasis will be on using the information, collected for evidence based planning and monitoring at all the levels. Routine monitoring will collect data on process indicators while data on the impact indicators will be collected through surveys.
- ii) To provide web/internet based computer software for use at district and stage level.
- iii) Complete computerization/e-net connectivity in a phased manner. Computerization of MIS activities-Hardware, software procurement.

b) Programme Management Evaluation : IIM, Ahmedabad was entrusted a pilot in the states namely Rajasthan and Gujarat. Based on the study reports IIM Ahmedabad is to develop a format and test the same to evaluate management capacity at the district and state/UTs level. The same on completion would be replicated in other States/UTs.

c) Triangulation of Monitoring and Evaluation : The NRHM envisages monitoring the progress of the physical indicators and evaluating the impact of the interventions vis-a-vis the community's requirement through a triangulation process that encompasses quality assurance of the services delivered and management processes. A process of generating relevant information about any indicator from mutually independent sources preferably three hence triangulation), both qualitative and quantitative that will minimize the potential for misreporting. The modalities in implementation of triangulation of data are to be decided in consultation with Development partners and the Working Group of M&E. The three components of triangulation are :

- 1 MIS (develop format on identifying the indicators. The MIS will be so developed that disaggregated information by block/ward and possible by SC/ST and by sex.
- 1 Community monitoring—by PRIs, NGOs and household through representative organization and use of village information kiosks wherever they are available: and
- 1 Special studies/surveys viz., NFHS, DLHS etc.

d) Quality Assessment Monitoring : Assessing and continuous improvement in the quality of RCH services is one of the thrust priorities of NRHM/RCH II programme. The MOHFW intends to undertake a process of evolving a methodological framework for accessing maternal health, child health and family planning services being provided by the public health system in RCH II programme. Since, quality assessment and improvement is in nascent stage, it was decided to adopt a simplistic approach and confine to few select indicators of reproductive and child health programme so that the health system is able to absorb and internalise QA activities as part of the routine activities. Being a new concept, it has been decided to pilot QA in some selected districts before up scaling at the national level. Presently, the pre-testing exercise.

e) E-Governance Initiatives : As part of the E-Governance initiatives, there is a plan to leverage the advances in Information Technology using E-Mode methods for speedy and on-line transmission of data.

f) Concurrent Evaluation : The monitoring and evaluation strategy of the National Rural Health Mission laid emphasis on undertaking External Evaluation/concurrent evaluation of the mission at frequent intervals. These concurrent evaluations will help the Government in carrying out mid-course corrections in the policy environments and implementation guidelines of the programmes so as to make them more effective and beneficial to the targeted groups.

Towards this end, the Statistics Division is in the process of undertaking concurrent Evaluation of NRHM throughout the country in a phased manner.

g) National Surveys : The Statistics Division has been conducting periodic Surveys like the National Family Health Surveys (NFHS) and the District Level Household Surveys (DLHS) to assess the impact and outcomes of the health and family welfare programmes of the Ministry. Recently, the Prime Minister's Office and the Planning Commission have stressed upon the importance and necessity for having district level estimates on the health indicators on an annual basis and for which an Annual Health Survey is being conceived.

a) DLHS-III: Currently the Ministry is in the process of conducting District Level Household Survey Round III. The survey is the agreed activity and would be the mid line survey for evaluating the RCH phase II programmes.

b) Annual Health Survey : The Ministry is in the process of conducting an Annual Health Survey (AHS) to prepare the District Health Profile of all Districts in pursuance to the decisions of the National Commission on Population and the decisions taken in the meetings in the PMO wherein the Planning Commission was also present. The Registrar General of India is designated as the Nodal agency. The Mission Steering Group (MSG) of NRHM, in its third meeting had approved the proposal for AHS in 284 EAG districts including Assam.

POPULATION RESEARCH CENTRES (PRC) SCHEME

The Government of India has created 18 Population Research Centres (PRCs) in 12 Universities and 6 institutions of repute (first set of PRCs in 1958) gradually in a phased manner to achieve the following objectives :

- i. To undertake research projects relating to Family Planning including Family Planning, communication, action and research;
- ii. Demographic research;
- iii) Biological studies and qualitative aspect of population control;

- iv. To gainfully utilize the feed back from these Research Studies for plan formulation, Strategies and modifications of on going Schemes. PRCs are functioning under the supervision and direction of Statistics Division, Department of Health & Family Welfare, Ministry of Health & Family Welfare. Activities of PRCs are constantly monitored through regular periodical reports. Government of India provides 100% financial assistance in the form of grants-in-aid on year-to-year basis towards salaries of staff, books and journals, stationary, vehicle for field surveys other infrastructure equipments and research studies.

POST-GRADUATE INSTITUTE OF MEDICAL EDUCATION & RESEARCH (PGIMER), CHANDIGARH

PGIMER, Chandigarh started with the financial and administrative support of the Govt. of Punjab with open merit as the sole consideration for selecting students and the faculty. It became an Institute of National Importance and an autonomous body by an Act of Parliament (Act 51 of 1966) on April, 1 1967, under the M/o Health & Family Welfare.

The Postgraduate Institute of Medical Education & Research, Chandigarh is a Research Institute of National Importance and has gained worldwide fame for its research activities and quality research. The research at the Institute is mainly focused at the Patient Care and to provide them un-matched treatment of the region with latest methods and technologies.

NATIONAL BOARD OF EXAMINATION

The National Board of Examination was established in 1975 on the basis of the report of working Group set up by the Govt. of India whose terms of reference were:

- (a) "To examine the need for uniformity in the standard of examination for the award of postgraduate degrees and diplomas and, if necessary, to suggest ways and means of achieving it either through one or more national examining bodies, in replacement of or in addition to the existing system, or by any other method whereby the standard of postgraduate examinations in various specialities of medical sciences could be improved.
- (b) To recommend the nature, composition, scope of functions and power of such national examining body/bodies in the contest of the proposal made by the Indian Academy of Medical Sciences and the Association of surgeons of India in this respect."

The NBE is the only examining body of its kind in the country in the field of medical sciences. Continuing evaluation of quality and validity of the measurement mechanism and standards of examinations by constant interaction with experts in various disciplines of modern medicine and allied specialities are among its important activities. The Board conducts examination in 58 specialities and nine dental specialities and has accredited more than 550 institutions/hospitals in public and private including corporate sector hospitals all over the country for the purposes of training of candidates in various specialities to take the Board's examination. The diplomat qualifications awarded by the NBE have been equated with postgraduate degree and postdoctoral level qualifications of universities by the Govt. of India, M/o Health & FW.

The holders of Board's qualifications awarded after an examination are eligible to be considered for specialist's posts in any hospital and teaching institutions. The Govt. of India, after taking into account the expertise and experience gained by the Board in the conduct of fair examinations entrusted the conduct of Screening Test for Foreign Medical Graduates from 2002 onwards.

HEALTH MINISTER'S DISCRETIONARY GRANTS (HMDG):

Under the scheme of Health Minister's Discretionary Grant, financial assistance up to Rs. 20,000/- is available to the poor and needy patients to defray a part of expenditure on hospitalization for under going major surgical intervention and treatment of major diseases. The diseases for which grants are sanctioned are heart ailments, kidney transplantation, hip & knee replacement, cancer, aids, hepatitis, eye, tumor etc.

The patients who are not covered under RAN, due to criterion of below poverty line and whose annual income does not exceed Rs. 50,000/- can avail the financial assistance under the scheme Health Minister's Discretionary Grants (HMDG).

17 Housing

HOUSING is a State subject. The Union Government is, however, responsible for the formulation of policy with regard to programme and approaches for effective implementation for social housing schemes, particularly those pertaining to weaker sections of the society. A comprehensive Housing and Habitat Policy, 1998 was formulated to address the issues of sustainable development infrastructure and for strong public private partnership for shelter delivery. The objectives of the policy are to create surpluses in housing stock by creating an enabling environment and facilitate construction of two million additional dwelling units each year. It also seeks to ensure that housing, along with supporting services is treated as priority sector at par with infrastructure.

The Government would provide fiscal concessions, carryout legal and regulatory reforms and create an enabling environment. The problems of housing shortage compounded with the population explosion has also been addressed by this policy. This document clearly identifies the respective roles of the Central Government, the State Government, local authorities, financial institutions, research standardisation and technical institutions. However, since housing is a state subject, State Governments have to play the primary role in formulating specific action plans and programmes suited to local needs and conditions duly involving local bodies and citizen groups. The Government has identified 'Housing for All' as a priority areas, with particular emphasis on the needs of vulnerable groups. It is proposed to facilitate construction of 20 lakh additional units every year, with emphasis on Economically Weaker Section (EWS) and Low Income Groups (LIG) of the population as also the SC/ST and other vulnerable groups. Out of 20 lakh additional houses, seven lakh houses are to be constructed in urban areas and the remaining 13 lakh in rural areas.

NATIONAL URBAN HOUSING & HABITAT POLICY, 2007

Shelter is one of the basic human needs just next to food and clothing. The need for a National Housing and Habitat Policy emerges from the growing requirements of shelter and related infrastructure in the country. These requirements are growing due to the rapid pace of urbanization, increased migration from rural to urban centres in search of livelihood, mis-match between demand and supply of sites and services and dwelling units at affordable cost and the inability of new and poor urban settlers to access formal land markets in urban areas due to the high cost and their lower income, leading to non-inclusive cities and towns and thus a non-sustainable situation. Hence, it has been decided to review National Housing and Habitat in the country and to ensure equitable supply of land, shelter and services at affordable prices to all sections.

As per the recommendations of the Working Group on Housing for the 11th Plan, the total shortage of dwelling units at the beginning of 11th Plan period i.e. 2007 is 24.71 million. The total shortage during the Plan period (2007-12) including the backlog will be 26.53 million.

The Ministry of Housing and Urban Poverty Alleviation has updated the National Housing and Habitat Policy, 1998. The new National Urban Housing and Habitat Policy, 2007 (NUHHP-2007), has been finalised in consultation with all concerned and laid in the Parliament on 07.12.2007. The new Policy is aimed to provide housing and other basic infrastructure to economically weaker sections, low income groups and other sections of the society at affordable cost.

The salient points of NUHHP, 2007 are:-

- 1 Focus of the Policy is on **Affordable Urban Housing for All** with special emphasis on the urban poor.
- 1 Role of Housing and provision of basic services to the urban poor has been integrated into the objectives of the Jawaharlal Nehru Urban Renewal Mission (JNNURM)
- 1 Special emphasis has been laid on Scheduled Castes/ Tribes / Backward Classes / Minorities, empowerment of Women within the ambit of the urban poor.
- 1 The Policy focuses on a symbiotic development of rural and urban areas in line with the objectives of the 74th Constitution Amendment Act.
- 1 Within the overarching goal of **Affordable Housing for All** emphasis has been laid on urban planning, increased supply of land, use of spatial incentives like additional Floor Area Ratio (FAR), Transferable Development Rights, increased flow of funds, healthy environment, effective solid waste management and use of renewable sources of energy.
- 1 Encouraging Integrated townships and Special Exonomic Zones
10-15% of land in every new public/private housing projects or 20-25% FAR, whichever is greater to be reserved for EWS/LIG Housing through appropriate spatial incentives.
- 1 Private Sector to be permitted land assembly within the purview of Master Plans. Action Plans for urban slum dwellers and special package for cooperative housing, labour housing and employees housing is to be prepared.
- 1 States to be advised to develop 10 years perspective plan for housing of EWS/ LIG.
- 1 Policy gives primacy to provision of shelter to urban poor at their present location or near their work place.
- 1 Approach will be *in-situ* slum rehabilitation. Relocation will be considered only in specific cases.
- 1 Micro finance institutions to be promoted at state level to expedite flow of finances to urban poor.
- 1 Model municipal laws to be prepared by the Central Government.
- 1 Detailed city maps to be prepared based on GIS, aerial survey and ground verification.
- 1 Use of proven cost effective technology and building materials to be encouraged.
- 1 Development of mass rapid transit system at sub-regional level envisaged.
- 1 Green cover for cities to be encouraged for balanced ecological development.
- 1 All States to be encouraged to develop a "Habitat Infrastructure Action Plan" for all cities with a population of over one lakh.

Action Plan

- 1 Encouragement and support to be provided to State Government by the Central Government for preparation of State Urban Housing and Habitat Policy and Action Plan.
- 1 State/UT Action plans to focus on accelerated flow of funds.
- 1 State / UT plans to indicate concrete steps for encouraging a participatory approach.
- 1 Periodic review of implementation of Policy and Action Plan at State level to be carried out.
- 1 Preparation of 15-20 years perspective plans in the form of City Development Plans (CDPs) based on spatial planning at the city level.
- 1 Setting up of High Level Monitoring Committee for periodic review and implementation of the Policy and for making amendments, modifications wherever considered necessary.

SWARNA JAYANTI SHAHARI ROZGAR YOJANA (SJSRY)

All the three Urban Poverty Alleviation schemes, namely, Urban Basic Services for the Poor (UBSP) Nehru Rozgar Yojana (NRY) and Prime Minister's Integrated Urban Poverty Eradication Programme (PMI-UPEP) stand subsumed in a new scheme Swarna Jayanti Shahari Rozgar Yojana (SJSRY) from December 1997. The SJSRY seeks to provide gainful employment to the urban enemployed or under-employed through encouraging the setting up of self-employed ventures or provision of wage employment. This programme relies on creation of suitable community structures. The Centre and the States fund the *Yojana* on a 75-25 basis. The scheme consists of two special programmes; (a) the Urban Self-Employment Programme (USEP) and (b) the Urban Wage Employment Programme (UWEP).

During 2007-08, Rs. 336.92 crore were released under Swarna Jayanti Shahari Rozgar Yojana (SJSRY). Total Central funds released under SJSRY upto 2007-08 are Rs. 1564.46 crore. After adding to it the unspent balance (Central Share) of Rs. 251.73 crore, available from old UPA Programmes of NRY, UBSP and PMIUPEP, the total amount becomes Rs. 1816.19 crore.

During the current financial year 2008-09 an amount of Rs. 515.00 crore has been allocated for the Scheme of Swarna Jayanti Shahari Rozgar Yojana (SJSRY) in the Ministry's Budget.

(a) **Urban Self-employment Programme:** This Programme has three components : (i) Assistance to individual urban poor beneficiaries for setting up gainful self-employment ventures; (ii) Assistance to groups of urban poor women for setting up gainful self-employment ventures. This sub-scheme is titled "The Scheme for Development of Women and Children in the Urban Areas (DWCUA)"; and (iii) Training of beneficiaries, potential beneficiaries and other persons associated with the urban employment programme for upgradation and acquisition of vocational and entrepreneurial skills. The programme is applicable to all urban towns in India and implemented on whole-town basis with special emphasis on urban poor clusters. The programme targets the urban poor, defined as those living below the urban poverty-line. The percentage of women beneficiaries under this programme shall not be less than 30 per cent. The SCs and STs must be benefitted in proportion to their strength in local population. A provision of three per cent shall be reserved for the

disabled under this programme. There is no minimum educational qualification for beneficiaries under this programme. However, this scheme is not applied to beneficiaries with education beyond the ninth standard. Women beneficiaries belonging to women-headed households, viz, widows, divorcees, single women or household where women are the sole earners, are ranked higher in priority. Upto 05.06.2008, the number of persons assisted to set up micro enterprises under USEP was 8,41,059 and women beneficiary under DWCUA groups was 2,70,352 thus benefiting 11,11,411 persons to set up self-employment ventures. The number of persons provided various skill training under the training component of USEP was 12,44,903 upto 05.06.2008.

Development of Women and Children in Urban Areas (DWCUA) programme aims at helping groups of urban poor women in taking up self-employment ventures. The group may consist of at least 10 women. The ceiling of subsidy under the scheme is Rs. 1.25 lakh or 50 per cent of the cost of the project whichever is less. Where the group sets itself up as Thrift and Credit Society, in addition to its self-employment venture, it will be eligible for an additional grant of Rs. 25,000 as revolving fund at the rate of Rs. 1,000 maximum per member. The fund is meant for purposes like purchase of raw materials and marketing, infrastructure support, one-time expense on child care activity, expenses up to Rs. 500 on travel cost of group members to bank payment of insurance premium for self/spouse/child by maintaining saving for different period by a member and any other expense allowed by the State in group's interest. The revolving fund can be invaded by a group only after one year of its formation. Up to 05.06.2008, 70,584 DWCUA groups were formed benefiting 2,70,352 women.

(b) Urban Wage Employment Programme : The programme seeks to provide wage employment to beneficiaries living below the poverty-line within the jurisdiction of urban local bodies by utilizing their labour for constructing of socially and economically useful public assets. There are no restrictions on educational qualification. The programme applies to urban local bodies, having a population of less than five lakh as per the 1991 census. The material/labour ratio for works under this programme is to be maintained at 60:40. The prevailing minimum wage rate, as notified from time to time for each area, has to be paid to beneficiaries under this programme. The programme is dovetailed with the state sector Environmental Improvement of Urban Slums (EIUS) scheme as well as the National Slum Development Programme (NSDP). This programme is not designed to either replace or substitute the EIUS, the NSDP, or any other state sector scheme. The number of man-days of work generated upto 05.06.2008. was 674.75 lakh.

JAWAHAR LAL NEHRU NATIONAL URBAN RENEWAL MISSION (JNNURM)

(A) BASIC SERVICES TO THE URBAN POOR (BSUP)

For integrated development of slums through projects for providing shelter, basic services and other civic amenities with a view to provide utilities to the urban poor in select 63 cities, a Sub-Mission on Basic Services to the Urban Poor (BSUP) is under implementation since 3rd December, 2005 as a component of the Jawaharlal Nehru national urban Renewal Mission (JNNURM). The Sub-Mission on Basic Services to the Urban Poor (BSUP) is a demand driven programme under which State Governments are required to prepare and submit City Development Plans (CDPs), Detailed Project Report (DPRs) and also to sign Memorandum of Agreement (MoA) making a commitment to undertake urban reforms.

Salient features of BSUP

- 1 The Sub-Mission is to be implemented in 63 select JNNRUM cities.
- 1 To be implemented over 7 years beginning with the year 2005-06.
- 1 Central Assistance in the form of ACA to full grant
- 1 50% per cent of the project cost in respect cities having million plus population or above to be borne by the Central Government
- 1 90% of the project cost borne by the Central Government for projects from cities/towns in North Eastern States and Jammu & Kashmir.
- 1 80% of the project cost borne by the Central Government for projects from the remaining cities.
- 1 A minimum of 12% beneficiary contribution for houses. For SC/ST/BC/OBC/PH and other weaker sections, 10% beneficiary contribution.
- 1 Access of Central assistance predicated upon the State/Urban Local Bodies/Parastatals agreeing to the reforms.
- 1 Reforms to ensure improvement in urban Governance.
- 1 Cities to prepare City Development Plans and Detailed Project Reports.

Admissible components under BSUP

- 1 Integrated development of slums, i.e., housing and development of infrastructure projects in the slums in the identified cities.
- 1 Projects involving development/improvement/maintenance of basis services to the urban poor.
- 1 Slum improvement and rehabilitation projects.
- 1 Projects on water supply/swerage/drainage, community toilets/baths, etc
- 1 Construction and improvements of drains/storm water drains.
- 1 Environmental improvement of slums and solid waste management
- 1 Street lighting.
- 1 Civic amenities, like, community halls, child care centers, etc.
- 1 Operation and maintenance of assets created under this component.
- 1 Convergence of health, education and social security schemes for the urban poor.

Since the launch of the Sub-Mission on Basic Services to the Urban Plan (BSUP) 274 projects with a total projects cost of Rs. 17421.11 crore including Rs. 8761.03 crore as Central share have been approved for construction of 7,87,111 dwelling units & provision of other related infrastructure facilities in 61 Mission cities as on 30.04.2008.

(B) INTEGRATED HOUSING & SLUM DEVELOPMENT (IHSDP)

In cities/towns not covered under BSUP, an Integrated Housing & Slum Development (IHSDP) was also launched along with JNNURM on 3,12,2005. Integrated Housing and Slum Development Programme (IHSDP) has subsumed Valmiki Ambedkar Awas Yojana (VAMBAY) and the National Slum Development Scheme (NSDP). The IHSDP has been launched with the objective to strive for holistic slum development, with a healthy and enabling urban environment by providing adequate shelter and basis infrastructure facilities to the slum dwellers of the identified urban areas.

Salient features of IHSDO:

- 1 Central Assistance in the form of ACA as full grant.
- 1 80% percent of the project cost borne by the Central Government.
- 1 90% of the project cost borne by the Central Government for projects from cities/towns in special category States.
- 1 A minimum of 12% beneficiary contribution for houses. For SC/ST/BC/OBC/PH and other weaker section, 10% beneficiary contribution.
- 1 Access of Central assistance predicated upon the State/Urban Local Bodies/Parastatals agreeing to the reforms.
- 1 Reforms to ensure improvement in urban governance.
- 1 Cities/towns to prepare Detailed Project Reports.

Admissible components under IHSDP

- i) Provision of shelter including upgradation & construction of new houses.
- ii) Provision of community toilets.
- iii) Provision of physical amenities like water supply, storm water drains, community bath, widening and paving of existing lanes, sewers, community latrines, street lights, etc.
- iv) Community infrastructure like provision of community centres to be used for pre-school education, non-formal education, adult education, recreational activities, etc.
- v) Community Primary Health Care Centre/buildings can be provided.
- vi) Social amenities like pre-school education, non-formal education, adult education, maternity, child health and primary health care including immunization. etc.
- vii) Provision of Model Demonstration Projects.
- viii) Sites and Services/houses at affordable costs for E.W.S & LIG categories.
- ix) Slum improvement and rehabilitation projects.
- x) Land acquisition cost will not be financed except for acquisition of private land for schemes/projects in the North Eastern, States & hilly States, viz, Himachal Pradesh, Uttaranchal and Jammu & Kashmir.

Since the launch of integrated Housing and Slum Development Programme (IHSDP), 422 projects with a total project cost of Rs. 4009.00 crore including Central share of Rs. 2871.26 crore have been approved for construction of 2,39,200 dwelling units & other related infrastructure facilities in 396 cities/towns as on 30.04.2008.

INTEGRATED LOW COST SANITATION (ILCS)

ILCS Scheme was initially started in 1980-81 through the Ministry of Home Affairs and later through Ministry of Social Justice and Empowerment. The scheme was transferred in 1989-90 to Ministry of Urban Development and Poverty Alleviation and from 2003-04 onwards to Ministry of UEPA/HUPA. The Scheme was implemented:-

- i) The Scheme envisages conversion of dry latrines into low cost twin pit sanitary latrines and construction of new individual toilets where none exists.

- ii) The scheme was taken up on a 'whole town coverage basis' meaning thereby all section of population of the town, (HIG, MIG, LIG & EWS) are covered by the ILCS guidelines. The Scheme was applicable to small and medium having a population not exceeding 5 lakhs as per 1981 Census.
- iii) The scheme was being operated through the Housing and Urban Development Corporation (HUDCO) by providing a mix of subsidy from the Central Government and loan from the HUDCO.
- (iv) Demand driven scheme and hence no state allocation/ targets were fixed.

Patten of Assistance till 17.12.2008 was in the following manner:

Category	Subsidy	Loan	Beneficiary contribution
EWS	45%	50%	5%
LIG	25%	60%	15%
MIG/HIG	Nil	75%	25%

Cumulative Achievement of the scheme as on 31.3.2998

No. of schemes sanctioned Through HUDCO	-	873
Cumulative subsidy released	-	Rs. 35932.04
Total No. of units converted Constructed	-	5020074 units
No. of scavengers liberated	-	56873
No. of towns declared Scavenger free	-	654

The guidelines of the ILCS Scheme have been suitably revised with the approval of the Cabinet in its meeting held on 17.01.2008 and the revised guidelines have been circulated to all States/UTs and concerned Departments on 1st Feb 2008.

The salient features of the revised guidelines are as follows:

- (i) The objective of the scheme is to convert/ construct low cost sanitation units through sanitary two-pit pour flush latrines with superstructures and appropriate variations to suit local conditions (area specific latrines) and construct new latrines where EWS household have no latrines.
- (ii) The scheme is on 'All Town' coverage basis. The Scheme is limited to EWS households only.
- (iii) Targets will be fixed initially in the ratio of 75% for conversion of dry latrines and 25% for provision of pour flush latrines to EWS households who have no latrines
- (iv) The scheme will be funded in the following manner:-
Central Subsidy 75% State Subsidy 15% and beneficiary share 10%
- (v) The upper ceiling cost of Rs. 10,000/- is provided for the complete unit of a two pit pour flush individual latrine with superstructure (excluding States falling in difficult/hilly areas) For the States falling in the category of difficult and

hilly areas, 25% extra cost is provided for each two-pit pour flush latrine. The Scheme is limited to EWS households only and does not entail a loan component. The scheme will be implemented by Ministry of Housing & Urban Poverty Alleviation directly and not through HUDCO.

- (vi) The States will select NGOs having adequate experience in this field who will be funded to a maximum extent of 15% over and above the total project cost to be borne by the Centre and States based on the ratio of 5:1 at different stages of implementation.
- (vii) 1% of total central allocation will be retained by the Ministry every year, to be utilized for MIS Monitoring System, Capacity Building and IEC components.
- (viii) The project cost for converting 6 lakh dry latrines is Rs. 715.48 crores out of which central subsidy comes to around Rs. 545.00 crores during the XIth Plan. The revised ILCS Scheme envisages conversion of all existing dry latrines within a period of three years (2007-2010)

PROJECTS/ SCHEMES FOR THE DEVELOPMENT OF NORTH EASTERN STATES, INCLUDING SIKKIM UNDER 10% LUMP-SUM PROVISION

Then the Ministry of Urban Development & Poverty Alleviation had organised a conference of Ministers of Local Self Governments/ Urban Development/ Housing of North Eastern States and Sikkim at Gangtok on 19-20 May, 2001. The main objective of the conference was to review the progress of Centrally Sponsored Scheme being implemented by this Ministry in these States and to evolve appropriate strategies for the special development needs for the eight States. As a follow up action of the conference, a Task Force was constituted in the Ministry under the Chairmanship of the Union Minister for Urban Development & Poverty Alleviation for considering project proposals from the State Governments of North Eastern Region and Sikkim to be funded out of the Non-Lapsable Central Pool Fund meant for these States. It may be recalled that a decision was taken by the Government of India that 10% of the total budget provision for the Ministries/Departments will be spent on the projects/ schemes of development for the North Eastern Region including Sikkim, Funds under this Provision are non-lapsable and auspect balances under this provision in financial year are pooled up in the non-lapsable central fund meant for these States and are governed by the Department of Development of North Eastern Region (DoNER).

Ministry of Housing & Urban Poverty Alleviation is concerned with the project proposals for the North Eastern States in the following identified areas.

- (i) Housing projects (predominantly for the urban poor)
- (ii) Poverty alleviation projects
- (iii) Slum improvement/upgradation projects

During the financial year 2007-08, allocation of Rs. 50.00 crore was made for ongoing project and it was entirely utilised for the ongoing projects. During the current year 2008-09, allocation of Rs. 50.00 crore has been made for this scheme.

ATTACHED OFFICE

NATIONAL BUILDINGS ORGANISATION (NBO)

The National Buildings Organization (NBO), an attached office of the Ministry of Housing and Urban Poverty Alleviation has been functioning as an apex organization in the country for collection activities. Having regard to the changing requirements

under various socio-economic and statistical functions connected with housing, construction, slum development, urban poverty alleviation and related activities, and also to ensure that the schemes of the Ministry of Housing & Urban Poverty Alleviation (MOHUPA) are supported with appropriate database, MIS and knowledge inputs, the National Building Organization was restructured in March 2006.

The restructuring has assumed special significance in the context of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), launched on 3rd December 2005. JNNURM is the single largest initiative ever launched in the country to address the issues of urban infrastructure and basic services to the urban poor. The Mission will be implemented over a period of 7 years (2005-2012). The Government of India has committed Additional Central Assistance to states to the tune of Rs. 50,000 Crore. The National Building Organisation is designated by MOHUPA as the model agency for co-ordination of appraisal, sanction, monitoring and review of projects under Basic Services to the Urban Poor (BSUP) and Integrated Housing & Slum Development Programme (JHSDP) components of JNNURM.

The mandate of the restructured National Building Organization is envisaged to be as follows:

- 1 To act as national resource centre and repository on urban poverty, slums, housing, building construction and related statistics, networked with similar resource centres of State and Urban Local Body levels and internationally;
- 1 To collect, collate, validate, analyse, disseminate and publish building construction, housing and other related statistics and statistical reports from time to time.
- 1 To bring out compendiums on urban poverty slums, housing and build construction statistics and applied research publications analyzing statistical data gathered from various sources such as the Census, NSSO etc.
- 1 To create and manage a fully computerized data centre equipped with appropriate systems and e-governance tools to store, manage, retrieve and disseminate urban data as and when needed for policies and programmes;
- 1 To conduct regular short-term sample surveys/field studies in various pockets of the country to study the impact of plan schemes being run by the Ministry of Housing & Urban Poverty Alleviation and other Ministries and to gather primary data as needed.
- 1 To undertake socio-economic research relating to design, formulation, implementation of policies, plans, programmes and projects covering areas such as affordable housing and basic services to the urban poor;
- 1 To develop a documentation centre relating to urban poverty, slums, housing, building construction and related urban statistics which can function as a repository of urban resources, including best practices and innovations;
- 1 To organise capacity building/training programmes for the officers and staff of Government of India, State Governments and Urban Local Bodies engaged in collection and dissemination of urban poverty, slums, housing, building construction, and related urban statistics.
- 1 To coordinate and collaborate with State Governments Municipal Authorities Research & Training Institutions /Statistical Institute/International Organisations as nodal agency catering to data and MIS needs of urban policy-makers, planners and researchers in areas relating to urban poverty, slums, housing etc;

URBAN STATISTICS FOR HR AND ASSESSMENTS (USHA)

A new plan scheme of NBO viz., “Urban Statistics for HR and Assessments (USHA)” was launched which aims at the development and maintenance of national database, MIS and knowledge repository relating to urban poverty, slums, housing, construction and other urbanization-related statistics. Its key objective is to support the Ministry of Housing & Urban Poverty Alleviation, other Ministries and State Governments with an information base and knowledge inputs for the purpose of planning, policy-making, project design, formulation, implementation, monitoring and evaluation, particularly in the context of programmes relating to urban poverty, slums and housing. It seeks to specially support the effective implementation of Jawaharlal Nehru National Urban Renewal Mission - Basic Services to the Urban Poor (BSUP) and Integrated Housing & Slum Development Programme (IHSDP). The four pillars of “USHA” are database including MIS & sample surveys, action research; impact assessment; and capacity building training. Under this Central Sector Scheme “Urban Statistics for HR and assessments (USHA)”, NBO has released fund to 32 States/UTs during 2007-08 for procurement of computers, Printers, UPS, system software and other accessories to be used for collection and collation of building construction, housing, slums and poverty statistics, including sample survey data.

LAUNCH OF SOFTWARE FOR ON-LINE TRANSMISSION OF DATA

National buildings Organisation (NBO) has implemented a state of the art decentralized web-based on-line systems BRIKS - Building Related Information and Knowledge System. Using BRIKS, the e-Unit in NBO will be up-linked to State Governments - Departments/Bureaus of Economics & Statistics, Municipal Administration & Urban Development. Municipal Corporations, Municipalities, Urban Development Authorities, Research and Training Institutions etc. This decentralized system will help overcome the constraints of data collection faced by NBO - Timeliness of data, data completeness, data accessibility and data visibility to multiple stockholders BRIKS will allow NBO and all the users of the system to:

- (a) Adopt holistic approach for evolving developmental schemes.
- (b) Continuous development of assessment schemes
- (c) Research.
- (d) Training and capacity building.

PUBLIC SECTOR UNDERTAKINGS

(1) HOUSING & URBAN DEVELOPMENT CORPORATION LTD (HUDCO)

HUDCO since its inception in 1970, has made steady and significant strides in the field of housing and urban infrastructure financing, to emerge as the pioneer and the trend-setter. Catering to the needs of every section of the population, with a basket of delivery options both in housing and urban infrastructure development, HUDCO aims to achieve sustainable growth in these sectors. Having emerged as the market leader in its operational arena, HUDCO aims at consolidating its position and enhancing the performance by laying emphasis on its core competencies and exploring diversified avenues of service delivery.

HUDCO is fast emerging as the only organisation of its kind for dealing with the unique needs of shelter and infrastructure development and still ensuring profitable results. HUDCO, during the three decades of its existence, has extended assistance for taking up over 141 lakhs dwelling units both in urban and rural areas.

In sharp contrast to the policy adopted by the contemporary housing finance companies in the fraternity of targeting the affluent middle and high income groups, HUDCO's assistance covers the housing needs of every class of the society, with special emphasis on the weaker sections and the deprived. The social mandate in line with HUDCO motto of "Profitability with Social Justice" envisages about 92% of total dwelling units sanctioned by HUDCO for the economically weaker section and the low income group. HUDCO has also contributed significantly to the Government's Housing Programme launched during 1998-99 by assisting 106.52 lakhs housing units within a span of 10 years.

HUDCO continued its emphasis on the diaster mitigation front by extending substantial techno financial assistance for rehabilitation and reconstruction in the aftermath of natural calamities. Cumulatively till 31.03.2008, HUDCO has been able to contribute over 41 lakhs houses in disaster affected regions with project cost of over Rs. 4094.07 crores and HUDCO's financial assistance of Rs. 2209.36 crores. HUDCO has been advocating pre-disaster mitigation and risk reduction involving Prediction, Preparation, Prevention, Publicity and Protection, as against the prevalent post-disaster actions of Rescue, Relief, Rehabilitation, Reconstruction, Repairs, Renewals and Retrofitting.

Adequate basis services and appropriate social amenities along with associated infrastructure has been an integral part of HUDCO agenda of sustainable habitat development. The urban infrastructure window of HUDCO, opened in 1989, has sanctioned a total of 1456 projects (Excluding sanitation schemes) with a total project cost of Rs. 224448 crores and HUDCO financial assistance of Rs. 54924 crores, contributing to the improvement in the physical quality of life of the citizens at large in the urban areas.

With the cost of construction increasing year after year, housing is becoming beyond the reach of most sections of the society and the need for utilising cost-effective technologies has become imperative. HUDCO has been promoting the use of alternative building materials and appropriate technologies to ensure cost-effective, environment-friendly, ecologically appropriate, energy saving and yet aesthetically pleasing and affordable housing. The question of transfer of technology at the grass root level is addressed by the support extended to the establishment of 577 Building Centres in urban areas and 78 Building Centres in rural areas across the country.

The future belongs to those who dare to dream, who foresee the possibilities and perceive the hurdles before they become obvious. Anchored on the cornerstones of growth, innovation and leadership and equipped to face the challenges of the new millennium, the company would be striving for the pinnacle of excellence in service delivery, towards making HUDCO a household brand name. HUDCO with diligent vision, proven strengths and prudential strategies would be banking on core competencies, quality of service, customer orientation and professionalism to tap the right opportunities in achieving prolific and vibrant growth in the years to come.

HUDCO's OPERATION DURING 2007-08

HUDCO during the year i.e. 2007-08 from April-March 2008 has achieved sanctions of Rs. 13501 crores providing assistance for construction of 0.99 lakhs dwelling units, over 184 sanitation units, and 150 urban infrastructure projects throughout the country. The loan released during the year announced to Rs. 3754 crore (provisional)

Cumulatively till March 2008, HUDCO has sanctioned 16026 schemes involving a total project cost of Rs. 283264 crores (excluding HUDCO Niwas) with loan component of Rs. 85208 crore out of which an amount of Rs. 605.55 crores has been released. HUDCO's assistance has helped in the construction of 140.99 lakhs residential units, about 67.08 lakhs sanitation units and in undertaking 1456 urban infrastructure schemes effectively improving the living conditions in the urban and rural area, in over 1858 towns and thousands of villages.

HOUSING FOR ALL-HUDCO OPERATIONAL PERFORMANCE

(As on 31.03.2008)

During the current financial year, HUDCO has sanctioned 306 schemes with a total loan of Rs. 13501 crore out of which Rs. 2152 crore have been sanctioned towards Housing schemes (incl. Retail Finance) and Rs. 11349 crore have been sanctioned towards various Urban infrastructure schemes. Further an amount of Rs. 3754 crore has been disbursed which includes Rs. 869 crore towards housing schemes and Rs. 2885 crore (provisional) towards Urban Infrastructure schemes.

Further, during the current year, so far, out of the total dwelling units sanctioned 84% have been sanctioned for priority sector (EWS/LIG), and 14% of the loan under housing has been sanctioned for priority sector.

HUDCO'S CONTRIBUTION TO HOUSING PROGRAMME OF GOVT. OF INDIA LAUNCHED DURING 1998-99.

Under the Housing Programme of Government of India which was started during 1998-1999, HUDCO has been entrusted for providing loan assistance for construction of 10 lakhs units annually (6 lacs units in rural areas and 4 lakh units in urban areas, out of the 13 lakhs houses in rural areas and 7 lakhs in urban areas envisaged under the programme). Against the same since 1998 to 2007-08 as on 31.03.2008, HUDCO has supported a total of 107.31 lakhs (gross) units in both rural and urban areas.

VALMIKI AMBEDKAR AWAS YOJANA (VAMBAY)

VAMBAY and National Slum Development Programme (NSDP) schemes have been subsumed in the Integrated Housing Slum Development Programme (IHSDP), which was launched on 3rd December 2005.

Under VAMBAY, till 31.03.2008 Government of India subsidy of Rs. 93823.076 lakhs has been released for construction/upgradation of 459779 dwelling units and 65555 toilet seats.

As per progress reports, 390397 DUs are completed & 36797 DUs are under progress and 61492 WCs are completed & 2278 WCs are under progress.

BASIC SERVICES TO THE URBAN POOR (BSUP) & INTEGRATED HOUSING AND SLUM DEVELOPMENT PROGRAMME (IHSDP)

BASIC SERVICES TO THE URBAN POOR (BSUP)

Background

- 1 The Basic Services to the Urban Poor was launched by the Prime Minister in December 2005 with a view to ameliorate the conditions of the urban slum dwellers who are residing in dilapidated conditions in the identified 63 mission cities.

- 1 The basic objective of the scheme is to strive for holistic slum development with a healthy and enabling urban environment by providing adequate shelter and basic infrastructure facilities to the urban slum dwellers.

ROLE OF HUDCO

- 1 HUDCO is one of the appraising agencies for appraisal of Detailed Project Reports (DPRs) received under BSUP.
- 1 HUDCO is assisting the State Governments, implementing agencies in preparation of DPRs as per guidelines.
- 1 HUDCO is organizing Training/Workshops at various places to familiarise the agencies with the programmes/ guidelines.

Cumulative Status

Under BSUP, till 31.03.2008, 151 projects (appraised by HUDCO) with a project cost of Rs. 10895.19 crores covering 4.64 lakhs dwelling units have been sanctioned by the Ministry.

LOAN ASSISTANCE TO INDIVIDUALS THROUGH HUDCO NIWAS

In order to reach out to the beneficiaries directly, HUDCO launched its Individual Housing Loan Window-HUDCO NIWAS in March, 1999. The scheme is extremely popular with its most competitive terms, value added services and user friendly options among the public at large.

During the current financial year 2007-08 (till 31.03.2008) a loan assistance of Rs. 50.09 crores has been sanctioned for 970 beneficiaries and Rs. 46.89 crores has been released.

URBAN INFRASTRUCTURE

As the market leader in urban infrastructure financing, HUDCO continued extending finance for a variety of projects. During the year, from 1.4.2007 till 31.03.2008, HUDCO has sanctioned 150 urban infrastructure schemes with a total project cost of Rs. 60200.95 crores and HUDCO loan component of Rs. 11348.75 crores. The Sector-wise details of urban infrastructure projects sanctioned by HUDCO are as follows:-

(Rs. In Crores)

Sector	No.	Project Cost	Loan Amount
Water Supply	7	1975.17	1592.04
Sewerage/Drainage/Solid Waste Management	1	24.96	22
Transport & Roads/Bridges	13	1834.55	608.35
Area Development	2	23.62	20
Commercial & Others	91	55708.54	8622.62
Social Infrastructure	36	634.11	483.74
Total	150	60200.95	11348.75

SPECIAL INITIATIVES IN THE NORTH-EASTERN REGION

HUDCO continued its special thrust towards development of the North-Eastern States through a special allocation of 10 percent of its annual allocations for North-Eastern States under its housing portfolio. During the year HUDCO has sanctioned 14 housing schemes with a project cost of Rs. 73.31 crores and HUDCO loan component of Rs. 65.50 crores. This would help in construction of 95 dwelling units in the States of Assam, Mizoram, Nagaland and Arunachal Pradesh.

TECHNOLOGY TRANSFER INITIATIVES THROUGH BUILDING CENTRES

HUDCO continued its efforts in strengthening the Building Centre Movement towards promoting environment friendly, ecologically appropriate, energy efficient, functionally durable, aesthetically pleasing and yet cost effective and affordable building materials and technologies in the construction sector. 577 Building Centres were sanctioned out of which 387 Building Centres are doing good works in propagating the innovative building materials and technologies and others are in various stages of establishment. So far (till 31.03.2008), total grant of Rs. 2216.10 Lacs has been sanctioned for Urban Building Centre out of which Rs. 1679.44 Lacs has been released.

ESTABLISHMENT OF ADARSH GRAM/ADARSH BASTI

HUDCO continued its programme for development of Model Villages (Adarsh Gram) and Model improved Slums (Adarsh Basti) for providing integrated inputs of physical planning, architectural design, efficient utilization of land and appropriate technologies ensuring user participation, use of innovative/renewable sources of energy etc., with a convergence mode in all the States and Union, Territories. HUDCO's cumulative sanctions upto 31.03.2008 is of 116 Model Village/Basti with total grant of Rs. 3891.83 lakhs.

TARGETED IMPLEMENTATION OF COMMUNITY TOILETS & SANITATION PROGRAMME

HUDCO has formulated above scheme where community toilets can be proposed in busy market places Bus Stand, Railway Station, Schools, Institutes, Hospital, slums etc. The implementing agency can be any corporate sector NGO, CHO, Local Govt., State Govt. Institute etc. HUDCO will provide grant of 50% of total project cost or Rs. 20,000 per WC whichever is less, after the agency invest their share in the project, upto March, 2008 HUDCO has sanctioned 24 schemes (including in principle) for Rs. 945.80 lacs as HUDCO grant for the schemes.

CONSULTANCY INITIATIVES

In line with its techno-economic mandate, HUDCO continued to extend considerable technical and design guidance to the local bodies and the borrowing agencies at large. A distinct thrust has been extended to the fee based consultancy by utilizing its inherent strength of technical personnel, long experience and expertise in the fields of planning, designing and project appraisal

In addition to the architectural consultancy, the fee-based consultancy assistance has been expanded to cover preparation of Detailed Project Report for housing/slum development as well as infrastructure development in various cities and towns, as well as appraisal of project reports for funding/approval by the Government for projects under the JNNURM programme. In addition preparation of City Development

Plans/Master Plans for various towns has also been given a special emphasis in the recent past. HUDCO has also recently initiated efforts to undertake assignments for Project Management Consultancy towards diversification of its sphere of fee-based consultancy activities. Another significant initiative taken by HUDCO, is the decentralization of its consultancy activities to the Regional Offices. With this initiative, many of the Regional Offices such as Chennai, Jaipur, Patna and Kohima have started showing good potential for undertaking consultancy/fee-based assignments at the regional level, along with their normal operational activities of loan sanctions and disbursements and appraisal and monitoring of housing and infrastructure projects financed by HUDCO.

At present, a large number of consultancy assignments are in hand both at the corporate Office and at ROs. Some of the major assignments are the Pilgrimage Center at Solophok for Sikkim Government, development of various Bus Terminals and Utility Infrastructure Projects in Rajasthan, preparation of DPRs for BSUP projects in Bihar, preparation of CDPs for Bodh Gaya and Goa, preparation of Master Plans for 10 towns in the states of Bihar and Jharkhand etc.

HUMAN SETTLEMENT MANAGEMENT INSTITUTE (HSMI)

HSMI is operating as Research & Training Division of HUDCO and its activities are supported by a core group of qualified and experienced professionals from various disciplines. HSMI continued its efforts to provide capacity building to the professionals engaged in the Housing & Urban Development Sectors including HUDCO borrowing agencies, local bodies, NGOs, private sector Housing Financial Institutions etc. HSMI is the nodal institute on behalf of the Ministry of Housing & Urban Poverty Alleviation to coordinate various training and documentation activities under IEC (Information, Education & Communication) component of SJSRY.

During the year, HSMI activities covered a series of training research and related activities, the details of which are briefly indicated as below:

(i) Training: HSMI has organized training programmes for agency professionals and had drawn participants from Urban Local Governments, other Urban Sector Agencies/Local Bodies and other institutions. An International Training Programme was organized at Mysore in collaboration with UN Habitat. The programmes for the Ministry of Housing & Urban Poverty Alleviation, Govt. of India includes seven SJSRY programmes for the professionals of Urban Local Bodies. The HSMI in association with NAREDCO has organized training programmes for the Real Estate Professionals.

The HSMI had also organized in-house Training Programmes for HUDCO employees during the period, covering area like Consultancy Management, Project Appraisal, Project Management, Legal Issues in Financing of Housing & Infrastructure Project, IT applications HR issues etc.

(ii) Research & Evaluation Activities: Following are the major research activities undertaken during the period:

- 1 Professional support to Ministry of Housing & Urban Poverty Alleviation, Government of India to prepare National Urban Housing & Habitat Policy - 2007, Country Profile for Local Governments, Background Notes and Papers on Gender Equality & Urban Safety, Observations and Comments on other related issues, draft/key note addresses, talking points and speeches on various theme areas.

- 1 Under NSUP, HSMI is supporting Members of the National Core Group with funds available from National Core Group with funds available from National Strategy for Urban Poor.
- 1 First draft of the “National Policy on Slum Free Cities: Framework for Development of Urban Low Income Settlements” has been prepared and submitted to the Ministry of Housing & Urban Poverty Alleviation, Govt. of India.

(II) HINDUSTAN PREFAB LIMITED (HPL)

Hindustan Prefab Limited (HPL) as ISO 9001-2000 Certified company, is wholly owned by Govt. of India. The company was engaged in the production of pre-fabricated material like PRC Railway Sleepers, PC Electric Poles and other RCC components. Its manufacturing activities are at standstill since September 2004.

Meanwhile, the company has diversified its activities and is now engaged in the execution of projects, Project Management Services, Real Estate etc. It has orders worth Rs. 1065 crore as on 31.03.208 for construction of Mass Housing and Infrastructure Development, Hospitals, Dispensaries and Office Buildings. The company is now executing projects under the Jawaharlal Nehru National Urban Renewal Mission, National Health Rural Mission. Tsunami Rehabilitation schemes and other projects for Employees’ State Insurance Corporation (ESIC), Employees’ Provident Fund Organization (EPFO), Delhi Police etc.

The company has signed MOU with Ministry of Housing & Urban Poverty Alleviation for 2008-09. It targets a turnover of Rs. 335 crore in 2008-09.

AUTONOMOUS BODIES

(I) BUILDING MATERIALS & TECHNICAL PROMOTION COUNCIL (BMTPC)

Building Materials and Technical Promotion Council (BMTPC) is an autonomous body under the aegis of the Ministry of Housing and Urban Poverty Alleviation, Government of India established in 1990. For the last 18 years, it has worked towards smooth transfer of cost effective, energy-efficient, environment-friendly and disaster resistant building materials and construction technologies from lab to field.

In this process, the Council has been instrumental in introduction of a number of building materials and technologies based on agro-industrial wastes such as flyash based bricks/blocks, and mud polymer door shutters, coir polymer composites, bagasse boards etc. Pre-fabrication is another area which has been promoted by the Council with success. Using pre-fabricated components, a number of houses in different States have been constructed. For increased productivity and quality, the Council has developed easy-to-operate simple machines, which are being used in construction with encouraging results all over the country. The Council provides necessary inputs for policy interventions in the areas of saving of forest wood, top layer of soil, environment, energy etc.

With the efforts of the Council, a number of Indian Standards have been formulated through Bureau of Indian Standards (BIS) on cost effective technologies such as flyash bricks, RCC planks & joist, bamboo mat corrugated roofing sheets etc. Through Performance Appraisal Certification Scheme (PACS), the Council is carrying out performance evaluation of new and emerging materials, technologies and construction systems, on which there are no standards available.

The Council is playing an active role in diaster prevention and mitigation. It has brought out Vulnerability Atlas of India, Landslide Hazard Zonation Atlas of

India, Guidelines for Improving Earthquake and Wind/ Cyclone prone Housing Construction and other promotional literature also in vernacular languages. With IIT Kanpur, it has brought out easy to understand Earthquake tips on various important aspects of earthquake resistant construction. To demonstrate seismic strengthening techniques, the Council has done seismic strengthening in some lifeline buildings such as Karpwan Sub-Divisional Hospital in Jammu & Kashmir and 5 MCD Schools in Delhi. Besides several buildings in Gujarat, the Council is assisting the State/UT Governments in strengthening techno-legal regimes for safety against natural hazards.

For field application of cost effective technology, the Council has constructed demonstration houses in several places like Dehradun, Bilaspur, Trichy, Nagpur, Kudalu, Bangaluru under erstwhile VAMBAY scheme.

To promote Bamboo as construction material, the Council has taken various initiatives such as construction of demonstration houses in Mizoram, Tripura and Meghalaya, establishment of Bamboo Mat Production Centres in North Eastern Region and Kerala.

The Council on a regular basis, organises and participates in awareness Generation Programmes, Workshops, Exhibitions, Capacity Building and Training Programmes for construction of professionals and workforce.

The Council is one of the appraisal agencies for projects under Jawahar Lal Nehru National Urban Renewal Mission (UNNURM) and has also been designated as monitoring agency for projects under BSUP and HSDP.

Apart from promotion of technologies in India, the Council is working towards transfer of Indian Technologies to other developing countries in Asian, African and Latin American regime.

The Council's action plan aims in fulfilling the government's goal of providing 'Affordable Houses for All' and basic services to urban poor.

(II) CENTRAL GOVERNMENT EMPLOYEES WELFARE HOUSING ORGANISATION (CGEWHO)

The Central Government Employees Welfare Housing Organisation, a body of the Ministry of Housing and Urban Poverty Alleviation, Government of India, a society registered under the Societies Registration Act, 1860 was specifically created for Execution of housing projects for Central Government employees, on All-India self-financing' and no 'profit-no-loss' basis.

The CGEWHO has at present, to its credit, on-going housing schemes at Lucknow(130) and Chennai (PH-II) (572), Hyderabad (PH-III) (380) Pune(Ph-II) (148), Bhubaneswar (Ph-I) (256), Mohali (Ph-I) (586), Meerut (Ph-I)(90), and Jaipur (Ph-II) (572) with 2734 dwelling units under various stages of construction and planning.

Twenty one of the CGEWHO's projects with a total of 10,018 dwelling units have been completed.

Forthcoming schemes for the year 2008 may include Greater NOIDA (Ph-I), Gurgaon (Ph-III), Kolkata (Ph-II), Vishakhapatnam, Kharghar (Ph-II), Lucknow (Ph-II) and Bhopal.

(III) NATIONAL COOPERATIVE HOUSING FEDERATION OF INDIA (NCHF)

The National Cooperative Housing Federation of India (NCHF), setup in 1969, is the national apex organization spearheading the entire cooperative housing movement in India.

The primary objective of NCHF is to promote, guide and coordinate the activities of housing cooperatives. All the 26 State level Apex Cooperative Housing Federations are members of NCHF. About 31,000 primary housing cooperatives are affiliated to Apex Federation for getting loan assistance to construct houses for their members. The NCHF through its member federation has constructed about 23.51 lakh dwelling units across the country with loan disbursement of approximately Rs. 10125 crore.

Under the Two Million Housing Programme , all types of cooperatives have financed 8,19,753 dwelling during the years 1998-99 to 2006-07.

18 India and the World

INDIA's foreign policy seeks to safeguard the country's enlightened self-interest. The primary objective of India's foreign policy is to promote and maintain a peaceful and stable external environment in which the domestic tasks of inclusive economic development and poverty alleviation can progress rapidly and without obstacles. Given the high priority attached by the Government of India to socio-economic development, India has a vital stake in a supportive external environment both in our region and globally. India, therefore, seeks a peaceful periphery and works for good neighborly relations in its extended neighbourhood. India's foreign policy also recognizes that the issues such as climate change and energy and food security that are crucial to India's transformation are global and require global cooperative solutions.

The year past witnessed several positive developments, some significant successes, and a few major fresh threats to India's foreign policy.

India shares a common destiny with its neighbours. Relations with Bhutan developed further in the year of His Majesty's coronation and the introduction of democracy in Bhutan. India has strongly supported Nepal's transition to a democratic polity, and the restoration of democracy in Bangladesh. India has contributed to the reconstruction and development of Afghanistan. Apart from maintaining friendly and close bilateral relations with its neighbours, India has also worked for the evolution of SAARC into a result oriented organization that effectively promotes regional integration.

Bilateral relations with China were further consolidated during 2008 with PM Dr. Manmohan Singh's official visit to China in January and External Affairs Minister Shri Pranab Mukherji's visit in June 2008. The situation along the India-China border remained peaceful while the boundary question continued to be addressed by the Special Representatives. Defence cooperation between the two countries has contributed to enhancement of mutual trust. China opened a new Consulate in Kolkata in September 2008 and earlier in June 2008 India had opened its Consulate in Guangzhou.

A major development was the signing of the India-US Civil Nuclear Agreement in October 2008. The Agreement marked the end of three decades of technology denial in the nuclear field. Following the signing of this bilateral agreement, agreements for civil nuclear cooperation have been signed with France, Russia and Kazakhstan. The India-US strategic partnership was further consolidated by PM Dr. Manmohan Singh's visits to the US in September 2008, when he had a bilateral meeting with the US President George W. Bush in Washington, and in November for the G-20 Summit. The US remained India's largest trading partner and source of technology and relations expanded in every field.

India's traditional friendship and strategic links with Russia were consolidated during the period. The president of the Russian Federation Mr. Dmitry Medvedev paid a state visit to India in December 2008 for the annual bilateral Summit. The year 2008 was observed in India as the 'Year of Russia'. The year 2009 is being observed in Russia as the 'Year of India'. India is committed to further carry forward its strategic relations with Russia. India intends to build on its strong historical and cultural

links with the Central Asian countries, and to engage more closely with this region by ensuring that cooperation with Central Asia receives greater substance and diversification.

India has maintained and intensified its engagement with the EU, a strategic partner, as well as individual countries in Europe in diverse fields such as defence and security, nuclear and space, trade and investment, energy, climate change, science and technology, culture and education. The EU is today India's largest trading partner and one of our major sources of investment.

India continued to attach importance to its traditionally friendly and cooperative relations with African countries. A landmark event was the first ever India-Africa Forum Summit in April 2008 which adopted the Delhi Declaration and India-Africa Framework for Cooperation. Both documents together defined the future roadmap for cooperation between India and African countries. The Government of India's prestigious pan-African e-Network Project was inaugurated in New Delhi on 26th February, 2009 by EAM Shri Pranab Mukherjee.

India's efforts to cultivate stronger bonds with countries of the Latin American and Caribbean region have borne impressive results in recent years, with cross-sectoral dialogue at various levels and a framework of institutionalized mechanisms for mutually beneficial cooperation.

India's cooperation with the countries in West Asia and the Gulf region today reveal a contemporary nature and include the peaceful uses of outer space including the use of Indian launch vehicles. This region is also home to nearly five million Indian expatriates who have contributed significantly to the economic development of both India and the Gulf region.

India views cooperation with ASEAN, and the countries in the Asia-Pacific, as an important dimension of its diplomacy in the 21st century as reflected in India's "Look East Policy".

In 2009, India significantly expanded its network of economic and technical cooperation. India is ready to play a significant role in recently established forums such as IRC (India-Russia-China), BRIC (Brazil-Russia-India-China) and IBSA (India-Brazil-South Africa)s. India continues to engage Mekong-Ganga Cooperation, G-15, and the G-8.

With its strong commitment to multilateralism India has worked to strengthen the United Nations. India has supported proposals for the reform of the UNSC and revitalization of the UNGA. India would like to see the global institutions reflecting the new realities of the world order, taking into account the legitimate aspirations of developing countries and emerging powers.

Concurrent to these positive developments, India's foreign policy in 2008-09 faced new threats to India's security including the unsettled security situation in India's terror infested periphery and cross-border terrorism.

The composite dialogue process with Pakistan entered its fifth round in 2008-09. The dialogue was premised on Pakistan's stated commitment that it would not permit territory under its control to be used to support terrorism against India in any manner. However, Pakistan's inability to implement her commitments as evidenced by the terrorist attacks from Pakistan on the Indian Embassy in Kabul in July 2008 and on Mumbai in November 2008 effectively suspended the dialogue process.

The Mumbai attacks were universally condemned by the International community. Overwhelming evidence was presented to Pakistan and the world about the involvement of Pakistan-based terrorists in these attacks. Pakistan subsequently admitted for the first time that Pakistani nationals had hatched the conspiracy behind the attacks and carried them out. However, subsequent actions by Pakistan were dilatory and obfuscatory, and are yet to bring the perpetrators to justice or to dismantle the infrastructure in Pakistan for terrorism against India.

In 2008, there were large scale military operations in Sri Lanka eliminating the LTTE's conventional military capability resulting in a major humanitarian crisis. India responded to the immediate humanitarian crisis by sending relief supplies and medical assistance to civilians and internally Displaced Persons (IDPs). India also continued to stay engaged with Sri Lanka in support of a negotiated political settlement to the ethnic problem. As the situation in Sri Lanka enters a new phase, India will work for a peaceful settlement of the issues within the framework of a united Sri Lanka acceptable to all communities including particularly the Tamils.

The other major challenge during the year was the deteriorating international economic situation. As the international financial crisis became an economic crisis with recession in major Western economies and markets, the supportive international environment for India's growth changed rapidly. Despite this the Indian economy grew by 6.7% in 2008-09, and continues to be a factor of growth and stability in the world economy. India participated actively in international efforts to address the crisis, such as the G-20, to see that the concerns of developing countries were addressed. India also sought to ensure that international decision-making on global economic issues is democratized to reflect present realities.

As the year 2008 ended, it was evident that cooperative global solutions are required to the major international issues which will affect India's future, such as the world economic crisis, international terrorism, general and nuclear disarmament, energy security, food security and sustainable development. As a responsible power, India remains an active and involved participant in the international effort to work out these solutions and will contribute to their success.

NEIGHBOURS

Afghanistan: Notwithstanding a significant deterioration in the security situation, impinging directly on us with the attack on the Indian Embassy in Kabul in July 2008, we remained at the forefront of international efforts to assist Afghanistan in building a stable democratic and pluralistic society. The Zaranz-Delaram road giving Afghanistan access to the sea was formally inaugurated by EAM Shri Pranab Mukherjee and President Karzai on 22nd January, 2009. The implementation of the scheme of ICCR Scholarships and ITEC training programmes for Afghan nationals and the execution of community based, small development projects in the fields of agriculture, rural development, sanitation, vocational training, etc. is progressing satisfactorily. India continued to contribute for the Afghan Reconstruction Trust Fund and pledged a sum of US \$ 1 million to the UNDP election fund. India has also pledged an additional US \$ 450 million (over the US\$ 750 million earlier committed) to effectively meet the requirements of our ongoing and future projects. President Karzai visited India in August 2008 and again in January, 2009.

Bangladesh: India continued to constructively engage with Bangladesh on a broad spectrum of bilateral issues during the year. EAM Shri Pranab Mukherjee visited

Bangladesh in February 2009, after the Awami League led Grand Alliance won an overwhelming majority in the general elections of December 2008 and formed the government under the premiership of Sheikh Hasina. The other high level visits included visits of Bangladesh Army Chief, Gen. Moeen from 24 February - 1 March 2008, MoS for Commerce and Power Jairam Ramesh to Dhaka in October 2008 including that of Chief of Army Staff, Gen. Deepak Kapoor.

India took several initiatives, many unilaterally, to bring the two countries closer. They included restarting of the passenger train service 'Maitree' Express between Kolkata and Dhaka after 43 years. India gave substantial assistance to Bangladesh to overcome damages caused by natural disasters like cyclone. India started providing duty free access to exports from LDCs in the SAARC including Bangladesh from 1 January 2008 (except some items on India's sensitive list). India has undertaken a project to construct Kalabhaban for the Department of Theatre and Music, University of Dhaka. As a move to check the activities of Indian Insurgent Groups (IIGs) on Bangladeshi soil, the two sides revived the Joint Working Group.

Bhutan: India and Bhutan continued to share uniquely warm and cordial relations, which were further strengthened during the year through regular high level interactions. The year also witnessed the coronation of the 5th King of Bhutan. PM Dr. Manmohan Singh visited Bhutan from 16-17 May, 2008 during which he addressed the first session of the democratically elected Parliament. During the visit, PM announced that India will double the target of hydropower development in Bhutan to 10,000 MW for export to India by 2020; Government of India's assistance for construction of the first rail link between India and Bhutan, and establishment of the prestigious Nehru-Wangchuck scholarships for Bhutanese students.

Prime Minister of Bhutan, Lyonchhen Jigmi Y. Thinley, paid a state visit to India from 14-17 July, 2008 and again visited India from 12-14 November, 2008 to participate in the 2nd BIMSTEC Summit in New Delhi. President of India Smt. Pratibha Devisingh Patil accompanied by the then EAM Shri Pranab Mukherjee paid a state visit to Bhutan from 5-8 November, 2008 as Chief Guest at the formal coronation of His Majesty Jigme Khesar Namgyel Wangchuck, the King of Bhutan.

Bhutan celebrated 2008 as the Golden Jubilee Year of the visit of Pandit Jawaharlal Nehru to Bhutan in 1958. A Parliamentary delegation from Bhutan visited India during February 2009 and had interaction with their counterparts in India.

India-Bhutan bilateral relations are characterized by close consultations, maturity, complete trust and mutual understanding and are an example of good neighborly relations. This special relationship is further sustained by the tradition of regular visits and exchange of views at the highest levels. The Government of India has committed to extend full support and cooperation to the Royal Government of Bhutan for consolidation of democracy following the installation of the first democratically elected Parliament and Government in Bhutan in May 2008. India has been the largest trade and development partner of Bhutan. Ever since Bhutan initiated planned development efforts in the early 1960s India has been extending financial assistance to Bhutan's Five Year Plans (FYP). Recently, Government of India has committed to develop 10,000 MW of hydropower in Bhutan for export to India by 2020.

China: This has been an important year for India-China relations. Prime Minister Dr. Manmohan Singh paid an official visit to the People's Republic of China from

13-15 January 2008. The leaders of India and China resolved to develop the Strategic & Cooperative Partnership for Peace and Prosperity between the two countries. They also reiterated their firm commitment to resolving all outstanding differences through peaceful negotiations, while ensuring that such differences are not allowed to affect the positive development of bilateral relations. The two Prime Ministers signed "A Shared vision for the 21st Century" which reflects the aspirations of the two countries to cooperate with each other on areas of mutual interest on regional and multilateral affairs.

The Foreign Ministers of India and China also exchanged visits in June 2008 and September 2008 respectively. The new Consulates General in Guangzhou and in Kolkata were formally inaugurated during these visits. Bilateral trade in the calendar year 2008 reached US\$ 51.8 billion, which is close to the target of US\$ 60 billion by 2010 that has been set by the two Prime Ministers. Cooperation and exchanges in the area of defence relations also continued with the holding of the 2nd Joint Military Exercises and the 2nd Annual Defence Dialogue in India in December 2008. The Special Representatives of the two countries met in September 2008 for the 12th round of discussions on the India-China Boundary issue. India provided humanitarian relief assistance worth US\$ 5 million to China in the aftermath of the devastating earthquake that struck Sichuan province in May 2008. The two countries have also consulted with each other on important global issues including the international financial crisis and climate change.

Iran: The momentum in India-Iran bilateral relations was maintained in 2008-09 through regular exchanges of delegations in different fields as also by high level visits. The impetus provided by high level discussions have contributed to enhanced bilateral cooperation in energy, trade & commerce, investment, culture and transit related issues as well as cooperation in regional and international issues of mutual interest. The President of Iran Dr. Mahomud Ahmadinejad paid a visit to New Delhi on 29 April 2008. EAM Shri Pranab Mukherjee visited Tehran from 28-30 July 2008 to attend the 15th NAM Ministerial Conference and thereafter for the India-Iran XVth Joint Commission meeting from 31st October - 2 November, 2008. The VIth Annual Foreign Office Consultations at the level of Foreign Secretary were held in New Delhi from 17-18 December 2008.

Maldives: Bilateral relations between India and Maldives continued to be close and friendly. Both the countries remained engaged in further strengthening their friendly relations through high level exchanges and implementing various developmental projects. The newly elected President Mr. Mohamed Nasheed paid a State visit to India from 23-25 December 2008, during which an agreement on Standby Credit facility of US\$ 100 million to Maldives and an Air Services Agreement were signed between the two countries. MoS for Commerce, Shri Jairam Ramesh visited Maldives from 29-31 January 2008. In January and February 2009, Defence Minister and Minister of Health and Family of Maldives visited India to enhance cooperation in security related issues and health respectively.

Myanmar: Relations with Myanmar continued to develop further during the period and became truly multifaceted. India was one of the first countries to rush emergency relief assistance to Myanmar in the aftermath of Cyclone Nargis in May 2008. PM of Myanmar Thein Sein visited India for the BIMSTEC Summit in November 2008 and Vice President of India Dr. M. Hamid Ansari visited Myanmar from 5-8 February 2009.

During Vice President's visit agreements for setting up an industrial Training Centre by HMIT (1) & a Centre for English Language Training were signed. Engagement in the economic and commercial sphere strengthened considerably. The Bilateral Investment Promotion & Protection Agreement (BIPPA) was signed. The opening of a new trade point at Nagaland border with Myanmar was agreed to. Institutional mechanisms to check the activities of Indian Insurgent Groups in Myanmar were developed. India also remained committed to provide assistance in developing infrastructure within Myanmar, including the Kaladan Multimodal Transit Transport Project, and strengthen cooperation in oil and natural gas exploration, power sector, manufacturing, etc.

Nepal: India extended all possible support to the Government and people of Nepal in consolidating the peaceful democratic transition. The year witnessed several high level bilateral visits. Prime Minister Hon. Pushpa Kamal Dahal Prachanda's first official visit abroad to India from September 14-18, 2008 provided broad political direction to forge a 21st century relationship with India. During the visit, the Prime Minister held talks with PM Prachanda and conveyed India's commitment to support Nepal's democratic and economic transformation. Drafting a new constitution and conclusion its the peace process are priorities for the the Government of Nepal. India expressed its commitment to assist the Government of Nepal in these tasks. As agreed by both sides, several high level bilateral consultation mechanisms were also reactivated.

Promotion of investor-friendly business environment in Nepal would help in realization of the potential for major expansion of Indian investment in key areas like hydropower, agriculture, tourism and infrastructure in Nepal for mutual benefit.

EAM Shri Pranab Mukherjee visited Nepal in November 2008 to discuss issues of mutual interest. Foreign Secretary visited Nepal from February 17-18, 2009 to follow up on the agreements reached during PM Prachanda's visit to India and EAM's visit to Nepal.

Nepal and India share friendly and close political, economic, and social ties. The two nations' strong cultural affinities and unfettered people-to-people contacts across the open border make it a relationship that has few parallels. Currently, main challenges for Nepal are drafting of a new constitution and successful conclusion of the peace process for bringing peace, stability and economic development. Following the resignation of former Prime Minister Pushpa Kamal Dahal Prachanda of Unified Communist Party of Nepal - Maoist (UCPN-M) on May 4, 2009, a new coalition government under the leadership of Mr. Madhav Kumar Nepal of Communist Party of Nepal Unified Marxist-Leninist (CPN-UML) was sworn in on May 25, 2009. Foreign Secretary visited Nepal on June 20-21, 2009, to exchange views with the Nepalese leadership on future development and strengthening of relations between the two countries. Hon Minister for Water Resources Shri Pawan Kumar Bansal visited Nepal on July 11-12, 2009 for joint inspection along with Hon. Minister of Irrigation of Nepal of the repairs carried out by GOI of the breach in embankment of the Kosi river. Nepal's Defence Minister Mrs Bidhya Bhandari also paid an official visit to India on July 21, 2009.

Pakistan: The Composite Dialogue Process with Pakistan entered its 5th round in 2008-09. The Dialogue had been premised since its resumption in 2004, on the commitment made on 6 January 2004, that Pakistan would not permit territory under its control to be used to support terrorism in any form. Notwithstanding some

achievements during the year in segments of the Composite Dialogue Process, terrorism and non-implementation of the 6 January 2004 commitments by Pakistan has eroded the fundamental premise of the Dialogue process. Terrorist attacks in India and on the Indian Embassy in Kabul in July 2008, increase in ceasefire violations and continued infiltration across the LOC placed a strain on the dialogue process in particular and India-Pakistan relations in general. The terrorist attack on Mumbai on 26 November 2008 and concrete evidence of the involvement of elements in Pakistan in the attack led to a pause in the dialogue process.

After the Mumbai attack, the Ministry undertook several steps both bilaterally with Pakistan and at international fora to obtain Pakistan's cooperation in bringing the Pakistan-based perpetrators to justice and to ensure that such acts do not recur. As a result, the United Nations Al-Qaeda and Taliban Sanctions Committee listed individual entities based in Pakistan including leaders of the *Lashkar-e-Taiba* under Security Council Resolution 1267. The *Jamat-ud-Daawa* was also listed as an alias of the *Lashkar-e-Taiba*. On 12 February 2009, Indian High Commissioner in Islamabad was formally informed of Pakistan's response to the dossier that India had made available on 5 January linking the terrorist attacks on Mumbai to perpetrators in Pakistan. In their response, Pakistani authorities admitted that elements in Pakistan were involved in the terrorist attacks on Mumbai. Pakistan also sought further information and material relating to the investigation. The then EAM Shri Pranab Mukherjee termed this a positive development in a *suo moto* statement on 13 February in Parliament. On 13 March 2009, the Government of India provided detailed responses and material to the Pakistan High Commissioner in New Delhi to all 30 questions raised by Pakistan which in turn was acknowledged by Pakistan Ministry of Foreign Affairs.

Despite the above developments and despite high-level statements from Pakistan promising cooperation regarding the Mumbai attack, in terms of actual action taken the response has been disappointing. As a result, there has been a sharp deterioration in bilateral relations.

Responding to the announcement of the new US strategy for Afghanistan and Pakistan, MEA spokesperson on 30 March 2009 welcomed the very "clear expression of will to carry through the struggle against extremism in Afghanistan and its roots in Pakistan" and expressed India's "readiness to play a constructive role as a responsible power in defeating extremism of all kinds."

Sri Lanka: In Sri Lanka, the military conflict in the North escalated in 2008 leading to a major humanitarian crisis and the eventual military defeat of the LTTE. The situation in the North and the plight of Tamil civilians displaced and affected by the conflict were important issues in the bilateral discourse between India and Sri Lanka. The then EAM visited Colombo on January 27, 2009 and held discussions with President Mahinda Rajapaksa. This was preceded by Foreign Secretary Shivshankar Menon's visit to Sri Lanka on 16-17 January, 2009.

In response to the emerging humanitarian crises in Sri Lanka, India sent large-scale emergency relief assistance including family packs for IDPs, medicines and setting up of a 62 member Emergency Field Hospital in Northern Sri Lanka. India also remained engaged with Sri Lanka in support of a peacefully negotiated political settlement within a united Sri Lanka.

Bilateral exchanges continued to strengthen during this period. Prime Minister Dr. Manmohan Singh and EAM Shri Pranab Mukherjee visited Sri Lanka for the

15th SAARC Summit held from 2-3rd August, 2008. Trade and investment linkages were further consolidated India remained Sri Lanka's largest trading partner in 2008 with bilateral trade worth US\$ 3.27 billion. India also emerged as the second largest investor in Sri Lanka in 2008.

SAARC

The South Asian Association of Regional Cooperation, (SAARC) was created in 1985, as an expression of the region's collective decision to evolve a regional cooperation framework. Presently, there are eight member countries in SAARC namely Afghanistan, Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan and Sri Lanka.

India was the Chair of SAARC in 2007-2008 (since the 14th SAARC Summit held in New Delhi from 3-4 2007 upto the 15th Summit held in Colombo from 2-3 August 2008). The period was the most productive than SAARC has ever known with SAARC transforming from declaratory, to implementation. Each of PMs announcements at the 14th Summit in Delhi has been implemented, with India discharging its responsibilities in a non-reciprocal (asymmetric) manner. The landmark achievements in SAARC are as follows:

SAARC Food Bank is now operational with a total stock of 2,43,000 MT contributed by all member states. They have also identified the locations from where the requesting country could draw its requirements from the sending country based on mutually acceptable terms.

The establishment of the South Asian University is on schedule with the establishment of the Project Office, finalisation of its international legal contours by the South Asian University Act 2008, grant of privileges and immunities as per UN Immunities and Privileges Act 1947 and funding as per "Principles of Regional Centres". Process of transfer of 100 acres of land from DDA for leasing out to SAU also is at an advanced stage.

At the 13th SAARC Summit held in Dhaka, in November 2005, Prime Minister proposed the establishment of a SAARC Museum of Textiles and Handicrafts. The Museum would be an Intergovernmental Body on the lines of the other SAARC Regional Centres and will be based in Delhi Haat. Pitampura. For the establishment of the SAARC Museum of Textiles and Handicrafts, the necessary financial processing is under way.

SAARC Development Fund (SDF) is also operational out of the temporary cell of the SAARC Secretariat pending completion of its permanent premises in Bhutan. Two projects are currently under implementation out of the SDF. India has transferred its full commitment of US \$ 189.9 million to the SDF, and has proposed a third project on providing bio-mass cooking stoves and solar lanterns to SAARC Member States.

Apart from above, India is also implementing the projects, in the areas of Telemedicine (Bhutan and Afghanistan), Shuttle Breeding of Pulses (Bhutan), setting-up of Seed Testing Laboratories (Bhutan), Rainwater Harvesting (Bhutan and Sri Lanka) and Rural Solar Energy Electrification Project (Sri Lanka) under a hub-and-spoke mechanism with India as the hub.

There is progress in full implementation of South Asian Free Trade Agreement (SAFTA) in letter and spirit. Member states have appreciated India's gesture to give zero duty access to LDCs from January 1, 2008, one year ahead of target date and unilateral reduction of its Negative List with respect to LDCs from 744 to 480. India continues to revise its Sensitive Lists and, as of now, have 744 items outside its ambit

for the LDCs and 868 for the Non-LDCs. A draft Agreement on Trade in Services is in final stages of negotiation expected to be ready by the end of this year.

The signing of the SAARC Convention of Mutual Assistance in Criminal Matters in Colombo and the 15th SAARC Summit, has generated momentum for signing similar agreements on security related matters in other mechanisms in SAARC. For example, the Standard Operating Protocol on Trafficking of Women & Children has also been similarly finalised at the third meeting of the Regional Task Force to implement the SAARC Conventions relating to trafficking in women & children and promotion of child welfare in South Asia held in Shimla on May 28-29, 2009.

People-to-people activities and exchange on visits have phenomenally increased through offer of training programmes, workshops within SAARC member states and arrangement of cultural activities such as handlooms and handicrafts Exhibitions from SAARC members states in Pragati Maidan, ITPO, Surajkund Mela, the South Asian Bands Festivals, SAARC Festivals of Literature, SAARC Folklore Festival, SAARC Food Festival, SAARC Fashion Show and the forthcoming 9th SAARC Trade Fair in Bhutan etc.

The dynamism infused by India into the SAARC processes is also evident by the numerous training programmes which have been hosted in India for Member states in the diverse fields of women empowerment, micro finance, security, energy, science and technology, information technology, agriculture education and commerce etc.

The above initiatives have enabled SAARC move from declaratory phase to implementation. Due to India's dynamic commitment to SAARC, to engage neighbouring countries on core developmental aspects of health, education and infrastructure, the number of SAARC activities/meetings held per annum has made a quantum jump to 133 scheduled for the period 2009 until 2010, reflecting the new dynamic SAARC that is being increasingly seen as the premier vehicle of regional economic cooperation to bring the fruits of development to the people of South Asia.

SOUTH EAST ASIA AND THE PACIFIC

India continued to pursue closer relations with South East Asia and the Pacific region as envisioned in its 'Look East Policy' during the year. With some countries in the region, we stepped up relations to the strategic level, while diversifying and strengthening relations with others. Regular exchange of high level visits at bilateral level and interactions at regional and multilateral fora contributed to a higher degree of engagement among leaders in the region to help develop renewed dynamism in India's relations with these countries. In the last five years, Prime Ministers, Presidents and Ministers of several countries in the region visited India. Our leaders also visited various countries in the region. These visits and signing of several framework agreements have significantly contributed to India's growing relations with countries in this region.

The bilateral trade and investment between India and countries in ASEAN have considerably increased, touching about US\$ 40 billion in 2007-08. India - ASEAN Free Trade Agreement (FTA) in goods has been successfully negotiated and is ready for signature. With the implementation of India-ASEAN FTA, the trade with ASEAN countries will cross the target of US\$ 50 billion by 2010. Meanwhile, bilateral FTA is being negotiated with several countries in the region, the conclusion of which would significantly enhance the two-way trade. The trade with Australia also crossed US\$ 10 billion.

For the socio-economic development of countries in the region, India continued to provide assistance to Cambodia, Laos, Vietnam and Philippines in the form of grants, soft loans and credit lines and training courses, under ITEC scheme. As a Dialogue Partner of the Pacific Islands Forum (PIF) countries, India has been engaging with Pacific Island countries by providing regional assistance in capacity building and social and economic programmes and sustainable development. In response, India succeeded in eliciting support from majority of the countries in the region on issues of India's interest such as India's candidature for UN Security Council membership, Commonwealth, civil nuclear cooperation etc.

India's growing profile has attracted countries in the South East Asia and Pacific region to foster closer engagement at the regional and multilateral fora such as ASEAN, EAS, BIMSTEC, MGC and ARF.

EAST ASIA

Japan: India-Japan relations, which have expanded and broadened in recent years, continue to undergo a significant and qualitative shift. Prime Minister Dr. Manmohan Singh paid an official visit to Japan on 22-23 October 2008 for the Annual India-Japan Summit meeting. The two Prime Ministers signed a Joint Statement on the Advancement of the Strategic & Global Partnership between India and Japan and a Joint Declaration on Security Cooperation. The 2nd Strategic Dialogue between the Foreign Ministers was held in August 2008 when the Foreign Minister of Japan visited India. Ministerial level dialogues were also held on economic and trade matters and on energy.

India was the largest recipient of Japanese Official Development Assistance (Yen 236.047 billion or Rs. 11,802.4 crores approximately) in the financial year 2008-09. Steady progress was made on the flagship projects jointly initiated by the two countries. On the Western Dedicated Freight Corridor Project, the Japanese side has agreed to provide financial assistance of approximately 450 billion Yen as a loan for the Phase-I, and have expressed their commitment to work with India for early finalization of the assistance for the entire Western Freight Corridor. On the Delhi-Mumbai Industrial Corridor initiative, the two sides have held meetings of the Joint Task Force to finalize the contours of the project. We have an annual calendar for defence exchanges. The two sides have also continued to discuss a Comprehensive Economic Partnership Agreement, with the objective of concluding a mutually beneficial and high quality agreement. Both sides are also engaged in discussions on Japanese assistance for a new IIT at Hyderabad. Defence and functional exchanges have also emerged as an important area for bilateral cooperation.

Republic of Korea: Our relations with the Republic of Korea have steadily grown. Former President A.P.J. Abdul Kalam attended the inauguration ceremony of the new President of the Republic of Korea, Lee Myung-bak. Prime Minister Dr. Manmohan Singh met the new President at the G-8 Summit meeting in Japan in July 2008. The two countries are negotiating a Comprehensive Economic Partnership Agreement, that they hope to conclude in FY 2009-10. During the year 2008-09 important cooperation also took place in other areas.

Mongolia: The Prime Minister Dr. Manmohan Singh met the President of Mongolia in the margins of the 7th ASEM Summit Meeting in Beijing in October 2008. The Defence Minister of Mongolia visited India in February 2009. Bilateral cooperation on economic and trade matters, defence, education, culture and also in the training of

Mongolians under the ITEC programme have continued to develop during the year. India also provided Mongolia with 5000 MT, each of rice and sugar as humanitarian assistance in view of our very friendly relations with that country.

DPRK : Relations between India and Democratic People's Republic of Korea (DPRK) continue to be cordial with a focus on humanitarian assistance and exchanges in the areas of culture, sports and education.

EURASIA

India maintained friendly and cordial relations with Russia, Ukraine, Belarus, Central Asian and Caucasian countries during the year through visits, conclusion of bilateral agreements, periodic bilateral and multilateral engagements, cooperation programmes, cultural events and other initiatives. Some of the important bilateral engagements during the year included the State visits of the President of the Russian Federation Mr. Dmitry A. Medvedev to India in December 2008, the President of Kazakhstan Mr. Nursultan Nazarbayev as Chief Guest at the Republic Day celebrations 2009 and visit of the Vice President of India to Kazakhstan and Turkmenistan in April 2008.

India and Russia continue to further consolidate their strategic partnership. Co-operation in defence, space and nuclear energy has intensified. During President Medvedev's visit to India from 4-5 December 2008 for the annual bilateral Summit, nine important agreements were signed apart from a Joint Declaration. The agreements include an Inter-Governmental Agreement on Cooperation for the construction of additional nuclear power plant units at Kudankulam site as well as for the construction of Russian designed nuclear power plants at new sites, and a MoU between ISRO and Russian Federal Space Agency on joint activities in the field of human space flight programme. From the Russian side, Defence Minister Mr. Anatoly Serdyukov visited India from 28-30 September 2008, Foreign Minister Mr. Sergey Lavrov visited on 20 October, and Deputy Prime Minister of Russia, Mr. Alexander Zhukov, visited on 20 October, and Deputy Prime Minister of Russia, Mr. Alexander Zhukov, visited India to co-chair the 14th Session of the India-Russia IGC on Trade, Economic, Scientific, Technological and Cultural Cooperation. The year 2008 was celebrated as "Year of Russia" in India with almost 140 events being organised in different cities of India, and similarly, the year 2009 is being celebrated as the "Year of India" in Russia.

Deputy Prime Minister and Foreign Minister of Turkmenistan, Mr. Rashid Meredov led a high level delegation to India from 20 - 22 January 2008. Mr. Meredov co-chaired the 2nd Session of the India-Turkmenistan Intergovernmental Commission for Trade, Economic, Scientific and Technological Co-operation along with the MoS for External Affairs, Shri E. Ahmed. During the visit Mr. Meredov called on the Vice President and the PM and also met the EAM Shri Pranab Mukherjee. Vice-President Shri M. Hamid Ansari paid an official visit to Turkmenistan from 4-6 April 2008. Minister of Petroleum and Natural Gas Shri Murli Deora visited Turkmenistan in November 2008. Defence Minister of Belarus Colonel General Leonid Maltsev visited India from 16 - 18 February for DEFEXPO India 2008 in New Delhi. He met the Defence Minister on 16 February to discuss bilateral defence co-operation. Indian army chief General Deepak Kapoor visited Belarus from 12-15 March 2008 and met the Belarusian Defence Minister, Chairman of the State Military & Industrial Committee and Chief of the Army Staff. General Kapoor visited the Military Academy of Belarus and several defence production enterprises. The Belarusian Minister of Industry Mr. Anatoly Rusetsky attended the 4th Session of the India-Belarus IGC on

Economic, Trade, Industrial, Scientific, Technological and Cultural Cooperation in New Delhi from 17 - 18 November 2008. The first session of the Indo-Belarusian Joint Commission on Military Technical Cooperation was held in Minsk from 27 - 30 May 2008. Foreign Minister of the Kyrgyz Republic. Mr. Ednan Karabaev visited India from 4-6 February 2008 to review bilateral relations and discuss regional issues of mutual interest. He met the Ministers of External Affairs, Commerce & Industry, Human Resource Development and Culture & Tourism.

During 2008, Vice President (VP) Shri M. Hamid Ansari's visit to Kazakhstan from 6-10 April 2008 gave a major boost to India-Kazakhstan relations. During his visit, VP met with the President and Prime Minister of Kazakhstan and addressed the Senate. Kazakhstan President Mr. Nursultan Nazarbayev paid a state visit to India from 23-26 January 2009 and was the Chief Guest at the Republic Day celebrations - the first time that a leader from a Central Asian country was accorded this honour. With another important Central Asian Country, Uzbekistan, our relations progressed with holding of Foreign Office consultations in New Delhi on 1st August 2008, and meeting of the 8th Session of the India-Uzbekistan Inter-Government Commission on trade, economic, scientific, and cultural cooperation in September 2008. The Uzbek Minister of Economy Mr. B. Khodjaev had visited New Delhi from 16-17 September 2008 for the 8th Session of the IGC.

THE GULF, WEST ASIA AND NORTH AFRICA

India maintained its historical and traditionally cordial relations and cooperation with the countries in the Gulf region. Gulf countries together provide 70% of our total crude oil requirement and about 4.5 million Indians live and work in the region, remitting more than US\$ 10 billion annually. The year witnessed several high level visits which underlined the importance of the region in our relationship. The most important was PM Dr. Manmohan Singh's visit to Qatar and Oman in November 2008 which opened new areas for bilateral cooperation. In Qatar, PM signed two documents relating to defence cooperation and security as well as law enforcement matters. In Oman, an MoU on manpower and another for establishing India-Oman Joint Investment Fund were signed. EAM Shri Pranab Mukherjee accompanied by MoS Shri E. Ahamed and Secretary (East) paid an official visit to Muscat from 13-14 January 2008. During the visit, EAM called on Deputy PM for Council of Ministers and Mr. Yousef bin Alawai bin Abdullah, Minister responsible for Foreign Affairs of Oman.

Dr. Majeed Mohsin Al Alawi Labour, Minister of Bahrain, visited India on 25 April 2008 and discussed with Minister of Overseas Indian Affairs, the MoU on Labour and Manpower Development. Dr. Fatima Bin Al Balooshi, Minister of Social Development, Bahrain, visited India from 17-21 August 2008 and held talks with the Minister of Textiles and Minister of State for Women & Child Development among others.

MoS Shri E. Ahamed visited Kuwait from 29-31 January 2008. During the visit, MoS called on the Kuwaiti Prime Minister. A wide range of bilateral and regional issues, including the revised format for Labour Contract to be signed between the Kuwaiti employer and Indian worker were discussed in his meetings with the Deputy PM / Minister and Minister of Social Affairs in Labour.

The year, marked by several high-level visits, witnessed strengthened bilateral relations with Saudi Arabia. Saudi Foreign Minister Prince Saud Ali Faisal visited India twice in 2008, in February when he called on PM Dr. Manmohan Singh and

EAM Shri Pranab Mukherjee and on 26 December when he met Vice President, EAM and NSA. EAM paid a two- day visit to Saudi Arabia from 19-20 April 2008 and called on Saudi King Abdullah bin Abdul Aziz Al Saud and Governor of Riyadh Prince Salman bin Abdul Aziz Ali Saud. Mos Shri E. Ahamed visited Saudi Arabia on 17 April 2008 and signed the Haj agreement with Saudi Haj Minister Dr. Fouad Al-Farsy. Finance Minister along with Petroleum and Natural Gas Minister attended the Oil Summit, held in Jeddah on 22 June 2008 at the behest of Saudi King Abdullah.

The year 2008 also was the consolidation in the friendly bilateral ties between India and UAE. HE Shaikha Lubna Ali Qasimi, Minister of Foreign Trade, visited India on 25 April and was awarded “Woman Achiever of the Year” by FICCI. The 1st ever India-UAE Joint Air Forces exercise took place in September 2008 in Abu Dhabi. EAM visited UAE in May 2008 and met both the Foreign Minister and Crown Prince.

WEST ASIA AND NORTH AFRICA

India's engagement with West Asia and North Africa was cemented through a series of high level interactions that included State visits to India by President Bashar Ali-Assad of Syria. President Mohammed Hosny Mubarak of Egypt and President, Mahmoud Abbas of the Palestinian National Authority. India's dialogue with Egypt was also taken forward during an official visit by EAM to that country in July 2008. India's steadfast support for the Palestinian cause was underlined during the State visit of President Mahmoud Abbas of the Palestinian National Authority (PNA) during which, in the presence of the Prime Minister. Dr. Manmohan Singh, President Abbas laid the foundation stone of the Palestinian Embassy building in New Delhi, a gift of the Government and people of India, and construction of which is nearing completion. Implementation of PM's offer of \$ 10 million as budgetary support to the PNA was completed during the year.

India strongly condemned the Israeli incursion into the Gaza strip that began in December 2008. India's varied relations with the Arab world were institutionalized through a Memorandum of Cooperation with the League of Arab States signed in December 2008 during the visit of the Secretary General H.E. Mr. Amre Moussa to New Delhi.

India contributed towards development of Iraq's human resources by providing 100 slots to Iraq under Indian Technical and Economic Cooperation (Itec) programme to train its officials in various training and professional institutions all over India. IOC provided training in India to 228 Iraqi oil officials. On February 26, 2009, President Jalal Talabani of Iraq transited through India and tried to encourage our participation in the reconstruction and development of Iraq, especially in the power sector. During the meeting with secretary (East), he expressed a keen desire for encouraging Indian companies and personally assured fullest support to them in Iraq.

AFRICA

The first India-Africa forum Summit was held in New Delhi from 8-9 April 2008 built upon the foundations of the historical relationship that has existed between the two, and created a roadmap for a structured interaction, engagement and cooperation in coming years. The Summit renewed India's commitment to Africa. The two historic documents, the Delhi Declaration and the India Africa Framework of Cooperation were adopted at the end of the Summit. The Delhi Declaration is a political document that covers issues of bilateral, regional and international interests to India and Africa, including our common positions on UN reforms, climate change, WTO and

international terrorism, etc. the India Africa Framework for Cooperation spells out the agreed areas of cooperation. Prime Minister announced a substantial increase in the existing lines of credit to Africa to US \$ 5.4 billion over the next five years, and a separate grant of US \$ 500 million for projects in the areas of capacity building and human resource development. The Heads of State-Government from Africa who attended the India Africa Forum Summit included Mr. Jakaya Mrisho Kikwete, President of Tanzania, Prof. Alpha Oumar Konare, Chairperson of the African Union Commission, Mr. Joseph Kabila Kabange, President of Congo, Mr. John Agyekum Kufuor, President of Ghana, Mr. Abdoulaye Wade, President of Senegal, Mr. Thabo Mbeki, President of South Africa, Mr. Yoweri Kaguta Museveni, President of Uganda, Mr. Tertius Zongo, Prime Minister of Burkina Faso and Mr. Meles Zenawi, Prime Minister of Ethiopia.

There were several other high-level visits from Africa including Ethiopian Prime Minister, Meles Zenawi, Mr. Paul Kagame, President of Rwanda and Dr Boni Yayi, President of the Republic of Benin. Regular exchanges continued at the ministerial and official levels.

India extended several lines of credit to African countries for specific infrastructure development projects. Both the TEAM-9 and ECOWAS have fully utilized the lines of credit extended to them for projects in different sectors, ranging from agriculture, health, rural electrification, transport and power, which are in the various stages of implementation. Our ongoing political and economic engagement with the Africa Union Commission continued to strengthen, as also our institutional cooperation with regional organisations such as COMESA, SADC, ECCAS and EAC. The Aid to Africa budget of the Ministry was used for other cooperation programmes.

Two successful India-Africa Project Partnership Conclaves were organised by the CII with the support of the Ministry, the first in Dar-es-Salaam on 28 August 2008 and the second in New Delhi from 22-24 March 2009. FICCI also organised the India-Africa Business Partnership Summit in New Delhi on 19-20 January. All these events witnessed a high-level of participation from Indian and African businesses.

All these initiatives have significantly enhanced India's engagement with countries in Sub-Saharan Africa and have come at a time of increasing private sector engagement in Africa. Two-way trade has increased from US \$ 5.5 billion in 2001-02 to around US \$ 36 billion in 2008-09 representing an almost seven-fold increase in as many years. Bilateral investment is approximately US \$ 17 billion.

India opened resident Missions in Mali and Nigar. The Gambia, Gabon and Madagascar opened their Missions in New Delhi and Mali announced its intentions to open one soon.

The Government of India's prestigious Pan-African e-Network Project was formally inaugurated on 26 February 2009 by the External Affairs Minister Shri Pranab Mukherjee in New Delhi for eleven countries, out of the 35 countries that have signed the agreements to join the Project. 4 more African countries signed the agreement for joining the Government of India sponsored Pan-African e-Network project, taking the total to 39.

5th CII-EXIM Bank India-Africa Conclave on India-Africa Project Partnership 2009 was held from 22-24 March 2009 at New Delhi. Nearly 500 delegates from Africa and more than 300 from India attended the Conclave. India-Africa two-way trade which was around US\$36 billion in 2007-08 has already reached US\$33 billion in the first nine months of 2008-09.

Number of training slots for African countries under the Indian Technical and Economic Cooperation programme was around 1500 and the scholarships for higher studies was around 500.

Dr. Boni Yayi, President of the Republic of Benin, made the first ever State visit to India from March 3 to 7, 2009. Five agreements were signed, including for establishment of an IT Training Centre, a Technology Demonstration Centre, and cooperation in small scale industry sector. Prime Minister announced a US\$15 million Line of Credit and US \$ 2 million grant to Benin.

Vice President Shri Mohammad Hamid Ansari visited South Africa during May 8-10, 2009 to attend the inauguration ceremony of Mr. Jacob Zuma, the 4th democratically elected President of South Africa.

EUROPE

PM Gordon Brown of UK visited India to attend the 4th India-UK Summit which took place in New Delhi from 20 - 21 January 2008. Prime Minister Dr. Manmohan Singh met Mr. Gordon Brown again in London on the sidelines of the G-20 Summit on 1 April 2009. Mr Nicholas Sarkozy, President of France, accompanied by a high level Ministerial and business delegation, visited India from 25 - 26 January 2008 and was the Chief Guest at the Republic Day parade. Prime Minister Dr. Manmohan Singh visited Paris for the India-France Bilateral Summit on 30 September 2008. Both PM and President Nicolas Sarkozy reaffirmed the Strategic Partnership between India and France and their commitment to further strengthen cooperation in core areas such as civil nuclear cooperation, space and defence. Germany continued to be India's largest trading partner within the EU. Dr. Frank Walter Steinmeier, German Federal Chancellor and Minister of Foreign Affairs, visited India, from 19-21 November 2008. Recently, scientific and technological cooperation has emerged as one of the key elements in the Indo-German interaction. Bilateral visits between India and Spain at the ministerial level continued during the period, the most notable being the visits by Indian Ministers of Finance, Health and Family Welfare and Petroleum and Natural Gas, to Spain. India continued to strengthen bilateral relations with Italy at different levels. Prime Minister Dr. Manmohan Singh met PM Mr. Silvio Berlusconi on 24 October 2008 on the sidelines of the ASEM Summit in Beijing.

India has traditionally enjoyed warm, friendly and close relations with countries of the Nordic as well as Central and Eastern Europe. Efforts to diversify and deepen India's friendly relations with these countries were pursued assiduously. The potential for high technology manufacturing in India, cooperation in petroleum, non-conventional energy, bio-technology, nano-technology and engineering, together with areas like deep-sea fishing and food processing raised new possibilities for collaboration. Ministerial and official interactions with these continued. Mr. Kostas Karmanlis, Prime Minister of the Hellenic Republic visited India from 10 - 13 January 2008. Mr. Ferenc Gyurcsany, Prime Minister of Hungary visited India from 16-19 January 2008. During his visit, he called on the President and met the, Prime Minister UPA Chairperson, Leader of Opposition in Lok Sabha, Ministers of External Affairs, Petroleum & Gas and Commerce & Industry. From Sweden, Trade Minister, Public Health Minister, Minister for Migration and Asylum Policy and Crown Prince visited India during the period. The Standing Committee on Foreign Affairs from the Swedish Parliament paid an official visit to India in January 2009. Bilateral visits between India and the Czech Republic included the visit by MoS (AS) Shri Anand Sharma and Commerce & Industry Minister Shri Kamal Nath and from the Czech side, the

visit by their Industry and Trade Minister and the Chief of the General Staff of Czech Armed Forces. Former President of India Dr. A.P.J. Abdul Kalam visited Finland in April 2008 to attend a seminar there and President of Finland Mrs. Tarja Halonen visited India from 5 - 7 February 2009 to attend the Delhi Sustainable Development Summit. With Poland, there were regular visits at various levels. General Deepak Kapoor, Chief of Army Staff, paid a goodwill visit to Poland in March 2008. Following the visit of Anders Fogh Rasmussen, Prime Minister of Denmark, to India from 4 - 8 February 2008, bilateral relations between the two countries were further strengthened. There was increased interaction between India and Turkey during 2008-09. The Prime Minister of Turkey Recep Tayyip Erdogan paid an official visit to India from 21-24 November 2008.

WEST EUROPE

Hon'ble President Smt. Pratibha Patil paid a State visit to Spain from 20-23 April, 2009 where she was received with great warmth and full state honours. During the visit MoUs on Agriculture, Renewable Energy and Tourism were signed.

The G8 summit took place at L'Aquila from July 8-10, 2009. Prime Minister attended the Summits Earlier EAM attended the Foreign Ministers' meeting on stabilization of Af-Pak on June 26 in Trieste and had a bilateral meeting with Italian FM on the sidelines.

Prime Minister, Dr. Manmohan Singh visited France as the Chief Guest of Honour at the French National Day celebrations held in Paris on 14 July, 2009. A 400 strong Indian military contingent led the Bastille Day parade on the occasion. This symbolized the friendly and strategic partnership between India and France.

The 20th Ministerial India EU Troika meeting was held in Prague on 29 June, 2009. The Indian delegation was led by External Affairs Minister, Shri S.M. Krishna and the EU side was led by Mr. Jan Kohut, the Czech Minister of Foreign Affairs, the incoming Swedish Presidency and Ms. Benita Ferreo Waldner, the EC Commissioner for External Relations and European Neighbourhood Policy. The Troika Ministerial meeting was the first high level political interaction that took place between the two sides after the formation of the new Government in India. During the meeting, both sides took stock of the progress post Marseille Summit of September, 2008 and discussed about the preparations required in the context of the forthcoming 10th India-EU Summit to be held in New Delhi on 6 November, 2009. Both sides also held wide ranging discussions on regional and global issues.

EU: India and the EU (European Union) are indispensable poles in the emerging multi-polar structures. Exchange of high level visits between India and Europe were maintained and summit-level interactions took place. India's engagement with EU intensified and diversified in fields such as defence & security, nuclear and space, trade and investment, energy, food security, climate change, science and technology, culture and education. Special envoys were sent to all the EU countries seeking support for waiver in the NSG for Civil Nuclear Cooperation with USA. Following the Mumbai terrorist attacks, leaders of EU and member States sent messages and made telephone calls condemning the attacks, conveying condolences for the victims and reaffirming solidarity in the fight against terrorism, Prime Minister Dr. Manmohan Singh visited Marseille, France, for the 9th India-EU Summit on 29 September 2008. PM had discussions with EU/French President Nicolas Sarkozy and European Commission President Jose Manuel Barroso. The Summit, *inter alia*, reviewed India-EU joint Action Plan of 2005 and issued a revised plan extending Strategic Partnership

to new areas. It also issued a Joint Work Programme (JWP) for Indo-EU Cooperation in Energy, Clean Development and Climate Change. PM. also attended the India-EU Business Summit titled, 'New Synergies for Partnership' which was held on 30 September in Paris. The 19th India-EU Troika Foreign Ministerial Meeting was held on 30 May 2009 in New Delhi and the India-EU Strategic Dialogue was held on 05 December'08 in New Delhi. In addition, 4th Round of the India-EU Energy Panel Meeting and the 11th Meeting of the India-EU Joint Working Group on Consular issues were held in New Delhi on 08 September and 23 May 2008, respectively.

The EU is India's largest trading partner. Bilateral trade crossed Euro 55 billion in 2007 and is targeted this to reach Euro 100 billion in 5 years. India and Europe have been witnessing a very dynamic investment relationship.

USA

The year 2008 was marked by an intensification of the bilateral engagement between India and the USA. The signing of the Indo-US civil nuclear Agreement in Washington on 10 October 2008 was a culmination of the civil nuclear energy initiative announced during the visit of Prime Minister Dr. Manmohan Singh to the USA in July 2005. India successfully concluded an India-specific Safeguards Agreement with the International Atomic Energy Agency (IAEA) on 1 August 2008 which paved the way for the USA to approach the 45 nation Nuclear Suppliers Group (NSG) for an adjustment of the NSG guidelines to enable its Members to enter into civil nuclear cooperation and trade with India. The formal signing of the Agreement by External Affairs Minister, and his US Counterpart Secretary of State, Dr. Condoleeza Rice took place on 10 October 2008 in Washington. The agreement is a symbol of the transformed nature of the bilateral dialogue and has added strategic content to the relationship. It has also opened up vast opportunities for bilateral, economic and high technology engagement.

While economic and commercial ties, defence cooperation and people to people contact were other priority areas of focus in the bilateral agenda, Indo-US consultations on global issues of common concern and the dialogues, work plans and implementation groups for bilateral initiatives in energy, education, science and technology, health, space, agriculture among others, continued to add depth and strengthen the Indo-US linkages.

Several high-level visits took place during the period. PM Dr. Manmohan Singh visited Washington in September 2008. In his meeting with President Bush the two leaders reviewed the entire gamut of bilateral relations and expressed satisfaction on the achievements and progress made on the bilateral agenda and was set out in the Joint Statements of July 2005, issued during PM's visit to Washington and of March 2006, issued during the visit of President Bush to India.

US Secretary of State Dr. Condoleeza Rice visited New Delhi in October 2008 and held discussions with EAM Shri Pranab Mukherjee. The latter visited Washington DC from 24-25 March 2008. He met his counterpart and also called on President George Bush. He interacted with a select group of scholars at the Camegie Foundation, a Washington based think tank. PM also visited Washington in November 2008 to attend the G-20 Summit.

Mr. William Burns, Under Secretary for Political Affairs, US State Department visited India during 10-13 June 2009. He held talks with Foreign Secretary during

which the two sides reviewed the existing architecture for bilateral dialogue and discussed new elements of cooperation which could form part of the new bilateral agenda and regional and global issues of common interest and shared concern. Under Secretary Burns called on the Prime Minister and handed over a letter addressed to him by President Obama. He also called on EAM, Home Minister, HRD Minister, Deputy Chairman, Planning Commission and the Leader of Opposition.

Commerce and Industry Minister Shri Anand Sharma visited Washington during 16-19 June 2009 to attend the 34th anniversary of the US India Business Council. He met with his US Counterpart Ambassador Ron Kirk, US Trade Representative and discussed Indo-US trade relations. CIM also met with US Commerce Secretary Gary Locke and US Secretary of State, Ms. Hillary Clinton at the Synergies Summit hosted by the US India Business Council.

UN National Security Advisor, Gen. James Jones visited India during 25-26 June 2009. He held talks with his Indian counterpart and discussed security cooperation and global issues of common concern. NSA Jones called on Prime Minister and Raksha Mantri.

US Secretary of State, Ms. Hillary Clinton visited India during 17-21 July 2009. She called on PM and held delegation level talk with External Affairs Minister. The five-day visit gave a boost to Indo-US relations and laid the roadmap for bilateral interaction in the coming years. Secretary of State and EAM jointly announced a new agenda for Indo-US relations in its "third Phase" (defined as 3.0 by Secretary of State) categorized as the five pillars of the relationship. They are (i) science, technology, health and innovation; (ii) strategic cooperation; (iii) energy and climate change; (iv) education and development; and (v) economics trade and agriculture. The revised dialogue architecture establishes new formalized interaction in the fields of health, education, women's empowerment, climate change and strategic issues. Speaking at the Joint Press Conference after the delegation level talks, Secretary Clinton reiterated that deepening of Indo-US relationship was a personal priority for her. External Affairs Minister reciprocated the commitment of the US to strengthen bilateral relationship and conveyed the importance India attaches to Indo-US strategic partnership.

Two agreements - Technical Safeguards Agreement (Space) and an Indo-US Science and Technology Endowment Fund and Board Agreement were signed during the visit. The S&T Agreement seeks to establish an India-US Board and an Endowment for developing Joint Research and Development, Innovation, Entrepreneurial and Commercialization Activities in Science and Technology. The Technology Safeguards Agreement would allow India to launch third country civil or non-commercial satellites of US origin and which have US components. The two sides also agreed to a formulation on End Use Monitoring (EUM) to be included in letters of offer and acceptances for defence equipment to be acquired from USA for Government of India. A joint statement was issued during the visit highlighting the significance of Indo-US relationship and the global and bilateral agenda that would be pursued by the two sides. Secretary Clinton's visit was high on content and symbolism. The two sides discussed bilateral, regional and global issues and affirmed their commitment to strengthen Indo-US strategic partnership. She conveyed an invitation from President Obama to Prime Minister to pay a State visit to Washington on 24 November 2009. This is the first invitation extended by the new US Government for a State visit by any Head of State of Government.

DEFENCE AND SECURITY

The fifth meeting of the India-US Senior Technology and Security Group was held on 11-12 May 2009 in Washington USA. Issues related to Technology Transfer and Technology Collaboration were discussed.

Admiral Timothy J. Keating, Commander, US Pacific Command visited India from 13-15 May 2009 to discuss with Government of India issues related to the regional security situation, terrorism, and maritime security.

Shri Vivek Katju, Special secretary (Pol & IO) in MEA led the Indian delegation for the 11th meeting of the India-US Joint Working Group on counter-terrorism in Washington, 17 June 2009. The meeting enabled the Working group to address a wide range of issues relating to Counter Terrorism and India's membership of the Financial Action Task Force.

ENERGY AND SCIENCE AND TECHNOLOGY PARTNERSHIP

The second meeting of the India-US Civil Nuclear Working Group, was held from 28-30 April 2009 in Idaho National Laboratory, Idaho, USA. Both countries identified areas of collaboration in the field of nuclear energy and reactors.

A delegation comprising concerned GoI Ministries and Industry representatives participated in BIO 2009 Exhibition from 18-21 May 2009, in Atlanta, USA. India's leading pharmaceutical and biotechnology companies and GoI Ministries demonstrated their technological capabilities and explored opportunities for enhancing biotech exports and R & D collaboration.

India-US Biotechnology and Life Sciences Working Group under the bilateral High Technology Cooperation Group met on the sidelines of BIO 2009 on 20 May 2009 in Atlanta. Discussion focused on differentiation between legitimate generics and counterfeits; Intellectual Property Rights (IPR) issues like data protection, tractional knowledge disclosure norms; capacity building in harmonising regulatory frame work and collaboration in R & D.

The Obama Administration sent its first delegation to India from February 15-24, 2009, to mark the 50th anniversary of American Civil Rights leader Dr. Martin Luther King Jr's visit to India to study Mahatma Gandhi's teachings. The delegation included Dr. King's eldest son, Dr. Martin Luther King III. Ambassador Richard Holbrooke, US Special Representative for Afghanistan and Pakistan, visited India from 15-16 February. He called on EAM Shri Pranab Mukherjee, on 16 February, and discussed the situation in Afghanistan and Pakistan with them.

CANADA

India's relations with Canada were substantively reinvigorated during the period with the Canadian Government under Prime Minister Stephen Harper continuing to consider relations with India a foreign policy priority. Canada's Foreign Minister, Mr. Maxime Bernier visited India from 10-12 January 2008. Canada's Deputy Minister for Citizenship and Immigration, Mr. Richard B. Fadden visited India from 12-18 January 2008. India and Canada opened a new chapter in their relations when Canada supported India's Safeguard Agreement with the IAEA and it also joined the NSG's consensus decision to allow nuclear trade with India.

Canada India Foundation organized a **Canada India Energy forum** in Toronto on April 16-17, 2009 to identify opportunities for bilateral cooperation in areas of renewable, fissile and nuclear energy. Invitees included energy companies,

government departments and regulatory agencies, policy makers, legislators, investors, bankers and financiers from both countries. The Government of India delegation was led by Deputy Chairman, Planning Commission.

A Government of India team led by Dr. R.B. Grover, Director (Strategic Planning Group) in Department of Atomic Energy and Mr. Don Sinclair, Director General, International Security Bureau, Department of Foreign Affairs and International Trade, Canada held discussions on 21-22 May 2009 on the **draft agreement for civil nuclear cooperation**.

India-Canada Dialogue on Strategic Issues was held on 18 June 2009 in Ottawa. Both sides exchanged perceptions for enhancing mutual understanding on the situation in the South Asian region, issues related to disarmament, refugee situation, disaster management and other global issues of common concern.

The India-Canada Joint working Group on Counter-terrorism met in Ottawa on 19 June, 2009. The meeting enabled a discussion on global threat perceptions, ongoing terrorist investigations, technical cooperation in the area of counter-terrorism, drug-trafficking etc.

The 3rd India-Canada Joint Committee on Science and Technology Cooperation was held in Ottawa on June 8, 2009.

On June 4, 2009, Punjab's Minister of Agriculture, Mr. Sucha Singh Langah and Manitoba's Deputy Premier and Agricultural Minister Rosann Wowchuk signed an **MoU between Manitoba and Punjab on Food Development Park** to provide the Manitoba's expertise to support establishment of a food development centre in Punjab to expand agri-food industry.

The first meeting of the **India-Canada Environment Forum** which has been set up under the India-Canada Agreement for cooperation in the area of environment was held on 18-19 June 2009 in Ottawa.

LATIN AMERICA AND THE CARIBBEAN (LAC)

In the light of existing commonalities with regard to bilateral and multilateral issues and mutual economic interests, India's engagement with LAC countries intensified during the period under reference. Cross-sectoral linkages were facilitated through regular dialogue at the political and official level and also through exchange of business delegations, experts and professionals from both sides. Contacts at the institutionalized level were maintained through Joint Commission Ministerial meetings and Foreign Office Consultations. As many as 21 agreements and MoUs were signed during this time. Indian companies stepped up their presence in sectors such as oil and hydrocarbons, ICT, mining, pharmaceuticals, agriculture, auto industries, new & renewable energy and in the services sector. As part of our Development Partnership and South-South cooperation initiatives, Line of Credit assistance to the tune of US \$ 160 million was announced for LAC countries and disaster relief to the tune of US \$ 2.125 million was disbursed. IT Centres were also set up in three LAC countries and a total of 382 ITEC scholarships were announced and utilized by LAC candidates. The signing of a JV agreement between the national oil company (PDVSA) of Venezuela and ONGC Videsh for oil production and development activities in the San Cristobal oil field in eastern Venezuela, acquisition of the rights of Encana Corporation of Canada in 10 offshore blocks in Brazil by the BPRL-Videocon JV, Waiver of commercial debt and interest to the tune of Rs. 128 crores owned by Cuba to India and sale of 7 advanced Light (Dhruv) helicopters by

HAL to Ecuador was among the important milestones in our economic/commercial relations with LAC countries.

UNITED NATIONS AND INTERNATIONAL ORGANISATIONS

India continued to play an active role in the United Nations (UN) focussing on the ongoing process of reforming the UN Organization with a view to enhancing its representative nature and its credibility, and therefore, its effectiveness. In collaboration with other member states, India continued to work for reform of the Security Council and the Economic and Social Council and to revitalize the General Assembly.

The period under review was marked by several high-level visits. Prime Minister Dr. Manmohan Singh led the Indian delegation to the 63rd Session of General Assembly in September 2008. In his address to the UNGA on September 27, 2008, PM underlined the need for progress on core elements of the agenda for reform of the UN. He also stressed the need for coordinated action by the international community in dealing with the crisis in the world financial system and global food and energy crisis. In the context of the fact that 2008 marked the mid-point of international efforts to achieve the developmental targets set by the Millennium Development Goals, PM emphasized the indivisible nature of global prosperity and welfare. PM also referred to terrorism, exhorting the world to strengthen international cooperation in this regard and reaffirmed the need for the early conclusion of a Comprehensive Convention on International Terrorism (CCIT).

UN Secretary General, Mr. Ban Ki-moon, visited India from 30 - 31 October 2008 and delivered the Rajiv Gandhi Commemorative Speech on 31 October 2008. He visited India again on 4-6 February 2009 to participate in the Delhi Sustainable Development Summit.

India worked actively to ensure that development remains at the core of the United Nations agenda, particularly against the backdrop of the global financial meltdown, together with upheavals in the food and energy markets. In this regard, the need for developed countries to fulfill their commitments to provide enhanced aid, greater market access, debt relief and technology transfer to developing countries was re-emphasized. India also pushed for proportionate voice and participation of the developing countries towards ensuring a greater developmental focus in the international regimes on trade, finance and economic bodies.

India also continued its active engagement with the Non-Alignment Movement and the Commonwealth. EAM led the Indian delegation to the 15th NAM Ministerial Meeting in Tehran during 27-30 July 2008. Mr. Kamallesh Sharma, former High Commissioner of India to the United Kingdom, who was elected as the Secretary General of the Commonwealth in November 2007, assumed office on 1 April 2008 and visited India on 16-22 October, 2008 and 4-11 February, 2009.

MULTILATERAL ECONOMIC RELATIONS

Agendas of the multilateral fora, during the period, were generally under the shadow of international financial turmoil, high food prices and volatile energy prices. India continued its active engagement with ASEM (Asia-Europe Meeting), BIMSTEC (Bay of Bengal Initiative for Multi Sectoral Technical and Economic Cooperation), BRIC (Brazil, Russia, India and China-May 2008), G-8-05, G-20, IBSA (India, Brazil and South Africa), IOR-ARC (Indian Ocean Rim Association for Regional Cooperation), ACD (Asia Cooperation Dialogue) etc, where it presented its perspective on financial

crisis and other critical issues such as food, security, energy security, climate changes and sustainable development. The first IOR-ARC Film Festival was held in New Delhi in February-March 2008 as part of Indian initiatives announced at the 7th IOR-ARC Council of Ministers (COM) meeting held in Tehran in March 2007.

Secretary (ER) led the Indian delegation to the preparatory meeting of BRIC Deputy Foreign Ministers meeting in Russia in May 2008.

India hosted the 2nd BIMSTEC (13/11/2008), and the 3rd IBSA Summit in New Delhi during the period. Prime Minister Dr. Manmohan Singh led the Indian delegations to the ASEM Summit in Beijing, the G-20 Summit in Washington (15/11/2008) and informal interaction of Heads of State/Govt. of BRIC countries. Conclusion of the negotiations on the agreement on "trade in Goods" under the Comprehensive Economic Cooperation Agreement (CECA) between India and ASEAN was considered yet another milestone in India's "Look East" policy.

INDIAN TECHNICAL AND ECONOMIC COOPERATION (ITEC) PROGRAMME & DEVELOPMENT PARTNERSHIP (DP)

The Indian Technical and Economic Cooperation (ITEC) Programme is the flagship programme of India's technical and economic cooperation efforts. In keeping with India's growing economic strength and international role, efforts were made to enhance and expand India's technical cooperation and development assistance to partner countries with emphasis on capacity building, transfer of technology and sharing of experiences. This involved 158 developing countries including 139 countries under ITEC in Asia, Africa, Central Asia, East Europe, Latin America and 19 countries under SCAAP (Special Commonwealth African Assistance Programme) in Africa. Around 5000 professionals, in Government and other sectors from 158 developing countries attended more than 200 courses conducted by institutions in India, both Government and in the private sector, under the civilian and defence training programmes. Special courses were organized for Africa, IOR-ARC, CIS, Afghanistan, Lao PDR, Yemen in various fields like management, WTO issues, labour, audit etc. Indian experts were deputed to advise and assist in diverse areas such as information technology, auditing, legal expertise, pharmacology, statistics and demography, public administration, textile and agriculture. Many projects were undertaken during the year in the field of information technology, small and medium enterprises, civil construction and vocational training in different parts of the world. Humanitarian assistance was also extended to countries affected by earthquake, cyclones, floods, etc.

INVESTMENT AND TECHNOLOGY PROMOTION (ITP)

Economic Diplomacy continued to occupy an important place in India's foreign policy, acquiring a sharper focus in an increasingly interdependent and interconnected world. The Ministry, through the ITP Division, was actively engaged in the promotion and facilitation of foreign investment and trade. It participated in policy meetings of Foreign Investment Promotion Board and Department of Industrial Policy and Promotion, as well as other policy meetings concerning reforms and liberalization of the economy and simplification of investment procedures. ITP Division supplemented the overall efforts of the Government to boost FDI inflow into India, by reaching out to the investor community and organizing and funding promotional events in partnership with the private sector, apex business chambers and our Missions abroad. The cause of foreign investments was further supported by

projecting the country's image as an investment friendly destination through special publications such as the "India - Dynamic Business Partner; Investor Friendly Destination" etc. and ITP Division's website: www.indiainbusiness.nic.in.

Development aid, including grants and Lines of Credit (LOC), to developing countries in Latin America, Africa and Asia formed an important component of our Economic Diplomacy. While helping Indian companies get project contracts and orders for supply of goods in these developing countries, the LOCs have helped in infrastructure development in these regions thereby creating considerable goodwill for the country. During 2008-09, 17 LOCs worth US\$ 744 million to 16 developing countries were approved.

Given the importance of energy security for India's development, a separate Energy Security Division has been established in March 2009 to coordinate with Energy Ministries and Indian Missions abroad. The Division worked closely with the Ministry of Petroleum and Natural Gas in organizing the *India-CIS Roundtable on Hydrocarbons* in November 2008 and *Petrotech 2009*, hosted/co-hosted seminars on India's energy options, commissioned studies on energy surplus countries and regions, was actively involved in energy security related seminars/conferences organised by other Ministries and Chamber of Commerce and Industry and extended assistance to Indian companies dealing with overseas energy collaborations and opportunities. It also took the initiative to set up a Working Group on energy with senior representatives of oil infrastructure PSUs.

POLICY PLANNING AND RESEARCH

The PP&R Division maintained close interaction with institutions and individuals specializing in policy research and analysis and extended financial assistance to various academic institutions/think-tanks located in different parts of the country for holding conferences, seminars, preparation of research papers, exchange of scholars on issues related to India's external relations and security with a view to derive invaluable inputs for the planning, formulation and implementation of our foreign policy.

Policy Planning and Research Division continued issuing Monthly Summary for the Cabinet. The Division also continued to edit and publish the Annual Report of the Ministry. The Report serves as a compendium of India's interaction with the rest of the world in the political, economic, and cultural fields, including the views of the Government on various facets of international relations.

CONSULAR, PASSPORT AND VISA SERVICES

During the year 3 new Passport Offices were opened at Amritsar, Dehradun and Coimbatore. All 37 Passport Offices have been computerized and issue machine-printed and machine readable passports.

A total of 53.15 lakh passports were issued in 2008-09, an increase of approximately 6.5% over the corresponding figure in 2007-08. The total revenue generated from all Passport Offices also increased to Rs. 606 crores, an increase of approximately 5.5% over 2007-08

The Ministry has been taking a number of measures to make the processing and issue of passports simpler and quicker for the comfort and convenience of the public. District Passport Cells (DPCs) have been opened at the district level to increase the efficiency of the receiving and verification process. Online submission of passport applications has been introduced in all Passport Offices. Also facilitation Counters

and Help Desks have also been set up to assist applicants and also to attend to grievances/complaints expeditiously.

The Passport Seva Project launched by the Government of India is expected to result in the issue of new passports within three days after police verification and of all other passport services in one day. The Pilot Project is expected to begin at Chandigarh and Bangaluru by July-August 2009. It will be implemented fully to cover the entire country in 2010.

The Ministry has successfully implemented the project for centralized printing of Machine Readable Passports (MRPs) at CPV Division, New Delhi in respect of 140 Indian Missions/Posts abroad.

All diplomatic and official passports are now being issued as e-passports as part of the pilot project. Based on the experience gained from the pilot project, it is proposed to start issuance of e-passports in the ordinary, category by end 2009. During 2008, visa-waiver agreements were signed with Egypt, El Salvador, Honduras, Nicaragua, South Africa and Turkey.

Extradition treaties were signed with Brazil, Australia, Iran and Egypt. The attestation and apostille of the documents was also started at branch secretariat offices of the Ministry at Chennai, Hyderabad, Kolkata and Guwahati with effect from 15 June 2008. During the year, 1,70,000 personal and educational documents and 1,71,000 commercial documents were attested by the Ministry. In addition to this, 80,000 documents were apostilled for use abroad in the member countries.

ADMINISTRATION

There are currently 171 resident Indian Missions and Posts abroad. During the year, a resident Indian Mission was opened in Iceland, while three new Missions are to be opened in the near future in Niger, Mali, and Guatemala. In order to address the Ministry's acute constraints of personnel in the face of India's growing diplomatic responsibilities, a 10-year plan has been developed to induct 514 additional positions in the Ministry in a phased manner.

IMPLEMENTATION OF OFFICIAL LANGUAGE POLICY AND PROPAGATION OF HINDI ABROAD

World Hindi Day was celebrated on 10 January 2008. Hindi Essay Competition was organized for foreign students studying Hindi at Kendriya Hindi Sansthan, Delhi University and Jawaharlal Nehru University.

EXTERNAL PUBLICITY

The main activities of the Division were focused on dissemination of information on India's relations with its immediate neighbours as also with major countries of the world. The Division launched the first phase of the Media Monitoring Project for all users at Headquarters. This is aimed at streamlining the monitoring of media sources for the Ministry. The Project monitors Print, Web and Internet based media in a systematic manner and provides 5 daily products to users on a real time basis.

The Division used the opportunities provided by visits of the President of Iran, Mr. Ahamadnejad; President of Syria, Dr. Bashar Al-Assad; President of Egypt, Mr. Hosny Mubarak; Prime Minister of Nepal, Mr. Pushpa Karnal Dahal "Prachanda"; Prime Minister of Bhutan, Mr. Lyonchen Jigmi Y. Thinley and the President of the Russian Federation, Mr. Anatoly Medvedev to articulate India's position on important bilateral, regional and international issues. The Division also

arranged joint press interaction with the visiting dignitaries during these visits. Special briefings by the official spokesperson and other senior officials of the Ministry were also held regularly on important international issues of concern to India.

Media delegations on President's visit to Brazil, Mexico, Chile, Vietnam and Indonesia; Prime Minister's visits to Bhutan, Japan (G-8 summit), Sri Lanka (15th SAARC summit), USA and France (UNGA and Civil Nuclear Cooperation Agreement), China, Oman and Qatar (bilateral); Vice President's visits to Kazakhstan and Turkmenistan; and the External Affairs, Minister's visits to Saudi Arabia, Pakistan, Russia, Australia, Egypt and USA were facilitated by XP Division.

PUBLIC DIPLOMACY

PD Division, in order to fulfill its mandate of outreach activities inside and outside India, and audio-visual and print publicity to effectively project India's Foreign Policy to the wider public, works in collaboration with researchers, think tanks, civil society, media and industry, within India and abroad.

Last year, the Division organized a number of seminars and conferences to effectively project India's foreign policy, and to support Track Two interaction with other countries. A large number of Indian and foreign academics, researchers, senior officials, representatives of industry and the media were involved in the events organized by the Division. Among the major activities of the Division were conferences on our relations with Nepal, Afghanistan, Kazakhstan, Pakistan and Ethiopia. The Division also organized conferences on varied themes such as the fallout of the cold war, development of North-East, terrorism and climate change. With a view to familiarize policy and opinion makers from other countries with modern India and our concerns and interests, the Division hosted visits of delegations from the UK, Mauritius, South Africa, Tajikistan and Taiwan, as well as a delegation of PIO journalists from 16 countries.

The Division commissioned documentaries projecting our interests as also Indian culture and heritage. Some of the documentaries commissioned by the Division were screened at international festivals and awarded special prizes/special mention. The Division's flagship magazine 'India Perspectives' covering a variety of subjects completed twenty years; an anniversary issue and two Special Issues on Indian Publishing and Indian Cinema were brought out.

FOREIGN SERVICE INSTITUTE

The Government of India established the Foreign Service Institute (FSI) in 1986, primarily to cater to the professional training needs of the Indian Foreign Service of the Ministry of External Affairs. The new building of the Foreign Service Institute was formally inaugurated on 14 November 2007 by Hon'ble Minister of External Affairs, Shri Pranab Mukherjee.

FSI has diversified its activities to include courses of interest to staff and officers at all levels of the Ministry of External Affairs, other Civil Services and Foreign Diplomats and Correspondents. FSI organizes and conducts training programmes for MEA Staff, IFS Probationers, Directors and for Joint Secretaries (since 2009), as well as courses for other Civil Services, Foreign Diplomats and Diplomatic Correspondents. The first Mandatory mid-career training programme for Joint Secretary-level IFS officers of the 1979-80 Batches was organised by FSI from 13 April to 1 May, 2009 in collaboration with the Indian School of Business, Hyderabad.

The Training Programmes for the IFS probationers of 2007 and 2008 batches was conducted by FSI between 2007-2009, which included an attachment with IIM, Bangaluru, district training and other field visits. On successful completion of their Training Programme, the Bimal Sanyal Award Ceremony was organized for the probationers of the 2007 batch. IFS probationers of the 2008 batch completed their Mission Orientation Programme in 2009, with 10 probationers visiting Sri Lanka, led by Dean (FSI), and 10 IFS probationers visiting Bhutan.

The Professional Course for Foreign Diplomats (PCFD), which is FSI's main programme for foreign diplomats, was launched in 1992. Around three PCFDs are conducted every year (duration - 4 - 6 weeks). The 47th PCFD was held in February-March 2009 and more than 1500 foreign diplomats from over 100 countries have been trained at FSI. An MoU providing institutional framework of cooperation between FSI and its counterpart institute in Ukraine was signed. Delegations from Bangladesh, Romania and China visited FSI. The Second Meeting of Deans of Diplomatic Institutes of IBSA (India-Brazil-South Africa) countries was held at FSI in September, 2008. A Seminar on the subject of "India-Brazil-South Africa Cooperation: Challenges and Opportunities" was also held on this occasion.

In response to specific requests from friendly countries, the FSI has also conducted special courses for diplomats from Afghanistan, Canada, Iraq, Laos, Maldives (a Special Course for Diplomats, from Maldives commenced on 14th July, 2009 and will conclude on 12th August, 2009), Norway, Palestine, Sudan and Vietnam. Training programmes for the ASEAN countries have become an annual feature since 2006. In addition to active contacts with specialized institutions and academic bodies in India, FSI has established institutional linkages with 34 counterpart institutions in other countries. Over the last year FSI organized several special lectures by eminent Indian and foreign experts and dignitaries. The Foreign Defence officers attending the 48th Course at National Defence College visited FSI and a lecture was arranged for them.

The Abid Hussain Committee, composed of distinguished diplomats and chaired by Shri Abid Hussain, finalized a report in 2009 making useful recommendations on the further upgradation of the Foreign Service Institute.

The Foreign Service Institute has career foreign service officers at its core, headed by the Dean, who is of the rank of Secretary in the Ministry of External Affairs. FSI has an extensive guest faculty drawn from specialists in the academic and research community, think tanks, other ministries-departments of the Government of India, the media, public life, industry and trade, and retired civil servants.

INDIAN COUNCIL OF CULTURAL RELATIONS

The primary objective of the Indian Council of Cultural Relations [ICCR] is to establish, revive and strengthen cultural relations and mutual understanding between India and other countries. The Council's flagship project, the Rabindranath Tagore Centre (RTC) was inaugurated on 1 June 2008 by Shri Pranab mukherjee, former Minister for External Affairs.

The Council organized large-scale cultural events with foreign and Indian troupes, on the sidelines of major Summits, such as the India-Africa Summit, IBSA Summit, Arab League Meeting etc. It also coordinated the South Asia Cultural Festival and held cultural programmes for VVIP visitors. A number of festivals were held,

such as Sufi Music Festival in Srinagar, Malhaar Festival and Festival of Indian Classical Dance by foreign artists residing in India. An important highlight of 2008 was the “Year of Russia in India” which included a series of high-profile cultural performances. In addition, 50 cultural troupes from different countries were hosted by the Council, with performances held in Delhi and other cities. The Council also provided financial support to NGOs and cultural institutions to jointly organize cultural activities. The Council hosted 19 eminent visitors from different countries under the Distinguished Visitors Programme.

The twenty-one Indian Cultural Centres abroad continued to vigorously promote India's ‘Soft Power’. The expanded Cultural Wing of the Indian Embassy in Beijing became functional in the year and preparations were made to open new Cultural Centres in Bangkok, Kuala Lumpur, Tokyo and Dhaka.

The Council organized a series of cultural festivals abroad in Syria, Egypt, Netherlands, Argentina and Hungary, which included diverse and varied cultural programmes. The ‘Year of India in Russia’ was inaugurated by President, ICCR on 31 March 2009 in Moscow. The Council sponsored 93 cultural delegations which visited 73 countries and also sponsored a number of outstanding artistes abroad and provided travel grants. The Council continued to manage 21 long-term and 12 short-term Chairs in Indian Studies in various foreign Universities.

An important focus area of ICCR has been facilitating admission of foreign students in Indian Universities, In 2008-09, ICCR administered scholarships for approx. 3200 foreign students under various schemes. This included 1778 new scholarships, including 500 scholarships for Afghan students.

The Council opened two new Regional Offices at Cuttack and Shillong during the year to enhance its reach to North-east and eastern India. The Council also organized major exhibitions showcasing Indian and foreign art and sculpture; disseminated 6 journals in 5 different languages and also assisted various organizations/institutes in organizing 24 International Conferences in India.

President of India presented the Jawaharlal Nehru Award for International Understanding for 1995 to President of the Arab Republic of Egypt, H.E. Mr. Mohamed Hosny Mubarak on 18th November 2008. The Maulana Abul Kalam Memorial Lecture 2009 was delivered by Mr. Martin Luther King III on the subject “A New Nonviolent Revolution”.

INDIAN COUNCIL OF WORLD AFFAIRS

Indian Council of World Affairs (ICWA) continued in 2008 to develop as a think-tank and an important platform for discussions of foreign affairs in India ICWA signed 6 MoUs for bilateral cooperation, viz, with Centre for Strategic Studies (CSS) of Ministry of Foreign Affairs of Afghanistan, New Zealand Institute of International Affairs (NIIA) Wellington, Australian Institute of International Affairs (AIIA) Melbourne, The Emirates Centre for Strategic Studies and Research (ECSSR) Abu Dhabi, Asia Centre of Bangaluru & Centre for Research in Rural and Industrial Development (CRRID) Chandigarh. Council sponsored a Joint Study between India-Central Asia Foundation (ICAF), ICWA and Department of International Relations, Al-Farabi Kazakh National University, Almaty, Kazakhstan on “Contemporary Process of Political Modernizing; Experience of Central Asian States and India”. The Council organized 7 lectures, 4 seminars/conferences, 6 bilateral dialogues & 14 background briefings, book release/panel discussions.

ACHIEVEMENTS OF THE MINISTRY OF OVERSEAS INDIAN AFFAIRS

OVERSEAS INDIAN CITIZENSHIP SCHEME

The Government launched Overseas Citizenship of India Scheme (OCI Scheme) w.e.f. Dec. 2, 2005 to facilitate life long visa-free travel to India and certain economic education and cultural benefits to Persons of Indian Origin (PIOs). Around 4.56 lakh OCI documents until 31st July have been issued by the Government.

OVERSEAS WORKERS RESOURCE CENTRE (OWRC)

In order to educate the intending emigrants about the risks involved in irregular migration and the precautions to be taken while seeking overseas employment and to provide need based information to overseas emigrants an Overseas Workers Resource centre (OWRC) has been established. The Centre operates a toll free 24x7 helpline for the purpose.

COUNCIL FOR PROMOTION OF OVERSEAS EMPLOYMENT (CPOE)

A council for Promotion of Overseas Employment (CPOE) has been established which will serve as a strategic think-tank to conduct market research, identify employment opportunities in the international labour market, disseminate market information to stakeholders, do skill profiling to identify skill gaps and plan appropriate interventions for addressing such gaps, devise strategies to respond to the market dynamics and enable intending emigrants to reap the demographic dividends of globalization.

OVERSEAS INDIAN FACILITATION CENTRE (OIFC)

An Overseas Indian Facilitation Centre - a Not for Profit Trust - serves as a single window to promote overseas Indian Investment in India to provide a variety of business advisory services to overseas Indians and Knowledge Networking.

ESTABLISHING A PIO UNIVERSITY

With a view to providing benefits to the children of Overseas Indians by offering courses of international standards the Government has decided to establish PIO/NRI University at Bangaluru by the Manipal Academy of Higher Education Trust, Manipal. The University will have 50% seats earmarked for PIOs/NRIs and the remaining 50% for resident Indian students.

SETTING UP OF OVERSEAS INDIAN CENTRES

The Government has approved setting up of three Overseas Indian Centres at Dubai, Kuala-Lumpur and Washington to provide medical, legal and financial counselling to the Overseas India workers. Counsellor (Community Affairs) has already been approved at Abu Dhabi and Washington.

India Development Foundation of Overseas Indians

India Development Foundation of Overseas Indians, is a not-for-profit trust registered to provide a credible window for Overseas Indian Philanthropy in India's Social development. The objective of the foundation is to facilitate philanthropic activities by Overseas Indians including through innovative projects and instruments such as micro credit for rural entrepreneurs, self-help groups for economic empowerment of women, best practice interventions in primary education and technology interventions in rural delivery.

Global-Indian Network of Knowledge

Global Indian Network of Knowledge (Global INK), an electronic platform will connect people of Indian origin from a variety of disciplines including scientists working abroad, recognized as leaders in their respective fields, not just in their country of residence but globally as well, with knowledge users at the national and sub-national levels in India. The network will serve as a strategic 'virtual think-tank'. The outcome targeted will be the germination of ideas on development, identification of the key elements in addressing the challenges to development and articulating and mapping out solutions through innovation and technological interventions.

OVERSEAS INDIANS AND THE MINISTRY OF OVERSEAS INDIAN AFFAIRS

India has the second largest diaspora in the world. The Overseas Indian community estimated at over 25 million is spread across every major region in the world. Yet, it is difficult to speak of one great Indian diaspora. The overseas Indian community is the result of different waves of migration over hundreds of years driven by a variety of reasons - mercantilism, colonialism and globalisation. Its early experiences make up a saga of trials, tribulations and the eventual triumph of determination and hard work. In the last three decades of the 20th century the character of migration began to change and a 'new Diaspora' led by high skilled professionals moving to the western world and semi-skilled contract workers moving to the Gulf, West and South East Asia emerged.

The overseas Indian community thus constitutes a diverse heterogeneous and eclectic global community representing different regions, languages, cultures and faiths. The common thread that binds them together is the idea of India and its intrinsic values. Overseas Indians comprise People of Indian Origin (PIO) and Non-Resident Indians (NRI) and today are amongst the best educated and successful communities in the world. In every part of the world the overseas Indian community is recognised and respected for its hard work, discipline, non interference and for successfully integrating with the local community. Overseas Indians have made significant contributions to the economy of the country of residence and have added in considerable measure to knowledge and innovation.

THE MINISTRY AND ITS MANDATE

The MOIA is the nodal Ministry for all matters relating to overseas Indians comprising Persons of Indian Origin (PIO), Non-Resident Indians (NRIs) and Overseas Citizens of India (OCI). The Mission is to promote, nurture and sustain a mutually beneficial and symbolic relationship between Indians and Overseas Indians. To achieve the mission, MOIA is guided by four key principles:

- 1 Offer customized solutions to meet the varied expectations of the overseas Indian community
- 1 Lend a strategic dimension to India's engagement with the Diaspora
- 1 Tap the investible diasporic community in terms of knowledge and resources
- 1 Anchor all diasporic initiatives in the States

MOIA has taken up a series of programmes/ initiatives for the betterment of the overseas Indian community.

PRAVASIBHARATIYA DIVAS

9th January is recognised as the Pravasi Bharatiya Divas, as it was on this day in 1915 that Mahatama Gandhi returned to India from South Africa to launch what

eventually became India's successful freedom struggle and inspiration to overseas Indians and people under colonial rule all over the world. The day is celebrated every year as part of Pravasi Bhartiya Divas (PBD) Convention. The PBD is the flagship event of the Ministry of Overseas Indian Affairs.

The sixth Pravasi Bharatiya Divas conference was organized at Chennai on 7-9 January, 2009 in partnership with the Government of the National Capital Territory of Delhi and the Confederation of Indian Industry (CII). The Conference included 4 plenary sessions on 'India as Emerging Power: The Diaspora Factor', 'Reflections on Current Economic Crisis-Diaspora concerns', 'Diaspora interaction with the States' and 'Indian Diaspora: Preservation of language and Culture'. Six Concurrent Sessions on "Building Bridges : Trade & Investment', 'Diaspora Philanthropy', 'Education & Diaspora Knowledge Network', 'Media & Entertainment', 'Increased interaction with Diaspora Women' and Health for All; Role of Diaspora'. and Regional Working Sessions on Gulf, Asia-pacific, Africa, America, Canada, Carribean and Europe were also held as part of the Conference. Around 1800 delegates participated in the Conference from 54 countries of the world.

The Conference was inaugurated by the Hon'ble Prime Minister of India Dr. Manmohan Singh. Hon'ble President of India Smt. Pratibha Devisingh Patil, conferred the Pravasi Bharatiya Samman Awards to 13 persons of Indian origin at the Valedictory Session on 9th January. The recipients of the PBSA were selected by a Jury-Cum-Awards Committee chaired by the Ho'ble Vice President of India.

The Vice President of Surinam H.E. Ramdieh Sard Joe was the Chief Guest for Pravasi Bharatiya Divas 2009.

PRAVASIBHARATIYA SAMMAN AWARD (PBSA)

The Pravasi Bharatiya Samman Award (PBSA) is conferred as part of the Pravasi Bharatiya Divas (PBD)conferences that have been organized by the Government of India annually since 2003. PBSA is the highest honour conferred on overseas Indians.

As per the PBSA guidelines the Award shall be conferred on a Non Resident Indian (NRI), Person of Indian Origin (PIO) or a NRI/PIO organization/institution who has made:

- 1 significant contribution towards better understanding abroad of India and support to India's causes and concerns in a tangible way;
- 1 significant contribution for the welfare of diaspora;
- 1 notable contribution in philanthropic and charitable work and for social and humanitarian causes in India and abroad;
- 1 significant contribution in building closer links between India and its diaspora in the economic, cultural and scientific fields;
- 1 eminence in one's field for outstanding work which has enhanced India's prestige in the country of residents.

or

has achieved outstanding eminence in his skills which has enhanced India's prestige in that country (for non-professional workers).

Nominations for the PBSA can be made by the Heads of Indian Diplomatic Missions abroad, Chariman of the Standing Committee of the Ministry of Overseas Indian Affairs, Prominent Overseas associations with nation-wide character (as decided by the Ministry of Overseas Indian Affairs) and past awardees of PBSA.

81 persons of Indian origin and one PIO organization, namely, National Council of Indian Culture, Trinidad and Tobago have so far been conferred with the Award.

MINI-PBD

A mini PBD titled 'PBD Singapore' was organized on 9-11 October 2008 in Singapore in partnership with the Singapore Indian Chamber of Commerce & Industry (SICCI) and Confederation of Indian Industry (CII) and support of the Government of Singapore. The tagline for the event was "*PBD Singapore: Towards a Dynamic Indian Diaspora*". President Mr. S.R. Nathan, Prime Minister Mr Lee Hsien Long, Deputy Prime Minister, Professor S. Jayakumar, Senior Minister Mr Goh Chok Tong, Minister Mentor Mr Lee Kuan Yew and Senior Minister of State, Mr. S. Iswaran of Singapore participated in the event. Prime Minister of Mauritius and senior ministers from Malaysia also participated apart from Cabinet Ministers Shri Kapil Sibal and Shri Vayalar Ravi.

A mini PBD titled "PBD Europe" is being organized in Netherlands on 19th September, 2009.

OVERSEAS CITIZENSHIP OF INDIA (OCI) SCHEME

In response to persistent demands for 'dual citizenship' particularly from the Diaspora in North America and other developed countries and keeping in view the Government's deep commitment towards fulfilling the aspirations and expectations of Overseas Indians, the Overseas Citizenship of India (OCI) Scheme was introduced by amending the Citizenship Act, 1955 in August 2005. The Scheme was launched during the Pravasi Bharatiya Divas 2006 at Hyderabad. The Scheme provides for registration as Overseas Citizen of India (OCI) of all Persons of Indian Origin (PIOs) who were citizens of India or were eligible to become citizens of India on 26th January, 1950 or thereafter except who is or had been a citizen of Pakistan, Bangladesh or such other country as the Central Government may, by notification in the Official Gazette, specify.

A registered Overseas Citizen of India is granted multiple entry, multipurpose, life-long visa for visiting India, he/she is exempted from registration with Foreign Regional Registrar or Foreign Registration Officer for any length of stay in India, and is entitled to parity with Non-Resident Indians in respect of all facilities available to them in economic, financial and educational fields except in matters relating to the acquisition of agricultural or plantation properties.

The Ministry of Overseas Indian Affairs is empowered to notify grant of further benefits to OCIs. It has since notified that OCIs shall be treated at par with resident Indian nationals in the matter of tariffs in air fares in domestic sectors, within India, entry fees to visit national parks and wildlife sanctuaries in India and with Non-Resident Indian nationals in the matter of Inter-country adoption of Indian children.

Around 2, 81,000 persons of Indian origin have been registered as OCIs by middle of July, 2008. Since 5th January, 2009, OCIs have also been granted parity with non-resident Indians in respect of;

- (i) entry fees for visiting the 3 national monuments, historical sites and museums in India;
- (ii) practicing the following professions in India, in pursuance of the provisions contained in the relevant Acts, namely;
 - (a) doctors, dentists, nurses and pharmacist;

- (b) advocates;
- (c) architects;
- (d) chartered accountants;
- (iii) Entitlement to appear for the All India Pre-Medical Test or such other tests to make them eligible for admission in pursuance of the provisions contained in the relevant Acts.

Respective Ministries/Departments/agencies of the Government of India have been requested to make necessary provision in their rules and regulations to give effect to the notification.

OCI is not to be misconstrued as a 'dual citizenship'. OCI does not confer political rights. Detailed instruction and procedures on the OCI Scheme are given in the MHA's website: www.mha.nic.in.

Around 4.56 lakhs persons of Indian origin have been registered as OCIs upto 31st July, 2009.

SCHOLARSHIP PROGRAMME FOR DIASPORA CHILDREN

Launched in the academic year 2006-07, the scheme seeks to promote India as a destination of choice for tertiary studies by children of our overseas community and thus develop India as an educational hub globally. At present 100 scholarships are offered to PIO and NRI children for undergraduate courses in Engineering, Technology, Humanities, Liberal Arts, Commerce, Management, Journalism, Hotel Management, Agriculture, Animal Husbandry etc. Over 205 students have benefitted so far under the Scheme where the Ministry meets upto 75% of the total institutional economic cost (which includes tuition fee, hostel charges, etc.) within a ceiling of US \$3600 per student per academic session. Deserving candidates are selected through a common entrance test conducted by Ed. CIL in forty identified countries with significant diaspora population.

ESTABLISHMENT OF A PIO/NRI UNIVERSITY

Keeping in view with the recommendations made by the High Level Committee on the Indian Diaspora (HLCID) and commitment given at the highest level the Govt. has approved establishment of a PIO/NRI University for the benefit of children of overseas Indians. The University will have the status of 'Deemed University' under Section 3 of the UGC Act. The University is being set up by the Manipal Academy of Higher Education Trust, Manipal at Bangalore, Karnataka.

Proposals have also been received for setting up four more PIO/NRI Universities in different cities in India (other than Bangalore) in response to an advertisement calling for Expressions of Interest for this purpose.

KNOW INDIA PROGRAMME

The Ministry is organizing 2-3 Know India Programmes (KIP) each year. Earlier known as Internship Programme for Diaspora Youth (IPDY); it is an Orientation Programme to acquaint the young overseas Indians, in the age group of 18-26 years, with the developments taking place in India in the industrial, scientific, academic, and other sectors and to expose them to various facets of the way of life in India, composite character of India and to let them interact with youth from different parts of the country. The objective is to bring the young overseas Indians closer to the land of their ancestors and to bond with the contemporary India. Under this Programme,

participants are invited from 39 major diaspora countries for a three week programme which also includes calls on the President of India, Minister of Overseas Indian Affairs, Minister of Youth Affairs and Sports and others. Eight such programmes have been conducted so far. The 11th KIP was held from 21.3.09 to 12.4.09. 34 diaspora youth from 11 countries took part in it. So far, a total of 235 youth have benefited from this programme.

TRENDS IN EMIGRATION

There are about five million overseas Indian workers all over the world. More than 90% of these workers are in the Gulf countries and Southeast Asia. During 2007 approximately 8.09 lakh workers migrated from India after due emigration clearance, out of these approximately 3.12 lakh, 1.95 lakh, 95,000, 88,000 and 48,000 workers went to UAE, Saudi Arabia, Oman, Qatar and Kuwait respectively. Tamilnadu, Kerala, Andhra Pradesh and Uttar Pradesh were the leading sourcing states.

Major outflow of emigrant workers in the last few years from India has been to the Gulf countries where about four million workers are estimated to be employed. A vast majority of migrants to the Middle East, including Gulf countries are semi-skilled and unskilled workers and most of them are temporary migrants who return to India after expiry of their contractual employment. There has been a consistent and steady increase in the number of persons emigrating for employment abroad from the year 2003 onwards. The number of emigration clearances granted by the eight offices of the Protector of Emigrants has increased from 4.66 lakh in 2003 to 8.09 lakh in 2007. U.A.E. is the main destination for Indian workers followed by Saudi Arabia. Outside the Gulf region, the intake of Indian manpower by Malaysia has shown a significant and consistent increase till 2005. There is considerable decline noticed in 2006 and 2007. Employment for Indian workers in these countries holds a great potential.

PRE-DEPARTURE ORIENTATION AND SKILL UPGRADATION FOR EMIGRANT WORKERS

The Ministry of Overseas Indian Affairs launched a scheme during 2006-07 to bring the skill level of potential emigrants at par with the overseas labour market requirement and to equip them with a basic knowledge about laws, language and culture of the destination country.

During 2007-08 the scheme has been expanded to include more implementing agencies such as Ministry of Micro, Small and Medium Enterprises, CII, FICCI, ASSOCHAM and NGOs.

The scheme 'Operation-cum-Skill Up-gradation Scheme for Potential Emigrants' has been further modified and per unit expenditure has been increased to Rs. 5500/- from the earlier limit of Rs. 1350/-. Now as per the modified guidelines, the Scheme is 100% funded by the Central Government. Last year, Rs. 5.00 crores was released to State Governments etc. for organising training programme.

SETTING UP OF OVERSEAS INDIAN CENTRES

The Government has approved setting up of three Overseas Indian Centres at Dubai, Kuala Lumpur and Washington to provide medical, legal and financial Counselling to the Overseas Indian Workers. Three posts of Counsellor-Community Affairs (Development) have been sanctioned in the Indian Missions at Washington, Dubai

and Kuala Lumpur as field Organizations of MOIA in those countries. The Counsellor at Washington will look after the interests of the Overseas Indian community in the USA and Canada, the one in Dubai will cover the Gulf countries, and the Counsellor at Kuala Lumpur will look after Malaysia, Singapore and Brunei. The Counsellors will be supported by professionals to be appointed locally to provide assistance in the fields of health, legal and financial matters. Based on the experiences of these offices extension of these services to other countries will also be considered. The Counsellor (Communals Affairs) had already taken over the change in Abu-Dhabi and Washington and the Centres have become functional.

BILATERAL MoUs ON MANPOWER

The problems of Indians in the Gulf include non-payment or delay of wages, harsh working and living conditions, substitution of contracts, retention of passport, cheating by intermediaries, physical abuse and sexual exploitation etc.

Protecting emigrants against such malpractices require bilateral cooperation in the field of manpower deployment. India had signed labour agreement with Jordan and Qatar in 1980s. An additional protocol to the existing labour agreement between India & Qatar has recently been signed in November 2007 to take care of mutual concerns.

To protect the Indian workers and ensure their well-being the Ministry of Overseas Indian Affairs planned to sign MoUs with UAE, Kuwait, Oman, Bahrain and Malaysia. Saudi Arabia has not yet agreed to negotiate the MoU.

In General, the following broad principles have been built into the MoUs:

1. Declaration of mutual intent to enhance employment opportunities and for bilateral cooperation in protection and welfare of workers.
2. Statement of the broad procedure that the foreign employer shall follow to recruit Indian workers.
3. A Joint Working Group to be constituted to ensure implementation of the MoU and to meet regularly to find solutions to bilateral labour problems.
4. The recruitment and terms of employment to be in conformity with both the countries.

BILATERAL SOCIAL SECURITY PACTS

Most of the developed countries have an umbrella social security system mandated by law. It is funded through mandatory contribution in the form of tax from all working people and their employers (in a prescribed ratio) in order to provide multiple benefits like old age pension, survivor's pension, disability pension, health insurance and employment insurance etc. Typically this social security tax is in the form of the fixed percentage of income subject to a maximum lumpsum limit. All expatriate workers are also required to pay social security tax as per the law of that country.

Often the Indian workers who are posted to these countries by their employers in India continue to make social security contribution in India as per the Indian law and yet they are compelled to pay social security contribution in the host country. Indian workers often do not get any benefit from the social security contribution paid abroad after they return to India on completion of the term of contract because most countries do not allow export of social security benefits. Similarly the self-employed

Indians working in these countries despite having made contribution throughout their active life are deprived of social security benefits in case they relocate to India in old age, which is often the case. Often the host countries have a minimum contribution period under the law and so the worker does not become eligible to social security benefits. If he stays and pays in the host country for a lesser period, he loses the entire contribution. Another disadvantage is that due to the high rate of social security tax, the Indian companies become less competitive while bidding for projects in these countries.

Bilateral social security agreements can on reciprocal basis protect the interests of such workers by exempting the posted workers from social security contribution under the host country legislation (provided the worker is covered under the home country social security system and continues to pay the contribution under that system during the period of posting abroad) and by providing for exportability of pension for the other categories of workers who have to pay social security contribution under the host country legislation. In order to prevent loss of contribution on account of the minimum contribution period, they provide for totalization of contribution periods under both the legislations. Such agreements also make companies of both contracting States more competitive since exemption from social security contribution in respect of their employees substantially reduces costs.

Ministry of Overseas Indian Affairs has recently signed a bilateral social security agreement with Belgium. The Indo-Belgian agreement provides for the following benefits to Indians working in Belgium on reciprocal basis:

1. Those posted to Belgium for up to sixty months will be exempted from social security contributions under the Belgian law provided they continue to make social security payments in India.
2. Those who have to contribute under the Belgian law will be entitled to the export of the social security benefits should they relocate to India or a third country on completion of their contract or on retirement.
3. These benefits will also be available to Indian workers posted by an Indian company to Belgium from a third country.
4. Self-employed Indians in Belgium contributing under the Belgian social security system will be entitled to the export of social security benefits should they choose to relocate to India or a third country.
5. Periods of employment in both the countries will be totalized in order to determine the eligibility for pension.
6. Indian companies will become more competitive in Belgium since exemption from social security contribution in respect of their employees substantially reduces costs.

The Bilateral Social Security agreement has also been signed with France and Germany. The Ministry has negotiated and finalized similar agreements with the Netherlands, Czech Republic, Luxembourg, Switzerland, and Republic of Hungary which will be signed shortly. Negotiations are in progress with Canada, Australia, Denmark and Sweden. The process has been initiated with several other countries. Two rounds of exploratory talks have been held with US too.

INSURANCE OF EMIGRANTS

On the occasion of the Pravasi Bharatiya Divas in 2003, the Government had announced the compulsory Insurance Scheme for the emigrants going abroad for employment. In pursuance of this announcement, a compulsory insurance scheme known as Pravasi Bharatiya Bima Yojana (PBBY) 2003 came into force from 25.12.2003.

The PBBY, 2003 has now been upgraded as the Pravasi Bhartiya Bima Yojana, 2006 to provide broader coverage to the emigrant workers. The PBBY, 2006 has come into effect from 01.02.2006. The scheme has been further upgraded to provide more benefit to the emigrant workers vide order dated 28.2.2008. The emigrant workers will now get a minimum insurance cover of Rs. 10 lakh (instead of Rs. 5 lakh) and the policy will be for the entire period of employment contract. An additional cover of Rs. 30,000/- for the legal expenses incurred by the emigrants in connection with their employment has also been included. The scheme also covers medical expenses upto Rs. 75,000 and maternity benefit of Rs 25,000.

INDIAN COUNCIL FOR OVERSEAS EMPLOYMENT

The Ministry has established a Council for Promotion of Overseas Employment, renamed as Indian Council for Overseas Employment (ICOE) which will serve as a think-tank to conduct market studies, identify employment opportunities overseas, develop skills to match the market demand, devise strategies to respond to the dynamic international labour market and enable the Indian workers to reap the demographic dividends of globalization. The Council has been constituted as a Registered Society under the Societies Registration Act. 1860.

WELFARE FUND

The Ministry has set up "Indian Community Welfare Fund (ICWF)" at the disposal of the Indian Missions in all the ECR countries to meet contingency expenditure incurred by the Indian Missions for carrying out the activities related to welfare of Overseas Indian Citizens. Under this scheme, the Ministry of Overseas Indian Affairs will provide funding support to the Indian Missions in all the 17 Emigration Clearance Required (ECR) Countries for the welfare of the workers in distress in the host countries.

The proposed fund will be specifically aimed at providing the following services on the means tested basis.

- (i) Boarding and lodging for distressed overseas Indians in Household/domestic sectors and unskilled labourers;
- (ii) Airlifting of mortal remains to India or local cremation/burial of the deceased overseas Indian in such cases where a sponsor is unable or unwilling to do so as per the contract and the family is unable to meet the cost;
- (iii) Extending emergency medical care to the overseas Indians in need;
- (iv) Providing air passage to stranded overseas Indians in need;
- (v) Providing initial legal assistance to the overseas Indians in deserving cases.

LABOUR MOBILITY PARTNERSHIPS

A labour Mobility Partnership can lay down an effective framework for bilateral cooperation for maximizing benefits from labour mobility and minimizing its risks. It can also effectively address the concerns of the countries of destination such as irregular migration and integration problems. It provides an opportunity to both partners to jointly develop and implement good practices in labour migration.

The Ministry of Overseas Indian Affairs is taking earnest steps for forging labour mobility partnerships with key countries of destination in the European Union. Recently an MoU has been negotiated with Denmark to forge labour partnership. The Ministry has initiated the process for negotiating labour mobility agreements with Sweden and France too.

Since India and the EU countries have complementary needs, the proposed Labour Mobility Partnership (LMP) will immensely help both sides. The Ministry is taking steps to negotiate an Indo-EU partnership as well.

OVERSEAS INDIAN FACILITATION CENTRE (OIFC)

The Overseas Indian Facilitation Centre (OIFC) is a not-for-profit-trust, in partnership with Confederation of India Industry (CII). The Centre serves as a 'one stop shop' for the Overseas Indian community and has the mandate to cover two broad areas viz: Investment Facilitation and Knowledge Networking.

The objectives of the Centre are:

- 1 Promote Overseas Indian investment into India and facilitate business partnership, by giving authentic and real time information.
- 1 Function as clearinghouse for all investment related information. This would be done by precessing information on a real time basis through ICT platform.
- 1 Establish and maintain a Diaspora knowledge network (DKN) by creating a database of Overseas Indian who would act as knowledge diaspora and whose knowledge resources could be using ICT platform.
- 1 Assist States in India to project investment opportunities to overseas Indians in the infrastructure and social sectors. The objectives of the OIFC will be to bring the Indian States, Indian Business and potential Overseas Investors on the same platform and to facilitate the investors to identify the investment opportunities.
- 1 Provide a host of advisory services to PIO and NRIs. These could include matters such as consular questions, stay in India, investment and financial issues etc.

During 2008, OIFC organized a market place in Mini PBD at Singapore. One to one meetings were held with the prospective investors. A similar market place was also organized in Chennai at PBD 2009.

To achieve the objective of bringing investment to India, OIFC planned to organize 'Investors Interactive Meetings' in eight regions showing a range of exclusive products and projects from the India Corporate to Overseas Indian investment in real estate wealth management, health care etc. The regions identified are Middle East, South Africa, Australia, UK, Netherlands, Canada, USA, and Malaysia. First such meet was held in November 2008 in Oman. It had positive response on the prospective Investors.

OIFC also brought out updated publications - Hand book for Overseas Indians and compendium on the investment opportunities in India for the benefits of the Overseas Indians.

INDIA DEVELOPMENT FOUNDATION OF OVERSEAS INDIANS

Health care India Development Foundation of Overseas Indians, is a not-for-profit trust registered by the Ministry of Overseas Indian Affairs, Government of India to provide a credible window for Overseas Indian Philanthropy in India's Social

development. The objective of the foundation is to facilitate philanthropic activities by Overseas Indians including through innovative projects and instruments such as micro credit for rural entrepreneurs, self help groups for economic empowerment of women, best practice interventions in primary education and technology interventions in rural delivery

The foundation is at 'arms length' from Government and is managed by an eminent Board of Trustees. The mandate of the foundation is to lead Overseas Indians philanthropic capital into India's Social Sector by forging partnerships between donors and credible non-government and non-profit voluntary organizations working in the Social Sector in India.

The broad objectives of the Trust are:

1. Lead overseas Indian philanthropy into India, facilitate partnership through single window facilitation and by building public private partnerships.
2. Establish and maintain a 'Social Capital and Philanthropy Network' in India that can provide a list of credible institutions, projects and programmes.
3. Function as a clearinghouse for all philanthropy related information.
4. Partner with states in India and encourage credible Indian philanthropic organizations to project social development opportunities to overseas Indians in the sectors that best match national priorities including empowerment of rural women.
5. Promote accountability and 'good practices' in Diaspora philanthropy Global-Indian Network of Knowledge (Global INK)

The emergence of significant diasporas across the world has in recent years brought into sharp focus two key facts. First, there is a large expatriate population of skilled people from emerging economies in the developed world. Second, that overseas communities can and do constitute a significant resource for the development of the countries of origin. The movement of the high skilled and low skilled workers from less to more developed economies and back opens several new opportunities for development. While the movement of educated, skilled and trained people was for long seen as 'brain drain'. increasingly countries of origin are beginning to recognize that their diasporas represent knowledge in diverse fields and that this knowledge reservoir can be drawn upon as 'brain gain'.

The focus must be on establishing an institutional framework for sustainable engagement to lead the knowledge, expertise, skills and resources of the vast and diverse overseas Indian community into home country development efforts. Such a framework will pull in the Diaspora as 'Knowledge' partners, the institutions in India as 'Stakeholder' partners and the Government as a 'Facilitator'. Towards this end, establishing a 'Global Indian Knowledge Network' - a dynamic electronic platform for knowledge transfer - supported by a programme of training and visits by the overseas Indian knowledge partners would give a fillip to knowledge exchange between the Diaspora and India. The key objective of this exchange will be to draw upon the eclectic knowledge base of the Indian Diaspora and deploy technology and innovation across sectors and geographies in India through well designed projects with targeted and measurable outcomes.

To meet the above objective Ministry of Overseas Indian Affairs has undertaken an initiative to develop a Diaspora knowledge network called Global-Indian Knowledge Network of Knowledge (Global INK)

Global Indian Network of Knowledge (Global INK), an electronic platform will connect people of Indian Origin from a variety of disciplines including scientists working abroad, recognized as leaders in their respective fields, not just in their country of residence but globally as well, with knowledge users at the national and sub-national levels in India. The network will serve as a strategic 'virtual think-tank'. The outcome targeted will be the germination of ideas on development, identification of the key elements in addressing the challenges to development and articulating and mapping out solutions through innovation and technological interventions.

19 Industry

INDIA started her quest for industrial development after Independence in 1947. The Industrial Policy Resolution of 1948 marked the beginning of the evolution of the Indian Industrial Policy. The Resolution not only defined the broad contours of the policy; it delineated the role of the State in industrial development both as an entrepreneur and as authority. Successive policy resolutions also reiterated this basic tilt in favour of the public sector. The Industrial Policy Resolution of 1956 gave the public sector a strategic role in the economy. It categorised industries which would be the exclusive responsibility of the State or would progressively come under State control and others. Earmarking the pre-eminent position of the public sector, it envisaged private sector coexisting with the State and thus attempted to give the policy frame work flexibility.

The Industrial Policy initiatives undertaken by the Government since July 1991 have been designed to build on the past industrial achievements and to accelerate the process of making Indian industry internationally competitive. It recognises the strength and maturity of the industry and attempts to provide the competitive stimulus for higher growth. The thrust of these initiatives has been to increase the domestic and external competition through extensive application of market mechanisms and facilitating forging of dynamic relationship with foreign investors and suppliers of technology. The process of reform has been continuous.

STRUCTURAL REFORMS

INDUSTRIAL LICENSING POLICY

With the introduction of the New Industrial Policy (NIP) in 1991, a substantial programme of deregulation has been undertaken. Industrial licensing has been abolished for most items. In August 2008, the Department has also taken a decision to remove the licensing requirement under the Industries (Development & Regulation) Act, 1951 for location of industries. As a result, now the Industrial licensing is required in the following cases only:

- a) for manufacture of an item under compulsory licensing, or
- b) when an item reserved for small scale sector is intended to be manufactured by an undertaking. Presently Industrial licensing is required only for the following 5 industries related to security, strategic and environmental concerns:
 - (i) distillation and brewing of alcoholic drinks
 - (ii) cigars and cigarettes of tobacco and manufactured tobacco substitutes;
 - (iii) electronic aerospace and defence equipments all types;
 - (iv) industrial explosives including detonating fuses, safety fuses, gun powder, nitrocellulose and matches;
 - (v) Specifies hazardous chemicals i.e. (i) Hydrocyanic acid and its derivatives, (ii) Phosgene and its derivatives and (iii) Isocyanates & diisocyanates of hydrocarbon, or else where specified (example Methyl isocyanate)

Industries not covered under compulsory licensing are required to file an Industrial Entrepreneurs Memorandum (IEM) to Secretarial for industrial Assistance (SIA), provided the value of investment on plant and machinery of such unit is above Rs. 10 crore.

A significant number of industries had earlier been reserved for public sector. The policy has been liberalised progressively and presently the areas reserved for the public sector are : (a) atomic energy; (b) the substances specified in the schedule to the notification of the Government of India in the Department of Atomic Energy number S.O.212(E), dated the 15th March, 1995, and (c) railway transport.

The Government continues to provide protection to the small scale sector, *inter-alia*, through the policy of reserving of items for exclusive manufacture in the small scale sector. Recently Micro, Small and Medium Enterprises Development (MSMED) Act 2006 has been enacted by the Government. In this Act, investment limit for Micro Enterprises, Small Enterprises and Medium Enterprises have been prescribed as Rs. 10 Lakh, Rs. 5 crore and 10 crore respectively. Industrial undertakings other than the small scale industrial undertakings engaged in the manufacture of items reserved for exclusive manufacture in the small scale sector are required to obtain an industrial license and undertaken export obligation of 50 per cent of their annual production. However, the condition of licensing is not applicable to such industrial undertakings operating under 100% Export Oriented Under takings Scheme, the Export Processing.

ZONE AND THE SPECIAL ECONOMIC ZONE SCHEMES

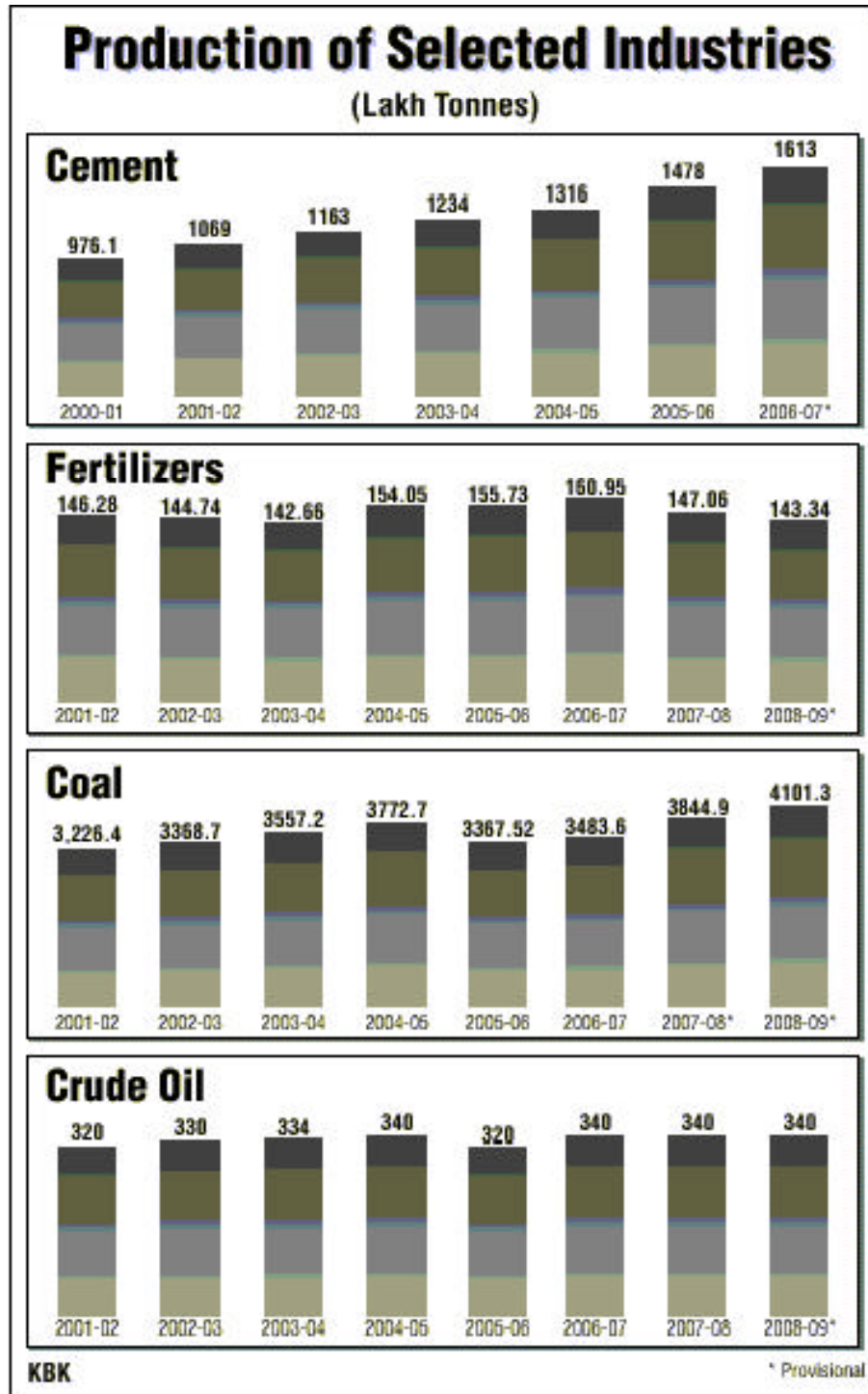
FOREIGN DIRECT INVESTMENT (FDI)

Foreign Direct Investment (FDI) is a means to supplement domestic investments and bridge the investment-savings gap. The role of FDI in the upgradation of technology, skills and managerial capabilities is now well accepted. Additional investments over and above the investments possible with the available domestic resources help in providing much needed employment opportunities.

Government has put in place a liberal and investor-friendly policy for FDI under which FDI up to 100% is permitted under the automatic route in most activities/sectors. The policy on FDI is reviewed on an on going basis. Initiatives in policy liberalization during the past two years include enhancement of FDI cap in domestic airlines, telecom services, permitting FDI in FM Radio broadcasting and other procedural simplification measures.

Review of the FDI policy is a continuous ongoing process. During the year 2007-08, the policy was reviewed and the following measures notified:

Change of route : Credit Information Companies : FDI +FII has been allowed up to 49% investment by Registered FII under PIS will be limited to 24% only in the CICs listed at the Stock Exchanges with the overall limit of 49% foreign investment through FIPB route for Credit Information Companies. FII investment will be subject to the conditions.



- (a) No single entity should directly or indirectly hold more than 10% equity.
- (b) Any acquisition in excess of 1% will have to be reported to RBI as a reporting requirement; and
- (c) FIIs investing in CICs shall not seek a representation on the Board of Directors based upon their shareholding.

Commodity Exchanges : FDI+FII has been allowed up to 49% investment by Registered FII under PIS will be limited to 23% and investment under FDI scheme limited to 26% through FIPB route for Commodity Exchanges subject to the conditions that :

FII purchases shall be restricted to secondary market only.

No foreign investor/entity, including persons acting in concert, will hold more than 5% of the equity in these companies.

Industrial Parks : FDI has been allowed 100% on the automatic route in Industrial Parks both setting up and in established Industrial Parks. Subject to conditions in Press Note 2(205) applicable for construction development projects would not apply provided the Industrial Parks meet with the under mentioned conditions:

- (i) It would comprise of a minimum of 10 units and no single unit shall occupy more than 50% of the allocable area;
- (ii) The minimum percentage of the area to be allocated for industrial activity shall not be less than 66% of the total allocable area.

CIVIL AVIATION SECTOR

(i) Airports :

- (a) FDI has been allowed up to 100% on the automatic route in Greenfield projects subject to sectoral regulations notified by Ministry of Civil Aviation.
- (b) FDI has been allowed up to 100% on FIPB route beyond 74% in Existing projects subject to sectoral regulations notified by Ministry of Civil Aviation.
- (ii) Air Transport Services including Domestic Scheduled Passenger Airlines; Non-Scheduled Airlines; Chartered Airlines; Cargo Airlines; Helicopter and Seaplane Services :
 - (a) FDI has been allowed up to 49% (100% for NRI investment) on automatic route in scheduled Air Transport Services/Domestic Scheduled Passenger Airline subject to no direct or indirect participation by foreign airlines and sectoral regulations.
 - (b) FDI has been allowed up to 74% (100% for NRIs investment) on automatic route in Non-Scheduled Air Transport Service/Non-scheduled airlines, Chartered airlines, and Cargo airlines subject to no direct or indirect participation by foreign airlines in Non-Scheduled and Chartered airlines. Foreign airlines are allowed to participate in the equity of companies operating Cargo airlines. Also subject to sectoral regulations.
 - (c) FDI has been allowed up to 100% on automatic route in helicopter Services/Seaplane services, requiring DGCA approval subject to foreign-airlines are allowed to participate in the equity of companies operating helicopter and seaplane airlines. Also subject to sectoral guidelines.

- (iii) Other Services under Civil Aviation Sector
 - (a) FDI has been allowed up to 74% (100% for NRIs investment) on automatic route in Ground Handling Services subject to sectoral regulations and security clearance.
 - (b) FDI has been allowed up to 100% on automatic route in maintenance and repair organizations; flying training institutes; and technical training institutions.

PETROLEUM & NATURAL GAS SECTOR

- (a) FDI has been allowed up to 49% in case of PSUs on FIPB route and 100% in case of Private companies on automatic route in Refining Sector subject to sectoral policy and no divestment or dilution of domestic equity in the existing PSUs.
- (b) FDI has been allowed up to 100% on automatic route in other than refining and including market study and formulation; investment/financing setting up infrastructure for marketing in Petroleum & Natural Gas Sector subject to sector regulations issued by Ministry of Petroleum & Natural Gas.

MINING OF TITANIUM BEARING MINERALS AND ORES

FDI has been allowed up to 100% on automatic route in mining and mineral separation of titanium bearing minerals and ores, its value addition and integrated activities subject to sectoral regulations and the Mines and Minerals (Development & Regulation) Act, 1957 and the following conditions :

- (i) Value addition facilities are set-up within India along with transfer of technology;
- (ii) Disposal of tailing during the mineral separation shall be carried out in accordance with regulations framed by the Atomic Energy Regulatory Board such as Atomic Energy (Radiation Protection) Rules 2004 and the Atomic Energy (Safe Disposal of Radioactive Wastes) Rules 1987.

The details of present FDI policy are as under :

POLICY ON FOREIGN DIRECT INVESTMENT (FDI) (31st March 2008)

I. Sectors prohibited for FDI

- i. Retail Trading (except single brand product retailing)
- ii. Atomic Energy
- iii. Lottery Business
- iv. Gambling and Betting
- v. Business of chit fund
- vi. Nidhi Company
- vii. Trading in Transferable Development Rights (TDRs)
- viii. Activity/Sector not opened to private sector investment.

II. Sector-specific policy for FDI

In the following sectors/activities, FDI is allowed up-to the limit indicated as per Annexure A and Annexure A-1 as indicated from next page onward;

Annexure - A

Sr. No.	Sector/Activity	FDI Cap/Equity	Entry Route	Other conditions
I	AGRICULTURE			
1.	Floriculture, Horticulture, Development of Seeds, Animal Husbandry, Pisciculture, Aqua-culture and Cultivation of Vegetables & Mushrooms under controlled conditions and services related to agro and allied sectors. Note : Besides the above, FDI is not allowed in any other agriculture sector/ activity.	100%	Automatic	
2.	Tea Sector including tea plantation Note : Besides the above, FDI is not allowed in any other plantation sector/ activity	100%	FIPB	Subject to divestment of 26% equity in favour of Indian partner Indian public within 5 years and prior approval of State Government concerned in case of any change in future land use
II	INDUSTRY			
IIA	MINING			
3.	Mining covering exploration and mining of diamonds & precious stones; gold, silver and minerals.	100%	Automatic	Subject to Mines & Minerals (Development & Regulation) Act, 1957 www.mines.nic.in Press Note 18 (1998) and Press Note I (2005) are not applicable for setting up 100% owned subsidiaries in so far as the mining sector is concerned subject to a declaration from the applicant that he has no existing joint venture for the same area and or the particular mineral.
4.	Coal & Lignite mining for captive consumption by power projects, and iron & steel, cement, production and other eligible activities permitted under the Coal Mines (Nationalisation) Act, 1973	100%	Automatic	Subject to provisions of Coal Mines (Nationalization) Act, 1973 www.coal.nic.in

5.	Mining and mineral separation of titanium bearing minerals and ores, its value addition and integrated activities Note : FDI will not be allowed in mining of "prescribed substances" listed in Government of India notification No. S.O. 61(E) dt. 18.1.2006 issued by the Department of Atomic Energy under the Atomic Energy Act, 1962	100%	FIPB	Subject to sectoral sector and the Mines and Minerals (Development & Rajasthan) Act 1957 and the following form : i. value addition facilitate are set up within India along with transfer of technology. ii. Disposal of tailing during the mineral separation shall be carried out in accordance with regulations framed by the Atomic Energy Regulatory Board such Atomic Energy (Radiation Protection) Rules 2004 and the Atomic Energy (Safe Disposal of Radioactive Wastes) Rules 1987
IIB MANUFACTURING				
6.	Alcohol Distillation & Brewing	100%	Automatic	Subject to licence by appropriate authority
7.	Cigars & Cigarettes Manufacture	100%	FIPB	Subject to industrial licence under the Industries (Development & Regulation Act, 1951)
8.	Coffee & Rubber processing & warehousing	100%	Automatic	
9.	Defence production	26%	FIPB	Subject to licencing under industries (Development & Regulation) Act, 1951 and guidelines on TDI in production of arms & ammunition
10.	Hazardous Chemicals, viz., hydrocyanic acid and its derivatives, phosgene and its derivatives, and isocyanates and diisocyanates of hydrocarbon	100%	Automatic	Subject to industrial licence under the Industries (Development & Regulation Act, 1951 and other sectoral regulations.
11.	Industrial explosives Manufacture	100%	Automatic	Subject to Industrial licence under Industries (Development & Regulation) Act, 1951 and regulations under Explosives Act, 1898
12.	Drugs & Pharmaceuticals including those involving use of recombinant DNA technology	100%	Automatic	

IIC	POWER								
1.3	Power including generation (except Atomic energy); transmission, distribution and Power Trading	100%	Automatic						subject to provisions of the Electricity Act, 2003 www.powermin.nic.in
III	SERVICES								
14	CIVIL AVIATION SECTOR								
(i)	Airports :								
a.	Greenfield projects	100%	Automatic						Subject to sectoral regulations notified by Ministry of Civil Aviation www.civilaviation.nic.in
b.	Existing projects	100%	FIPB beyond 74%						Subject to sectoral regulations notified by Ministry of Civil Aviation www.civilaviation.nic.in
(ii)	Air Transport Services including Domestic Scheduled Passenger Airlines; Non-Scheduled Airlines; Chartered Airlines; Cargo Airlines; and Seaplane Services								
a.	Scheduled Air Transport Services/ Domestic Scheduled Passenger Airline	49% -FDI; 100% for NRI investment	Automatic						Subject to not direct or indirect participation by foreign airlines and sectoral regulations.
b.	Non-Scheduled Air Transport Service/Non-Scheduled Airlines, Chartered airlines, and Cargo airlines	74%-FDI 100%-for NRIs investment	Automatic						Subject to no direct or indirect participation by foreign airlines in Non-Scheduled and Chartered airlines. Foreign airlines are allowed to participate in the equity of companies operating Cargo airlines. Also subject to sectoral regulations.
c.	Helicopter Service/Seaplane services requiring DGCA approval	100%	Automatic						Foreign airlines are allowed to participate in the equity of companies operating Helicopter and seaplane airlines. Also subject to sectoral regulations.
(iii)	Other services under Civil Aviation Sector								
a.	Ground Handling Services	74%-FDH Investment	Automatic						Subject to sectoral regulation and security clearance.
b.	Maintenance and Repair organizations; flying training institutes; and technical training institutions	100%	Automatic						

15.	Asset Reconstruction Companies	49% (only FDI)	FIPB	Where any individual investment exceeds 10% of the equity, provision of Section 3(3)(f) of Securitization and Reconstruction of Financial Assets and Enforcement of Security Internet Act 2002 should be complied with www.froin.nic.in
16.	Banking-Private sector	74% (FDI-FH)	Automatic	Subject to guidelines for setting up branches/subsidiaries of foreign banks issued by RBI www.rbi.org.in
17.	Broadcasting: a. FM Radio b. Cable network c. Direct-to-Home d. Setting up hardware facilities such as up-linking HUB, etc. e. Up-linking a News & Current Affairs TV Channel f. Up-linking a Non-News & Current Affairs TV Channel	FDI+FII investment upto 20% 49% (FDI+FH) 49% (FDI-FII) Within this limit. FDI component not to exceed 20% 49% (FDI-FII) 26% FDI-FII 100%	FIPB FIPB FIPB FIPB FIPB FIPB	Subject to Guidelines notified by Ministry of Information & Broadcasting www.mib.nic.in Subject to Cable Television Network Rules (1994) Notified by Ministry of Information & Broadcasting www.mib.nic.in Subject to guidelines issued by Ministry of Information & Broadcasting www.mib.nic.in Subject to Up-linking Policy notified by Ministry of Information & Broadcasting www.mib.nic.in Subject to guidelines issued by Ministry of Information & Broadcasting www.mib.nic.in Subject to guidelines issued by Ministry of Information & Broadcasting www.mib.nic.in
18.	Commodity Exchanges	49% (FDI-FII) Investment by Registered FII under PIS will be limited to 23% and investment under FDI Scheme limited to 26%	FIPB	FII purchases shall be restricted to secondary market only. No foreign investor entity, including persons acting in concert will hold more than 5% of the equity in these companies.

19.	Construction Development Projects, including housing, commercial premises, resorts, educational institutions, recreational facilities, city and regional level infrastructure, townships.	100%	Automatic	subject to conditions notified vide Press Note 2 (2005 Series) including : a. minimum capitalization of US\$ 10 million for wholly owned subsidiaries and US\$ 5 million for joint venture. The funds would have to be brought within six months of commencement of business of the Company. b. Minimum area to be developed under each project : 10 hectares in case of development of serviced housing plots, and built-up area of 50,000 sq mts. in case of construction development project and any of the above in case of a combination project.
	Note : FDI is not allowed in Real Estate Business			Note 1 : For investment by NRIs, the conditions mentioned in Press Note 2/2005 are not applicable.
20.	Courier Services for carrying packages, parcels and other items which do not come within the ambit of the Indian Post Office Act, 1898.	100%	FIPB	Subject to existing laws and exclusion of activity relating to distribution of letters which is exclusively reserved for the State www.indiapost.gov.in
21.	Credit Information Companies	49% (FDI+FII)	Investment by FIPB	Foreign Investment in CIC will be subject to Credit Information Companies (Regulation) Act, 2005., FII investment will be subject to the conditions that (a) No single entity should directly or indirectly hold more than 10% equity (b) Any acquisition in excess of 1% will have to reported to RBI as a reporting requirement, and (c) FIIs investing in CICs shall not seek a representation on the Board of Directors based upon their shareholding.

22.	Industrial Parks both setting up and in established Industrial Parks	100%	Automatic	<p>Conditions in Press Note 2 (2005) applicable for construction development projects would not apply provided the Industrial Parks meet with the under-mentioned conditions.</p> <p>i. It would comprise of a minimum of 10 units and no single unit shall occupy more than 50% of the allocable area :</p> <p>ii. The minimum percentage of the area to be allocated for industrial activity shall not be less than 66% of the total allocable area.</p> <p>Subject to licensing by the Insurance Regulatory & Development Authority www.irda.nic.in</p> <p>Where there is a prescribed cap for foreign investment, only the direct investment will be considered for the prescribed cap and foreign investment in an investing company will not be set off against this cap provided the foreign direct investment in such investing company does not exceed 40% and the management of the investing company is with the Indian owners.</p>
23.	Insurance	26%	Automatic	
24.	Investing companies in infrastructure/ services sector (except telecom sector)	100%	FIPB	
25.	Non Banking Finance Companies (Amended as to Annexure A-I)			
i)	Merchant Banking	100%	Automatic	Subject to :
ii)	Underwriting Portfolio Management Services			a. minimum capitalisation norms for fund based NBFCs-US\$ 0.5 million to be brought upfront for FDI up to 51%. US\$ 5 million to be brought upfront for FDI above 51% and up to 75%, and US\$ 50 million out of which US\$ 75 million to be brought upfront and the balance in 24 months for FDI beyond 75% and upto 100%
iii)	Investment Advisory Services			b. minimum capitalization norms for non-fund based NBFC Activities US\$ 0.5 million.
iv)	Financial Consultancy			c. foreign investors can set up 100% operating subsidiaries without the condition to disinvest a minimum of 25% of its equity to Indian entities
v)	Stock Broking			
vi)	Asset Management			
vii)	Venture Capital			
viii)	Custodial Services			
ix)	Factoring			
x)	Credit Rating Agencies			
xi)	Leasing & Finance			
xii)	Finance			

xiii)	Housing Finance				subject to bringing in US\$ 50 million without any restriction on number of operating subsidiaries without bringing additional capital.
xiv)	Forex Broking				d. Joint venture operating NBFC's that have 75% or less than 75% foreign investemnt will also be allowed to set up subsidiaries for undertaking other NBFC activities subject to the subsidiaries also complying with the applicable minimum capital inflow.
xv)	Credit card Business				e. compliance with the guidelines of the RBI.
xvi)	Money chamingng business				f. The minimum capitalization norms would apply would be applicable where the foreign holding in a NBFC (both direct and indirect) exceeds the limits indicated at (a) above
xvii)	Micro credit				g. The capital for the purpose of minimum capitalization norms shall consist of ordinary shares only.
xviii)	Rural credit				
26.	Petroleum & Natural Gas Sector				
a.	Refining	40% in case of PSUs 100% in case of Private companies	FIPB (in case of PSUs) Automatic (in case of private companies)		Subject to Sectoral Policy www.petroleum.nic.in and no divestment or dilution of domestic equity in the existing PSIs
b.	Other than Refining and including market study and formulations; investment financing setting up infrastructure for marketing in Petroleum & Natural Gas sector	100%	Automatic		Subject to sectoral regulations issued by Ministry of Petroleum & Natural Gas www.petroleum.nic.in
27.	Print Media				
a.	Publishing of newspaper and periodicals dealing with news and current affairs	26%	FIPB		subject to Guidelines notified by Ministry of Information & Broadcasting www.mib.nic.in
b.	Publishing of scientific magazines/speciality journals/periodicals	100%	FIPB		Subject to guidelines issued by Ministry of Information & Broadcasting www.mib.nic.in

28.	Telecommunication				
a.	Basic and cellular, Unified Access Services, National/International Long Distance, V-Sat, Public Mobile Radio Trunked Services (PMRTS), Global Mobile Personal Communications Services (GMPCS) and other value added telecom services	74% (including FDI, FIL, NRI, FCCBs, ADRs, GDRs, convertible preference shares, and proportionate foreign equity in Indian promoters/Investing Company)	Automatic upto 49% FIPB beyond 49%	Subject to guidelines notified in the PN 3 (2007)	
b.	ISP with gateways, radio-paging, end-to end bandwidth.	74%	Automatic up to 49% FIPB beyond 49%	Subject to licensing and security requirements notified by the Dept. of Telecommunications. www.dotindia.com	
c.	(a) ISP without gateway, (b) infrastructure provider providing dark fibre (category-I) (c) electronic mail and voice mail	100%	Automatic upto 49% FIPB beyond 49%	Subject to the condition that such companies shall divest 26% of their equity in favour of Indian public in 5 years, if these companies are listed in other parts of the world. Also subject to licensing and security requirements, where required. www.dotindia.com	
d.	Manufacture of telecom equipments	100%	Automatic	Subject to sectoral equipments www.dotindia.com	
29.	Trading				
a.	Wholesale cash & carry trading	100%	Automatic		
b.	Trading for exports	100%	FIPB	Subject to the condition that the test marketing approval will be for a period of two years and investment in setting up manufacturing facilities commences simultaneously with test marketing.	
c.	Trading of items sourced from small scale sector.	100%	FIPB	Subject to guidelines for FDI in trading issued by Department of Industrial Policy & Promotion vide Press Note 3 (2006 Series)	
d.	Toit marketing of such items for which a company has approval for manufacture	51%	FIPB	Subject to Sectoral guidelines issued by Department of Space ISRO www.isro.org	
e.	Single Brand product retailing				
30.	Satellites Establishment and operation	74%	FIPB	Subject to Sectoral guidelines issued by Department of Space ISRO www.isro.org	

31.	Special Economic Zones and free Trade Warehousing Zones covering setting up of these Zones and setting up units in the Zones.	100%	Automatic	Subject to Special Economic Zones Act, 2005 and the Foreign Trade Policy www.sezindia.nic.in
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II. In Sectors/Activities not listed above, FDI is permitted up to 100% on the automatic route subject to sectoral rules/regulations applicable.

Prior Government approval for FDI required in the following circumstances :

- i) Where provisions of Press Note 1 (2005 Series) issued by the Government of India are attached.
- ii) Where more than 24% foreign equity is proposed to be inducted for manufacture of items reserved for the Small Scale sector.

Annexure-A-I

In the Annex to PressNote 7 (2008), Sl. No. 25 under para II, the following substitution is made :

For the existing provision :**25 Non Banking Finance Companies**

i)	Merchant Banking	100 %	Automatic Subject to :
ii)	Underwriting Portfolio Management Services		a. minimum capitalization norms for fund based NBFCs-US\$ 0.5 million to be brought upfront for FDI up to 51%;
iii)	Investment Advisory Services		US\$ 5 million to be brought upfront for FDI above 51% and up to 75% and
iv)	Financial Consultancy		US\$ 50 million out of which US\$ 7.5 million to be brought upfront and the
v)	Stock Broking		balance in 24 months for FDI beyond 75% and up to 100%.
vi)	Asset Management		b. minimum capitalization norms for non-fund based NBFC activities-US\$ 0.5 million.
vii)	Venture Capital		
viii)	Custodial Services		
ix)	Factoring		c. foreign investors can set up 100% operating subsidiaries without the
x)	Credit Rating Agencies		condition to disinvest a minimum of 25% of its equity to Indian entities
xi)	Leasing & Finance		subject to bringing in US\$ 50 million without any restriction on number of
xii)	Finance		operating subsidiaries without bringing additional capital.
xiii)	Housing Finance		d. joint venture operating NBFC's that have 75% or less than 75% foreign
xiv)	Forex Broking		investment will also be allowed to set up subsidiaries for undertaking other
xv)	Credit card Business		NBFC activities subject to the subsidiaries also complying with the
xvi)	Money changing business		applicable minimum capital inflow.
xvii)	Micro credit		e. compliance with the guidelines of the RBI.
xviii)	Rural credit		f. The minimum capitalization norms would apply would be applicable where the foreign holding in a NBFC (both direct and indirect) exceeds the limits indicated at (a) above
			g. The capital for the purpose of minimum capitalization norms shall consist of ordinary shares only.

For the revised provision as :**25 Non Banking Finance Companies**

i)	Merchant Banking	100%	Automatic Subject to :
ii)	Underwriting		a. minimum capitalization norms for fund based NBFCs-US\$ 0.5 million to be brought upfront for FDI up to 51%; US\$ 5 million to be brought upfront for FDI above 51% and up to 75% and US\$ 50 million out of which US\$ 7.5 million to be brought upfront and the balance in 24 months for FDI beyond 75% and up to 100%.
iii)	Portfolio Management Services		
iv)	Investment Advisory Services		
v)	Financial Consultancy		
vi)	Stock Broking		
vii)	Asset Management		b. minimum capitalization norms for non-fund based NBFC activities-US\$ 0.5 million.
viii)	Venture Capital		
ix)	Custodial Services		c. foreign investors can set up 100% operating subsidiaries without the condition to disinvest a minimum of 25% of its equity to Indian entities subject to bringing in US\$ 50 million without any restriction on number of operating subsidiaries without bringing additional capital.
x)	Factoring		
xi)	Credit Rating Agencies		
xii)	Leasing & Finance		
xiii)	Housing Finance		
xiv)	Forex Broking		d. joint venture operating NBFC's that have 75% or less than 75% foreign investment will also be allowed to set up subsidiaries for undertaking other NBFC activities subject to the subsidiaries also complying with the applicable minimum capital inflow.
xv)	Credit card Business		
xvi)	Money changing business		
xvii)	Micro credit		
xviii)	Rural credit		
			e. compliance with the guidelines of the RBI.
			f. The minimum capitalization norms would apply would be applicable where the foreign holding in a NBFC (both direct and indirect) exceeds the limits indicated at (a) above
			g. The capital for the purpose of minimum capitalization norms shall consist of ordinary shares only.

FOREIGN INVESTMENT IMPLEMENTATION AUTHORITY (FIIA)

Foreign Investment Implementation Authority (FIIA) was established in the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, vide Notification dated 9.8.1999, to facilitate quick translation of Foreign Direct Investment (FDI) approvals into implementation, provide a proactive one stop after care service to foreign investors by helping them obtaining necessary approvals, sort out their operational problems and meet with various Government agencies to find solutions to problems of investors.

FIIA conducts regular interactions with investors of specific regions or countries. In these meetings of FIIA, apart from government of India, senior officials from State governments also participate. Apex industrial associations, viz. CII, FICCI, ASSOCHAM, are actively associated. In the series of country-specific meetings, DIPP held two FIIA meetings on 22.2.2008 and 26.5.2008 to resolve issues of German Investors and Korean Investors respectively. In addition, a meeting with representatives from JCCII & JETRO and Department of Revenue (CBEC) was held on 31.7.2008 to resolve the issues regarding refund claims of Japanese companies operating in India.

During the year 2007-08, meetings were held to discuss issues pertaining to setting up of an integrated Steel Plant with a capacity of 12 MTPA by POSCO in the State of Orissa. Apart from the above, Periodical meetings were also held to discuss the issues relating to the expansion project of MCC PTA India Pvt. Ltd. at Haldia, West Bengal, the setting up of the proposed newsprint plant by UPM-Kymmense Corpn. Finland in Maharashtra and the issues of Oracle Corporation seeking to acquire 100% stake in India's i-flex.

E-BIZ PROJECT

The Department has undertaken an eBiz Project, which is among the Mission Mode Projects under NeGP. The objectives of setting up of the e-Biz Portal are to provide a number of services to business users covering the entire life cycle on their operation. The project aims at enhancing India's business competitiveness through a service oriented, event-driven G2B interaction. The project involves setting up a comprehensive and integrated portal with services across central, state and local governments, that address all the needs of the businesses and Industries. Nine Central Government Ministries/Departments/Offices and five State Governments (Haryana, Tamilnadu, Andhra, Maharashtra and Delhi) have been included under the Pilot Phase of the Project. At present, the Department is in the process of finalization of the tender documents (RFP) in consultation with stakeholders of the project.

The project will be for duration of 10 years. The pilot phase of the project will be completed within one year from the date it takes off and will provide 29 services at all three levels as indicated above. Subsequently the project will be expanded in the next 2 years throughout the country and cover all the services required by business houses. Finally, during the last 7 years of the project, it will be operated in a public-private partnership (PPP) mode with suitable arrangements for revenue sharing.

INDUSTRIAL CORRIDOR PROJECT

In pursuance of MoU signed between Government of India and Government of Japn during Hon'ble PM's visit to Tokyo in December 2006 to promote investments and explore opportunities for mutual cooperation, Union Cabinet had approved in-

principle the project outline of Delhi-Mumbai Industrial Corridor (DMIC) on 16th August, 2007. The DMIC seeks to create strong economic base with globally competitive environment and state-of-the-art infrastructure to activate local commerce. Enhance foreign investments and attain sustainable development. Delhi-Mumbai Industrial Corridor is proposed to be developed as a Model Industrial Corridor of international standards with emphasis on expanding the manufacturing the services base and develop DMIC as the 'Global Manufacturing and Trading Hub'. The project aims at doubling the employment potential, tripling the industrial output and quadrupling exports from the region, all within five years. The project region of DMIC covers parts of Uttar Pradesh, Haryana, Rajasthan, Gujarat, Maharashtra and Madhya Pradesh.

It is proposed to develop the project in two phases. In the Phase-I of the project (2007-2012), six investment regions and six industrial areas are proposed to be developed. Rs. 330 Crores has been allocated for the project under the 11th Five Year Plan. Another 12 nodes have been identified tentatively for development in the Phase II (2013-2018) of the project. With the objective to create interest in private players in the DMIC Project, it is proposed to initiate work on three to four readily available and strategically important early bird infrastructure projects in each node.

In Order to give overall guidance, planning and approvals, an Apex Monitoring Authority for DMIC Project was set up on 11th September 2007 with the Finance Minister as Chairperson, Union Ministers/Dy. Chairperson, Planning Commission/ Chief Ministers of six States as Members.

Delhi-Mumbai Industrial Corridor Development Corporation (DMICDC), the central SPV, was incorporated on 7th January, 2008 with authorized equity base of Rs. 10 crores with initial equity structure of GOI 49% and Financial Institutions (IL&FS and IDFC): 51%. DMICDC will be coordinating execution of various tasks under the guidance of Apex Monitoring Authority, arrange financing, and provide advisory services for successful project implementation. DMICDC will have a revolving Project Development Fund of Rs. 1000 Crores contributed equally by Government of India and Government of Japan for master planning, project report preparation, technical studies/reports, etc. for the entire DMIC region as well as for individual investment nodes before they are bid out to successful private developers. In the first meeting of Board of Directors held on 28.1.2008, M/s IL&FS Infrastructure Development Corporation Limited (IIDC) was appointed as Project Management Consultant (PMC) to DMICDC.

The Department has also initiated action for preparation of Concept Paper for the Chennai-Bangaluru-Mumbai Industrial Corridor Project on the lines of DMIC Project.

INVESTMENT PROMOTION & INTERNATIONAL COOPERATION (IP&IC)

The Department acts as a nodal point for bilateral Joint Commission Meetings (JCM) between India-Hungary, India-Libya, India-Sweden India-Poland and India-Belarus for promoting industrial, scientific, technical and scientific corporation with these countries namely Sweden, Poland, Hungary, Libya and Belarus. In order to promote bilateral/Industrial cooperation and to attract inflows of foreign direct investment into India, the Department extends financial support under the IC&JV Plan scheme to various industrial organizations like CII/FICCI/ASSOCHAM etc. to organize seminars/workshops/road shows both in India and abroad. The Department also participates in the Joint Business Councils and other interactive sessions organized by the industry organizations.

Several foreign Government/Business delegations visit India and hold discussions with the Department for strengthening industrial cooperation. Indian delegations also hold discussions with foreign countries for investment promotion and industrial development in India.

Major Investment Promotion events/Conferences/Joint Commission Meetings during 2007-08.

The 3rd India-GCC Industrial Forum : The 3rd India-GCC Industrial Forum was organized in association with CII and FICCI in Mumbai from 29-30 May 2007. Commerce & Industry Minister headed the Indian delegation while Ministers and officials, including business delegation participated from GCC States. Plenary sessions were held in five sectors of mutual interest to India and GCC states viz. Opportunities for investment, Opportunities in Real Estate Development, Opportunities in Energy cooperation-Oil, Gas and Power, Opportunities in Infrastructure sector and Opportunities in petrochemicals sector. The Mumbai Declaration adopted at the conclusion of the forum included setting up of a holding company from the collective funds of India and the GCC States, with private and public participation, that would work towards promoting Small and Medium Enterprises in both India and the GCC States.

The 10th session of the Indo-Libya Joint Commission Meeting : The 10th session of the Indo-Libya Joint Commission Meeting was held in New Delhi on 12th July 2007. The objective of the meeting was to increase the level of cooperation in various fields such as telecommunication, power, shipping, civil aviation, railways, hydrocarbon, trade and investment, banking and finance, etc.

23rd India Economic Summit—December 2-4, 2007 at New Delhi : The Department collaborated with CII and World Economic Forum as Summit Partner in organizing the 23rd India Economic Summit from 2-4 December 2007 at New Delhi. Over 600 business and government leaders from India and abroad participated along with other key stakeholders to debate important issues relevant to the country's growth agenda. This year's edition of the India Economic Summit explored in depth the many facets of the country's economy to identify the opportunities and challenges facing the business, apart from new focus on the exciting opportunities offered by Indian States and the impact of global risks in the Indian economy.

Partnership Summit-2008 : The Summit was held at Gurgaon in January 2008. Haryana was the partner state. Meeting was attended by Trade & Industry Ministers/Officials of about 19 countries in addition to business delegations.

WEF 2008 : World Economic Forum (WEF) was held in Davos in January 2008. The principal theme of the Annual Meeting was "The Power of Collaborative Innovation". It was attended by Union Commerce & Industry Minister and Secretary (IP&P), who besides addressing the forum and other meetings on the sidelines, also met CEOs of multinational companies.

Second meeting of the India-Russia Forum on Trade and Investment : The second meeting of the India-Russia Forum on Trade and Investment was held in New Delhi (February 12-13, 2008). The Forum was addressed by the Russian Prime Minister Mr. Victor A. Zubkov. A high level Indian and Russian delegations comprising of senior officials and prominent business leaders were led by Mr Kamal Nath, Commerce & Industry Minister, Government of India and Mrs. Elvira.

S. Nabiullina, Minister of Economic Development & Trade of the Russian Federation respectively.

A Protocol for Cooperation was signed for enhancing bilateal investment, deepening trade engagement and to widen strategic partnership between India and Russia. Both sides also agreed to set up a CEO Council with a view to strengthen economic relations between the two countries.

The main events likely to be held or having participation of the Department during 2008-09 are JCMs with Hungary, Libya and Belarus, 3rd meeting of Indo-Russia Trade and Investment Forum, India Economic Summit, WEF, Partnership Summit etc.

INDUSTRIAL SCENARIO

The industrial growth rate during 2007-08 has been 8.3% as per CSO's Index of Industrial Production (IIP) (Base 1993-94-100). The manufacturing sector, which has a weightage of about 80% in the IIP recorded a growth of 8.8%. Following table provides the Sectoral growth profile of industry.

Growth (in %) in the Index of Industrial Production (Base : 1993-94 = 100)

Sector	Weight (%)	2005-06	2006-07	2007-08
Mining & Quarrying	10.47	1.0	5.4	5.1
Manufacturing	79.36	9.1	12.5	8.8
Electricity	10.17	5.2	7.2	6.4
General	100.00	8.2	11.6	8.3

Use Based Classification

Basic Goods	35.57	6.7	10.3	7.0
Capital Goods	9.26	15.8	18.2	16.9
Intermediate Goods	26.51	2.5	12.0	8.9
Consumer goods	28.66	12.0	10.1	6.1
(i) Durable	5.36	15.3	9.2	-1.0
(ii) Non-durable	23.30	11.0	10.4	8.5

Source: Central Statistical Organisation

From a use-based perspective, capital goods, sector emerged as the most buoyant sector and registered a double-digit growth of 16.9% in 2007-08. Capital goods had earlier also posted a double-digit growth during 2005-06 and 2006-07. Within the consumer goods sector, non-durables segment posted increase of 8.5%. The good performance of the capital goods sector is an indicator of future industrial growth. Disaggregated industrial profile depicts that out of 17 groups in the manufacturing sector, 16 groups registered positive growth rates. In particular, 8 industry groups showed growth rates of 10% and above which includes beverages & tobacco products (growth rate 12.0%), basic metals & alloys (12.1%), other manufactures (19.8%), Jute

and other vegetable fibre textiles (33.1), Wood & wood Products & furniture & fixtures. (40.5), Leather & fur Products (11.7), Basic chemical & chemical Products (10.6), Machinery & equipments (10.4).

Performance of Six Core Infrastructure Industries : Performance of six core industries (i.e, electricity, crude petroleum, petroleum refinery products, coal, steel and cement, with combined weightage of 26.68 per cent in the IIP) is considered as an indicator of the economic health of the economy. Their output registered a growth of 5.6 per cent during 2007-08 as compared to 9.2 per cent last year. Industry - wise growth rates are given in the Table below.

Growth Rates (per cent) of Six Core Industries

	Weight	2005-06	2006-07	2007-08
Crude Petroleum	4.3	-5.3	5.6	0.4
Petroleum Refinery Products	2.0	2.4	12.6	6.5
Coal	3.2	6.6	5.9	6.3
Electricity	10.2	5.1	7.3	6.0
Cement	2.0	12.4	9.1	5.1
Finished Steel	5.1	11.2	10.9	8.1
Overall	26.7	6.2	8.6	5.6

LIGHT ENGINEERING INDUSTRY

The Indian engineering industry forms the crucial backbone of the economy and is intricately linked with umpteen other core sectors for its demand. The engineering industry derives its demand from capacity creation in core sectors viz., power, infrastructure, mining, oil and several other sectors including general manufacturing sector, consumer goods industry, automotive and process industries.

ELECTRICAL WIRES AND CABLES INDUSTRY

Wires and Cables, be they made of fibre, optics, iron or non-ferrous (copper, zinc, aluminium), play a decisive role in almost all areas of industrial and daily life. Electrical wires and cable Industry is one of the earliest industries established in the country in the field of electrical products. A wide range of wires and cables are manufactured which includes communication cables such as jelly filled telephone cables, optic fibre cables, local area network cables, switchboard cables, co-axial cables, VSAT cables, electrical cables such as electrical wires, winding wires, automotive battery cables, UPS cables, flexible wires, low voltage power cables and EHT power cables. The major user industries of wires and cables are power, electrical equipment, electronic appliances, telecommunication, entertainment and construction industry.

With infrastructure receiving priority attention from the Govt. of India, construction, power and telecom sector are fast developing. This will give a boost to wire and cable industries in near future. In 2006-07, the non-SSI sector have reported production of 8.17 lakh crore kms. During the year 2007-08 the production was 25.70 lakh crore kms. India exported wires and cables of value around Rs. 1520.7 crores in 2006-07 against import of around Rs 1551.4 crores in the same period. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment up to 100%.

TRANSMISSION TOWERS

Large structures called transmission towers support the high voltage transmission lines, which carry electricity over long distance. These lines typically feed into sub-station so that the electrical voltage can be reduced to a level that can subsequently be used by the customers. Keeping pace with growth of industries in the country and also spurt in domestic demand for power, the electrical energy sector is growing at a rapid pace. There is an increasing shift in India to have larger power stations, particularly super thermal power stations. Consequently while there would be fewer but larger powers generating stations, the demand for transmission of energy would grow substantially. The transmission network of an electrical power utility constitutes a critical part of the whole power system.

The country has sufficient capacity to cater to the demands arising in the country and also for exports. The industry has set up facilities for testing transmission towers up to 1000 KV with the objective of catering to future growth of transmission systems in the country as well as to export demand India exported Transmission towers of around Rs 570.7 crores in 2006-07 against import of around Rs 14.7 crores in the same period. The industry is de-licensed and eligible for automatic approval for foreign Direct Investment without any restriction.

CRANES

Wide range of cranes are manufactured in the country and these include Electric Overhead Travelling (EOT) cranes, mobile cranes, ladle cranes, hydraulic decks, crab cranes, floating cranes, controller cranes, etc. There is a good potential for growth of this sector in view of increased industrial activities in various fields as well as construction industry.

In 2006-07, non-SSI sector have reported production of 19056 tonnes of cranes. During the year 2007-08 the production was reported at 21590 tonnes. India imported cranes of value around Rs. 1203.9 crores in 2006-07 against export of around Rs 83.4 crores in the same period. The industry is de-licensed and eligible for automatic approval for foreign Direct Investment up to 100%.

LIFTS AND ESCALATORS

As cities grow vertical, lifts and escalators become the corner stone to support this development and the life line for the buildings that constitute this development. Rapid urbanization and robust activity in the construction industry and corporatisation of the real estate sector has led to a healthy growth of this industry. The use of lifts and escalators is increasing rapidly due to substantial investments in construction of multi-storied housing complexes, large malls and supermarkets of international standards, modernization of airports and railways stations apart from industrial sectors. The vertical transportation mechanism—lifts and escalators have evolved into sophisticated, safe and simple system to suit the requirements of various diverse users with the help of latest innovation in the technology. A wide range of lifts and escalators are manufactured in India. These include single speed, double speed, gearless, hydraulic, servo and Variable Voltage Variable Frequency (VVVF) elevators. The industry has experienced healthy growth during the recent years. The production of lifts in the year 2006-07 was reported to be 7103 numbers. During the year 2007-08 the production was reported at 8439 numbers. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment upto 100%.

REFRIGERATORS

In India, refrigerators have the highest aspirational value of all consumer durables with the exception of television. This accounts for the high growth rate of refrigerator market. After the liberalization of 1991 and removal of restrictions, large number of international brands entered the field of refrigerator industry. The Industry has become highly competitive and offers wide choices to consumers. There are two basic designs adopted in refrigerators presently being manufactured in the country. These are commonly referred to as Direct Cool (DC) and Frost Free (FF) Refrigerators. Another major change in refrigerator industry is adoption of Non-CFC Technology. The Montreal Protocol signed in 1987, which India joined in September 1992 mandates the gradual phase-out complete eradication of CFCs within a structured time frame. In fulfilling those obligations, the refrigerator manufacturers are switching over to non-CFC based refrigerators. There has been quantitative change in consumer preference and are going for higher end products.

Quality products with superior technology and technology upgradation has helped the industry to achieve higher growth in terms of volume and also higher realization in value terms. In 2006-07, the units in non-SSI sector have reported production of 64.9 lakh numbers of refrigerators. During the years 2007-08 the production was reported at 74.05 lakhs numbers. India exported refrigerators valued around Rs 419.3 crores in 2006-07 against import of around Rs. 796.7 crores during the same period. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment up to 100%.

WASHING MACHINES

During the last few years, in the consumer durable sector, the market for washing machine has grown quite fast. The washing machine market in India can be divided into semi-automatic and fully-automatic. The semi-automatic segment is more popular than the fully-automatic segment. However, with rising disposable incomes and higher aspirations, there is a gradual shift towards fully-automatic washing machines. Manufacturers, therefore, have started paying more attention to this segment and are introducing more features in their products. Controls are changing from purely mechanical to fully electronic as microcontrollers are incorporated into the designs. While providing intelligence, microcontrollers boost reliability, drive down costs and improve energy efficiency. Washing machines can use as many as three microcontrollers which adds intelligence for the increased functionality and user control. Energy efficiency is realized using microcontrollers for controlling the motor, reducing noise and minimizing vibration.

In 2006-07, the non-SSI sector have reported production of 19.44 lakh numbers of washing machines. During the years 2007-08 the production was reported at 21.69 lakhs numbers. India exported washing machines of value around Rs. 33.2 crores in 2006-07 against import of around Rs. 154.4 crores during the same period. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment without any restriction

AIR CONDITIONERS

Air Conditioners are no longer perceived as luxury products but are treated as necessity in changed socio-economic environment with changed life style. The air-conditions' market can be classified into three segments window AC, split AC and

central AC. The split ACs are gaining popularity due to limitation of space and increase in number of people living in flats in multi-storied complexes and also due to less noise. With a presentable increase in the living standards of the Indian middle class, there has been tremendous shift in demand of the air conditioners from non-branded assembled air conditioners to branded products. Bureau of Energy Efficiency (BEE), a statutory body under the Ministry of Power is introducing energy efficiency based star rating for air conditioners to help consumers buy the best energy efficient products.

Life refrigerators, the air conditioners manufacturing industry is also adopting non-CFC technology to fulfill the obligations of the Montreal Protocol. The Montreal Protocol mandates the gradual phase-out complete eradication of CFCs within a structured time frame. The market for AC has grown substantially during the last few years. In 2006-07, the non-SSI sector reported production of 4.9 lakh numbers of air conditioners. During the years 2007-08 the production was reported as 7.72 lakhs numbers. During 2006-07 the production was reported at 7.72 lakhs numbers. During 2006-07 India exported air conditioners of around Rs. 197.7 crores against import of Rs. 1278.4 crores during the same period. The industry is delicensed and eligible for the automatic approval for Foreign Direct Investment up to 100%.

LEAD ACID STORAGE BATTERIES

Lead Acid Batteries are accumulators of current and power which is discharged over a period of time. They are used in vehicles and also for various industrial uses such as for back up power for UPS application, control rooms, power stations, telecommunications, etc. The major user of the product is automobiles for providing high power to start the engine. In addition, it is also used for emergency lights for houses, telephone systems, power tools, as power source for mining and material handling equipments, etc. A new application of the product has emerged today in electric vehicles. The average life of the battery is approximately 2 years hence these batteries will be needed throughout the life of the vehicle or the machinery's in use. This indicates that ready market of the product will always exist.

The lead acid battery enjoys a market share of more than 60% of the total sales of all kind of batteries in the world. With the phenomenal growth of automobile industries, the demand of such batteries is also increasing at a very fast pace. Although there are few large scale manufacturers of the product dominating in India, there are large number of very small scale units manufacturing the product in a most unorganized manner. The product manufactured by them normally does not qualify the required standards as specified by BIS.

The non-SSI sector has reported production of 401.12 lakh numbers of Lead Acid Batteries during 2006-07. During the years 2007-08 the production was reported at 409 lakhs in numbers. During 2006-07, export of Lead Acid Batteries was approx. Rs. 259.3 crores against import of Rs. 784.8 crores. The industry is delicensed and eligible for automatic approval for Foreign Direct Investment without any restriction.

DRY CELL BATTERIES

Dry cell batteries are one of the most commonly used items. These are the oldest type of batteries still being used. Performance of these batteries has undergone progressive

improvements through technological developments. Although there have been improvements in manufacture of dry cells, the basic structure remains the same. In the liberalized economic environment, inexpensive batteries like rechargeable cells are coming into the market. New types of dry cell batteries with longer shelf life and greater dependability have also come up. Leak proof dry cells are used in expensive electronic auto equipment and toys. Nickel Cadmium batteries and other rechargeable batteries are manufactured in the country to meet the requirement of defence, telecommunications and electronics. Environment friendly alkaline batteries, which are mercury free, are also being manufactured in the country. Though the usage of high drain applications is yet to pick up in the country, the growing popularity of cellular phones, laptops and imported toys could open the market for a new range of batteries that are not produced at present.

The production of dry cells in the non-SSI sector in 2006-07 was reported to be 2552.33 million numbers. During the years 2007-08 the production was reported at 2551.90 million numbers. During 2006-07 there was export valued at Rs. 51.5 crores against import of Rs. 297.8 crores of dry cell batteries. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment up to 100%.

ELECTRICAL LAMPS AND TUBES

The emphasis on the power sector and its phenomenal growth and distribution laid the foundations for the lighting industry in India. Electric Lighting Industry is well developed in the country. A wide range of lamps and tubes are manufactured in the country which include general lighting service lamps such as incandescent bulbs, halogen lamps, to gas discharge lamps such as florescent tube light, compact fluorescent lamp, high pressure mercury vapour lamps, metal halide lamps, low pressure and high pressure sodium vapour lamps and variety of special lamps. The higher energy cost have led to the development of energy efficient lamps consuming less power and giving output as close to dallying. Compact Fluorescent Lamps (CFL) which consumes about 20% of the electricity for the same light output and last up to 10 times longer than the GLS are getting more popular.

Manufacturers are adopting imported designs and know-how through technical collaborations. Today, there has been effective widening of locally produced range of lamps along with serious advent of electronics in lighting, thereby supplying better, more efficient and cheaper lighting systems with improved aesthetics. The future of the industry envisages immense prospects of growth and development for technologically advanced and cost effective, organization. Miniaturization, electronic circuitry, newer chemicals, better luminaries are all providing the world with products of larger light output at minimum cost helping energy conservation. The growth of the industry has been substantial during the last few years. The production of GLS lamps in the non-SSI sector in 2006-07 is reported to be 470.46 million numbers where as the production of fluorescent tube on the same period was 209.02 million numbers. During the years 2007-08 the production was reported of GLS lamps and fluorescent tubes was reported at 430.76 million numbers and 214.9 million numbers respectively. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment without any restriction.

LIGHT ENGINEERING INDUSTRY SECTOR

The light Engineering Industry is a diverse industry with a number of distinctive sector. This industry includes mother of all industries like castings and forgings to

the highly sophisticated micro-processors-based process control equipment and diagnostic medical instruments. This group also includes industries like bearings, steel pipes and tubes, fasteners, etc. The products covered under the engineering industry are largely used as input to the capital goods industry. Hence the demand of this sector depends on the demand of the capital goods industry.

ROLLER BEARING INDUSTRY

Roller bearings are mainly used to ease friction between moving parts and are vital in determining machine performance. Most roller bearings consist of inner ring, outer ring, rolling elements, cage & seals. Rolling elements come in two general shapes—ball or roller. Rollers come in four basic style-cylindrical, needle, tapered and Spherical. Rotational movement is an indispensable characteristic in utilizing energy as mechanical power.

Bearings find application in diversified fields from simple electric fan to complex space rocket. Hence, the product range is vast and diversified. The indigenous manufacturers are manufacturing bearings of quality and precision at par with world renowned manufacturers in the diversified range of general purpose bearings where the demand is large to justify indigenous production on economic consideration bearings, generally used for special applications, requiring high technology and or required in low volumes are still being imported. There is considerable scope for development of bearings of smaller sizes and higher weight with improved performance in harsh operating conditions like higher temperature or low temperature.

Automobile industry accounts for bulk of the total demand of this industry with estimated share of 35%, electrical industry share is 12%, after market (replacement) share is 40% and the remaining 13% consumption is by other industries. As large number of world renowned automobile companies have already set up units and some are planning to set up units in India, the demand for bearings is going to increase in coming years.

The approximate export and import figures of the ball & roller bearings for the year 2006-07 are Rs. 835.3 crore and Rs. 1920.6 crore respectively. The production of ball & roller bearings during the year 2006-07 was 327.9 million numbers. During the years 2007-08 the production was reported at 289 million numbers. The bearing industry is delicensed and is eligible for 100% FDI under automatic route.

FERROUS CASTINGS

Indian Foundry Industry is the fifty largest in the world Foundry Industry is a mother industry. It sets the pace of growth of a host of down stream Industries which include engineering and manufacturing sectors in general and auto components and export sector in particular. This industry is now well established in the country and is spread across a wide spectrum consisting of large, medium, small and tiny sector. A peculiarity of the foundry industry in India is its geographical clustering. Typically, each foundry cluster is known for catering to some specific end use markets. For example, the Compactor cluster is famous for pump sets castings, the Kolhapur & Balagaun cluster for automotive castings, Rajkot cluster for diesel engine castings and Batala & Jalandhar cluster for machinery parts and agricultural implements.

Advanced countries like USA, Japan, Germany are unlikely to add much capacity due to stringent pollution control norms there India can thus have a dominant presence in this field and can become an important casting supplier to the world. Most of the industries except large cement plants generally require castings for large plants is in the range of 20 tonnes to 80 tonnes a piece. The Indian industry, because

of its technological strength in the field has advantage over other developing countries in exports. This is evident from current trend for increase in outsourcing by international manufacturers of engineering products from India. Considering the wide range of engineering applications of these castings and high potential for exports, there is considerable scope for established additional capacity particularly for high end applications.

The approximate export and import figures of the casting industry for the year 2006-07 are 1978.6 crores and Rs. 47.5 crores respectively. The production of steel castings and C.I. castings for the year 2006-07 in the organized sector was 7.79 lakh tonnes. During the years 2007-08 the production was reported at 7.69 lakhs tonnes. The industry is de-licenced and is eligible for automatic approval up to 100% Foreign Direct Investment.

MEDICAL AND SURGICAL INSTRUMENTS

Medical equipment includes all types of instruments and appliances used in medical, surgical, dental including electro medical apparatus. X-ray machines as well as physiotherapy equipments and orthopedic appliances. Medical and surgical equipment industry has been playing a critical role in the health care delivery system. During the last 15 years or so with the liberalisation taking place, and increased awareness for health, the demand for medical surgical instruments has gone up substantially. This has accelerated the growth in indigenous production as well as imports. The present day healthcare has become completely dependent on electro medical instruments and these have become indispensable tools for medical professionals mainly for diagnosis, therapy, and patient monitoring and health care. Indigenous manufacturers are currently in a position to manufacture wide variety of electro medical equipment such as electro cardiograph (ECG machine), X-ray scanner, CT scanners, short wave physiotherapy unit, electro surgical suits, blood chemistry analyser etc. However, sophisticated instruments such as nuclear magnetic resonance (NMR) scanners, multi channel monitors etc. are not currently manufactured in the country. Most of the units manufacturing medical equipments are in SSI sector. The production for the year 2006-07 in the non-SSI sector is reported to be 301.5 crores. During the years 2007-08 the production was reported at 330.41 crores.

PROCESS CONTROL INSTRUMENT INDUSTRY

Process Control instrument industry has been reorganised as one of the catalysts of technological growth. The process control instruments have become an integral part of the modern industrial activity. Process control instruments and systems cover wide range of instruments and systems required for monitoring and measuring of physical, chemical and biological properties. These instruments are required for measurement & control of process parameters like pressure, temperature, humidity, level, flow etc. in the process industry. This industry is a key industry which provides tools for automation. Their importance is significant in high cost large & sophisticated process industries like fertilizer, steel, power plant, refineries, petrochemicals, cement & other process industries.

Transfer of technology has been the major foundation of indigenous development. The technology tie-ups with internationally reputed manufacturers have brought in technological, breakthrough in various areas of industry. Today it provides open control systems & smart control devices Present Technology is microprocessor based centralized control system Future Technology is for decrease in the sensing and response time of the equipment and more & more automation

control i.e. without manual interference. The demand for this sector is basically a derived demand and depends largely on progress on implementation of various projects such as fertilizer, steel, power plant, refineries, petrochemicals, cement etc.

The production for the year 2006-07 in the non-SSI sector is reported to be 326.03 crores. During the years 2007-08 the production was reported at 447.86 crores. There was export of process control instruments worth Rs. 201.1 crores against import of around Rs. 1231.1 crores during 2006-07. The Industry is delicensed and 100% foreign Direct Investment is allowed in this sector under automatic route.

SEAMLESS STEEL PIPES & TUBES

Seamless steel pipes and tubes comes in all kinds of sizes including thin, small, precise, slender and other special pipes. These pipes and tubes are manufactured by commercial electric furnace, bearing consumable and electrode vacuum melted quality steel. This process of manufacture imparts strength and durability to the pipes and thus can be used for corrosion—resisting applications. Seamless steel pipes come in finishes such as hot rolled cold drawn, turned, roto-rolled, etc. Seamless steel pipes and tubes are used in hydrocarbon industries, processing and general engineering industries. Causing on tubing is used in drilling of oil and gas whereas boiler pipes are used in boilers, heat exchangers, super heaters, etc. They consist of both alloy steel and carbon steel tubes. Seamless popes are used where strength, resistance to corrosion and product life is crucial.

Oil sector accounts for around 60% of total requirement of seamless pipes. Bearings and boiler sector contribute around 30% of demand. The Industry is able to manufacture tubes up to 14" outer diameter. With upcoming substantial growth in the power sector and increase in demand of bearings from automobile sectors, the demand pattern may change in favour of these two sectors.

The approximate export and import figures of the Seamless Steel pipes & tubes industry for the year 2006-07 were Rs. 1192.4 crores and Rs. 2646.5 crores, respectively. The Seamless steel pipes and tubes industries is delicensed and upto 100% foreign equity is allowed for the manufacture of this item under automatic route.

ELECTRICAL RESISTANCE WELDED (ERW) STEEL PIPES & TUBES

These pipes are used in fencing, lining pipes, oil country tabulars, scaffolding, water and gas conveyance, structural, engineering purposes etc. Based on the end-user customers' requirement. ERW steel pipes and tubes are available in various qualities, wall thickness and diameters of the finished pipes. While manufacturing ERW steel pipes, only high quality continuous-cast, fully-kilned, control-rolled, fine-grain, low-carbon steel is used. High performance ERW steel pipes and tubing possess high corrosion resistance, high deformability, high strength and high toughness. There has been tremendous increase in the production of ERW steel pipes due to higher demand in oil and gas industry, infrastructure and automobile uses. There are large numbers of units in the SSI Sector. The industry is delicensed and is eligible for automatic approval up to 100% Foreign Director Investment.

SUBMERGED-ARC WELDED (SAW) PIPES

There are two types of saw pipes namely longitudinal and helical welded SAW pipes. Longitudinal SAW pipes are preferred where thickness of pipe is more than 25mm and in high pressure gas pipe line. Helical welded SAW pipes are used for low pressure applications. The cost of helical SAW pipes is less than longitudinal pipes.

Total installed capacity of SAW pipes in the country is around 6.5 lakh tones. There is huge demand of SAW pipes in the country due to transportation of oil and gas and transmission of water.

The approximate export and import figures of the SAW pipes Industry for the year 2006-07 were Rs. 2,903.8 crore and Rs. 3,844.2 crore respectively. This industry has very good export potential. The industry is delicensed and upto 100% foreign equity is allowed for the manufacture of this item under automatic route.

INDUSTRIAL FASTENERS

The fastener is a hardware device that mechanically joins or fixes two or more objects together. The fastener industry fortunes are linked to the performance of their user industries like textiles, automobiles and general engineering. The fastener industry in India may be classified into two segments high tensile and mild steel fasteners. High tensile and mild steel fasteners broadly include nuts, bolts, studs, rivets and screws. Mild steel fasteners are primarily manufactured by the unorganized sector while high tensile fasteners require superior technology and are dominated by companies in the organized sector. Automobile industry accounts for bulk of the total demand. Consumer durables and railways are the other primary users of the high tensile fasteners. Automobile sector is likely to drive growth in the fastener industry.

The approximate export & import figures of the industrial fastener industry for the year 2006-07 were 886.9 & 819.5 crores respectively. The production of nuts & bolts in the organized sector for the year 2006-07 was 90,629 tonnes. During the years 2007-08 the production was reported at 89660 tonnes. There is scope for more export in this sector. The fastener industry is delicensed and is eligible for 100% FDI under automatic route of the item is not reserved for the SSI Sector.

STEEL FORGINGS

Forging has unique value among manufacturing process. They are intermediate products used widely by original equipment manufacturers in the production of durable goods. They range in size from less than an ounce to more than 150 tons. Forgings are produced through various methods which include open die forgings, closed die forging and near net shape precision forgings.

The Indian forging industry has emerged as a major contributor to the manufacturing sector of the Indian economy. The key driver of demand of forging is the automobile industry. About 65% of the total forging production is used in this sector. Thus, the fortunes of the forging industry are dependent upon the growth of automobile industry. The other Industries that use forgings include Railways, Defence, Oil Exploration, Cement, Steel Industry and other Engineering Industries. India's forging industry not only meets almost the entire domestic demand of forgings but is also a large exporter and is making a significant contribution to India's exports. The Indian forging industry has shown a commendable performance on export front. Technological developments have also contributed to the industry's steady growth in export. The major markets are USA, Europe, China, etc. The indigenous industry constitutes of about 10 large units followed by large number of medium, small tiny units.

The approx. import and export figures of the forging industry for the year 2006-07 were 1123.1 crores and 1533.5 crores respectively. The production of stamping & forging for the years 2006-07 in the organized sector was 4,16,566 tonnes. During the years 2007-08 the production was reported at 476442 tonnes. The future is bright in

terms of the expected surge in global demand. As a result of the liberalization, more MNCs have entered the domestic automobile market. This has opened up more business opportunities for the forging industry. The forging industry is de-licensed and is eligible for 100% FDI under automatic route.

BICYCLE INDUSTRY

The bicycle industry of India is one of the most established industries. India is the second largest bicycle producer of the world, next only to China India has seen a tremendous increase in the number of bicycle manufacturers and bicycle exporters in the recent past. Today, Indian bicycle manufacturing and bicycle spares industry is well accepted and is also widely recognized for its quality standards in the international market. The industry is making endeavour for enhancing export since there a significant scope for export of Indian bicycles, bicycle spare parts and bicycle accessories.

The approximate export and import figures of bicycle for the year 2006-07 were Rs. 133.7 & Rs. 31.7 Crores respectively. The total production of all kinds of bicycles in the organized sector was 105.98 lakh numbers during the year 2006-07. The industry is de-licensed under the current industrial policy and this sector qualifies for 100% FDI under automatic approval. During the years 2007-08 the production was reported at 113.16 lakhs numbers.

LIGHT INDUSTRIAL MACHINERY SECTOR

FOOD PROCESSING MACHINERY

India is the world's second largest producer of food but the processed food industry in the country is relatively small. Factors such as changing food consumption pattern, increased spending on value added food products, spurred by increase in income level, increasing number of women joining the work force, rapid urbanization, changing life style and mass media promotion are fuelling the growth of food processing industry. The Indian market for food processing machinery has been growing steadily fuelled by strong domestic demand for processed food and beverage products. The pattern is likely to continue as more food processing units are commissioned. The most promising areas of growth are fruit & vegetable processing, meat, poultry, dairy & seafood, packaged convenience food, soft drinks and grain processing. An important factor which has provided substantial stimulation to the food processing equipment industry is the emphasis on the rapid growth of processed food exports from India. With this, the need for adopting superior technology, food processing and packaging machinery to ensure quality has become very important for Indian food products in the international market which demands high quality standards. Food Processing Sector is expected to grow at a healthy pace considering the rapid changes in food habits and consumerist culture developing in the country. The machinery manufacturers have honed their expertise in manufacturing dairy machinery and other core equipment of food processing machinery.

The food processing machinery can be classified under the general category of industrial machinery which is de-licensed under the current industrial policy and this sector qualifies for 100% FDI under automatic approval.

PACKAGING MACHINERY INDUSTRY

Packaging of products, consumer or industrial, is an integral part focuses of marketing strategy. Developments in packaging technology have not only contributed to

improving aesthetic appeal of the products but also the shelf life. In some cases specialized packaging becomes a technical necessity. The packaging machinery industry sector is, therefore, considered as an important segment of the industrial scenario especially in consumer products and in IT industry. In a competitive environment where Indian products have to compete in the international markets, packaging apart from other aspects, can tilt the balance.

Considering the growth prospects in industrial sector and growing consumer awareness of packaging, it is expected that there would be substantial growth in this area. Because of opening up of the Indian economy and globalization, packaged goods from international markets are easily available, and this would further boost the growth of packaging machinery industry. There is a wide range of packaging machinery available in the country covering packaging of vast range of items. Some of the commonly available packing machinery includes machines for strip packaging, form fill & seal machines, carton filling, fully automatic bag making machinery and automatic micro processor controlled packaging machines.

The packaging machinery industry, like other industrial machinery, is de-licensed under the current Industrial Policy and is eligible for 100% FDI under automatic approval.

WATER POLLUTION CONTROL EQUIPMENT

Due to growing awareness of water pollution and stringent environmental control standards being enforced for various uses including process industries, the waste water treatment industry is poised for huge growth. There are large variety of water pollution control equipment, which includes waste water treatment plants, drinking water treatment plants and effluent treatment plants. Water waste water treatment is the process of removing contaminants and it includes physical, chemical and biological processes to remove physical, chemical and biological contaminants. The type of treatment depends upon the waste water, the desired use of water and the final disposal of water. The primary treatment is the first step in the treatment process and involves the removal of pollutants that settles or floats. The common industrial equipments are clarifiers and oil-water separator devices. The secondary treatment is designed to substantially degrade the biological content of the sewage. The common equipments are activated sludge, filters, biological reactors etc. The tertiary treatment is a polishing step to remove contaminants that missed in the primary and secondary treatment and removal of suspended solids, refractory organics and toxic components. Tertiary physical processes are filtration and carbon adsorption. Chemical processes are used to remove inorganic and organic, resistant to biodegradation. Chemical process includes precipitation, oxidation and neutralization. The biological processes involve biodegrading. Organisms such as bacterial, fungi, yeasts and algae are commonly used to break down the organic matters. The cell tissues are then removed from the treated water by physical method like clarification.

The complete plants are manufactured mostly in the organized sector and many of the equipments are manufactured in the Small Scale Sector as well. Reputed foreign companies from US, Germany, France, Sweden and UK have either set-up their own facilities in India or have collaboration with Indian Companies. The industry is capable of meeting major domestic requirements. However, there is need for continuous upgradation in technology especially with regard to power consumption and efficiency. The industry is included in the Industrial Machinery Sector and is a de-licensed one and is also eligible for 100% FDI under automatic approval.

AIR POLLUTION CONTROL EQUIPMENT

Air pollution particularly in metropolitan cities and large towns are increasing. The govt. has already stipulated stringent environmental control standards for various industries. Hence our pollution control equipment industry has acquired importance. Further judicial pronouncements have given a definite direction and urgency for adoption of air pollution control measures.

The choice of control method depends on factors such as the nature of pollutant, flow-rate (amount of pollutant emitted), particle size and desired collection efficiency. The air pollution control equipments are broadly, classified under the following:

- i) Cyclones and multi-cyclones
- ii) Gravity separators
- iii) Fabric filters
- iv) Wet collectors and scrubbers
- v) Electrostatic precipitators.

The industry is in position to do basic and detailed engineering and supply of plants on turnkey basis. Some of the indigenous units have collaborations with internationally reputed firms in this field. Air pollution control equipment is delicensed and is eligible for approval upto 100% Foreign Director Investment.

INDUSTRIAL GEARS

Industrial gears comprise mainly of gears and gear boxes. The gears are used for transmission of power and motion. Gears being an important part of a machine have immense usage within various industries. The manufacture of gears and gear boxes involve high precision machining and accurate assembly as mechanical power is to be transmitted noiselessly and with minimum losses. Different types and sizes of gears such as spur gears, helical gears, worm gears, spiral gears and many other kinds are manufactured in the country. The demand for gears and gear boxes predominantly depend on the growth of industrial machinery, machine tools, and consumer & automobile sector. Considering the industrial growth prospects, particularly in automobile sector, the demand for gears and gear boxes is expected to grow at a healthy pace. The industry is delicensed and is eligible for 100% FDI under automatic route.

CEMENT INDUSTRY

Cement is one of the most technologically advanced industries in the country. It plays a crucial role in the housing and infrastructure sector of the economy. The price and distribution control of cement has been removed since 1989 and it has been exempted from licensing in 1991 under the Industrial (Development & Regulation) Act, 1951. Since then, cement industry has made rapid strides both in capacity/ production and process technology. It not only ranks second in the production of cement in the world but also produces quality cement which meets global standards. As on 1st April 2008, there are 159 large cement plants with an installed capacity of 11.10 million tonnes per annum. The production during 2007-08 was 168.03 million tonnes, registering a growth of 7.83 per cent over previous year. Export of cement and clinker was 6.02 million tonnes in 2007-08.

India is producing, different varieties of cement like Ordinary Portland Cement (OPC), Portland Pozzolana Cement (PPC), Portland Blast Furnace Slag Cement (PBFS), Oil well Cement, White Cement, etc. These different varieties of

cement are produced as per BIS specifications and the quality is comparable with the best in the world. The cement industry has kept pace with global technological immensely to conserve energy and fuel and to save materials substantially.

LEATHER INDUSTRY

The leather Industry occupies a prominent place in the Indian economy in view of its substantial export earnings, employment potential and growth. The leather sector provides employment mainly to people from the disadvantaged sections of society. More than 30 per cent of the work force employed in this sector is women.

The leather sector in India has a comparative advantage due to abundant supply of raw hides and skins, high level of technological preparedness, vast human resources and a skill-based industrial sector. It has been estimated that about 10% of the world's supply of leather is processed in India. However, its share of global leather trade is less than three per cent. Obsolete technology, lack of standarization and poor marketing infrastructure has been other factors associated with the sector not growing to its potential.

The export of leather and leather products from India has undergone a structural change during the last two decades. India was traditionally an exporter of raw hides and skins and semi-processed leather. However, in the last two decades the share of leather footwear, leather garments, leather goods, footwear components and several other articles of leather in the total exports has increased substantially as a result of the Government's policy to encourage export of value added leather products.

The export performance of the leather sector in the last 6 years is presented in the table below :

		(In million US\$)						
Category		2001-02	2002-03	2003-04	2004-05	2005-06	2006-7	2007-08
Finished	Leather	459.25	508.83	555.71	607.73	606.06	688.05	766.93
Leather	Footwear	395.39	423.3	553.04	657.78	786.76	950.90	1163.82
Footwear	components	233.94	175.07	161.27	179.24	179.04	212.65	266.11
Leather	Garments	378.75	272.08	301.08	329.44	328.44	306.98	343.99
Leather	Goods	407.16	425.39	539.21	585.72	649.14	690.66	784.95
Saddlery	and Harness	35.64	43.66	52.71	61.71	76.4	81.85	105.81
Non-Leather	Footwear	26.02	26.88	53.42	73.78	68.75	48.69	45.90
Total		1936.14	1875.21	2216.45	2495.37	2694.59	2979.78	3477.51

INDUSTRIAL LICENSING/RESERVATION PROVISIONS

All the items of manufacture in the leather sector have been dereserved from the SSI list vide Notification No. S.O. 603(E) dated 29th June, 2001 and S.O. No. 649 (E) dated 3rd June, 2003. At present, all items of manufacture in the leather sector except full

PVC Footwear Chappals, Sandels and Shoes and metal fittings for leather woods and garment have been dereserved.

INITIATIVES TAKEN BY THE CENTRAL GOVERNMENT

Policy Support Measures : Leather industry was identified as one of the "Thrust Sectors" having significant export growth prospects and employment generation. Accordingly, special focus initiatives have been announced in the National Foreign Trade Policy 2004-09. These include:

- Enhancement of duty free entitlement from 1% to 3% for leather products and footwear with wider coverage of critical inputs.
- CVD exemption on lining and interlining materials under the duty free scheme.
- Customs duty exempted on machinery & equipments for Effluent Treatment Plants.
- CVD exemption allowed on fur-skins etc.
- 5% Concessional Import duty extended to certain additional machinery.

Support towards market development and export promoting : The Government is supporting implementation of an aggressive International Marketing Programme through the Market Development Assistance and Market Access Initiative Schemes. These include organizing group participation of leather exporters in leading International Leather Fairs and organizing exclusive Buyer-Seller Meets in select markets.

Setting up of Inter-Ministerial Committee: An Inter-Ministerial Committee under the Chairmanship of Member (Industry), Planning Commission has been constituted on January 6, 2006 in order to analyze the strength and weaknesses of the Indian leather industry with a view to evolving a comprehensive strategy for the development of the leather sector.

Identification of Leather Sector as priority : In order to improve competitiveness of manufacturing in India and to increase its share in the economy as a means to provide larger employment opportunities, National Manufacturing Competitiveness Council (NMCC) has identified leather and leather goods as one of the sub sectors having high potential for growth and employment.

Schemes of the 10th Five Year Plan : During the 10th Plan period (2002-07) focus of the Government was aimed at modernizing the manufacturing capability and improving infrastructure and a Plan Programme "Indian Leather Development Programme" with an outlay of Rs. 400 crore was initiated. It comprised of two sub-programmes, viz., "Integrated Development of Leather Sector" (IDLS) AND "Infrastructure Strengthening of Leather Sector" (ISLS) with outlays of Rs. 290 crore and Rs. 110 crore respectively.

Assistance for modernization and upgradation was provided to both SSI Sector and non-SSI units as investment subsidy/grant under the Integrated Development of Leather Sector (IDLS). The scheme became operational from November, 2005 and by 31st March, 2007, 674 applications were supported involving total investment of more than Rs. 400 crore and Government of India assistance of Rs. 100 crore. The Infrastructure Strengthening of Leather Sector (ISLS) focused on creating infrastructure for Leather/Footwear Complexes at Chennai and Kolkata as well as capacity building. Skills of more than 1.70 lakh persons were up-graded under the Human Resource

Development Mission and 3500 rural artisans were provided training and marketing support. 75 units were assisted for global benchmarking against the best practices. To strengthen the institutional structure, a new campus of FDDI at Fursatganj (UP) is being established. Non-leather footwear being an important component of the industry, FDDI was upgraded to impart training in the non-leather and sports shoes sector. Investment promotion was also undertaken to attract investment into the sector.

Proposal of 11th Plan : Based on the recommendations of the Inter-Ministerial Committee which was assigned the task to prepare a report on Leather and Leather Goods industry for the 11th Five Year Plan, the Department of Industrial Policy & Promotion had submitted a perspective plan under Indian Leather Development Programme (ILDP) for approval of the Cabinet. The Cabinet during its meeting held on 14th August has approved the ILDP Scheme with an outlay of Rs. 912.67 crores with emphasis on Infrastructure Development, Capacity Building, Human Resource Development, Investment Promotion and Environmental problems for the Leather Industry.

RUBBER GOODS INDUSTRY

The small scale sector accounts for over 50% of rubber goods in the non-tyre sector which has an annual turnover of Rs. 10,863 crore.

This industry covers a wide range of items like conveyor belts, rubber hoses, rubber cots and aprons, contraceptives, examination and surgical gloves, rubber moulded goods, automotive components etc.

TYRES AND TUBES

The Tyre Industry has been delicensed since September, 1989. The Indian Tyre industry has 43 manufacturing companies with 58 tyre manufacturing plants which produce all categories of tyres except some specialized categories like Snow Tyres, Aero Tyres etc. All requirements of tyres for existing and new vehicles are being met by Indian Tyres.

India is one of the select few countries to have attained self-sufficiency in production installed capacity of 850 lakh tyres. The annual tyre production installed capacity of 850 lakh tyres. The annual tyre production in 2007-08 was 811.03 lakh as against 735.44 lakh in 2006-07. The annual turnover of the Tyre industry is Rs. 19,000 crore. Bus and Truck tyres account for approximately 65% of the Industry Turnover.

The Indian Tyre Industry has done remarkably well on the export front also. From an export earnings of Rs. 183 crore in 1990-91, the export of tyres has risen to Rs. 3,000 crore during 2007-08, as against Rs. 2,850 crore in 2006-07. Indian Tyre companies have a consistent track record of exporting to over 75 countries worldwide.

RESEARCH AND DEVELOPMENT ACTIVITIES

The Indian Rubber Manufacturers' Research Association (IRMRA), Thane, an autonomous institution under the Department of Industrial Policy & Promotion, is dedicated to basic and applied research in rubber and allied products. Established in 1959, IRMRA has created necessary infrastructure for research and development and testing of all rubber products in the non-tyre sector. A centre of excellence in tyre research and testing is also being set up at IRMRA for which an assistance of Rs. 22.50 crore has been approved during the 11th Five Year Plan. The tyre research and testing centre is expected to be commissioned in 2010-11.

PAPER AND NEWSPRINT INDUSTRY

The paper industry has a vital role to play in socio-economic development of the country. The per capita consumption of paper is generally considered as a bench mark of a country's modernization. The Indian paper industry, which is century old, has made steady progress and witnessed a moderate production growth rate. There are around 700 paper mills producing nearly 6.3 million tones of paper and paperboard (2007-08) and around 1.04 million tones of newsprint (2007-08) against an estimated operational capacity of nearly 7.5 million tones of paper and paperboard and about 1.44 million tones of newsprint respectively. The projected demand for the paper, paperboard and newsprint is expected to touch 8.3 million tones by the year 2010. The per capita consumption of paper, which is the bench mark of modernization of any country, stands at 7.2 kg for India, which is far below in comparison to the global average of 50 kg.

The paper industry is delicensed and decontrolled since 1997. Foreign Direct Investment upto 100% is permitted on automatic route.

Cess on paper is levied at the rate of 0.125% advalorem since 1980-81 and total cess collected upto 2006-07 is Rs. 233 crores out of which nearly Rs. 26 crores have been ploughed back to industry for conducting Research & Development in pulp and paper sector. Rs. 26 crores have been ploughed back to industry for conducting Research & Development in pulp and paper sector.

The paper and newsprint industry is highly fragmented with the installed capacities ranging from 2 tones to 800 tones per day. Indian paper industry can broadly be classified into three segments - (a) Large integrated mills using bamboo and wood. (b) Medium mills using agri-residue and recycled fibre, and (c) Small mills using agro residue and waste paper/ recycled fibres. All the three segments are contributing, equally in production of paper, paperboard and newsprint in the country. The turnover of the industry is about Rs. 16,000 crore and contributes about Rs. 2500 crore to national exchequer. The Indian paper industry employs three lakh persons directly and 10 lakh persons indirectly.

In the wake of economic liberalization, the Indian paper industry found itself confronted with global competition which has an evolutionary effect on the traditional Indian management style, resulting in a serious redesign of strategies. Today the concept of globalization, ecological compatibility and the related environmental issues are being integrated at the planning level by the major industry players. In the last 2-3 years, some of the pulp and paper industry have embarked on expansion and modernization plans to increase their production capacities. The major issues confronting the industry are: inadequate availability of good quality cellulosic raw material, obsolete technology, high cost of basic inputs, quality and environmental concerns.

SOAPS & DETERGENTS INDUSTRY

The Soaps and Detergents Industry had developed both in the small-sector and organized sector. Detergents and Toilet Soaps are exempt from industrial license. Ninety per cent of the production of laundry soap is in the small-scale sector. Toilet soap is, however, dominated by the large-scale units. Production of soaps and Detergents during 2007-08 was 4,04,846 tonnes and 11,02,886 tonnes respectively.

INTELLECTUAL PROPERTY RIGHTS

The Department of Industrial Policy & Promotion is administering the following legislations related to the intellectual property rights:

- a) The Patents Act, 1970 (amended in 1999, 2002 and 2005) through the Patent Offices at Kolkata (HQ), Mumbai, Chennai and Delhi.
- b) The Designs Act, 2000 through the Patent Offices at Kolkata (HQ), Mumbai, Chennai and Delhi.
- c) The Trade Marks Act, 1999 through the trade Marks Registry at Mumbai (HQ) Chennai, Delhi, Kolkata and Ahmedabad.
- d) The Geographical Indications of Goods (Registration & Protection) Act, 1999 through the Geographical Indications Registry at Chennai.

These legislations comply with India's international obligations on one hand while balancing the rights with necessary safeguards for protecting public interest on the other.

Recognising the importance of intellectual property rights, infrastructure for facilitating the economic growth and competitiveness of the country, the Government has implemented schemes for modernisation of Intellectual Property Offices at a cost of Rs. 153 crores during the 9th and 10th Five Year Plans. The accomplishments, inter alia, include commissioning of four integrated state-of-the art Intellectual Property Offices (IPOs) in Delhi, Kolkata, Chennai & Mumbai; launching of a massive computerization programme in the IPOs, augmentation of human resources; creation of library facilities, introduction of E-filing facility for patent and trade mark applications.

During the 11th Five Year Plan, the Government is implementing a new scheme for modernisation and strengthening of IPOs at an estimated cost of Rs. 300 crores. The scheme aims at strengthening the capabilities of IPOs in India and to develop a vibrant intellectual property regime in the country. The scheme also aims at developing infrastructure of the IPO to function as an international Searching Authority (ISA) and International Preliminary Examining Authority (IPEA) under the Patent Cooperation Treaty of World Intellectual Property Organisation (WIPO), a United Nations specialised agency for intellectual property rights. The Government has also approved a proposal for setting up a National Institute of Intellectual Property Management (NIIPM) at Nagpur which is envisaged as a world class institution for wide-ranging activities such as training, education, research and think tank in the field of Intellectual Property Rights.

The Government has announced the National Design Policy for the first time on 8th February, 2007. This Policy envisages a key role for design in enhancing the competitiveness of Indian industry. The focus is on spreading of design education, branding of Indian designs and the establishment of a Design Council.

The steps taken by the Government during the last few years have borne fruit. Patent filing has gone up from below 5000 in 1999-2000 to more than 35,000 in 2007-08 that is more than seven times. The number of patents granted recorded a steep rise from 1911 in 2004-05 to 15,261 in 2007-08. This is a growth of almost 800 per cent in just 3 years. Similar trends are visible in trade marks too. Trade marks registrations have gone up from 11,190 in 2002-03 to 1,01,300 in 2007-08. In fact, the number of

trade marks registered during the last three years is more than the total number of trade marks registered in all the previous years. The number of applications for registration of designs has gone up from 2851 in 1999-2000 to 4674 in 2007-08 and the number of designs registered in a year from 1382 to 2356 during the same period. The Geographical Indications Registry, which commenced functioning only on 15 September, 2003, has registered 82 products representing a wide variety of goods such as Darjeeling Tea, Pochampally Ikat, Chanderi Sarees, Mysore agarbathi, Kullu shawl, Coorg orange, Aranmula mirror, Kancheepuram Silk etc. upto July 2008.

With focus on human resource development, capacity building and public awareness creation in the field of intellectual property rights, the Government has entered into bilateral cooperation agreements on Intellectual Property Rights with leading countries/institutions such as Australia, European Patent Office, France, German Patent & Trade Mark Office, Japan Patent Office, UK, US patent and Trademark Office and Switzerland.

India is a member of the World Intellectual Property Organisation and plays an important role in its deliberations including hosting important meetings of WIPO in India.

The Government has also taken the initiative to create public awareness about matters relating to intellectual property rights through organization of sensitisation programmes in different parts of the country.

The government has also set up an Intellectual Property Appellate Board at Chennai, as a fast track mechanism to hear appeals against the decisions of the Controller of Patents and Registrar of Trade Marks and Geographical Indications.

INDIAN TEXTILES

The Indian Textiles Industry has an overwhelming presence in the economic life of the country. Apart from providing one of the basic necessities of life, the textiles industry also plays a pivotal role through its contribution to industrial output. Employment generation, and the export earnings of the country. Currently, it contributes about 14 per cent to industrial production, 4 per cent to the GDP, and 13.50 per cent to the country's export earnings. It provides direct employment to over 35 million people, which includes a substantial number of SC/ST, and women. The Textiles sector is the second largest provider of employment after agriculture. Thus, the growth and all round development of this industry has a direct bearing on the improvement of the economy of the nation.

Due to policy measures initiated by the Government in the recent past, the Indian textiles industry is in a stronger position than it was in the last six decades. The industry which was growing at 3-4 percent during the last six decades has now accelerated to an annual growth rate of 8-9 percent in value terms. The catalyst for this exponential growth is a buoyant domestic economy, substantial increase in cotton production, a conducive policy environment provided by the Government, and the end of the Multi Fibre Arrangement (MFA), on December 31, 2004. The rationalization of fiscal duties undertaken during the last few years, has also provided a level playing field in all segments of the industry, resulting in the holistic growth of the industry. A strong foundation for industry has been laid on which world class manufacturing units can realize their full potential and make a mark in the international economy.

The growth manifests through a consistent increase in production of fabric and investments. During 2008-09, the production of fabric was 55 billion sq mtrs, as

compared to 45.38 billion sq mtrs in 2004-05. The textiles sector has witnessed a spurt in investment during the last five years, increasing from Rs. 7,349 crore in 2004-05 to Rs. 15,032 crore in 2005-06 to Rs. 66,233 crore in 2006-07, to Rs. 19,917 crore in 2007-08 and Rs. 42,807 crore in 2008-09. It is expected that investments will touch Rs. 1,50,600 crore by 2012. This enhanced investment will generate 17.37 million jobs (comprising 12.02 million direct and 5.35 million indirect jobs) by 2012.

EXPORTS

The Indian textiles and clothing industry is the cornerstone of the national economy and it contributes 13.50% to the country's merchandise exports. After the coming to end of Multi Fibre Arrangement (MFA), the industry started scaling up, improving efficiencies and modernizing technologies. Within one year of the MFA regime coming to a close on December 31, 2004, Indian exports grew at a rate of 22%. The exports of textiles and clothing during 2004-5, 2005-06 and 2006-07 were US\$ 14 billion, US\$ 17.52 billion and US\$ 18.73 billion. respectively. India's textiles and clothing export has observed ups and downs in recent times, initially due to appreciation of Indian Rupee in 2007-08 and subsequently on account of global meltdown. During 2007-08, textiles exports from India were US\$ 22.13 billion against the target of US\$ 25.06 billion. In 2008-09, textiles exports have reached US\$ 18.51 billion (April-February of financial year 2008-09) against US\$ 19.55 billion in the corresponding period of 2007-08.

Technology Upgradation

The Indian Textiles Industry has suffered from severe technology obsolescence and lack of economies of scale, which in turn diluted its productivity, quality and cost effectiveness, despite distinctive advantages in raw material, knowledge base, and skilled human resources. The Technology Upgradation Fund Scheme (TUFS) was launched on April 1, 1999, initially for five years, to sustain and improve competitiveness and overall long term viability of the textiles industry and facilitate its access to timely and adequate capital at internationally comparable rates of interest. It was subsequently extended till March 31, 2007, and has now been extended till March 31, 2012.

The Government, under the scheme, reimburses (4% for spinning sector) 5% of the interest charged by banks and financial institutions, thereby ensuring credit availability for units planning to upgrade technology. Besides, the scheme provides 15% margin money subsidy in lieu of 5% interest subsidy for SSI units engaged in textiles and jute sub-sectors, 20% margin money subsidy in lieu of 5% interest support for decentralized powerlooms units for investment in TUFS compatible machinery. For specified machinery required for processing, garments and technical textiles segments, the scheme provides 10% capital subsidy, besides 5% interest subvention for specified machinery. The imported second hand machinery is ineligible for assistance under the scheme, except automatic shuttle less looms, with a value cap of Rs. 8 lakh and of 10 years vintage and with residual life of 10 years. The scheme covers almost all the segments of textiles sector.

During its initial years, the progress of the scheme was moderate, and it gained momentum from 2004-05 onwards. From its inception till March 31, 2009, 24,867 applications have been received, involving a project of Rs. 1,69,016 crore, and 24,685 applications have been sanctioned at an estimated project cost of Rs. 1,66,839 crore.

The textiles sector has witnessed a spurt in investment during the last five years. The cumulative investment between 2004-09 was Rs. 1,51,338 crore. The main

engine of investment has been the Technology Upgradation Fund Scheme (TUFS). The increased investment will help to upgrade technology, strengthen infrastructural facilities at potential textiles growth areas, increase the installation of additional spindles and looms. Besides, it will provide a fillip to the garmenting, technical textiles and processing segments of textiles industry, which have great potential for value addition and employment generation.

Technical Textiles

The Ministry of Textiles is focusing on the development of technical textiles, which is an emerging industry with a huge potential to attract investment. The global market size of technical textiles which was US \$ 107 billion in 2005 is expected to jump to US \$ 127 billion by 2010. The Indian Market size of technical textiles is expected to jump to US\$ 12.46 billion by 2010 from US\$ 6.7 billion in 2005 (CAGR 11.25%). In Indian context, Buildtech, Geotech, Meditech and Protech group of Technical textiles are considered significant.

The Government will implement the Development and Growth of the Technical Textiles Scheme during the XIth Five Year Plan period. The scheme aims to set up four Centres of Excellence (CoE), one each for the Agrotech, Buildtech, Meditech and Geotech group of technical textiles at an outlay of Rs. 44 crore. The Synthetic and Art Silk Mills Research Association (SASMIRA), Mumbai in association with the Man-made Textiles Research Association (MANTRA), Surat and Navsari Agriculture University, Navasari, Gujarat has been designated as a CoE for Agrotech. The Northern Indian Textiles Research Association (NITRA), Ghaziabad in association with the Indian Institute of Technology (IIT), Delhi, has been designated as a CoE for Protech. The Ahmedabad Textiles Industry Association (ATIRA), Ahmedabad and Bombay Textiles Research Association (BTRA), Mumbai has been designated as CoE for Geotech. For Meditech, the South India Textiles Research Association, Coimbatore and AC College, Coimbatore have been designated as CoE. The Centre of Excellence for Geotech Textiles has been already inaugurated at BTRA, Mumbai and another one for Meditech is expected to be operational at SITRA, Coimbatore shortly.

The Government propose to launch the Technology Mission on Technical Textiles which will be implemented during the XIth Five Year Plan period (2007-12). The Mission will develop capacity, devise standards, develop products, and set up common testing facilities, expand the domestic and export markets and develop skills.

INFRASTRUCTURE DEVELOPMENT

The Government proposes to develop world-class infrastructural and production facilities for handicrafts, handlooms, and decentralised powerlooms clusters with a minimum of 5,000 looms (handlooms and powerlooms) through the adoption of a Comprehensive Cluster Development approach. The following mega clusters are being taken up for development:

- Handlooms in Varanasi (Uttar Pradesh) and Sibsagar (Assam)
- Handicrafts in Narsapur (Andhra Pradesh) and Moradabad (Uttar Pradesh)
- Powerlooms in Bhiwandi (Maharashtra) and Erode (Tamil Nadu)

The Scheme for Integrated Textiles Parks (SITP) was launched in July 2005 by merging two earlier schemes, viz, Apparel Parks for Export Scheme (APES) and Textiles

Centre Infrastructure Development Scheme (TCIDS). It aims to strengthen infrastructural facilities in potential textiles growth areas.

In the Xth Five Year Plan, 30 Integrated Textile Parks were sanctioned under the SITP. Government have decided to continue the Scheme for Integrated Textiles Park (SITP) during the XIth Five Year Plan. One Textiles Park, viz., 'Palladam Hi-Tech Weaving Park' was inaugurated on April 19, 2008. During XIth Five Year Plan, 10 additional parks will be developed. These 40 Parks when operationalised, will attract an investment of Rs. 21,502 crore, create employment (direct and indirect) for 9.08 lakh workers and produce goods worth Rs. 38.115 crore, annually.

RAW MATERIAL

COTTON

Cotton is one of the principal crops of the country and is the major raw material for the domestic textiles industry. It provides sustenance to millions of farmers and contributes significantly to the country's export earnings. The country has the distinction of growing all the four cultivated species of cotton viz., *Gossypium arboreum*, *G. herbaceum* (called Desi/Asian cotton), *G. hirsutum* (American upland types), and *G. barbadense* (Egyptian type), as also hybrid cottons. The Indian textiles industry consumes a diverse range of fibres and yarn, but is predominantly cotton based. The ratio of the use of Cotton to Man-made fibres and filament yarns by the domestic textiles industry is 56:44.

Presently, India is the second largest producer of cotton (4.13 mn. metric tones), accounting for 16 per cent of global production, with the largest cultivated area in the world (89 lakh hectares in the cotton season of 2008-09 (October-September). The States of Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh, Karnataka and Tamil Nadu account for 99 per cent of cotton production in the country. Recently, India has overtaken the USA to become the second largest producer of cotton in the world. This was due to focused support to farmers provided by the Government, which has resulted in an increase in productivity as well as production. Since 2005-06, India is the net exporter of cotton.

The cotton production reached 290 lakh bales (170 kg. each) in the cotton season of 2008-09. The productivity of cotton has jumped to 591 kg lint/hectare in the cotton season of 2008-09, from 399 kg lint/hectare in the cotton season of 2003-04. Since 2005-06, the country has become a net exporter of cotton. In 2006-07, 58 lakh bales of cotton were exported against 47 lakh bales in 2005-06, and 0.84 lakh bales in 2002-03. In 2007-08, exports of raw cotton exceeded the target of 65 lakh bales and were 80 lakh bales mainly due to fall in acreage in the USA and higher global demand. Consequently, cotton imports have declined from around 17 lakh bales in 2002-03 to 5 lakh bales in 2006-07. The Imports were around 6.5 lakh bales in 2007-08. The cotton export during the cotton season of 2008-09 were 60 lakh bales, and imports were of 7 lakh bales.

From October end 2007 till July 2008, the cotton prices had been higher by around 20% to 40% compared to last year. The opening cotton prices during the fiscal 2007-08 had been higher by around 4% to 17% as compared to previous year. This was affecting the viability of textiles mills, and on the persistent demand of the Industry, the Government abolished import duty of 14.7%, and drawback benefits on raw cotton w.e.f. July 8, 2008. The measure helped in stabilizing the prices.

A significant increase in the cotton production has increased the availability of raw cotton to the domestic textiles industry at competitive prices, providing it with a competitive edge in the global market. The reasons for increase in the production include increasing usage of Bt cotton and the implementation of the Technology Mission on Cotton (TMC). The area under the Bt cultivation, which was around 5 lakh hectares in the cotton season of 2003-04, has gone up to 65 lakh hectares in the cotton season of 2008-09.

MINIMUM SUPPORT PRICE (MSP) OPERATIONS

The Government is operating the Minimum Support Price (MSP) Scheme through the agency of Cotton Corporation of India Ltd. (CCI), a public sector enterprise, to ensure a minimum return to the farmer even in the depressed market conditions. The support price are fixed by the Government for two basic varieties of cotton of fair average quality, recommended by the Commission for Agriculture Costs and Price (CACP). While one is the medium long staple length group of 25 mm-27 mm of the variety F414/H-777/J-34, the other is the long staple group of 27.5 mm-32 mm which is of the variety H-4. Based on the support price of these two basic varieties and taking into account the normal price differential and other relevant factors, the MSP for other varieties of seed cotton of fair average quality are fixed by the Textiles Commissioner.

The MSP of medium staple cotton of length group 24.5 mm, has been raised by a record 39% to Rs. 2,500 per quintal in the cotton season of 2008-09. The MSP last was Rs. 1,800 per quintal. The MSP for long staple variety of length group 29.5 mm to 30.5 mm has been raised to Rs. 3,000 per quintal in the cotton season of 2008-09 from Rs. 2,250 per quintal in the cotton season of 2007-08.

Cotton Season 2008-09 MSP operations by CCI (July 2009)

Total Arrival 286.50 lakh bales.

89 lakh bales procured at an estimated cost of approx Rs. 12,838 crore.

81.70 lakh bales sold, including export of 50,000 bales.

MAN-MADE FIBRE

The Man-Made Fibre (MMF) and yarn industry comprises fibres and filaments of both cellulosic and non-cellulosic origin, generally referred to as rayon and synthetic fibres/yarns. The cellulosic fibre/yarn industry is under the administrative control of the Ministry of Textiles, while the non-cellulosic fibre industry is under the Ministry of Chemicals and Fertilizers (Department of Chemicals and Petrochemicals). While in most textiles producing countries the ratio of MMF to cotton is 60:40, in India it is still 44:56. Considering the importance of this sector, Government is taking several steps to correct this imbalance and promote the MMF sector. With regard to man-made fibers/yarns, production of such fibres and yarns has shown a rising trend during the last five years to the extent that India is now the fifth largest producer in the world.

JUTE AND JUTE TEXTILES INDUSTRY

The Jute industry occupies an important place in the national economy. It is one of the major industries in the eastern region, particularly in West Bengal. Jute, the golden

fibre, meets all the standards for 'safe' packaging in view of being a natural, renewable, biodegradable and eco-friendly product.

Globally, India is the largest producer and second largest exporter of jute goods and this sector supports the livelihood of about 40 lakh farm families, and provides direct and indirect employment to 4 lakh workers. There are 77 Jute mills in the country. Of these 60 are in West Bengal, 3 each in Bihar and Uttar Pradesh, 7 in Andhra Pradesh, and one each in Assam, Orissa, Tripura and Chhattisgarh. Annually, the export of Jute products ranges between Rs. 1,075-1,100 crore.

The production of raw jute varies between 90-100 lakh bales (180 kg. each), and the domestic consumption of jute goods is in the range of 13.5-14.5 lakh MT. The ratio of domestic consumption to exports is 80:20. The production of jute is concentrated in 36 districts of West Bengal, Orissa, Bihar, Assam, Meghalaya, Tripura and Andhra Pradesh. In the 2008-09 jute season (July-June), the production of raw jute was 90 lakh bales (180 kgs. each).

The Government on June 2, 2006, approved the implementation of the Jute Technology Mission (JTM) at an estimated cost of Rs. 355.55 crore, of which the outlay for mini missions III and IV will be Rs. 38.60 and Rs. 260.00 crore respectively. The Department of Agricultural Research & Education, Ministry of Agriculture, launched the Mini Mission I of the Jute Technology Mission (JTM) on November 9, 2006. The Department of Agriculture & Cooperative, Ministry of Agriculture, launched Mini Mission II of JTM on December 21, 2006. Mini Mission III and IV were launched by the Ministry of Textiles on February 6, 2007. JTM comprise four Mini-missions:

- 1) Mini-mission I - Strengthening of Research & Development
- 2) Mini-mission II - Transfer of Technology
- 3) Mini-mission III - Development of Marketing Infrastructure
- 4) Mini-mission IV - Modernisation/Upgradation of Technology of Jute Sector, and initiation of activities for promotion of Jute Diversified Products.

VILLAGE AND SMALL ENTERPRISES SECTOR

THE SERICULTURE AND SILK TEXTILES INDUSTRY

Globally India is the second largest producer of silk and contributes about 18% to the total world raw silk production. India has the unique distinction of being endowed with all the four varieties of silk, namely, Mulberry, Eri, Tasar, and Muga. It is one of the most labour intensive sector, combining activities both agriculture (Sericulture) and industry. The production process involves a long chain of inter-dependent, specialized operations which provide a means of livelihood to a large section of the population, i.e. silkworm seed producers, farmers-cum-rearers, reelers, twistors, weavers, spinners of silk waste, traders, etc. Silk is a highly remunerative cash crop, with minimum investment but rich dividends, and is the only cash crop which provides sustained returns throughout the year. The sericulture sector provides employment to about 6 million people, mainly in rural areas.

The Government of India has concurrent responsibility for the development of the Silk industry in the country, which it fulfills mainly through the Central Silk Board (CSB), a statutory body, constituted under the Central Silk Board Act, 1948. The

role of State Governments in sericulture development has customarily been the expansion of sericulture activity, and the provision of farmer-level extension and other support services, including credit facilitation.

CSB implements the Catalytic Development Programme (CDP) in the silk producing States which provides support and incentives for the production of quality cocoons and raw silk. Support and incentives are provided mainly to small & marginal farmers and small entrepreneurs, under both on-farm and off-farm activities, in mulberry and non-mulberry sectors. Most CDP schemes are implemented jointly by CSB and the Sericulture Departments of the State Governments, and also through the cluster approach/SGSY programme of the Ministry of Rural Development. Generally, State Sericulture Departments are the major implementing agencies for the CDP.

During 2008-09, the production of raw silk was 18,360 mt. against a demand of around 26,000 mt. and exports amounted to Rs. 2,637 crore. The export basket consists of Natural Silk Yarn, Fabrics, Made-ups, Readymade Garments, Silk Carpets, and Silk waste. The total silk production during 2009-10 is anticipated to be 22,855 mt.

The Silk Mark Scheme was launched for the brand promotion of Silk. The Central Silk Board (Amendment) Act, 2006 was enacted to regulate the quality of Silk-worm seeds, and came into force w.e.f. September 14, 2006.

THE WOOL AND WOOLLEN TEXTILES INDUSTRY

The woollen textiles industry is a rural based, export oriented industry in which the organized sector, the decentralized sector, and the rural sector complement each other. This industry provides employment to 27 lakh workers in a wide spectrum of activities. The country is the seventh largest producer of wool and contributes 1.8% to total world production. The production of indigenous raw wool was 45 mn.kg in 2007-08. Of the total production of raw wool, 5% is apparel grade, 85% carpet grade, and 10% coarse grade. Domestic produce is not adequate, therefore, the industry is dependent on imported raw material. Wool is the only natural fibre in which the country is deficient.

A small quantity of specialty fibre is obtained from Pashmina goats and Angora rabbits. There are 958 woollen units in the country, the majority of which are in the small scale sector. Government is implementing the Integrated Wool Improvement & Development Programme (IWIDP). Quality Processing of Wool and Social Security Scheme for the growth and development of the wool and woollen industry in the country. The programme is being administered by the Central Wool Development Board (CWDB), Jodhpur, through State Government Organizations/NGOs etc.

DECENTRALIZED POWERLOOMS INDUSTRY

The Decentralized Powerlooms sector is one of the most important segments of the textiles industry, as it provides employment to 54 lakh workers and contributes 62% to total cloth production in the country. There are 21-58 lakh powerlooms in the centres. The cloth output from this decentralised sector had increased from 30.63 billion sq. mtrs in 2005-06 to 33.65 billion mtrs in 2008-09. More than 60% of the fabric meant for export is sourced from powerlooms sector. The ready-made garments and home textiles sectors are heavily depended on the powerlooms sector to meet their fabric requirement. The major powerlooms cluster are at Erode, Salem, Madurai,

Ichalkaranji, Solapur, Bhiwandi, Burhanpur, Bhilwara, Kishangarh, Ludhiana, Amritsar and Panipat.

The Government, in an effort to modernize the powerloom sector, have simplified procedures to access loan under the Technology Upgradation Funds Scheme (TUFS) and provided an additional option to the decentralized powerlooms sector to avail 20 per cent margin money subsidy till 2012, in lieu of 5% interest reimbursement on investment in TUFS compatible machinery.

HANDLOOMS

Handlooms play a very important role in the country's economy and provide direct or indirect employment to about 6.5 million people. Today, while the sector faces competition from powerlooms and the textile mills, and is constrained by its continued dependence on the co-operative delivery machinery, effective state intervention in the form of market and design support, as well as other developmental welfare schemes have helped it to withstand competition. The Government of India has also ensured the availability of raw-material to handloom weavers through the Hank Yarn Obligation Order.

The fabric production, which was witnessing a down turn has staged a smart recovery. The sector produced over 6,108 million sq. mtrs. of cloth in 2005-06 and 6,536 million sq. mtrs. of cloth in 2006-07 and 6,947 million sq. mtrs in 2007-08. In 2008-09 the production is expected to be 6,677 million sq. mtrs. The Government had for the first time adopted the clusters development approach for the comprehensive and holistic development of selected handloom clusters. It is expected that 625 clusters, with 300-500 looms, at an estimated cost of Rs. 60 lakhs per cluster, will be developed by 2012.

The new Health Insurance Scheme (in place of the earlier one) was launched on November 3, 2005. The Scheme covers all pre-existing and new diseases. Besides, Mahatma Gandhi, Bunker Bima Yojna was launched on October 2, 2005 in collaboration with the Life Insurance Corporation of India Ltd (LIC), to cover natural and accidental deaths. To give a distinctive identity to handlooms products, the Handloom Mark was launched on June 28, 2006, by the Prime Minister, Dr. Manmohan Singh.

HANDICRAFTS

Handicrafts represent the rich and diverse cultural heritage of the country. Their cultural importance pertains to ensuring the preservation of heritage, traditional skills and talent. Their economic importance lies in their high employment potential, low capital investment, high value addition, and potential for export/foreign exchange earnings. The Sector provides employment to an estimated 65 lakhs artisans, of which 47.42% are female; 24.73% belong to Scheduled Castes, and 12.38 % to Scheduled Tribes.

The Government had launched the Rajiv Gandhi Shilp Swasthya Bima Yojana in March 2007 to provide health care services to the artisans' family, including self, spouse and two children. The Handicrafts sector has emerged as one of the most important foreign exchange earners for India on a sustained basis. India is the world leader in exported carpets with 36% of global share. The progress in terms of product range, number of companies and value of exports has been tremendous. In 1991, exports of handicrafts were Rs. 713 crore and these reached the peak of

Rs. 20,963 crore (including hand-knotted carpets) in 2006-07. However the exports in 2007-08 were Rs. 17,537 crore (US\$ 4.36 billion), indicating a declining trend. The appreciation of Indian rupee against US\$ and recession in developed countries had been the main causes for this. The export during 2008-09 were 10,892 crore.

The Government have sanctioned 44 urban Haats across the country on the pattern of Delhi Haat to provide direct marketing outlets to artisans from rural and urban areas. The Urban Haats at following locations have become operational. Jammu and Srinagar (J&K), Uchana, Karnal (Haryana), Jodhpur (Rajasthan), Gohar Mahal, Bhopal (M.P.), Ahmedabad & Bhuj (Gujarat), Mysore (Karnataka), Tirupati (A.P.), Bhubaneswar & Konark (Orissa), Agra (UP) and Pitampura (Delhi)

RESEARCH AND DEVELOPMENT

TEXTILES RESEARCH ASSOCIATIONS (TRAs)

There are eight Textiles Research Associations (TRAs), the Ahmedabad Textiles Industry Research Association (ATIRA), the Bombay Textiles Industry Research Association (BTRA), the South India Textiles Industry Research Association (SITRA) and the Northern India Textiles Industry Research Association (NITRA) which carry out consultancy, testing, training and research and development in cotton and cotton/synthetic as well as cotton / natural fibre blends. The Man-made Textiles Industry Research Association (MANTRA), and the Synthetic & Art Silk Mills Research Association (SASMIRA) work predominantly in synthetics. The Wool Research Association (WRA), and the India Jute Industry's Research Association (IJIRA) carry out work in wool and jute, respectively.

TRAs are industry promoted bodies and work in a wide range of fibre/ technology, areas for product development, process improvement, testing, consultancy and address training needs of the industry. The policy initiatives of the Government of India support innovation, investment in R&D, and the generic research programmes of TRAs, and encourage industry to support the TRAs to cater to their technological needs.

The Government recognizes that innovation is the key to survival in the globalized world. Continuous innovation in technology, machinery, products and processes is necessary for the Industry to fully exploit the opportunities available in the world market. To achieve the above objective, the Government during the XIth Five Year Plan period (2007-12), is adequately supporting TRAs. Technology is changing fast and equipment is becoming obsolete at a faster pace. To cope-up with such changes, facilities and laboratories of the TRAs are being upgraded.

TEXTILE COMMITTEE

The Textiles Committee is an autonomous statutory body established under the Textiles Committee Act, 1963 (4 of 1963). The main objective of the Committee is to ensure quality of textiles both for internal consumption and for export purposes, and the manufacture and use of standard type of textile machinery. Its other major functions, inter-alia, include setting up of textile testing facilities, collection of textile consumption data and publishing time series reports, conducting industry surveys and studies on aspects of quality, productivity etc. and other developmental activities. After onset of liberalization in the early nineties, the Committee discontinued its regulatory role in its entirety and reoriented its role and functions completely. It now concentrates on industry-friendly and development-oriented activities.

HUMAN RESOURCE DEVELOPMENT (HRD)

Human Resource Development (HRD) is one of the most critical inputs for industrial organization. The integration of the world textile market has intensified competition, and in this scenario, to improve the market share in the international market and to face the onslaught of imported textiles items, it is imperative to address the issue of HRD. The basic idea is to use intellectual capital to the optimum to improve productivity and the quality of textiles products.

The XIth Five Year Plan envisages a growth of 16% of the textiles sector, in value term, and the projected combined growth for exports and domestic consumption, in textiles will be in the region of US\$ 115 billion by 2012. This postulates that manufacturing capacity will have to grow exponentially from the present level of 55 billion square meters annually, to approximately 95 billion square meters by 2012. It will entail the installation of more manufacturing units, to be followed by an increase in processing and garmenting capacities to accomplish value addition within the country itself at a level significantly higher than presently. The consequent investment required has been estimated at Rs. 1,50,600 crores.

All these factors had contributed to the demand for a large labour force, the requirement of which has been estimated at approximately 17 million workers. Of these, 5 million will necessarily have to be skilled workers, and the remaining 12 million will be unskilled workers. Of the 5 million skilled workers, owing to the imperative to create value, an estimated 4 million workers will have to be trained to work in the garmenting sector alone. The remaining 1 million will be spread over the spinning, weaving, knitting and processing sectors of the textiles industry. The Engineering and Post-Graduate Institutions imparting training in textiles are largely capable of meeting the demand for higher education in textiles engineering though their capacities and curricula is being expanded to take into account emerging technological developments in the modern textiles industry.

Training at the lower end of the technological spectrum in the textiles industry is being mainly imparted by the following bodies:

Textiles Research Associations (TRAs)	8
Powerlooms Service Centres (PSCs)	44
Indian Institutes of Handloom Technology (IIHT)	5
Weaver's Service Centres (WSC)	25
Industrial Training Institutes (ITI)	4,971 (1,243 in Textiles)
Apparel Training & Design Centres (ATDCs)	39

In addition, there are a few Home Science Colleges offering training in textiles and clothing.

The Industrial Training Institutes (ITI), being run by the Director General of Employment & Training, Ministry of Labour and Employment, are mainstays for training in industry and out of the 4,971 it is, only 1,243 run 11 minor trades relating to the textiles sector. These are essentially designed to equip the candidates pursuing them for private individual employment, rather than workers in a modern industry. The Government is seriously considering to substantially increase the number of ITIs related to the textiles industry and the number of the textiles related trades being

taught in individual ITIs are being augmented. The numbers of textiles related trades are being increased on a region specific basis, given the present distribution and location of the various sub-sectors of the textiles industry. The Centre of Excellence Scheme (COE) under the Director General of Employment & Training is being enlarged and the number of textiles related ITIs are also been increased. Today, 1,243 ITIs that conduct courses in textiles related trades have a yearly intake of 33,372, against an overall admission of 7 lakh trainees in 4,971 ITIs. These numbers are being substantially increased to meet the requirements of the textiles industry.

For the decentralized handlooms sector, the Indian Institutes of Handloom Technology (IIHT) provide qualified and trained manpower and undertake experimental and research programmes. Four Indian Institutes of Handloom Technology (IIHTs) at Varanasi, Salem, Guwahati & Jodhpur are in Central Sector, and IIHTs at Gadag, Venkategiri and Champa are in State sector and follow the curriculum of the Central Institutes. The IIHTs conduct 3 years' Diploma Course in Handloom Technology with total intake capacity 225 students (Salem-75, Varansi-60, Guwahati-45, Jodhpur-45). IIHTs at Salem & Varanasi also conduct 1-1/2 years Post Diploma Course in Textiles Chemistry with intake of 28 students. The students are paid stipend of Rs. 400, Rs. 450 & Rs. 500 per month for the first, second and third year respectively, applicable for 10 months of academic year. The stipend payable to the students is borne by the Central Government and the respective State Governments in the ratio of 50:50. The fifth central sector IIHT has been set up at Bargarh, District Sambalpur, Orissa.

The 25 Weavers Service Centres at Srinagar, Chamoli, Merrut, Varanasi, Panipat, Jaipur, Delhi, Mumbai, Ahmedabad, Indore, Nagpur, Raigarh, Bengaluru, Kannur, Vijayawada, Hyderabad, Salem, Chennai, Kanchipuram, Kolkata, Bhagalpur and Bhubeneshwar, offer short term refresher courses.

The Training needs of the decentralized powerloom sector are catered to by 44 Powerlooms Service Centres (PSCs) spread throughout the country. 14 Powerloom Service Centres (PSCs) are functioning under the Office of the Textile Commissioner and 25 PSCs are functioning under the administrative control of different Textile Commissioner and 25 PSCs are functioning under the administrative control of different Textile Research Associations (TRAs). Four PSCs are functioning under Karnataka State Powerloom Development Corporation (KSPDC) and one PSC at Jabalpur is functioning under the administrative control of State Government of Madhya Pradesh. The Government have modernised these PSCs to cater to evolving need of these textiles sector.

For the garment and knitwear sector, the National Institute of Fashion Technology (NIFT) and Apparel Training and Design Centres (ATDCs) offer various courses. The Government brought into force the National Institute of Fashion Technology Act, 2006 on July 14, 2006. This Act provides statutory status to the Institute, and formally recognizes its leadership in the fashion technology sector. The Act empowers NIFT to Award degrees to its students from 2007 onwards. The President of India is the Visitor of the Institute. The Institute has pioneered the evolution of the fashion business education across the country through its centres at New Delhi, Bengaluru, Chennai, Gandhinagar, Hyderabad, Kolkata, Mumbai, and Rai Bareilly. The Foundation Stone of NIFT centre at Kannur, Kerala was laid on April 19, 2008. The new Centres have been opened at Patna, Shillong, Kangra and Bhopal.

The apparel industry employs around 5 million workers, of which around 2.5 million are employed in the export sector. The Apparel Training Design Centres (ATDCs) were setup by the Apparel Export Promotion Council (AEPC) in 1991 to provide skilled manpower at the shop-floor level in the apparel industry. 39 ATDCs are currently functioning and plans are afoot to setup 25 new centres in 13 States, and 15 mobile centres are also proposed to be set up during the XIth Five Year Plan period. In addition to 30,000 students being trained by existing ATDCs 57,625 new students will be trained by 2012 and 15,000 students will be trained through mobile centres by 2012.

The Sardar Vallabhhai Patel Institute of Textiles Management (SVPITM) was set-up on December 24, 2002 as a National level Institute for Textiles Management at Coimbatore, Tamil Nadu. The Government is seriously considering to confer the status of a Centre of Excellence (COE) on the Institute during the XIth Five Year Plan period, and a vision document is under preparation.

The Government has operationalised the Indian Institute of Carpet Technology (IICT) at Bhadohi, Uttar Pradesh to provide trained manpower to the Carpet Sector. The Institute conducts B. Tech courses in Carpet and Textiles Technology, which is recognized by AICTE, New Delhi and Uttar Pradesh Technical University. The annual intake is 60 students, and the Institute has provided an impetus to the growth of Carpet Sector in the globalized economy.

CENTRAL PUBLIC SECTOR ENTERPRISES

At the time of Independence, the Indian economy was basically agrarian with a weak industrial base, low level of saving and investment and near absence of infrastructure facilities. This was due to poor planning by the alien rulers in the industrial sector. It was obvious that if the country was to speed up its economic growth and maintain it in the long run at a steady level, a big push was required. As such, State's intervention in all sectors of the economy was inevitable.

There has been an appreciable growth in the investment in the public sector over the years. The investment of Rs. 29 crore in five CPSEs in 1951 increased to Rs. 403706 crore in 245 enterprises as on 31 March 2006 and further to Rs. 421089 crore in 247 enterprises as on 31 March 2007. During 2006-07 investment in public sector was increased by Rs. 17383 crore over the year 2005-06 registering an increase of 4.431 per cent. The internal resources generated by the public sector enterprises, during 2006-07 were amounting to Rs. 96551 crore. The PSEs have also been making substantial contribution to augment the resources of Central Government through payment of dividend, interest, corporate taxes, excise duties, etc. During 2006-07, contribution to the Central Exchequer by the CPSEs through these resources amounted to Rs. 147728 crore. The total turnover of the 217 operating Central Public Sector Enterprises during 2006-07 was Rs. 964410 crore compared to Rs. 837295 crore in the previous year with the growth of Rs. 15.18%.

Besides providing direct employment to about 1.64 million people as on 1 March 2007 the PSEs incurred gross expenditure amounting to Rs. 3581 crore on township maintenance, administration and social overheads.

The Government of India announced on 24 July 1991 a statement of Industrial Policy *inter-alia* to improve the performance and portfolio of Public Sector Enterprises. The performance of CPSEs has improved significantly since 1991-92 and has shown continuous growth. Performance of CPSEs from 1991-92 to 2006-07 in some of the important financial parameters is given in table on the next page :

TABLE 18.1 : PERFORMANCE OF CENTRAL PUBLIC SECTOR ENTERPRISES

(Rs in crore)

Year	No. of operating CPSEs	Turnover/ Operating Income	PBIT	Net Profit	Prov. for Tax	Dividend for Payment	Contribution to Central Exchequer	Gross Internal Resource Generation
1991-92	237	1,33,906	13,675	2,356	1,647	687	19,951	12,943
1992-93	239	1,47,266	15,957	3,271	1,805	792	22,449	14,792
1993-94	240	1,58,049	18,556	4,545	2,110	1,028	22,988	16,676
1994-95	241	1,87,355	22,630	7,187	2,581	1,436	27,472	19,992
1995-96	239	2,26,919	27,587	9,574	4,047	2,205	30,878	24,198
1996-97	236	2,60,735	30,915	10,186	5,192	2,836	39,009	25,554
1997-98	236	2,76,002	37,206	13,582	5,634	3,609	42,289	31,192
1998-99	235	3,10,179	39,727	13,203	6,499	4,932	46,934	31,302
1999-2000	232	3,89,199	42,270	14,331	7,706	5,455	56,157	35,933
2000-01	234	4,58,237	48,767	15,653	9,314	8,260	61,037	37,811
2001-02	231	4,47,529	63,190	25,978	12,255	8,068	62,866	52,544
2002-03	227	5,35,165	73,374	32,399	17,432	13,768	81,867	54,273
2003-04	230	5,87,052	99,053	53,084	22,134	15,288	89,035	75,409
2004-05	227	7,00,862	1,09,518	65,429	21,661	20,714	1,10,599	83,854
2005-06	226	837295	117614	69536	24370	22886	125456	85557
2006-07	217	964410	142949	81550	34330	26805	147728	96551
Growth in 2006-07 over 2005-06 and over 1991-92 (per cent)	(-)9	15.18	21.54	17.28	40.87	17.12	17.75	12.81
1991-92 (per cent)	(-)11	620.21	945.333361	381984.40	3801.75	675.43	645.97	

Source : Public Enterprise Survey, 2006-07 and earlier issues

The improvement after liberalisation is not only in absolute terms but also in important financial ratios. The return on investment, i.e., profit before interest and tax to capital employed has gone up from 11.6 per cent in 1991-92 to 21.49 per cent in 2006-07 and dividend payout from 29.2 per cent to 33.28 per cent during the same period.

In July 1997, the Government had identified 9 Central Public Sector Enterprises as Navratnas. These enterprises had comparative advantage and potential to emerge as global giants. The Navratna PSEs at present are BHEL, BPCL, GAIL, HPCL, IOC, MTNL, NTPC, ONGC and SAIL. These PSEs have been given enhanced autonomy and delegation of powers to incur capital expenditure, to enter into technology joint ventures/strategic alliances, to effect organisational restructuring, to create and wind up below Board level posts, to raise capital from domestic and international market, to establish financial joint ventures and to wholly owned subsidiaries, etc.

In October 1977, the Government had also decided to grant enhanced autonomy and delegation of financial powers to some other profit making companies subject to certain eligibility conditions and guidelines to make them efficient and competitive.

These companies, called Miniratnas, are in two categories, namely, Category-I and Category-II. The criteria for conferring the Miniratna status are : (i) PSE should be profit making for the last 3 years continuously and should have positive net worth, (ii) it should not have defaulted in repayment of loans/interest payment on loans due to Government, (iii) it should not depend upon budgetary support or Government guarantee (Government guarantee required under the standard stipulations of external donor agencies will not affect the Miniratna status); and (iv) restructuring of the Board of Directors by inducting non-official Directors.

PSEs which have made pre-tax profit of Rs. 30 crore or more in at least one of the 3 years are given Category I status while others are given Category II status. The administrative Ministries are empowered to declare a PSE as a Miniratna if it fulfils the eligibility conditions. Presently there are 45 Miniratna PsEs (30 Category I and 15 Category II).

The enhanced powers delegated to the Boards of Miniratna PSEs included power to incur capital expenditure, to establish joint ventures and subsidiaries in India, to enter into technology joint ventures/strategic alliances and obtain technology and know-how by purchase or other arrangements. The exercise of these powers is subject to various conditions and guidelines laid down for this purpose including restructuring of the Board of Directors by inducting non-official Directors.

Keeping in view the pledge made in the National Common Minimum Programme (NCMP) that full managerial and commercial autonomy will be devolved to successful profit making companies operating in a competitive environment, the Government have reviewed the powers delegated to the Board of Directors of Navratna, Miniratna and other profit making PSEs and have enhanced the delegated powers in August 2005. Other profit making PSEs, i.e., those which have shown a profit in each of the 3 preceding accounting years and have a positive net worth, have also been delegated enhanced powers.

The National Common Minimum Programme stipulates that the Government is committed for a strong and efficient public sector. While every effort will be made to modernise and restructure sick public sector companies and revive sick industry, chronically loss-making companies will either be sold-off, or closed, after all workers have got their legitimate dues and compensation. Private industry will be inducted to turn-around companies, which have potential for revival.

It is the constant endeavor of the Government to revive/restructure the PSEs in order to improve their performance, productivity and profitability. Major emphasis had been on the sick and loss making enterprises, which are capable of being revived. The sick industrial enterprises are referred to board for Industrial and Financial reconstruction (BIFR) under the provision of Sick Industrial Companies (Special Provision) Act, 1985 for formulating appropriate revival/rehabilitation packages. As for other loss making enterprises, administrative Ministries/Departments in consultation with management, workers and other expert/consultants take appropriate measures for restructuring these units. As on 31.3.2008, 66 PSEs were registered with BIFR, out of which revival schemes were sanctioned in respect of 9 enterprises, 3 cases dismissed as non-maintainable, 5 companies declared as 'no longer sick', and 5 other cases dropped on account of net worth becoming positive.

The Government has set up a Board for Reconstruction of Public Sector Enterprises (BRPSE), which inter-alia considers and advises the Government on the proposals of restructuring/revival of sick and loss making CPSE, including cases where disinvestment or closure or sale are justified. The concerned administrative

Ministries/ Departments prepare appropriate proposals in this regard and submit to BRPSE for consideration. BRPSE has made recommendations in respect of 53 CPSEs so far and out of them the Government has approved revival plans of 52 cases till 30 June 2008.

In the process of restructuring of the sick and loss making enterprises and to improve the performance of profit making enterprises, emphasis has been laid on rationalisation of Manpower in the Central PSEs. In the years 2000 and 2001, the Government liberalised the Voluntary Retirement Scheme (VRS) for the employees of CPSEs to enable the CPSEs to rationalise their manpower. Cumulatively around 5.9 lakh employees have opted for Voluntary Retirement from CPSEs since October 1988 till March 2007. As a safety net for separated employees of CPSEs, a scheme for Counseling, Retraining and Redeployment (CRR) is under implementation of DPE from 2001-02. The scheme aims at rehabilitation of the rationalised employees through short duration training programmes of 30/45/60 days.

MoU system in CPSEs is a mutually negotiated agreement between the management of the CPSEs and the concerned Administrative Ministry/Department of the Government of India. Under this agreement, the enterprise undertakes to achieve the targets set in the agreement at the beginning of the year. The targets comprise both financial and non-financial parameters and the performance evaluation is done on a 5-points scale at the end of the year. The final score is a composite score since different parameters are assigned different weights. During 1987-88, only 4 CPSEs signed MoU which went up to 144 CPSEs in 2008-09.

The Government has now decided that all CPSEs including sick and loss making and CPSEs under construction will be covered under the MoU system. Subsidiaries CPSEs should sign MoUs with their holding companies.

Main highlights of the Guidelines on the MoU system existing since 2006-07 are mentioned below :

- (i) There would be MoU evaluation of CPSEs only once during the year based on audited figures. Those CPSEs who do not submit self-evaluation score based on audited accounts to Departments of Public Enterprises by 31st August will not be eligible for the Award.
- (ii) The MoU composite scores and ratings should be prepared and finalized by the Syndicate Group concerned of the Task Force.
- (iii) Once the MoUs are signed between the CPSEs and the Departments, no revision of targets will be permitted.
- (iv) The total number of awards will be 12 (1 from each of 10 syndicates, 1 from the listed CPSEs, and 1 from amongst the turnaround sick and loss making Enterprises), all other excellence performing CPSEs will get merit certificates.
- (v) Performance evaluation henceforth will be done once a year and this will have to be done with the combined effort of all the Syndicate Members.
- (vi) One MoU Excellence Award shall be based on the listed CPSEs.
- (v) One MoU Excellence Award shall be given from amongst the sick and loss making CPSEs for the best turn around performance.

PERMANENT MACHINERY OF ARBITRATION

Permanent Machinery of Arbitration (PMA) has been set up in Department of Public Enterprises for resolving commercial disputes, except taxation, between CPSEs inter-

se as well as between a CPSE and a Central Government Department/Ministry from 1993-94 disputes with Ports Trusts have also been included under the purview of PMA for arbitration. The Ministry of Railways were excluded from the purview of PMA vide DPE's OM dated 12.2.1997. The disputes are required to be referred to Department of Public Enterprises, which on being satisfied with prima facie existence of dispute, refers the dispute to the Arbitrator of the PMA for Arbitration. The Arbitration Act, 1940 (now 1996) is not applicable in these cases. No outside lawyer is allowed to appear on behalf of either party for presenting/defending the cases.

PMA guidelines were revised and issued on 22.1.2004. There is one Arbitrator in the PMA. The PMA is designed to be self supporting, and hence the PMA charges an Arbitration fee which is worked out by the Arbitrator based on the formula given in the guidelines. As per OM dated 22.1.2004, the Arbitrator shall make his award within six months after entering upon the reference or after having been called upon to act by notice in writing from any party to the arbitration agreement or within such extended time as the parties may allow. Even since the PMA was created in 1989, the Secretary (PE) has referred 224 cases to the Arbitrator. Arbitration Awards have been published in respect of 144 cases so far.

HEAVY ELECTRICAL INDUSTRY

Heavy Electrical Industry covers power generation, transmission & distribution and Power equipment. These include turbo generators, boilers, various types of turbines, transformers, switch gears and other allied items. The demand for power generation equipment depends upon power development programme/generation targets. The target for additional power generation during the Eleventh Plan Period is 78,530 MW. New power plants, to be setup, will generate substantial demand for heavy electrical equipment.

It may be mentioned that major portion of the equipment, successfully in operation in the power sector, has been produced, installed and commissioned by the Indian electrical Industry. Electrical equipments such as transformers, switchgears etc. are used by all sectors of the Indian Economy. Some major areas where these are used are the multi crore projects for power generation including nuclear power stations, petrochemical complexes, chemical plants, integrated steel plants, non-ferrous metal units etc.

A strong manufacturing base has already been established for heavy electrical equipment and existing installed capacity of the industry is of the order of 7086 MW of thermal, 2500 MW of Hydro and about 829 MW of Gas based power generation equipment per annum. The Indian Heavy Electrical industry is also capable of manufacture and supply of equipment required for setting up nuclear power plants. The present share of the Indian Industry is about 66% in the country's power generation capacity.

The Heavy Electrical Industry is capable of manufacturing transmission and distribution equipment to 765 KV AC and high voltage DC. The industry has taken up the work of upgradation of transmission to the next higher voltage system of 800 KV and has upgraded its manufacturing facilities to supply 800 KV class transformers, reactors, CTS, CVT, bushing and insulators etc. Large electrical equipment used in Steel plants, petrochemical complexes and other such heavy industries are also being manufactured in the country.

The domestic Heavy Electrical equipment manufacturers are making use of the developments in the global market with respect to product designs and upgrading of manufacturing and testing facilities and are now capable of taking up turnkey contracts both in India and abroad. Technology Transfer is allowed in this core sector of industry with 100% FDI.

AUTOMOBILE INDUSTRY

1. Current Industrial Policy

Automobile Industry was delicensed in July 1991 with the announcement of the New Industrial Policy. The passenger car was however delicensed in 1993. No industrial licence is required for setting up of any unit for manufacture of automobiles except in some special cases. The norms for Foreign Investment and import of technology have also been progressively liberalized over the years for manufacture of vehicles including passenger cars in order to make this sector globally competitive. At present 100% Foreign Direct Investment (FDI) is permissible under automatic route in this sector. The import of technology/technological upgradation on the royalty payment of 5% without any duration limit and lump sum payment of USD 2 million is also allowed under automatic route in this sector. The liberalisation of restrictions has helped the sector to restructure itself, absorb newer technologies, align itself to the global developments and realize its full potential.

2. EXIM Policy

With the removal of quantitative restrictions (QRs) with effect from 1.4.2001, the import of vehicle is allowed freely subject to certain conditions notified by DGFT. This dispensation is also applicable for passenger car segment. Further, in order to ensure that India does not become a dumping ground for old and used vehicles produced abroad, the custom duty on import of second hand vehicles including passenger cars is levied at 100%. The custom duty on new Completely Built Units (CBUs) has been maintained at a level of 60%. As a result, the manufacturing of vehicles has been encouraged instead of imports.

3. Current Status of Indian automobile industry and passenger car sector :

3.1 Major Players : With the gradual liberalization of the automobile sector since 1991, the number of manufacturers in India has grown progressively. At present there are 17 manufacturers of passenger cars multi utility vehicles, 9 manufacturers of commercial vehicles, 16 of two & three wheelers and 14 of tractors, besides 5 manufacturers of engines. The industry had an estimated investment of nearly Rs. 70,000 crores in 2006-2007 which is slated to go up to Rs. 80,000 crore by the year 2007. During the year 2006-2007, the turnover of the automotive sector is estimated to exceed Rs. 206,000 crores. In passenger car segment, Maruti still holds the number one position followed by Hyundai and Tata Motors. The industry also offers substantial scope of employment with direct employment of 4.5 lakhs and about one crore indirect employment.

3.2 Installed Capacity, Production and Sale

3.2.1 Installed capacity : The automobile industry including passenger cars, over a period of time and particularly after liberalisation, has installed a robust capacity. The installed capacity in four wheelers and two & three wheelers was 15.90 lakh and 79.50 lakh respectively in 2004-05.

3.2.2 Production : The production of all categories of vehicles during the last 6 years is given below :

Category	Production (in nos.)					
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Four Wheelers	832,227	92,027	1,264,600	1,563,579	1,700,383	2,064,850
Two & Three Wheelers	4,484,075	5,352,940	5,978,964	6,904,274	8,043,120	9,000,292
Total	5,316,302	6,279,967	7,243,564	8,467,853	9,743,503	11,065,142

Source : SIAM

3.2.3 Sale of vehicles : The sale of all categories of vehicles during the last 6 years and for the current year is given below :

Category	Domestic Sales (in nos.)					
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Four Wheelers	821,787	897,880	1,162,210	1,380,002	1,494,117	1,847,580
Two & Three Wheelers	4,404,001	5,043,655	5,648,327	6,517,627	7,412,311	8,261,457
Total	5,225,788	5,941,535	6,810,537	7,897,629	8,906,428	10,109,037

Source : SIAM

4. Growth of the Industry

With liberalization coupled with arrival of new and contemporary models, stimulated the demand for vehicles in the market leading to robust growth of the industry including the passenger car sector during the initial periods. The auto industry as a whole achieved a cumulative annual growth rate (CAGR) of 16% between 1992-97. This has led to an increase in its contribution to industrial output from 4.3% in 92-93 to 5.4% by 96-97. The passenger car sector also during 1992-97 at around the same rate of growth. However, since 1997-98 the industry could not maintain the same pace of growth. In fact, there was a negative growth in some segments owing to various reasons, including global economic slowdown and slow growth of agricultural sector. However, the industry has again picked up and since 1999-2000, the sector has performed steadily.

The automobile sector over the last five years is growing at 14%. In 2006-07, the domestic sales grew at 13.5%, with commercial vehicles, passenger vehicles, three wheelers and two wheelers growing at 33%, 21%, 12% and 11% respectively. The volume of the Auto Industry as a percentage of GDP has risen to 5.5% in 2006-07.

5. Export of Vehicles

Automotive industry of India is now finding increasing recognition worldwide. While a beginning has been made in exports of vehicles, the potential in this area still remains to be fully tapped. Significantly, during the last few years, the export in this sector has grown owing mainly to the export of cars and two/three wheelers. The

sector grew at a rate of 40% over last five years. The table below indicates the performance during last 6 years :

Category	Export in nos.					
	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Four Wheelers	65,035	84,260	146,723	196,342	216,172	248,244
Two & Three Wheelers	119,645	223,048	333,196	433,202	590,050	763,034
Total	184,680	307,308	479,919	629,544	806,222	1,011,278

Source : SIAM

RECENT GOVERNMENT INITIATIVES

The key challenge, however, is to maintain the growth levels and to enhance our global presence, make 'Made in India' brand a reality and develop the ability to achieve in a 'no protection environment'. In order to realise the growth potential of Indian automotive Industry both domestically and globally and to optimize its contribution to the national economy, the Department of Heavy Industry has prepared a 10 year Mission Plan for the development of the Indian Automotive Sector and creation of a global automotive hub.

AUTOMOTIVE MISSION PLAN 2006-2016

Hon'ble Prime Minister, Dr Manmohan Singh launched "Automotive Mission Plan 2006-2016" (AMP 2006-2016) prepared by the Ministry of Heavy Industries & Public Enterprises in January 2007. The AMP 2006-2016 is the outcome of an intensive consultation process with all the stake holders including the industry, academia and various Ministries/Departments of the Government.

The Vision of the Mission Plan is to make India **"emerge as the destination of choice in the world for design and manufacture of automobiles and auto components with output reaching a level of US\$ 145 billion accounting for more than 10% of the GDP and providing additional employment to 25 million people by 2016"**.

The Mission Plan has identified various interventions/prescriptions to promote investment, exports, domestic demand, human resource development, labour reforms and for creating R&D infrastructure in the country, at both the industry as well as the Government level, to achieve the milestones/targets laid down in the AMP 2006-2016. It also seeks to remove the infrastructural impediments which inhibit growth of the industry and to put in place the required infrastructure well in advance to facilitate growth of the sector. The suggested recommendations in the AMP interalia includes promotion of manufacture and export of small cars, MUVs, two wheelers, tractors and components, to follow an appropriate policies conducive for investment and export, setting up of institutional and infrastructural support facilities to promote R&D, human resource development and to coordinate safety and emission regulations.

Another significant initiative of the Government to put Indian Auto Industry on the global map has been the initiation of the National Automotive Testing & R&D Infrastructure Project (NATRIP) at total cost of Rs. 1,718 Crore.

The project principally aims to (i) create critically needed automotive testing infrastructure to enable the Government in ushering in global vehicular safety, emission and performance standards, (ii) deepen manufacturing in India, promote larger value addition and facilitate convergence of India's strengths in IT and electronics with automotive engineering, (iii) enhance India's abysmally low global outreach in this sector by de-bottlenecking exports and (iv) remove the most significant obstacle in the growth path of one of the largest industries of India, i.e. the automotive industry which exists in the form of a crippling absence of basic product testing, validation and development infrastructure.

The project envisages setting up of three world class test centers and a proving ground in the country. With setting up these facilities, the Government would be able to create an outstanding pre-competitive R&D infrastructure in South Asia for the fast growing auto sector. It is expected that this would help the sector in realizing its full growth and export potentials.

STEEL

Today, India is the fifth largest Crude steel producing country in the world. The crude steel production in the country during 2008-09 (Provisional) was 54.52 million tonnes as compared to the 53.86 million tonnes in 2007-08.

Production : The production of Finished (Carbon) Steel during the period 2003-04 to 2008-9 is as under :

Year	Crude steel production in India (million tonnes)
2003-04	38.73
2004-05	43.44
2005-06	46.46
2006-07	50.82
2007-08	53.86
2008-09 (Provisional)	54.52

Source : JPC

Production For Sale of Total Finished Steel (Carbon+Alloy)

(in million tonnes)

Item	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09 (Prov.)
Main Producers	15.363 (5.9)	15.814 (2.9)	16.406 (3.7)	17.599 (7.3)	18.020 (2.4)	17.216 (-4.5)
Majors and Other Producers	25.346 (11.9)	27.699 (9.3)	30.160 (8.9)	34.930 (15.8)	32.55 (8.9)	39.200 (3.0)
Total	40.709	43.513	46.566	52.529	56.075	56.416

(Figures in parenthesis indicate percentage variation over the previous year)

(Source : Joint Plant Committee)

Sponge Iron : The Sponge Iron industry had been specially promoted so as to provide an alternative to steel melting scrap which was increasingly becoming scarce. Today, India is the largest producer of sponge iron increased from 9.88 million tonnes in 2008-09 to 20.8 million tonnes (Prov.) in 2008-09.

Import and Exports : In India imports and exports of all items of iron and steel is freely allowed. Exports of high-grade iron ore, chrome ore and manganese ore are made through designated canalizing agencies subject to the ceiling imposed by the Government.

(i) Imports : Though the country's production of iron and steel is sufficient to meet the domestic demand, some quantity of steel is always needed to be imported especially those grades and qualities which are required in small quantities and therefore, do not justify setting up of production capacities.

Over the last few years India had been annually importing about 4 mt of total finished steel (carbon + alloy). Imports are mostly on price considerations and in some cases to supplement domestic production. The observed growth in imports is mainly in hot rolled coils, cold rolled coils, semis and steel scrap. Imports of total finished steel (carbon+alloy) during 2008-09 (provisional) was 5.72 mt compared to the 7.03 mt in 2007-08.

(ii) Exports : Value addition in the Indian export basket has been a major trend. Earlier, exports consisted mainly of plates, structural bars and rods. Now apart from these, hot rolled coils, cold rolled coils, colour coated sheets, GP/GC sheets, pig iron and sponge iron are also being exported. The total volume of total finished steel (carbon+alloy) exported during 2008-09 (provisional) was 3.66 mt compared to the 5.08 mt in 2007-08

RESEARCH AND DEVELOPMENT

Research and Development activity in iron and steel sector is carried out mainly by the iron and steel plants themselves, national research laboratories, academic institutions, etc. There is a significant improvement in areas of iron and steel making processes, upgradation of raw material, product development, increase in productivity, reduction in energy consumption by the in-house R & D activities. However, total R & D expenditure in iron and steel sector in India still remains relatively low at around 0.2 per cent of the total turnover of steel plants.

To encourage R&D activities in iron and steel sector. Ministry of Steel has constituted an Empowered Committee (EC) under the Chairmanship of Secretary (Steel) to provide financial assistance from Steel development Fund (SDF). The EC so far has approved 59 research projects. Of this, 26 research projects have been completed yielding benefits to the iron and steel industry in the country.

In order to further boost of R&D activities in the country, Government of the India has started a new R&D Scheme with budgetary support of Rs. 118 Crore during 11th Five Year Plan.

DUTY EXEMPTION

Duty Exemption schemes enable duty free import of inputs required for export production. The Ministry of Steel provides the technical inputs to DGFT for grant of advance authorisation and for fixation of standard input-output norms, which play an important role in boosting exports of iron and steel.

Duty Entitlement Pass Book (DEPB) Scheme, under the Duty Remission category allows credit of import charges on inputs used in export products. The scheme has proved to be very attractive amongst the exporters and it plays a key role in encouraging exporters and it plays a key role in encouraging exports of iron, steel, ferro alloys and refractories.

ENERGY & ENVIRONMENT MANAGEMENT

National CDM Authority has granted host country approval to 127 projects submitted by iron, steel, ferro alloys refractory and metallurgical coke plants Ministry of Steel (Technical Wing) provides the technical input to the NCDMA. The aforesaid projects once approved by the Executive Board at UNFCCC will reduce green house gas emission to the extent of 99 million tonne of CO₂ equivalent.

Slowdown in 2008-09

Global meltdown has affected the performance of Indian steel industry as well. The following is a status report on the performance of Indian steel industry during 2008-09, which indicates the impact of global slowdown on domestic steel industry. The government has taken several initiatives like lowering excise, focusing on infrastructure development to boost demand.

Item	Indian steel scene: 2008-09*	
	Qty (mt)	% change
Total Finished Steel		
Production for sale	56.42	0.6
Import	5.72	-19
Export	3.66	-28
Consumption	52.05	-0.1
Crude steel		
Production	54.52	1.2
Capacity Utilisation (%)	89	
Source: JPC. * = provisional		

CURRENT STATUS

The following is a status report on the performance of Indian steel industry during April-June 2009, based on provisional data, which shows a stable growth for consumption, ready widely as an indicator of demand picking up.

Major	Total Finished Steel	Indian steel scene: April-June 2009*	
		Qty (mt)	% change
	Production for sale	13.98	3.4
	Import	1.41	-5.3
	Export	0.64	-38
	Consumption	12.83	-5.2
Source: JPC. * = provisional			

Observations:

1. Production for sale was at 13.98 million tonnes (mt), a growth of 3.4 per cent
2. Steel exports decreased by 38 per cent as it reached an estimated 0.64 mt while steel imports were at an estimated 1.41 mt, a decline of 5.3 per cent
3. India remained a net importer of steel.
4. Domestic steel consumption was at 12.83 mt and increased by 5.2 per cent indicating a strengthening of demand.

FERTILIZERS

The rapid increase in the population of the country is the main driving force for the growing demand for agricultural products. As this demand is increasing over the decades, so is the demand for nutrient to support the plant growth. The total food grain production of the country has increased from 199.44 million tonnes in the year 1996-97 to 227.88 million tonnes in 2008-09. The population of India is expected to increase from 1029 million to 1400 million during the period 2001-2026 - an increase of 36 percent in twenty-five years at the rate of 1.2 percent annually. The total area under cultivation in India remaining stagnant around 141 million hectares for last one decade which may get further reduced due to urbanization and industrializations. Thus, to meet the future food requirement, the only option left with is to increase productivity by increasing cultivable area under irrigation and integrated nutrient and pest management. Also, soil nutrient removed by farm product must be replenished or the soil becomes impoverished of these nutrients and plant growth and production from succeeding crops is decreased.

India today is the third largest producer of nitrogenous fertilizers in the world only behind China & USA. At present, there are 56 large size fertilizer units in the country manufacturing a wide range of nitrogenous, phosphatic and complex fertilizers. Of these, 29 units produce urea, 20 units produce DAP and complex fertilizers, 7 units produce low analysis straight nitrogenous fertilizers. There are 9 units that manufacture Ammonium Sulphate as by-product. Besides, there are about 72 small and medium scale units in operation producing single super phosphate (SSP). The total installed capacity of fertilizer production, which was 119.60 LMT of nitrogen and 53.60 LMT of phosphate as on 31.03.2004, has marginally increased to 120.61 LMT of nitrogen and 56.59 LMT of phosphate as on 31.03.2009.

The consumption of fertilizers in the country has been showing an appreciable growth in last few years. The total consumption of chemical fertilizers in nutrient terms has increased from 6.06 million tones in 1981-82 to 21.65 million tones in 2006-07 and 22 million tones in 2007-08. The average consumption of 116.51 Kgs per hectare in the country however, is much below as compared to many developing countries including that of our neighbors like Pakistan and Bangladesh. The consumption of fertilizers needs to be further increased to meet our increasing requirement of food in the country. Along with increase in consumption, there is a need for balance in the use of nutrients with adequate application of secondary and micro nutrients.

Government is committed to provide adequate fertilizer at affordable price so that farmers do not face shortage of this critical input. Due to raw material shortage, India needs to import substantial quantities of phosphatic raw materials and DAP: and our total requirement of MOP, from abroad. In order to meet the growing demand

of fertilizers and to meet the shortfall in indigenous production. Department of Fertilizers has arranged to import sufficient quantity of Urea, DAP and MOP so that there is no shortage of this critical input. During 2009-09, India imported around 57 lakh tones of Urea, 66 tones of DAP and 44 lakh tones of MOP.

The notified selling prices of fertilizers have remained constant for the last seven years except in respect of complex fertilizers where MRPs have in fact been reduced by an average of 18% w.e.f. 18th June, 2008. Reduction in prices of complex fertilizers will promote balanced fertilization and will increase agriculture productivity. Prices of Single Super Phosphate (SSP) have also been rationalized and a uniform MRP of Rs. 3400/- per metric tonne for the country as a whole has been fixed reducing the prices of SSP in several States.

Following major policy initiatives have been taken for benefit of fertilizer sector.

- (i) The policy on New Pricing Scheme-III (NPS-III) announced by the Government seeks to promote cheaper feedstock, rationalize distribution and movement of urea and lay-down a definite plant for conversion of all non-gas based urea units to gas and introduced a system of incentives for additional urea production.
- (ii) Government has announced a new investment policy for urea sector to attract investment in fertilizer sector. The bench mark policy is Import Parity Price (IPP).
- (iii) Government has announced uniform nutrient price for all nutrients covered under the subsidy/concession scheme. As a result price (MRP) of Complex Fertilizers has been reduced by 18 per cent w.e.f. 18th June 2008.
- (iv) A policy for encouraging production and availability of fortified and coated fertilizer was notified which encourages production and supply of fertilizers coated/fortified with secondary & micro nutrients.
- (v) To ensure easy availability of fertilizers in all parts of the country a Uniform policy for freight subsidy was announced under which the rail freight will be paid on actual and road freights will be paid on a normative average district lead.
- (vi) Revised Concession Scheme for decontrolled phosphatic and potassic fertilizers was announced w.e.f. 1st April 2008 Indigenous DAP has been provided with import Parity Price (IPP)
- (vii) Revised concession scheme for SSP has been announced w.e.f. 01.05.2008 which is based on cost of raw material and uniform MRP against the earlier practice of ad hoc fixed subsidy and state-wise MRP.
- (viii) Possibilities for setting up of joint venture Ammonia/Urea projects in countries abroad such as Iran, Turkmenistan, Ukraine Egypt, Kuwait, Saudi Arabia, Australia, Nigeria, Mozambique and Azarbaijan, where adequate gas is available are being explored.
- (ix) Indian entities are in dialogue for joint venture in the field of phosphatic and potassic fertilizers in countries such as Jordan, Moracco, Tunisia, Australia, Syria and Canada.
- (x) Special Purpose Vehicle namely Uvarak Videsh Limited (UVL) has been incorporated to take consultancy studies and explore possibilities

The consumption, indigenous production and imports of fertilizers in terms of fertilizer nutrients, (NPK) during the period 1998-99 to 2007-2008 are given below:

(lakh tonnes)

Year	Consumption	Production	Imports
1998-1999	167.98	136.21	31.45
1999-2000	180.69	142.89	40.75
2000-01	167.02	147.05	20.91
2001-02	175.60	146.28	23.99
2002-03	160.94	144.40	16.74
2003-04	167.98	142.76	20.18
2004-05	183.99	154.05	27.50
2005-06	203.40	155.75	52.53
2006-07	216.51	160.95	60.80
2007-08	225.70	147.06	77.56
2008-2009*	124.70	143.34	* 102.21

* Estimated - Kharif 2008

With the objective of promoting balanced application of all the three nutrients, i.e., nitrogen, phosphorus and potash and making available fertilizers to farmers at affordable prices, the Government provides subsidy on urea, which is the only fertilizer at present under statutory price control and concession on decontrolled phosphatic and potassic fertilizers (P&K). The details of amount of subsidy/concession paid on urea and decontrolled P&K fertilizers during the last five years are given in the table below:

(Rs in crore)

Years	Subsidy Net Urea	Released P & K Fertilizers	subsidy disbursed/ due	Total Carryover to next year	Liabilities incidence of subsidy for the year
2003-2004	8509	3326	11835	2002	
2004-2005	10637	5142	15779	3372	17149
2005-06	11749	6550	18299	5914	20841
2006-07	15354	10598	25952	8788	28826
2007-08	23204	17134	40338	5000	36550
2008-09*	30597	75871	106475	-	1014 74

Estimated

PUBLIC SECTOR UNDERTAKINGS

At present, there are seven public sector undertaking and one co-operative under the administrative control of this Department. Company wise details are given below:

National Fertilizers Limited (NFL) has, at present, six operating units, viz. Calcium

Ammonium Nitrate (CAN) Plant at Nangal and the Urea Plants at Nangal, Bhatinda, Panipat and Vijaiput (two units). The total installed capacity of NFL is 14.86 LM of Nitrogen. During 2008-09 the company has produced 33.44 IMT of Urea.

Rashtriya Chemicals and Fertilisers Limited (RCF) is operating five fertilizer plants at Trombay setup during the period from October 1965 to July 1982 and a large gas based fertilizer plant at Thal which started commercial production in 1985. The installed capacity of the RCF plants is 10.54 LMT of Nitrogen and 1.20 LMT of Phosphate. During 2008-09, the production of nitrogen and phosphate was 9.46 LMT and 0.77 LMT, respectively. The company produces certain industrial chemicals like Methanol, Concentrated Nitric Acid, Methylamine, Ammonium Bi-Carbonate, Sodium Nitrate, Di-methylacetamide, Dimethyl formamide, Ammonium Nitric, Agron etc. too.

Brahmaputra Valley fertilizer Corporation Limited (BVFCL) has been constituted into a new company from 1 April 2002 after hiving off the namrup units from HFC. A major revamp of the units of BVFCL has been undertaken at an approved cost of Rs. 509.90 crores. Unit I and III of BVFCL have been commissioned in March 2002 after their revamp. Unit II was commissioned in November 2005. Unit II has produced 0.61 LMT of Urea whereas Unit III has produced 1.28 LMT of Urea during 2008-09.

FCI-Aravali Gypsum and Mineral India Limited (FAGMIL) has been incorporated as a PSU on 14 February 2003 after having off the Jodhpur Mining Organization of Fertilizer Corporation of India Ltd. (FCIL) apart from taking over the JMO which is engaged in mining of Gypsum in four districts of the State of Rajasthan, the new company's objectives include extending the mining activities in other minerals available in the State of Rajasthan. During 2008-09 the company has produced 9.30 LMT of gypsum.

The Fertilizers and chemicals Travancore Limited (FACT) Udyogmandal (Kerala) has three operating units, one at Udtogmandal and two at Cochin. Besides fertilizers, the company is engaged in the manufacture of chemicals. With the commissioning of a caprolactam plant in October 1990, the company has entered the field of petrochemicals also. FACT Engineering and Design Organization (FEDO), a division of the company, is engaged in design, engineering, procurement, supervision of construction and commissioning of fertilizer/chemical plant. The annual installed capacity of FACT is 1.74 LMT of nitrogen and 1.26 LMT of phosphate. During 2008-09, the company has produced 6.05 LMT of factomphos and 1.29 LMT of Ammonium Sulphate.

Madras Fertilizers Limited (MFL) is a joint venture between the Government of India and the National Iranian Oil Company with the rest as public equity holding. At present, GOI holds Rs. 95.85 crore (59.50%), NIOC holds Rs. 41.52 crore (25.77%) and public hold Rs. 23.73 crore. (14.73%) of equity. The annual installed capacity of MFL is 3.47 LMT of Ammonia, 4.87 LMT of Urea and 8.4 LMT of NPK. During the year 2008-09 the company has produced 7.05 LMT of Urea.

Project & Development India Limited (PDIL), formerly known as Fertilizer (Planning and Development) India Limited, is engaged in design engineering, procurement and supervision of construction/ commissioning of fertilizer and allied chemical plants. The company has played a pioneering role in developing the know-how for manufacture of catalysts in India. During the year 2008-09 the company has posted a net profit of Rs. 18.17 crores.

CO-OPERATIVE SECTOR

KRIBHCO has a gas-based ammonia-Urea plant at Hazira in Gujarat with a capacity to produce 7.95 LMT in terms of nitrogen per annum. During the year 2008-09 the Society has produced 17.43 LMT of Urea.

CHEMICAL INDUSTRY

Chemical Industry is one of the oldest industries in India, which contributes significantly towards industrial and economic growth of the nation. It is highly science based and provides valuable chemicals for various end products such as textiles, paper, paints and varnishes, leather etc., which are required in almost all walks of life. The Indian Chemical Industry forms the backbone of the industrial and agricultural development of India and provides building blocks for downstream industries.

Chemical Industry is an important constituent of the Indian economy. Its size is estimated at around US\$ 35 billion approx., which is equivalent to about 3% of India's GDP. The total investment in Indian Chemical Sector is approx. US\$ 60 billion and total employment generated is about 1 million. The Indian Chemical sector accounts for 13-14% of total exports and 8-9% of total imports of the country. In terms of volume, it is 12th largest in the world and 3rd largest in Asia. Currently, per capita consumption of products of chemical industry in India is about 1/10th of the world average. Over the last decade, the Indian Chemical industry has evolved from being a basic chemical producer to becoming an innovative industry. With investments in R&D, the industry is registering significant growth in the knowledge sector comprising of specialty chemicals, fine chemicals and pharmaceuticals. The Indian Chemical Market Segment wise is as under :-

Segment	Market Value (billion US \$)
Basic Chemicals	20
Specialty Chemicals	9
High End/ Knowledge Segment	6
Total	35

The Indian Chemicals Industry comprises both small and large-scale units. The fiscal concessions granted to small sector in mid-eighties led to establishment of large number of units in the Small Scale Industries (SSI) sector. Currently, the Indian Chemical industry is in the midst of a major restructuring and consolidation phase. With the shift in emphasis on product innovation, branch building and environmental friendliness, this industry is increasingly moving towards greater customer orientation. Even though India enjoys an abundant supply of basic raw materials, it will have to build upon technical services and marketing capabilities to face global competition and increase its share of exports.

As the Indian economy was a protected economy till the early nineties, very little large-scale R&D was undertaken by the Chemical industry to create intellectual property. The Industry would therefore, have to make large investments in R&D to

successfully counter competition from the international chemicals industry. With a number of scientific institutions, the country's strength lies in its large pool of highly trained scientific manpower.

India also produces a large number of fine and speciality chemicals, which have very specific uses which find wide usage as food additives and pigments, polymer additives and pigments, anti-oxidants in the rubber industry, etc.

In the Chemical Sector, 100 per cent FDI is permissible. Manufacture of most chemical products inter-alia covering organic/inorganic, dyestuffs and pesticides is delicensed. The entrepreneurs need to submit only IEM with the Department of Industrial Policy and Promotion provided no locational angle is applicable. Only the following items are covered in the compulsory licensing list because of their hazardous nature.

- Hydrocyanic acid & its derivatives
- Phosgene & its derivatives
- Isocyanates & di-isocyanates of hydrocarbons.

The Dyestuff sector is one of the important segments of the chemical industry in India, having forward and backward linkages with a variety of sectors like textiles, leather, paper, plastics, printing inks and foodstuffs. The textile industry accounts for the largest consumption of dyestuffs at nearly 70 per cent. From being importers and distributors in the 1950's, it has now emerged as a very strong industry and a major foreign exchange earner. India has emerged as a global supplier of dyestuffs and dye intermediates, particularly for reactive, acid, vat and direct dyes. India accounts for approximately 7 per cent of the world production.

Chemical fertilizers and pesticides played an important role in the "Green Revolution" during the 1960s and 1970. Indian exports of agrochemicals have shown an impressive growth over the last five years. The key export destination markets are USA, U.K., France, Netherlands, Belgium, Spain, South Africa, Bangladesh, Malaysia and Singapore. India is one of the most dynamic generic pesticide manufacturers in the world with more than 60 technical grade pesticides being manufactured indigenously by 125 producers consisting of large and medium scale enterprises (including about 10 multinational companies) and more than 500 pesticide formulators spread over the country.

Production performance of some of the important chemicals including pesticides and dyestuff are given below:

(in 000'MT)			
Group	2003-04	2004-05	2005-06
Chlor Alkali Chemicals	5 070	5 272	5 475
Inorganic Chemicals	4 41	5 08	5 44
Organic Chemicals	1 445	1 473	1 510
Pesticides (Tech)	8 4	9 4	8 2
Dyes & Dyestuffs	2 8	2 8	3 0
Total	7 066	7 375	7 641

CHEMICALS PUBLIC SECTOR UNDERTAKINGS.

There are two Public Units, namely Hindustan Organic Chemicals Ltd. (HOCL) and Hindustan Insecticides Ltd. (HIL) in the Chemicals Sector.

Hindustan Organic Chemicals Ltd was incorporated in December, 1960 at Rasayani, Raigad district in Maharashtra, with the main objective of manufacturing chemical intermediates required for the manufacture of drugs, dyestuffs rubber chemicals and laminates, etc. The company has two units at Rasayani (Maharashtra) and Kochi (Kerala). The Rasayani unit produces organic group of heavy chemicals and intermediates such as nitrobenzene, formaldehyde, aniline, sulphuric acid, oleum etc. The Kochi unit produces phenol, acetone hydrogen peroxide. The company had floated a subsidiary called Hindustan Fluorocarbons Limited (HFL) for manufacturing polytetrafluorethylene (PTFE). The Government have sanctioned a revival package for HOCL in March, 2006 which includes infusion of Rs. 250 crore for repayment of high cost bonds and introduction of fresh VRS. The revival package is under implementation. A revival package in respect of HFL is also under consideration. The production of the company during 2005-06 was 2,16,224 MT with a turnover of Rs. 451.03 crores.

Hindustan Insecticides Limited (HIL), incorporated in 1954, has three units at Bhatinda (Punjab), Udyogamandal (Kerala) and Rasayani (Maharashtra). HIL is engaged in the manufacture of DDT, Malathion, Endosulfan and Butachlor, the major pesticides used in the country. The Government have approved a revival package for HIL in July 2006 which consists of waiver/writing of loan and interests. On implementation of the revival package, the company's networth has turned positive. The production by the company during 2005-06 was 19,866 MT/KL with a turnover of Rs. 149.35.

Petroleum Chemical Petrochemical Investment Regions (PCPIRs)

- The PCPIR Policy has been approved by the CCEA. The same has been printed in the Gazette of India (extraordinary) dated 4th April, 2007. The same is also available on the web site of the Department. (www.chemicals.nic.in)
- Integrated chemical regions are propelling the growth of this segment of Industry in various parts of world. Such parks at Houston, Rottenlam, Shanghai, Antwerp are examples.
- By its very nature, the chemical and petrochemical industry requires certain basic infrastructure facilities, including a good port, chemicals storage terminal, a common effluent treatment plant and most important effective green belt to segregate the industrial units from human settlements.
- To reap the benefits of co-siting, integrated Petroleum, Chemical & Petrochemical complexes are the best options. Such Regions can provide excellent infrastructure for the sector to be globally competitive.
- The PCPIR is expected to be a specifically delineated investment region having an area of about 250 sq. kms (with at least 40% area earmarked for processing activities). This region would be a combination of production projects, public utilities, logistics, environmental protection, residential areas and administrative services. The purpose is to encourage global scale investment in petroleum, chemical & petrochemical sectors to accelerate economic growth.

- The Central Government will consider and approve applications from the State Governments for establishment of PCIRs in terms of this policy and facilitate the availability of external physical infrastructure linkages including Rail, Road, Ports, and Airports. Similarly, the State Government, applying for a PCPIR, will ensure that all physical infrastructure and utilities linkages under its jurisdiction are provided.
- This is one policy area which would facilitate increasing the competitiveness of the manufacturing sector of this industry.
- Sh. Ram Vilas Paswan, Minister (C&F) formally released this Policy on 8th May, 2007.

INDIA CHEM-2006

To promote the Indian Chemical Industry the Govt. of India, Department of Chemicals & Petrochemicals & FICCI have jointly been organising the "India Chem" series of events every alternate year. These events provide a platform to the Indian chemical industry to showcase its potential to an international audience as also the participation of major international players in the chemical, petrochemical and pharmaceutical sectors exposes the Indian industry to the international developments. So far four such events have been organized the last one being in November 2006. INDIA CHEM-2006 4th International Exhibition & Conference was held from November 8-10, at Mumbai. The event was inaugurated by the Hon'ble Minister for Chemicals & Fertilizers & Steel, Shri Ram Vilas Paswan on November 8, 2006.

(i) Highlights of the event INDIA CHEM-2006

- There was total participation by 260 major companies including 140 foreign companies which reflects their interest in India.
- There were Exhibitors from 14 countries and Business Visitors from 58 countries.
- Italy was the Partner Country and 24 Italian Companies participated.
- Japan was the Guest country and 40 major Japanese companies participated.
- Germany participated as the Focus country with 16 German companies taking part.
- Country pavilions were set up by USA, CHINA, BELGIUM & TAIWAN.
- Besides there was participation by companies from other countries, such as: Korea, France, Iran, Switzerland, Singapore, Russia & UK.
- Gujarat was the Partner State and it put up a pavilion.
- Besides this pavilions were put up by the States of Maharashtra, West Bengal, Assam & Rajasthan.
- There were (18500) Business visitors to the event.
- On the spot business generated at the exhibition is estimated to be Rs. 325 crores. (72.2 USM Dollar), anticipated orders would be much higher. (Figures based on Survey)

(ii) Other Business Platform at India Chem-2006

- Buyer-seller meets were organised by Chemexcil with over 60 international buyers from various countries.

- Concurrent conference was attended by 200 delegates with 65 speakers including 15 overseas speakers and senior officials of Government of India, diplomats, CEOs and top officials from the chemical companies from India and abroad, academicians and students. The Conference also included a Round Table on Policy matters which provided for an interface between the Captains of the industry and representatives of the concerned Government agencies.
- India Chem 2006 was an overwhelming success and the participants benefited by the enthusiastic business response.

Neem Project

The Department is implementing a project for development of safe and environment friendly pesticides utilizing the neem seeds. The objective of this programme is to promote production, processing and use of neem based products and providing farmers with eco-friendly/biodegradable pesticides thereby aiding wasteland development and generating rural employment (especially for women).

This project was implemented at two locations namely at Nimpith, West Bengal, through Vivekanand Institute of Biotechnology and at Nagpur, Maharashtra through Neem Foundation. The results of the first phase were encouraging. There was good participation of rural women in this program with work relating to collection and depulping of neem fruits. The neem based pesticide was used on vegetable crops (esp. tomato, beetle leaves and other vegetables) which are the main crops in the command area of the project. As a result of this the farmers adopted the same and the results were impressive. The first phase of the program came to a close on 31.5.2005.

During Phase II of the project which commenced in October 2006, the activities of the project are sought to be continued and further taken to areas impacted. by heavy use of chemical pesticides including. Tea/Coffee/Spice plantations etc esp. in the NE region, in addition to continuing the sactivity through the present locations. The project would provide the scientific basis for wider acceptance of the simple low cost technology of neem based pesticides for use in different crops which are under the threat of persistent residues of highly hazardous toxic chemicals. The project would also aim at enhancing shelf life and toxicological screening criteria to establish a scientific basis for quality control of neem based pesticides on commercial basis. This will facilitate involvement of industry and wider availability of neem seeds pesticides and will also lead involvment of industry and wider availability of neem seeds pesticides and will also lead to:

- i. Environmentally sustainable economic development.
- ii. Improved water quality both ground and surface water
- iii. Conservation of biological diversity
- iv. Reclamation of wasteland and preservation of eco system
- v. Propagation of receptive models for development, promotion and use of bio-pesticides as alternative to Persistent Organic Pollutants (POPs) pesticides.

Regional Network of Pesticides for Asia and the Pacific (RENAP)

RENAP is a network set up under the United Nations Development Programme (UNDP) consisting of 17 participating countries in the Asia Pacific Region. The 17 countries participating in this Network include India, China, Pakistan, Philippines etc. India hosts the Secretariat of RENAP and contributes to the Trust Fund set

up. The RENPAP programme aims to promote environment and user friendly crop protection agents through adopting cleaner production and environmentally sound management practices thereby increasing agricultural production and ensuring safety to the farmers and workers. The programme is implemented in a decentralized manner through eight Technical Coordinator Units (TCU) hosted by eight member countries which act as focal points of specialized operations of the network, e.g., the TCU on User and Environment Friendly Pesticide Formulation Technology is based in the Institute of Pesticides Formulation Technology (IPFT), India (an autonomous inst. of the Deptt).

RENPAP activities are supported by a trust Fund, which comprises of contributions from the member countries, private industry etc. Utilization from Trust Fund is based on the budgets approved by the Tripartite Review (TPR)/Project Management Committee (PMC) to monitor the implementation of the various activities. The last such review took place in the year 2006 at Nantong in PR of China. The present validity of the program is upto October 2008. This has been approved by the Department of Economic Affairs, Ministry of Finance.

PHARMACEUTICAL SECTOR

Pharmaceutical Policy

In February 2002, the government announced the 'Pharmaceutical Policy-2002'. The salient features of this Policy are: (i) Industrial licensing for all bulk drugs cleared by Drugs Controller General (India), all their intermediates and formulations will be abolished, subject to stipulations laid down from time to time in the Industrial Policy except in the cases of : (a) bulk drugs produced by the use of recombinant DNA technology, (b) specific cell/tissue targeted formulations; (ii) foreign investment up to 100 per cent will be permitted, subject to stipulations laid down from time to time in the Industrial Policy, through the automatic route in the case of all bulk drugs cleared by Drugs Controller General (India), all their intermediates and formulations, except those, referred to in (i) above, kept under industrial licensing (iii) Automatic approval for foreign Technology Agreement will be available in the case of all bulk drugs cleared by the Drugs Controller General (India), all their intermediates and formulations, except those referred to in (i) above, kept under industrial licensing for which a special procedure prescribed by the government would be followed; (iv) measures to give impetus to R&D in the Drug Sector are as follows: (a) A manufacturer producing a new drug patented under the Indian Patent Act, 1970, and not produced elsewhere, if developed through indigenous R&D, would be eligible for exemption from price control in respect of that drug for a period of 15 years from the date of the commencement of its commercial production in the country, (b) A manufacturer producing a drug in the country by a process developed through indigenous R&D patented under the Indian Patent Act, 1970 would be eligible for exemption from price control in respect of that drug till the expiry of the patent from the date of the commencement of its commercial production in the country through new patent process; (c) A formulation involving a new delivery system developed through indigenous R&D and patented under the Indian Patent Act, 1970 for process patent for formulation involving new delivery system would be eligible for exemption from price control in commercial production in the country till the expiry of the patent; (v) The system of the price control would be operated through a single list of price controlled drugs selected on the basis of criteria as laid down in the 'Pharmaceutical Policy 2002' and formulations based thereon with a MAPE of 100

per cent for indigenous formulations and margin up to 50 per cent for imported formulations. The 279 items appearing in the alphabetical list of Essential Drugs in the National Essential Drugs List (1966) of the Ministry of Health and Family Welfare and the 173 items, which are considered important by that Ministry from the point of view of their use in various Health Programmes, in emergency care, etc. with the exclusion, as in the past, of sera and vaccines blood products, combinations, etc. would form the total basket out of which selection of bulk drugs would be made for price regulation; (vi) Ceiling price may be fixed for any formulation, from time to time and it would be obligatory for all, including small scale units or those marketing under generic name to follow the price so fixed (vii) An independent body of experts, called the National Pharmaceutical Pricing Authority has been entrusted with the task of price-fixation/revision and other related matters, (viii) Government would keep a close watch on the prices of medicines which are taken out of price control, in case of prices of these medicines rise unreasonably the government would take appropriate measures including re-clamping of price control: (ix) the provision of limiting profitably as per the III Schedule of the present Drugs (Price Control) Order, 1995 would be done away with. However, if necessary to do so in public interest prices of any formulation including a non-scheduled formulation would be fixed or revised by the government.

Public Interest Litigation in Karnataka High Court has resulted in an order dated 12 November 2002, which stopped the Government from implementing the price control regime of the Pharmaceutical Policy-2002. The Government has filed a Special Leave Petition in the Supreme Court against the order of the Karnataka High Court.

The government constituted a Committee under the Chairmanship of Joint Secretary (Pharma) to examine the issue of span of price control (including trade margin). Subsequently, a Task Force under the Chairmanship of Dr Pronab Sen, Principal Adviser, Planning Commission was also constituted to explore options other than price control to make available life saving drugs at reasonable prices.

Based on the recommendations of the Committee under the Chairmanship of Joint Secretary (Pharmaceutical) and the recommendations of the Task Force and after extensive discussions with various stake holders including drug Industry, the department prepared the Draft National Pharmaceutical Policy-2006 and in line with the declared objective of the Government in the national Common Minimum Programme to make available life saving Drugs at reasonable prices to the poor. This policy was submitted before the Cabinet for its approval. The Cabinet considered the policy in its meeting held on 11.1.2007 and has referred the matter to a Group of Ministers (GOM). The first meeting of the GOM was held on 10-4-2007. Final view is yet to be taken by the GOM.

PHARMA PUBLIC SECTOR UNDERTAKINGS

There are five Central Public Sector Undertakings and five Joint Sector Undertakings in the Pharmaceuticals Industry Sector under the administrative control of the Department of Chemicals & Petrochemicals, besides, there are two wholly owned subsidiaries. The brief profile of these organizations is given in the subsequent paragraphs.

Indian Drugs & Pharmaceuticals Limited (IDPL) was incorporated on the 5th April, 1961. The company has presently three manufacturing plants, one each at Rishikesh

in Uttarakhand, Hyderabad in Andhra Pradesh and Gurgaon in Haryana. IDPL has two wholly owned subsidiaries, namely, IDPL (Tamil Nadu) Ltd., Chennai in Tamil Nadu and Bihar Drugs & Organic Chemicals Ltd. at Muzaffarpur, Bihar. In addition, IDPL has two joint sector undertakings, promoted in collaboration with the respective State Governments. These are Rajasthan Drugs and Pharmaceuticals Ltd. (RDPL), Jaipur and Orissa Drugs & Chemicals Ltd. (ODCL), Bhubaneswar. In pursuance of BIFR order dated 26th March 2004, the Uttar Pradesh Drugs & Pharmaceuticals Limited, a joint sector undertaking of IDPL has been taken over by Government of U.P. w.e.f. 1st April 2004.

BIFR recommended winding up of IDPL on 4.12.2003. Department of Chemicals & Petrochemicals filed an appeal the opinion of BIFR in Appellate Authority for Industrial & Financial Reconstruction (AAIFR) on 10.2.2004. AAIFR at its hearing held on 13.9.2005, set aside the impugned order dated 4.12.2003 of BIFR and remanded the matter back to BIFR for taking further action for rehabilitation of IDPL.

The Board for Reconstruction of Public Sector Enterprises (BRPSE) at its meeting held on 9.3.2007 having considered the rehabilitation scheme for revival of IDPL recommended it for approval of the Government. Cabinet at its meeting held on 17.5.2007 considered the proposal and referred it to GoM for consideration at the first instance. GoM is yet to be constituted.

Hindustan Antibiotics Ltd. (HAL), Pimpri, Pune was incorporated on 30th March, 1954. This was the first Public Sector company in drugs and pharmaceuticals. HAL has its plant located at Pimpri. There are three joint sector units promoted by HAL in collaboration with the respective State Governments. These are Karnataka Antibiotics & Pharmaceuticals Ltd. (MAPL) at Nagpur in Maharashtra and Manipur State Drugs & Pharmaceuticals Ltd. (MSDPL) at Imphal, in Manipur. MAPL & MSDPL have since been closed. The main products of HAL are bulk drug Penicillin-G, various salts of Penicillin and Streptomycin. The company produces a wide range of Pharmaceutical formulations including agro-vet products. The company was referred to the BIFR in January, 1997 and was declared sick. In the Budget 2004-05, the Government announced financial support for restructuring the company. In March 2006, Government approved rehabilitation Scheme for revival of the company. The rehabilitation Scheme inter alia involves the following :

i. Cash infusion by GOI	Rs. 137.59* crores
ii. Write off/exemptions from GOI	Rs. 267.57 crores
iii. Sacrifices by Banks, financial institutions and PSUs	Rs. 103.34 crores

*Of this, Rs. 56.96 crores was to be generated by HAL by selling land. Pending sale of land, GOI released Rs. 56.96 crores of HAL as interest free loan refundable within 2 years, HAL would initiate action to sell land as soon as BIFR constitutes Asset Sales Committee.

The entire cash infusion of Rs. 137.59 crores was released to the company. Parliament approved waiver of loans & interest (Rs. 259.43 crores)

BIFR at its hearing held on 5.10.2006 sanctioned the rehabilitation scheme. The scheme is, however, yet to be notified by BIFR.

Bengal Chemicals & Pharmaceuticals Limited (BCPL) was incorporated on the 17th March, 1981. The company has four manufacturing units one each at

Maniktala in Kolkata, Panihati at North 24 Parganas (West Bengal), one in Mumbai (Maharashtra) and the fourth one at Kanpur (UP). The company manufactures and markets a wide range of industrial chemicals, a large number of drugs and pharmaceuticals besides cosmetics and home products. BIFR sanctioned a Modified Revised Rehabilitation Scheme on 14th January 2004 for the revival of BCPL. In December 2006, Government approved rehabilitation scheme for revival of the company. The plan inter alia involves the following :

I.	Cash Infusion by GOI	Rs. 207.19 crores
II.	Waiver of Loans/Interest (As on 31.3.2005)	Rs. 233.41 crores
III.	Waiver of Loan/Interest by the GOI not to be treated as income in terms of Income Tax Act.	Not quantified

As contemplated in the Rehabilitation Scheme, Rs. 117.19 crores was released in March 2007, and a provision has been proposed for budgetary support of Rs. 90.00 crores during 11th Five Year Plan.

Bengal Immunity Limited (BIL) was incorporated on 1st October, 1984. BIFR issued winding up orders of BIL. The company was closed. However, appointment of Liquidator in respect of BIL was stayed on a Writ Petition filed by the BIL Employees Union and thereafter this Department on the ground that a Committee had been set-up to look into the issue of revival of BIL. The Committee has since submitted its report. The report is under examination.

Smith Stanistreet Pharmaceuticals Limited (SSPL) was incorporated on the 19th July, 1978. BIFR has issued winding up orders of BIL. The company is closed. The High Court of Kolkata has since appointed the Liquidator.

PETROCHEMICALS SECTOR

NATIONAL POLICY ON PETROCHEMICALS

The National Policy on Petrochemicals was approved by Government on 12.4.2007. The National Policy on Petrochemicals aims to :-

- (i) increase investments in the sector (both upstream and downstream) and capture a slice of the resurgent Asian demand in polymers and downstream processing through additions in capacity and production by ensuring availability of raw materials at internationally competitive prices, creating quality infrastructure and other facilitation to ensure value addition and increase exports.
- (ii) increase the domestic demand and per capita consumption of plastics and synthetic fibres from the present level of 4 Kgs and 1.6 Kgs, increase the competitiveness, polymer absorption capacity and value addition in the domestic downstream plastic processing industry through modernization, research and development measures and freeing it from structural constraints;
- (iii) facilitate investment in the emerging areas of petrochemicals and
- (iv) achieve environmentally sustainable growth in the petrochemical sector through innovative methods of plastic waste management, recycling and development of bio-photo-degradable polymers and plastics.
- (v) promote Research and Development in Petrochemical and promote Human Resource Development.

Salient Features of Policy are :

- (i) Setting up of a standing Committee on Petrochemicals Feedstock for recommending a policy framework for feedstock.
- (ii) **INFRASTRUCTURE**
 - (a) Petroleum, Chemical and Petrochemical Investment Regions (PCPIRs)- The Petroleum, Chemicals and Petrochemicals Investment Regions will promote Investment in this sector and make the country an important hub for both domestic and international markets, as per PCPIR policy. The Policy has been announced by the Government.
 - (b) **Exiting Industries** : The Department of Chemicals and Petrochemicals would set up Facilitation mechanism in consultations with the concerned Ministries.
 - (c) **Plastic Parks** : Setting up of dedicated Plastic Parks to promote a cluster approach in the areas of development of plastic applications and plastic recycling.
 - (d) **Clusters** : Provision of common infrastructure facilities to address the constraints of common effluent treatment, transport linkages including roads etc., power supply, water and facilities.
- (iii) **TECHNOLOGY AND RESEARCH AND DEVELOPMENT**
 - a) **Petrochemical Research and Development Fund** : A new scheme of Petrochemical Research and Development Fund (PRDF) which would cater to the projects of R&D, waste management, recycling and development of biopolymers and biodegradable polymers, is proposed to be formulated.
 - b) **Plastics Development Council** : The Council will be a trade/industry body advisory body and consist of members from the industry and the Government.
 - c) **Centres of Excellence in Polymer Technology** : To establish Centres of Excellence in educational and research institutions working in the field of polymers like National Chemical Laboratory, Indian Institute of Chemical Technology, Indian Institutes of Technology, National Institutes of Technology, Centre for Plastic Engineering and Technology, etc.
- (iv) **DEVELOPMENT OF PLASTICS IN THRUST AREAS**

To set up an Inter-Ministerial Expert Committee under the Department of Chemicals and Petrochemicals, which will look into the requirement of making the use of plastics in thrust areas and make recommendations to the concerned Ministries.
- (v) **DERESERVATION OF PLASTICS**

Items of plastics exclusively reserved for the small scale industry be de-reserved in a time-bound manner through a consultation process with all stake holders.
- (vi) **ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT**

Promotion of recycling technology for used plastics will be promoted. Due emphasis will be given to recycling of the post consumer spent packages. Urban Local Bodies would be supported and their capability will be strengthened so that they can effectively deal with issues relating to plastic waste management. An incentive Scheme for Urban local bodies which contribute significantly towards plastic waste management recycling would be formulated with the Ministry of Urban Development as nodal agency.

(viii) PROMOTION OF PLASTICS

1. National Awards for Technology Innovation
2. Industrial Trade Fairs and Exhibitions

AUTONOMOUS INSTITUTIONS**CENTRAL INSTITUTE OF PLASTICS ENGINEERING AND TECHNOLOGY**

Central Institute of Plastics Engineering & Technology (CIPET) is a premier institution with commitment of Human Resources Development (HRD), and Quality technical services in Plastics Engineering & Technology for the plastics and allied industries in the country. CIPET has attained multifaceted growth by augmenting activities in Training, Research & Application Development, Entrepreneur Development and Consultancy Services in last 38 years.

CIPET has been accredited with ISO 9001 : 2000 certification on "Design, Development and Conduct of Specialised Training Courses in Plastics Engineering & Technology and Rendering Technical Consultancy Services in Design, Tooling, Plastics Processing & Testing to the Plastics & Allied Industry."

CIPET was established in 1968 at Chennai under the aegis of Ministry of Chemicals & Fertilizers, Govt. of India with the assistance of UNDP/ILO. Over the years, the need and necessity of CIPET services was felt by various State Govts., which resulted in establishment of CIPET centres at Ahmedabad, Amritsar, Bhopal, Bhubaneswar, Hyderabad, Imphal, Lucknow, Mysore, Hajipur, Haldia and Guwahati. Three more CIPET centers have been approved for establishment at Jaipur (Rajasthan), Aurangabad (Maharashtra) and Panipat (Haryana). The training activities at these new centres have already been commenced in the academic year 2006-07.

CIPET centres have uniform infrastructure facilities in the areas of Design CAD/CAM, Tooling, Plastics Processing, Testing & Quality Assurance under one roof. The Institute conducts 07 long-term courses leading to Post Graduate Degree (M.Tech.), Post Graduate Diploma, Post Diploma and Diploma in various disciplines of Plastics Engineering & Technology. The infrastructure facilities in terms of machinery and equipments are continuously upgraded/modernized to match the technological development and needs of the industry globally. CIPET has ambitious plans of having its presence felt in South East Asian and Middle East Countries. Asian Institute for Development Studies, Manila (Philippines), UNIDO-Nigeria, Gulf Organization for Industrial Consulting (GOIC), Qatar, Ministry of Commerce and Industry (MOCI)-Sultanate of Oman, Export Development Board, Srilanka, have enrolled CIPET as Consultant for providing technical and training services in Plastic Engineering & Technology.

Main objectives of the Institute are :

- Effective training & manpower development in different disciplines of Plastics Engineering & Technology;
- Organise conventional and advanced level training programmes for up gradation of skill and knowledge of personnel from the plastics industries;
- Provide technical services to the industries in the areas of Design/Fabrication of Tools, Moulds/Dies, Machinery and Equipment. Computer Aided Design/

Manufacturing/Engineering (CAD/CAM/CAE) services, Testing anti Quality Control, Consultancy and Advisory Services;

- Application development in different areas of plastics & its allied products;
- R&D in the field of Plastics Engineering & Technology with a focus on implementing best manufacturing practices in small/medium scale industries to produce quality products.

During 2005-06, a loan agreement was signed worth US\$ 12.3 Million by Govt. of India with Organization of Petroleum Exporting Countries (OPEC) for capacity building of CIPET Centres in thrust areas. The Project implementation is under progress and would be completed by 2008.

Project Proposal for "Setting up of "Plastics Recycling Waste Management Centre (PWMC)" at Guwahati at a total project cost of Rs. 7.80- crores was approached by Govt. of India in 2007.

NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION & RESEARCH

National Institution of Pharmaceutical Education and Research (NIPER) Maholi, is the first national level institute in pharmaceutical sciences with a proclaimed objective of becoming a Centre of excellence for advanced studies and research in Pharmaceutical sciences. The Government of India has declared NIPER as an 'Institute of National Importance'. NIPER's vision and mission is "*Catering to excellence in education and research in Pharmaceutical sciences*". The Institute is conceived to provide leadership in pharmaceutical sciences and related areas not only within the country, but also to the countries in South East Asia, South Asia and Africa.

The Institute is having nine departments in different facets of pharmaceutical sciences offering Masters and doctoral degrees and post-doctoral training. In the area of Research and development, the Institute is currently working on malaria, leishmaniasis, tuberculosis and diabetes. Institute is also offering sectorial M.B.A. (Pharm). Until now 323 Masters and 48 Ph. D. students have been passed out. NIPER students are received well both nationally as well as internationally. Institute has published more than 550 research publications and filed 50 patents (national as well as international). So far the Institute has undertaken 166 projects.

In research and development programme, the emphasis is on areas which are relevant to our country e.g. Malaria, Tuberculosis, Leishmaniasis, Diabetes, and standardization of herbal products. In the area of Diabetes, Institute developed in vitro screening methods as well as several in-vivo models have been established. In the area of Tuberculosis and Malaria, some of our NCEs are showing promising results. India with about 8% world diversity is one of the storehouses of traditional knowledge and has good potential of becoming a global player in herbal medicine. In this area, Institute is involved in the standardization of herbal products and developing monographs for the Ayurvedic pharmacopoeia. Some of our leads are having good activity in vitro for the Chronic Obstructive Pulmonary Disease. The interaction with the pharmaceutical industry though encouraging, requires further impetus in these days of globalization. To improve this interaction, a number of national centres have been created.

The WHO accredited National Bio-availability Centre at NIPER is one of the two centres of the world to conduct the bio-availability studies in fixed dose

combinations of Anti-TB drugs. NIPER has again taken lead to set up a center of impurity profile of bulk API to help the industry in their exports. Reference standards of the impurities are exported to USA as well as Japan. A new Technology Development Centre has also been established for developing process for Active Pharmaceutical ingredients of synthetic or herbal origin, and the centre is having a good industrial interaction.

To meet the challenges of rural health sector and profession, Department of Pharmacy Practice has been created, which promotes rational use of drugs, establishing clinical Pharmacy services, monitoring medicine related problems, cost components and adverse drug reactions. This department has collaborative link with London School of Pharmacy, U.K. and this linkage is helping to develop long term functional skills for new as well as existing pharmacists so as to provide higher level of pharmacy services to the citizen of the country. Realizing the importance of sectorial MBA, Institute started a Masters program in Pharmaceutical Management and to two batches of MBA (Pharm.) have been received their degrees. Further, Masters' programme in Pharma conformities and M.Tech. (Pharmaceutical Technology-Biotechnology) have been started and the financial support received from DST and DBT, respectively.

The Department of Science and Technology (DST) under Pharmaceutical Research & Development Support Fund (PRDSF) supported for making Good Laboratory Practices Compliance of the National Toxicology Centre, National Centre of Pharmacoinformatics, National Centre for Safety Pharmacology and Centre for Pharmaceutical Nanotechnology.

The Institute has been selected as a model agency in the capacity building project funded by the World Bank under the Government of India, Ministry of Health & Family Welfare for providing training to drug regulatory personnel, analysis and personnel from small-scale industry. The Institute intend to provide training to about 2000 professionals within five years. So far the Institute has conducted 42 training programmes and total numbers of 2038 professionals have been trained.

It is heartening to note that since inception of the institute several prestigious awards and orations which includes S.S. Bhatnagar award, two Ranbaxy awards, two OPPI Scientist awards, Bioscience Award, Chemical Reserach Society of India Medal, two Fellows of Royal Society of Chemistry, Fellow of National Academy of Sciences, M.L. Khurana Oration, CDRI Oration, Surya kumari Prize etc. In a short time NIPER created a brand name for itself in the field of pharmaceutical sciences. The postgraduate students of Pharmaceutical Sciences and Pharmaceutical Management of NIPER are in great demand.

Looking into the high rising demand of highly trained Manpower by the Pharmaceutical Industry, in principal approval has been accorded to setup and start course in four other NIPER at Ahmedabad, Hyderabad, Hajipur and Kolkata.

Institute of Pesticide Formulation of Technology (IPFT)

The Institute of Pesticide Formulation Technology (IPET), is an autonomous society set up in the year 1991 by the Govt. of India with the assistance of UNIDO/UNDP. The Institute is actively engaged in the areas of development of new, safer and environment friendly pesticide formulations and promotion and transfer of such technology to the industrial sector. IPFT has developed many new generation pesticide formulations namely, Suspension Concentrates (SC), Water Dispersible Granules (WG). Concentrated Emulsions (CE), Capsulated Suspensions having control released

characteristics (CS), Ultra Low Volume Formulations (ULV), Micro-Emulsions (ME) and certain formulations specifically designed to suit the needs of the users. All these developments are based on available indigenous raw material. The Institute is equipped with a Formulation Laboratory, an Analytical Laboratory, a Bio science Laboratory and a Pilot Plant to meet the requirements of the Industry for research and development of formulations technology.

The Institute also functions as the Technical Coordinator Unit (TCU) of the Regional Network of Pesticides for Asia and the Pacific (RENAP) of UNIDO on user and environment friendly pesticide formulation technology and quality assurance. The Institute also provides, on behalf of the Government of India, the secretarial assistance and logistic support to the RENAP.

MINERAL

Ministry of Mines is responsible for survey and exploration of all minerals, other than natural gases, petroleum and atomic minerals, for mining and metallurgy of non-ferrous metals like aluminium, copper, zinc, lead, gold, nickel etc. and for administration of Mines and Minerals (Development and Regulation) Act. 1957 in respect of all mines and minerals other than coal, natural gas and petroleum.

Geological Context

Geologically India is divided into-

- the Indian Peninsula (shield) comprising 1.9 million sq km
- the Indo-Gangetic Alluvial plains comprising 0.5 million sq km
- The Extra - Peninsula (Himalaya) comprising 0.7 million sq km.

The Indian Peninsula covers the area south of the Vindhya, and the region is a plateau formed by the survival of the harder rocks, resistant to weathering. The region is made of stable and strong rock formations. The stratigraphic units are the Archaean Rocks (Dharwar and post-Dharwar), the Purana Group of Proterozoic rocks (Cuddapah and Vindhyan systems) the Gondwana sequence of Paleozoic and Mesozoic rocks and the Deccan Traps of the Mesozoic-Cenozoic era. Archaean rocks occupy two-thirds of the Peninsula spread over Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Orissa, Chattisgarh and Jharkhand and in a narrow tract extending from northern Gujarat into Rajasthan, forming some part of the Aravalli mountain range, as well in the Shillong plateau. Archaean rocks are the store house of mineral wealth, and except for coal, oil, gas and a few other mineral deposits, all our mineral wealth are in the Archaean areas.

The Cuddapah System of Purana rocks mainly comprise quartzite, limestone and slate and the Vindhyan system mainly comprises sandstones and shales with limestones with diamondiferous conglomerates. The Gondwana sequence of massive sedimentary rocks in linear tracts along Narmada-Son-Damodar alignment, along Mahanadi and along Godavari (and other outcrops) holds much of the coal reserves of the country. The offshore regions of some of these rivers are storehouses of gas and oil. The Deccan Trap consisting of basaltic flows through long and narrow fissures and at places eruptive volcanoes resulted in formation of lava spread over some 15 lakh sq km, mainly in Gujarat (Kachchh), Madhya Pradesh, Maharashtra, Karnataka and Andhra Pradesh. The lava sheets have a thickness of

nearly 2000 m in the western Ghats. The Trap rocks are good for building stones, road metal etc., though weathering of high grade basalts result in lateritic deposits at many places.

The Indo Gangetic plains stretching from Sindh (Pakistan) and Punjab in the west to Bengal and Assam in the east consist of alluvium of Recent (Quaternary) origin with a thickness of 1500 - 6000 m, lying over older formations. Because they were created during uplift of the Himalaya and that the Himalaya is actively being eroded by many energetic rivers, this area is of geological interest from point of view of seismicity, its hydrology and natural hazards.

The Extra Peninsula region comprises the mountain chains of Baluchistan (Pakistan) to the Himalaya to Arakan Yoma (Myanmar). Being of recent origin and tectonically active the area is unstable, and barring a few areas of older rocks, usually consists of marine sedimentary rocks of the Cambrian to Cretaceous times in the inner areas. The sediments of the outer Himalaya (Shivaliks) being freshwater sediments are of geological importance because the Tertiary rocks of freshwater sedimentary origin may contain reserves of petroleum, seeing that similar rocks of Assam, Gujarat, Cambay and off shore areas have yielded results.

Mineral Legislation

India is richly endowed with many minerals. Under the Constitution, mineral rights and the administration of mining laws are vested in the respective State governments. The Central Government, however, regulates the development of mines and minerals under the Mines and Minerals (Development and Regulation) Act, 1957 and the rules framed thereunder. The MMDR Act 1957 came into force on 1.6.1958 and a number of amendments have been carried out in 1972, 1986, 1994 and 1999. This statute empowers the Central Government to formulate rules for.

The grant, renewal, etc. of reconnaissance permits, prospecting licences and mining leases for major minerals viz. Mineral Concession Rules, 1960, framed under Section 13 of MMDR Act 1957.

The conservation and development of minerals, (viz. Mineral Conservation and Development Rules, 1988 framed under the Section 18 of the MMDR Act, 1957 for major minerals. These Rules are not applicable to atomic, fuel and minor minerals. Powers are vested under Section 15 of the above said Act, to the respective state Governments too frame Minor Mineral Concession Rules. And accordingly all State Governments and some Union Territories have framed their own Rules.

The Granite Conservation and Development Rules, 1999 and Marble Development and Conservation Rules 2002 are also framed under Section of 18 of the MMDR Act, 1957 for conservation and systematic development of granite and marble resources in the country, respectively.

Important Features of National Mineral Policy, 2008

As a sequel to the recommendations of the Hoda Committee which was constituted by the Planning Commission to review the National Mineral Policy, a New National Mineral Policy, 2008 was approved by the Government. The policy advocates:-

- (i) use of state-of-the-art technology for exploration;

- (ii) zero waste mining;
- (iii) development of capital market structures to attract risk investment into survey and prospecting;
- (iv) Transparency in allocation of concessions;
- (v) auction of ore bodies prospected at public expense
- (vi) Independent Mining Administrative Tribunal;
- (vii) a framework of sustainable development to take care of biodiversity issues etc.

A draft Bill to replace the existing MMDR Act is under consideration of the Government and consultation process with Stakeholders including States Government and Industry is under way.

MINERAL RESOURCES IN INDIA

The classification of reserves/resources of various minerals based on **United Nations Framework Classification** (UNFC) as on 1.4.2005 has been updated. The UNFC consists of a three dimensional system with the 3 axes :

- Economic Viability
- Feasibility Assessment and
- Geological Assessment

UNFC is a three-digit code based system, wherein the economic viability axis represent the first digit, the feasibility axis the second digit and the geologic axis represent the third digit. Each of these three axis have further codes in decreasing order. The **economic viability** have three codes i.e. 1 (Economic), 2 (Potentially economic) and 3 (Intrinsically economic); the **feasibility assessment** have three codes i.e. 1 (Feasibility study and mining report), 2 (Pre-feasibility study) and 3 (Geological study) and the **geological assessment** have four codes. i.e. 1 (Detailed exploration), 2 (General exploration), 3 (Prospecting) and 4 (Reconnaissance). Thus the highest category and resources under UNFC system will have the code (111) and lowest category the code (334). The various terms used in this classification are as follows.

Total Mineral Resources: Reserve plus Remaining Resource comprise the Total Mineral Resource.

A. Mineral Reserves: Economically mineable part of Measured and/or Indicated mineral resource

- i) Proved Mineral Reserves (111) and
- ii) Probable Mineral Reserves (121) & (122)

B. Mineral Resources: It is the balance of the Total Mineral Resources that have not been identified as a Mineral Reserve

- i) Measured Mineral Resources - (331)
- ii) Indicated Mineral Resources - (332)
- iii) Inferred Mineral Resources - (333)
- iv) Reconnaissance Mineral Resources - (334)
- v) Prefeasibility Mineral Resources - (221) & (222)

vi) Feasibility Mineral Resources - (211)

The principal minerals found in the country along with their estimated reserves/resources are given below:

BAUXITE

The Total Resources of Bauxite as per United Nations Framework Classification (UNFC) in the country are placed at about 3,290 million tonnes as on 1.4.2005. These resources include 899 million tonnes of Reserves and 2,391 million tonnes of Remaining resources, Orissa, Andhra Pradesh, Gujarat, Chhattisgarh, Madhya Pradesh, Jharkhand and Maharashtra are the principal States where bauxite deposits are located. Major deposits are concentrated in the East Coast Bauxite deposits of Orissa and Andhra Pradesh.

CHROMITE

The total Resources of Chromite in the country as per UNFC System as on 1.4.2005 are estimated at 213 million tonnes, comprising 66 million tonnes reserves (31%) and 147 million tonnes of remaining resources (69%). In India 95% resources are located in Orissa, mostly in the Sukinda valley in Cuttack and Jaipur districts and the remaining 5% resources are distributed in Manipur and Karnataka and meagre quantities in the states of Jharkhand, Maharashtra, Tamil Nadu and Andhra Pradesh.

COPPER

The Total resources of copper one as on 1.4.2005 as per UNFC system are placed at 1.39 billion tonnes with a metal content of 11,418 thousand tonnes. Of these 369.49 million tonnes with a total metal content of 4383.97 thousand tonnes fall under Reserves while balance 1.02 billion tonnes with a metal content of 7033.75 thousand tonnes are 'Remaining resources'. Rajasthan is credited with the largest resources of copper ore at 668.5 million tonnes with a metal content of 3982 thousand tonnes followed by Madhya Pradesh and Jharkhand. Copper resources are also established in Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Meghalaya, Orissa, Sikkim, Tamil Nadu, Uttarakhand and West Bengal.

GOLD

There are three important gold fields in the country, namely, Kolar Gold Field, Kolar district and Hutti Gold Field in Raichur district (both in Karnataka) and Ramgiri Gold Field in Anantpur district (Andhra Pradesh). As per UNFC as on 1.4.2005 the total resources of gold ore (primary) in the country were estimated at 390.29 million tonnes with a metal content of 490.81 tonnes. Out of these, 19.25 million tonnes with a Metal content of 85.12 tonnes. Out of these, 19.25 million tonnes with a metal content of 85.12 tonnes were placed under reserves category and the remaining 371.03 million tonnes with a metal content of 405.69 tonnes under resources category. The resources include placer-type gold ore in Kerala estimated at 26.12 million tonnes containing 5.86 tonnes gold metal. Largest resources of gold one (primary) are located in Bihar followed by Karanataka, Rajasthan, West Bangal, Andhra Pradesh Madhya Pradesh, etc. While in terms of metal content. Karnataka remained on the top followed by Rajasthan, West Bengal, Bihar and Andhra Pradesh.

IRON ORE

Haematite and Magnetite are the most important iron ore in India. About 60% haematite one deposits are found in the Eastern sector and about 87% magnetite

deposits occur in Southern sector, specially in Karnataka. The total resources of iron ore as per UNFC are placed at 25,249 million tonnes as on 1.4.2005. Out of these, the iron ore (haemetite) resources are placed at 14,630 million tonnes of which 13,916 million tonnes (95%) resources are distributed mainly in Orissa, Jharkhand, Chhattisgarh, Karnataka and Goa. The resources of very high grade ore are limited and are restricted mainly in Bailadila sector of Chhattisgarh and to a lesser extent in Bellary-Hospet area of Karnataka and Barajamda sector in Jharkhand and Orissa. Iron ore (magnetite) resources are placed at 10,619 million tonnes of which only 59 million tonnes constitute reserves located mainly in Goa, Rajasthan and Jharkhand. The remaining 10,560 million tonnes (99%), magnetite resources are under remaining resources category mainly in Karnataka (74%) and Andhra Pradesh (14%). Other deposits are located in Goa, Rajasthan, Tamil Nadu, Kerala, Assam, Jharkhand, Nagaland, Meghalaya, Bihar, Maharashtra and Orissa.

LEAD-ZINC

Lead-Zinc resources are located in Rajasthan, Bihar, Maharashtra, Madhya Pradesh, Andhra Pradesh, Gujarat, Uttarakhand, West Bengal, Orissa, Sikkim, Tamil Nadu and Meghalaya. The total resources of lead and zinc ores as on 1.4.2005 as per UNFC are estimated at 522.58 million tonnes with a Metal content of 7207 thousand tonnes of lead metal and 24260 thousand tonnes of zinc metal. Of these, 125.75 million tonnes with a Metal content of 2591 thousand tonnes of lead metal and 11093 thousand tonnes of zinc metal fall under 'Reserves' while balance 396.83 million tonnes are with a metal content of 4617 thousand tonnes lead metal and 13167 thousand tonnes of zinc metal classified as 'Remaining resources'.

MANGANESE

The total resources of manganese ore as per UNFC system as on 1.4.2005 are placed at 379 million tonnes. Out of these, 138 million tonnes are categorized as reserves and the balance 240 million tonnes in the remaining resources. Main deposits fall in Orissa, followed by Karnataka, Madhya Pradesh, Maharashtra, Goa and Andhra Pradesh. Minor occurrences of manganese are in Rajasthan, Gujarat, Jharkhand and West Bengal.

NICKEL

The total resources of Nickel ore as per UNFC system as on 1.4.2005 have been estimated at 189 million tonnes. About 92% resources i.e. 174.48 million tonnes are in Orissa and remaining 8% are distributed in Jharkhand, Nagaland and Karnataka.

TUNGSTEN

The total resources of tungsten ore as per UNFC system as on 1.4.2005 have been estimated at 87.39 million tonnes with a WO_3 content of 142094 tonnes. All these resources are placed under 'Remaining Resources' category. The main deposits are Degana in Nagaur district, Rajasthan. It also occurs in Karnataka, Andhra Pradesh, Maharashtra, Haryana, West Bengal, Uttarakhand and West Bengal.

BARYTES

The total resources of barytes in India as on 1.4.2005 as per UNFC system are placed at 74 million tonnes of which about 46% (34 million tonnes) are in 'Reserves' category and 54% (40 million tonnes) are in 'Remaining Resources' category. The Mangampet deposit in Cuddapah district (Andhra Pradesh) is the single largest barytes deposit

in the world. Andhra Pradesh alone accounted for more than 94% country's resources. Minor occurrences of barytes are located in Rajasthan, West Bengal, Madhya Pradesh, Tamil Nadu, Himachal Pradesh, Maharashtra, Jharkhand, Uttarakhand, Karnataka and Haryana.

DIAMOND

Diamond deposits occur in three types of geological settings such as kimberlite pipes, conglomerate beds and alluvial gravels. The main diamond bearing areas in India are Panna belt in Madhya Pradesh, Munimadugu-Banganapalle conglomerate in Kurnool district, Wajrakarur kimberlite pipe in Anantapur district, the gravels of Krishna river basin in Andhra Pradesh and dimendiferous kimberlite in Raipur, Bastar and Raigarh districts in Chhattisgarh. Reserves have been estimated in Panna belt, Madhya Pradesh, Krishna Gravels in Andhra Pradesh and in Raipur district, Chhattisgarh. As per the UNFC system as on 1.4.2005 are placed at around 4582 thousand carats. Out of which about 1206 thousand carats are under reserve category and remaining 3376 thousand carats are under remaining resources category.

DOLOMITE

Total resources of dolomite as per UNFC system as on 1.4.2005 are placed at 7533 million tonnes, out of which Reserves are 985 million tonnes and the balance i.e. 6548 million tonnes are in the 'Remaining Resources'. Dolomite occurrences are widespread in almost all parts of the country. The major share of about 90 per cent resources is distributed in the states of Madhya Pradesh, Andhra Pradesh, Chhattisgarh, Orissa, Karnataka, Gujarat, Rajasthan and Maharashtra.

FIRECLAY

Fireclay occurs as a bedded deposit, mostly associated with coal measures of Gondwana and Tertiary periods. Important deposits are associated with Jharia and Raniganj coalfields in Jharkhand and West Bengal, Korba coalfield in Chhattisgarh and Neyveli Lignite field in Tamil Nadu. Notable occurrences of fireclay not associated with coal measures are known in the state of Gujarat, Jabalpur region of Madhya Pradesh and Belpahar-Sundergarh areas of Orissa. The total resources of fireclay as per UNFC system as on 1.4.2005, are about 705 million tonnes in India. Out of which 59 million tonnes are under reserve category and about 646 million tonnes are under remaining resources category. It is necessary to assess the fireclay reserves on priority basis, especially those associated with coal measures in the leasehold areas. The reserves of fireclay are substantial but resources of high grade (non-plastic) fireclay containing more than 37% alumina are limited.

FLUORSPAR

The total resources of fluorite as per UNFC system as on 1.4.2005 were estimated at 20.16 million tonnes. Out of these, 9.21 million tonnes were placed under 'Reserves' category and the remaining 10.95 million tonnes under Remaining Resources' category. Major deposits of Fluorspar are located in Gujarat, Rajasthan, Chhattisgarh and Maharashtra.

GYP SUM

The total resources of mineral Gypsum as per UNFC system as on 1.4.2005 were estimated at 1,237 million tonnes. Of these 69 million tonnes have been placed under reserve and 1,168 million tonnes under 'Remaining Resources' The main occurrences of gypsum are located in Rajasthan, Jammu & Kashmir, Gujarat and Tamil Nadu.

Rajasthan alone accounts for more than 80% country resource. Minor occurrences of gypsum are in Andhra Pradesh, Himachal Pradesh, Karnataka, Madhya Pradesh and Uttarakhand.

GRAPHITE

As per the UNFC the total resources of graphite in the country as on 1.4.2005 are placed at about 168.77 million tonnes comprising 10.75 million tonnes in the reserves category and remaining 158.02 million tonnes under resources category. Out of total resources, Arunachal Pradesh accounts 43% followed by Jammu & Kashmir (37%), Jharkhand (6%), Tamil Nadu (5%) and Orissa (3%). However, in term of reserves, Tamil Nadu has major share of about 37%.

ILMENITE

The resources of Ilmenite are 461.37 million tonnes as per Department of Atomic Energy. Ilmenite occurs mainly in beach sand deposits right from Ratnagiri (Maharashtra) to coast in Kerala, Tamil Nadu & Orissa. The mineral is also found in Andhra Pradesh, Bihar and West Bengal.

KAOLIN

India possesses fairly large resources of china clay. The total resources as per UNFC system as on 1.4.2005 are about 2596 million tonnes. Out of which, 222 million tonnes are placed in reserves category. The occurrences of china clay are distributed in Kerala, West Bengal, Rajasthan, Orissa, Karnataka, Jharkhand, Gujarat Meghalaya, Andhra Pradesh and Tamil Nadu.

LIMESTONE

The total resources of limestone of all categories and grades as per UNFC system as on 1.4.2005 are estimated at 175345 million tonnes. Of which 12715 million tonnes are under 'Reserves' category and 162630 million tonnes are under 'Remaining Resources' category. Karnataka is the leading state followed by Andhra Pradesh, Gujarat, Rajasthan, Meghalaya, Chhattisgarh, Madhya Pradesh, Orissa, Maharashtra and Uttarakhand.

MICA

Important mica bearing pegmatite occurs in Andhra Pradesh, Jharkhand, Maharashtra, Bihar and Rajasthan. The total resources of Mica in the country as per UNFC system as on 1.4.2005 are estimated at 393855 tonnes, out of which only 68570 tonnes are placed under 'Reserves' category. 'Remaining resources' are placed at 325285 tonnes. Rajasthan accounts for about 51% resources, followed by Andhra Pradesh Maharashtra and Bihar.

MAGNESITE

The total resources of magnesite as per UNFC system as on 1.4.2005 are about 338 million tonnes, of which reserves and remaining resources are 76 million tonnes and 262 million tonnes, respectively. Substantial quantities of resources are established in Uttarkhand (68%) followed by Rajasthan (16%) and Tamil Nadu (13%)

Andhra Pradesh, Himachal Pradesh, Jammu & Kashmir, Karnataka and Kerala contribute for the balance.

KYANITE AND SILLIMANITE

The total resources of kyanite and sillimanite as per UNFC system as on 1.4.2005 are 103 million tonnes and 74 million tonnes, respectively. Out of these the reserves categories are 1.4 million tonnes for kyanite and 11 million tonnes for sillimanite. Kyanite deposits are located in Maharashtra, Karnataka, Jharkhand, Rajasthan, Andhra Pradesh, Kerala, Tamil Nadu and West Bengal. Sillimanite resources are located mainly in Orissa, Tamil Nadu, Uttar Pradesh, Kerala, Andhra Pradesh, Assam and West Bengal with minor occurrences in Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya and Rajasthan.

PHOSPHATE MINERALS

Deposits of phosphorites are located in Madhya Pradesh, Rajasthan, Uttarakhand, Jharkhand, Uttar Pradesh and Gujarat. Besides, apatite deposits of commercial importance are reported from Jharkhand, West Bengal, Andhra Pradesh, Tamil Nadu and Rajasthan. The total resources of apatite as per UNFC system as on 1.4.2005 are placed at 26.86 million tonnes, out of which 6 million tonnes are under reserves category and about 21 million tonnes are under remaining resources category. Out of the total resources, the bulk 61% are located in West Bengal. The total resources of rock phosphate as per UNFC system as on 1.4.2005 are placed at 305 million tonnes, out of which 53 million tonnes are placed under reserves and 252 million tonnes under remaining resources category. Bulk of reserves are located in Rajasthan and Madhya Pradesh.

OTHER MINERALS

Other minerals occurring in significant quantities in India are bentonite (Rajasthan, Gujarat, Tamil Nadu, Jharkhand and Jammu & Kashmir), corundum (Karnataka, Andhra Pradesh, Rajasthan, Tamil Nadu and Chhattisgarh), calcite (Andhra Pradesh, Rajasthan, Madhya Pradesh, Tamil Nadu, Haryana, Karnataka, Uttar Pradesh and Gujarat), fuller's earth (Rajasthan, Andhra Pradesh, Arunachal Pradesh, Assam Madhya Pradesh and Karnataka) garnet (Tamil Nadu, Orissa Andhra Pradesh, Rajasthan and Kerala), pyrites (Bihar, Rajasthan, Karnataka, Himachal Pradesh, West Bengal and Andhra Pradesh), steatite (Rajasthan, Uttarakhand, Kerala, Maharashtra, Andhra Pradesh and Madhya Pradesh), wollastonite (Rajasthan and Gujarat), zircon (beach sand of Kerala, Tamil Nadu, Andhra Pradesh and Orissa) and quartz and silica minerals are widespread and occur in nearly all states. Besides, the country has vast marble, slate and sandstone deposits. Granite is mainly mined in Tamil Nadu, Karnataka, Andhra Pradesh and Rajasthan; marble in Rajasthan, Gujarat and Madhya Pradesh; slate in Madhya Pradesh and Andhra Pradesh and sandstone in Rajasthan.

MINERAL AND METAL PRODUCTION

Indian produces as many as 86 minerals which include 4 fuel, 10 metallic, 46 non-metallic, 3 atomic minerals and 23 minor minerals (including building and other materials). The total value of country's mineral production in 2008-09 is estimated to be about Rs. 115981 crores, an increased of about 7% over the previous year. Of this, fuel minerals constituted Rs. 73063 crores (63%), metallic minerals for Rs. 29189 crores (25%) and non-metallic minerals including minor minerals of about Rs. 13728 crores

(12%). The production of selected minerals for the years 2006-07 to 2008-09 are as follows.

PRODUCTION OF SELECTED MINERALS, 2005-06, 2006-07 & 2007-08

(Value in Rs. Crore)

Mineral	Unit	2006-07		2007-08(P)		2008-2009(E)	
		Qty	Value	Qty	Value	Qty	Value
All Minerals			98262.91		108287.41		115980.53
Fuel			66158.29		70336.34		73063.37
Coal	M.Tonnes	4 31	34836.79	4 57	38449.35	4 93	41013.21
Lignite	M.Tonnes	3 1	2626.03	3 4	2960.88	3 3	2849.65
Natural Gas(Utilised)	M.C.M.	31747	9764.16	32274	9922.94	33682	10352.05
Petroleum (crude)	M.Tonnes	3 4	18931.32	3 4	19003.17	3 4	18848.36
Metallic Minerals			18285.81		24038.14		29189.32
Bauxite	th. tonnes	1 5733	384.78	-23085	525.94	1 5250	399.55
Chromite	th. tonnes	5 296	1450.17	4 799	2020.16	3 976	2372.67
Copper Conc.	th. tonnes	1 50	311.71	1 59	382.54	1 23	351.42
Gold	Kg.	2 488	229.09	2 858	282.59	2 677	325.01
Iron Ore	th. tonnes	1 87696	14204.31	2 06452	18495.4	2 22544	23322.62
Lead Conc	th. tonnes	1 07	133.14	1 26	142.18	1 39	156.8
Manganese ore	th. tonnes	2 116	557.37	2 551	1098.3	2 695	1102.71
Zinc Conc.	th. tonnes	9 47	971.47	1 036	937.54	1 145	1035.91
Other met. Minerals			43.76		153.49		122.63
Non-Metallic Minerals			3351.46		3445.57		3260.48
Ball Clay	th. tonnes	6 27	13.87	6 41	14.57	1 043	20.23
Barytes	th. tonnes	1 681	94.71	1 072	55.32	1 859	61.53
Diamond	Carats	2 180	1.47	5 86	0.57	7 17	0.56
Dolomite	th. Tones	5 172	112.57	5 117	126.67	4 248	105.79
Fire clay *	th. tonnes	4 97	6.59	4 60	7.31	3 51	6.25
Garnet (Abrasive)	th. tonnes	8 59	25.92	8 73	30.32	7 42	35.93
Gypsum	th. tonnes	3 006	49.42	2 607	54.23	3 265	69.87
Kaolin	th. tonnes	1 460	162.22	1 292	154.79	1 798	59.33
Laterite	th. tonnes	1 373	15.76	1 431	19.78	1 584	21.86
Lime shell	th. tonnes	1 04	7.29	1 39	9.07	7 3	5.61
Lime stone	M. tonnes	1 97	2405.01	1 88	2413.54	1 86	2302.3
Magnesite	th. tonnes	2 39	34.17	2 48	36.99	2 51	34.49
Phosphorite	th. tonnes	1 587	218.46	1 860	309.04	1 814	299.71
Pyroxenite	th. tonnes	3 02	8.27	3 15	9.58	1 90	7.79
Sand (others)	th. tonnes	1 770	6.71	1 424	5.89	1 568	7.37
Silica Sand	th. tonnes	2 663	37.79	3 931	41.5	2 613	21.56
Sillimanite	th. tonnes	2 6	10.13	4 3	17.99	3 8	21.09
Steatite	th. tonnes	7 40	40.12	8 26	51.96	8 26	49.81
Wollastonite	th. tonnes	1 32	11.41	1 19	10.19	1 08	9.19
Other non-metallic minerals			89.59		76.27		120.21
Minor Minerals			10467.36		10467.36		10467.36
Minor Minerals			10467.36		10467.36		10467.36

Figures rounded off.

M. Tonnes - Million tonnes, 000 tonnes; thousand tonnes; M.C.M. Million cubic metre.
Kg.Kilogram

(P): Provisional and based on monthly returns to the extent available with IBM

(R) : Revised figures

(E) : Estimated figures

* : Excludes the production of Fireclay, if any recovered incidental to coal mining.

Note: (1) The value figures pertain to pithead value
(2) Date based on the returns received under MCDR 1988 except coal, lignite, petroleum (crude) natural gas (utilised) and minor minerals

Source a) Coal and Lignite Coal Controller Kolkata
b) Petroleum (crude) and National Gas Ministry of Petroleum & Natural Gas. New Delhi
c) Minor Minerals State Government

ORGANIZATIONS UNDER THE MINISTRY

The Ministry has following attached/subordinate offices. Public Sector undertakings, disinvested companies and research organization under its administrative control.

GEOLOGICAL SURVEY OF INDIA (GSI)

Geological Survey of India, the premier earth science organization of the country, is the principal provider of basic earth science information to the government. Industry and the geoscientific sector. The vibrant steel, coal, metals, cement and power industries which expanded phenomenally in the post-independence era, bear eloquent testimony to the GSI's contribution too national development.

Beginning as a department engaged primarily in research for coal, GSI in the last 158 years has expanded its activities manifold and has been involved either directly or indirectly in almost all areas of nation building. GSI is now the custodian of one of the largest and most comprehensive earth science database developed over the last one and half century. Its Charter of operation (revised, 21st May, 2009) laid down by the Government of India, detailing the scope of activities and responsibilities of the GSI encompasses practically the entire gamut of earth science activities. The Charter reflects the broad responsibility of GSI extending from the lofty peaks of the Himalaya to the remote continent of Antrctica and from the desert to the ocean and into the sky.

Creation and updation of national geoscientific information and knowledge base through ground. Marine and airborne surveys and their dissemination are the primary goals of GSI. It has Central Head Quarters at Kolkata. six regional offices at Nagpur, Kolkata, Shillong, Lucknow, Hyderabad and Jaipur besides a Airborne Miner Surveys and Exploration wing, Bangalore; Marine Wing, Kolkata; Coal Wing, Kolkata and Training Institute, Hyderabad.

INDIAN BUREAU OF MINES (IBM)

Indian Bureau of Mines (IBM) established on 1st March 1948, is a multidisciplinary scientific and technical organisation under Ministry of Mines, with statutory and developmental responsibilities for conservation and systematic exploitation of Mineral resources other than coal, petroleum and natural gas, atomic minerals and minor minerals.

IBM has its headquarter at Nagpur with 3 Zonal Offices. 12 Regional Offices and 2 Sub-Regional offices spread all over the country, apart from the Modern Mineral Processing Laboratory Pilot Plant constructed with UNDP assistance at Nagpur. Two Regional Ore Dressing Laboratories and Pilot Plants are in operation at Ajmer and Bangaluru.

The Indian Bureau of Mines (IBM) performs regulatory functions, namely enforcement of the Mineral Conservation and Development Rules, 1988, the relevant provisions of the Mines and Mineral (Development and Regulation) Act, 1957. Mineral Concession Rules, 1960 and Environmental (Protection) Act 1986 and Rules made thereunder. It also undertakes scientific, techno-economic, research oriented studies in various aspects of mining geological studies, ore beneficiation and environmental studies.

IBM provides technical consultancy services to the mining industry for the geological appraisal of mineral resources, and the preparation of feasibility report of mining projects, including beneficiation plants. It prepares mineral maps and countrywide inventory of mineral resources of leasehold and freehold areas. It also promotes and monitors community development activities in mining areas. IBM also functions as Data Bank of Mines and Minerals and publishes statistical information. It also brings out technical publications/monographs on individual mineral commodities and bulletins of topical interest. It advises the Central and State Governments on all aspects of mineral industry, trade, legislation etc.

PUBLIC SECTOR AND DISINVESTED COMPANIES

The Ministry of Mines has four public sector undertaking (PSUs) under its administrative control National Aluminium Company Limited (NALCO). Hindustan Copper Limited (HCL) & Bharat Gold Mines Limited (BGML) are operating in the field of mining and mineral processing, and Mineral Exploration Corporation Limited (MECL) is operating in the field of mineral exploration. The BGML however is closed since March 2001. In addition the Government holds 49% equity in Bharat Aluminium Company Limited (BALCO) and 29.54% equity in Hindustan Zinc Limited (HZL) after their disinvestment. The performance of these undertakings in 2008-09 is given below.

National Aluminium Company Limited (NALCO)

National Aluminium Company Limited (NALCO), largest integrated Alumina-Aluminium Plant Complex in India, was incorporated on 7th January, 1981 with its registered office at Bhubaneswar. After completion of first phase expansion at an investment of Rs. 4200 crore in 2004. NALCO has presently installed capacity of 4.8 Million Tonnes Per Year (MTPY) Bauxite Mine and 1.575 MTPY of Alumina Refinery at Panchapatmali, and 0.345 MTPY Aluminium Smelter at Angul. It has 960 MW (8X120) MW Capative Power Plant at Angul, all in Orissa and Port Handling Facilities at Visakhapatnam (Andhra Pradesh) for export of alumina and import of caustic soda. The Company also utilizes Kolkata and Paradeep Ports for export of Aluminium. NALCO had been granted Navratna status on 28.4.2008.

Second phase expansion of NALCO's Integrated Alumina-Aluminium Complex, at an outlay of Rs. 4091.51 crore, at July 2003 price level, approved by the Government in October 2004, envisaging augmentation of Bauxite Mines capacity from 4.8 MTPY

to 6.3 MTPY, Alumina Refinery capacity from 1.575 MTPA to 2.1 MTPA, Aluminium Smelter capacity from 0.345 MTPA to 0.46 MTPA and Captive Power Plant (CPP) capacity from 960 MW (8x120 MW) to 1200 MW (10x120) is presently under implementation.

The company is one of the lowest cost producers of alumina & aluminium in the world due to highly efficient operation and very high asset utilization with benchmark in smelting technology. With sustained quality products, the Company's export earnings account for nearly 40% of the sales turnover.

NALCO has been exploring to set up new projects in the country and abroad. The company is examining possibilities to set up a 5 lakh Tonnes Per Annum (TPA) smelter at an investment of 1.3 billion in Indonesia, and 1.55 lakh TPA smelter in first phase and a 1.55 lakh TPA smelter alongwith gas based power plant in second phase at an estimated cost of Used 3 billion in Iron NALCO plans to set up a 42 lakh TPA bauxite mines and 14 lakh TPA alumina refinery complex in Andhra Pradesh involving an investment of Rs. 7000 crores.

The Company exports its products to more than 30 countries worldwide. The Company has also opened stockyards in various parts of India to facilitate domestic marketing. With its consistent track record in capacity utilization, technology absorption, quality assurance, exports performance and posting of profits, NALCO is a bright example of India's industrial capability.

Hindustan Copper Limited (HCL)

HCL, a public sector undertaking under the administrative Control of the Ministry of Mines, was incorporated on 9th November, 1967 under the Companies Act, 1956. It was established as a Govt. of India Enterprise to take over all plants, projects, schemes and studies pertaining to the exploration and exploitation of copper deposits, including smelting and refining from National Mineral Development Corporation Ltd. It has the distinction of being the nation's only vertically integrated copper producing company as it manufactures copper right from the stage of mining to beneficiation, smelting, refining and casting of refined copper metal into downstream saleable products.

The company markets copper cathodes, continuous cast copper rod and by products, such as anode slime (containing gold, silver, etc.) copper sulphate and sulphuric acid. More than 90% of the sales revenue is from cathode and continuous cast copper rods. HCL's mines and plants are spread across four operating units, one each in the States of Rajasthan, Madhya Pradesh, Jharkhand and Maharashtra as named below. Khetri Copper Complex (KCC) at Khetrinagar, Rajasthan, Indian Copper Complex (ICC) at Ghatsila, Jharkhand, Malanjkhand Copper Project (MCP) at Malanjkhand, Madhya Pradesh, Talaja Copper Project (TCP) at Talaja, Maharashtra.

The Government of India nationalized the only copper producing company in the private sector, Indian Copper Corporation Ltd, at Ghatsila in Jharkhand in March; 1972 and handed over its management and ownership too Hindustan Copper Limited.

The smelter plant at Khetri Copper Complex (KCC) in Rajasthan with capacity of 31000 tonnes was dedicated to the nation on 5th February, 1975.

In November, 1982, Malanjkhand Copper Project comprising of a large and fully mechanized open pit mine and concentrator plant was dedicated to the nation.

The continuous cast copper rod plant at Taloja Copper Project of Hindustan Copper Ltd was commissioned in December, 1989 with an installed capacity of 60000 tonnes.

The total installed annual capacity of HCL is 49500 tonnes of refined copper. During 2008-09, HCL produced 27589 tonnes of metal-in-concentrate, 30035 tonnes of refined copper and 51777 tonnes of wire rod.

During the year 2007-08, HCL achieved a turnover of Rs. 1839.79 crore with a net profit of Rs. 246.46 crore after tax. The accounts of 2008-09 are under finalization.

Production of copper concentrate and value in 2008-09

Production	-	1,26,600 MT
Value	-	Rs. 323 crore

Mineral Exploration Corporation Limited (MECL)

The Mineral Exploration Corporation Limited (MECL) since inception in the year 1972 is carrying out mineral exploration activities. So far, it has added 1,36,376 million tones of mineral reserves to National Mineral Inventory.

The Company manages the functioning of projects through a 2 tier system from the Corporate office at Nagpur. To facilitate the prompt maintenance of plants and machineries deployed at various projects, three Regional Maintenance Centres at Ranchi, Nagpur and Hyderabad are being operated. Technical guidance to the Project, finalization of geological reports, close liaisoning with the clients and looking for new business opportunities is being carried out through the Zonal Offices located at Ranchi, Nagpur and Hyderabad.

MECL's gross revenue was Rs. 105.90 crore. It has recorded net profit of Rs. 1.24 crore (After EOI & taxes). A total of 5695 million tones of reserves for coal, lignite, copper, lead-zinc. and iron ore have been added in National Mineral inventory during, 2008-09.

Bharat Gold Mines Limited (BGML)

Bharat Gold Mines Limited (BGML) having registered office at Kolar Gold Fields, was incorporated as a public sector company under the Ministry of Mines, on 1st April 1972. It was engaged in mining and production of gold from its captive mines. The company was referred to the Board for Industrial and Financial Reconstruction (BIFR) who gave its verdict in June 2000 to wind up BGML in public interest. The verdict of BIFR was upheld by Appellate Authority for Industrial and Financial Reconstruction (AAIFR). The company was closed after the Ministry of Labour, accorded permission for closure of BGML w.e.f. 1 March 2001. After prolonged litigation the Division Bench of High Court of Karnataka in its order dated 26 September 2003 has also upheld the winding up/closure orders passed by BIFR/AAIFR and Ministry of Labour. The Court has made certain recommendations which are under consideration of the Government.

Government of India, on 27.7.2006, have approved a proposal regarding Special Terminal Benefit Package (STBP) for Bharat Gold Mines Limited ex-employees, sale of houses to the employees of BGML at nominal rates. calling of global tender for sale

of assets and giving purchase preference to the Employees Co-operative Society/Society's Company subject to the approval of the High Court of Karnataka (Company Court) and viability of the project. Company Application has been filed in the Hon'ble High Court of Karnataka (Company Court) which is being perused.

As per the Government decision. STBP amount has been distributed to the employees of BGML and allotment of the houses at the rates suggested by the High Court of Karnataka (Company Court) are under process. An Inter-Ministerial Group (IMG) was also constituted to over see the tendering process of BGML. A consultant was appointed for assets valuation of the company, preparation of global tender documents and assisting in global tendering process etc. The Consultant had submitted draft global Tendering documents which have been placed by BGML before the Hon'ble High Court of Karnataka (Company Court) for approval. The matter has since been under consideration of the Hon'ble Court.

Bharat Aluminium Company Limited (BALCO)

Bharat Aluminium Company Limited (BALCO) was incorporated on 27th November, 1965 as a Central Public Sector Undertaking with an integrated Alumina/Aluminium Complex and a 270 MW Captive Power Plant at Korba presently in Chhattisgarh.

The Government of India disinvested 51 % equity in the Company along with the transfer of management control in favour of M/s Sterlite Industries (India) Limited with effect from 2nd March, 2001 and consequently, the Company has ceased to be public sector undertaking.

Post disinvestment, BALCO has implemented the expansion at a cost of over Rs. 4000 crores leading to threefold increase in capacities. The smelter capacity has been increased to 3,45,000 MT per annum from 1,00,000 MT per annum and the capacity of the captive power plant from 270MW to 810 MW. The expanded capacity was fully commissioned in the third quarter of 2006-07.

The Company has signed an MOU with the Government of Chhattisgarh in October, 2006 for setting up a 1200 MW Power Plant at an estimated cost of Rs. 4800 crores. The Company has commenced implementation of the power project and the project is expected to be fully commissioned in 2010-11.

The Company has signed an MOU with Government of Chhattisgarh in August, 2007 for expanding its aluminium smelting by setting up of additional 6.5 lakh TPA aluminium smelter at an estimated cost of Rs. 8100 crores, out of which setting up of 3.25 lakh TPA aluminium smelter at a cost of Rs. 3800 crores is envisaged in the first phase.

Hindustan Zinc Limited (HZL)

Hindustan Zinc Limited (HZL) was incorporated in January 1966 as a public sector undertaking after the take over of the erstwhile Metal Corporation of India Limited, to develop mining and smelting capacities to substantially meet the domestic demand of zinc and lead metals. HZL's operations are broad-based and its activities range from exploration, mining and ore processing to smelting and refining of lead, zinc together with recovery of by products like silver, cadmium and sulphuric acid. Government of India disinvested its 26% equity in HZL in favour of M/s Sterlite Opportunities and Ventures Ltd (SOVL) on 28th March, 2002, and the management control of the company was also transferred to SOVL on 11th April, 2002, Subsequently, SOVL acquired 20% equity shares of HZL from the market through its open offer. On

11th November, 2003. Government of India further off-loaded 18.92% of its equity in HZL in favour of SOVL in terms of the Shareholders Agreement. The current shareholding of SOVL in HZL is 64.92% and the Government of India is 29.54%.

HZL with its headquarters at Udaipur operates lead-zinc mines with a total capacity of 7.1 million tonnes per annum and lead-zinc smelters with a total lead-zinc metal production capacity of 762,000 tonnes annum. During the year 2007-08. HZL commissioned Phase-II expansion comprising 170,000 tonnes per annum hydro zinc smelter, 80 MW thermal captive power plant and expansion of Rampura Agucha Mine from 3.75 MT per annum to 5 MT per annum. It has further increased zinc production capacity by 8,000 tonnes per annum by de-bottlenecking.

During the year 2008-09 HZL commissioned another 80 MW thermal captive plant. The Company has undertaken Phase-III expansion programme, which includes 210,000 tonnes per annum hydro zinc smelter, 100,000 tonnes per annum lead smelter along with expansion in its lead-zinc mining capacities and 160 MW thermal captive power plant.

National Institute of Rock Mechanics (NIRM)

The National Institute of Rock Mechanics (NIRM) is a premier center for research in applied and basic rock mechanics. Set up under the Ministry of Mines, Government of India, the Institute provides research and consultancy services for improving safety and productivity in the mining and civil engineering sectors. It is an ISO-9001 : 2008 certified research Institute NIRM has carrying out research work through both government - funded and industry sponsored S & T and consultancy projects. The institute has been extending its support to the industry in areas:

- Engineering Geology,
- Engineering Geophysics
- Geotechnical Engineering
- Rock Fracture Mechanics & Materials Testing.
- Engineering Seismology
- Numerical Modelling, Rock Blasting & Excavation Engineering.
- Mine Design & Ground Control Microseismics & Automation.
- Environmental Engineering and Dimensional Stone Technology.

National Institute of Miners Health (NIMH)

National Institute of Miners Health (NIMH) Nagpur was established for promotion of occupational health & hygiene in mining and mineral based industries and for development of trained manpower in these fields. It was registered as Society in the State of Karnataka. On closure of BGML, a camp office was established at Amravati Road, Wadi, Nagpur in 2002.

The Institute has state - of - the - art infrastructure, equipments and highly trained manpower to conduct and carry out.

- Detailed initial and periodic medical examinations as per Mines Rules, 1955.
- Clinical investigations like routine hematological tests, blood biochemistry, audiometry, spirometry, electrocardiography.

- Computerized vision screening.
- Exposure assessment of individual subjects for noise, dust and vibration using personal dosimeters.
- Risk assessment of work environment for dust, noise, vibration.
- Risk characterization of dust for free silica (using FTIR), heavy metals (using AAS) etc.
- Specialized tests in clinical biochemistry, Protein Biomarkers, Electrophoresis, ELISA, Spectrophotometric analysis.
- HRD activities in mine related health and hygiene issues.

Jawaharlal Nehru Aluminium Research Development and Design Center (JNARDDC).

Jawaharlal Nehru Aluminium Research Development and Design Centre, Nagpur is a "Centre of Excellence" set up in 1989 and became fully functional since 1996. The Centre was conceived as the major R & D support system for the emerging modern aluminium industry in India.

The Centre has well-established facilities for R&D activities in the field of bauxite, Alumina and aluminium. Its principal preoccupation is with all aspects of Bayer process for conversion from bauxite to alumina and electrolytic smelting from alumina to aluminium.

The Centre has successfully completed many major projects awarded by both primary & secondary aluminium producers, bauxite mine owners / importers and also by Ministry of Mines. There has been a steady increase in the internal revenue generation over the last five years.

The Centre also offers analytical and testing facilities to other non-ferrous industries, steel plants, small-scale industries, R&D Organisations and Academic Institutions particularly in the areas of chemical and mineralogical analysis, power characterisation, thermal mapping, micro structural studies, Mechanical and non destructive testing, failure analysis and technical information.

SCIENCE & TECHNOLOGY PROGRAMME

Introduction : Science & Technology programme of the Ministry of Mines was initiated in 1978 with the view to encourage research and development of indigenous technology in the minerals and non-ferrous metal sectors. Till now 137 projects have been completed and 7 projects are under implementation.

The underlying principle behind this programme had been the utilization of the available mineral resources in a judicious, economically efficient and environmentally sustainable manner. An important component of this programme had been the selection of research and development projects of national priorities including those related to beneficiation of the lean ores, techniques for extracting metals from mine wastes and plant tailings being by products.

Project proposals from various Government institutions, public sector undertakings universities and other research organizations engaged in the mineral

and mining sectors are reviewed by a group of experts of Project Evaluation & Review Committee (PERC). Suitable projects of national priorities and thrust areas are approved by a high level Standing Scientific Advisory Group (SSAG).

MICRO SMALL AND MEDIUM ENTERPRISES (MSME) SECTOR

The Ministry of Micro, Small and Medium Enterprises (MSME) performs its tasks of formulation of policies and implementation of programmes mainly through Office of the Development Commissioner (MSME), National Small Industries Corporation Ltd. (NSIC), Khadi and Village Industries Commission (KVIC) and Coir Board.

The Micro, Small and Medium Enterprises Development Organisation (earlier known as Small Industries Development Organisation) set up in 1954, functions as an apex body for sustained and organised growth of micro, small and medium enterprises. As an apex/nodal organ, it provides a comprehensive range of facilities and services to the MSMEs through its network of thirty Micro, Small and Medium Enterprises-Development. Institutes (MSME-Dis) twenty eight branch MSME-Dis, four Regional Testing Centres (RTCs), seven Field Testing Stations (FTSs), six PPDCs, eleven Tool Rooms (TRs) and two Specialised Institutes namely. Institute for Design of Electrical Measuring Instruments (IDEMI) and Electronics Service and Training Centre (ESTC)

Performance of Micro and Small Enterprise Sector

As per the Third All India Census held for the year 2001-02, there were 105.21 lakh enterprises (Registered and Unregistered) in the country, out of which 14.89 lakh were registered working enterprises and 90.32 lakh unregistered enterprises. Their contribution to production was Rs. 2,82,270 crore and to employment was 249.33 lakh persons. It is estimated that during 2007-08 (projected), the number of units has increased to 133.68 lakh from 128.44 lakh in the previous year registering a growth rate of 4.08 per cent. The value of production at current prices is estimated to have increased by 18.80 percent to Rs. 6,95,126 crore from Rs. 5.85, 112 crore. The employment is estimated to have increased to 322.28 lakh from 312.52 lakh persons in the previous year, i.e. 2008-07. The MSE sector has been registering a higher growth rate than the overall industrial sector in the past few years consistently.

To help the MSEs in meeting the challenges of globalization, the Government has taken several initiatives and measures in recent years. First and foremost among them is the enactment of the 'Micro, Small and Medium Enterprises Development Act, 2006', which aims to facilitate the promotion and development and enhance the competitiveness of MSMEs. The Micro, Small and Medium Enterprises are defined as under:

A) Manufacturing Enterprises

- i. A micro enterprise, where the investment in plant and machinery does not exceed twenty five lakh rupees;
- ii. A small enterprise, where the investment in plant and machinery is more than twenty five lakh rupees but does not exceed five crore rupees; and
- iii. A medium enterprise, where the investment in plant and machinery is more than five crore rupees but does not exceed ten crore rupees.

B) Service Enterprises

- i. A micro enterprise, where the investment in equipment does not exceed ten lakh rupees;

- ii. A small enterprise, where the investment in equipment is more than ten lakh rupees but does not exceed two crore rupees; and
- iii. A medium enterprise, where the investment in equipment is more than two crore rupees but does not exceed five crore rupees.

National Manufacturing Competitiveness Programme

The Government has launched an all-India campaign under the National Manufacturing Competitiveness Programme (NMCP) for MSMEs, which has specific components that are aimed at enhancing the competitiveness of the enterprise in this sector-so as to withstand global and organized competition and to thrive through better technologies and skills. The components of the NMCP seek to introduce the best elements of industrial competitiveness in the SME sector, which has often been unable to afford such practices and techniques. The ten components of the National Manufacturing Competitiveness Programme (NMCP) to be implemented by the Ministry of MSME during XXI Plan are:

- (i) Lean Manufacturing,
- (ii) Design Clinics,
- (iii) Setting up of New Mini Tool Rooms (MTR)
- (iv) Promotion of Information and Communication Technology (ICT) in MSMEs,
- (v) Support for Entrepreneurial and Managerial Development of MSMEs through Incubators.
- (vi) Marketing Assistance of MSMEs & Technology Upgradation Activities,
- (vii) Quality Management Standards and Quality Technology Tools for MSMEs,
- (viii) National Campaign for investment in Intellectual Property Rights (IPR),
- (ix) Energy Efficiency and Quality Upgradation support for MSMEs. and
- (x) Marketing Support/Assistance for MSMEs.

Credit Guarantee Fund Scheme for Micro and Small Enterprises

The Government launched the Credit Guarantee Fund Scheme for Small Industries (Now Renamed as Credit Guarantee Fund Scheme for Micro and Small enterprises) in August, 2000 with the objective of making available credit to SSI units, particularly tiny units, for loans up to Rs. 100 lakh without collateral/third party guarantees.

The Scheme covers collateral free credit facility (term loan and/ or working capital) extended by eligible lending institutions to new and existing micro and small enterprises up to Rs. 100 lakh per borrowing unit. The guarantee cover provided is up to 75% of the credit facility up to Rs. 50 lakh with an incremental guarantee of 50% of the credit facility above Rs. 50 lakh and up to Rs. 100 lakh (85% for loans up to Rs. 5 lakh provided to micro enterprises, 80% for MSEs owned/ operated by women and all loans to NER). One time guarantee fee of 1.5% of the credit facility sanctioned (0.75% for NER including Sikkim) and Annual Service Fee for 0.75% is collected from the MLIs. The scheme is being operated by the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) set up jointly by the Government of India and SIDBI. The corpus of CGTMSE has been enhanced to Rs. 1754.05 crore with the contribution of Rs. 1403.25 crore from the Gol and Rs. 350.80 crore from SIDBI. As announced in the 'Package for Promotion of Micro and Small Enterprises', the corpus fund will be raised to Rs. 2,500 crore during the XIth Plan.

At present, 98 eligible institutions comprising all Public Sector Banks, 14 Private Sector Banks, 54 Regional Rural Banks (RRBs), National Small Industries Corporation (NSIC), North Eastern Development Finance Corporation (NEDFC) and Small Industries Development Bank of India (SIDBI) have become Member Lending Institution (MLIs) of CGTMSE for participating under the Credit Guarantee Scheme. As on 30th June, 2009, cumulatively 1,73,249 proposals have been approved for guarantee cover for a total sanctioned loan amount of Rs. 5863.85 crore.

MSE-Cluster Development Programme

In the last few years, the Government has been focusing on the strategy of Cluster Development for development of the MSEs - through which different 'clusters' and concentrations of enterprises are given the benefit of a whole variety of interventions, ranging from exposure to skill development, from credit to marketing and from Technological improvements to better designs and products.

Under the Scheme, financial support up to 90% of the cost of soft interventions up to Rs. 10 lakh per cluster over a period of three years is provided for various programmes and activities leading to capacity building, training, exposure visits to domestic or international clusters/trade fairs, marketing development programmes, buyer-seller meets, etc. depending upon the actual plan prepared, validated and approved as a result of diagnostic study. Financial support upto 80% (90% in case of women clusters) of the project cost of maximum Rs. 10 crore is also provided for setting up of Common Facility Centres (CFCs) For setting up of CFCs. minimum 20 members are required to form an Special Purpose Vehicle (SPV) in the form of a Company/Society/Trust. Till June, 2009 439 clusters have been approved for interventions under the scheme, including soft and hard interventions and diagnostic studies.

Infrastructure Development

For setting up of industrial Estates and to develop infrastructure facilities, the Integrated Infrastructure Development (IID) scheme was launched in 1994. The scheme covered rural as well as urban areas with a provision of 50% reservation for rural areas and 50% of industrial plots for tiny sector. The estimated cost for setting up of an IID center is Rs. 5.00 crore (excluding cost of land), Central Government provides 40% (up to a maximum of Rs. 4.00 crore) for North East Region (including Sikkim), J&K, H.P. and Uttrakhand, as grant and remaining amount could be loan from SIDBI/Banks/financial Institutions or the state funds. The Scheme has been subsumed under the MSE- CDP with all existing feature. Central Government has approved 13 projects in various States including 4 for upgradation of infrastructure in the old industrial estates in the financial year 2008-09.

IDO-9000/ISO-14001/HACCP Certification reimbursement Scheme

The Process of economic liberalisation and market reforms has opened up the Indian Micro and small Enterprises to the global competition. In order to enhance the competitiveness of the sector. The Scheme envisages one time reimbursement of charges for acquiring ISO-9000/14001/HACCP (or its equivalent) certification to the extent of 75% of the cost subject to a maximum of Rs.75,000/- in total.

Upto March, 2009 total 18811 number of units amounting to Rs. 92.20 Crore have been reimbursed since inception of the scheme in 1994.

Skill Development

Ministry of MSME conducts Entrepreneurship Development Programmes (EDPs)/ Entrepreneurship Skill Development Programmes (ESDPs) through the Micro Small and Medium enterprises Development Institutes to cultivate the skills among the un-employed youth of setting up of their Micro and Small Enterprises. Under the Management Development Programmes (MDPs), existing MSEs Entrepreneurships are provided trainings on various areas of management to develop their skill. To encourage more entrepreneurs from SC/ST, Women and Physically Handicapped groups. Ministry provides stipend of Rs 500/- per capita per month to the candidates for weaker sections.

National Small Industries Corporation Ltd.

National Small Industries Corporation, Since its inception in 195 has been working with its mission of promoting, aiding and fostering the growth of micro & small enterprises. It has been working to promote the interest of micro & small enterprises and to enhance their competitiveness by providing integrated support services under Marketing, Technology, Finance and Support services. The Corporation has introducing several new schemes from time to time. These schemes have been found to be very useful in stimulating the growth of micro and small enterprises in the country.

Performances & Credit Rating Scheme

The Scheme is being implemented by the NSIC. The scheme is aimed to encourage micro & small enterprises (MSEs) to undertake credit and performance rating. The rating under the scheme serves as a trusted third party opinion on the capabilities and creditworthiness of the micro & small enterprises. An independent rating by an accredited rating agency has a good acceptance from the Banks/Financial Institutions, Customers/Buyers and Vendors. Under this Scheme, rating fee payable by the MSEs for the first year only is subsidized to maximum of 75% of the fee or Rs. 40,000/- whichever is less.

Marketing Assistance Scheme

The Scheme is being implemented by NSIC. The main objectives of Marketing Assistance Scheme are to enhance the marketing competitiveness of the MSMEs, to provide them a platform for interaction with the individual / institutional buyers, to update them with prevalent market scenario and to provide them a forum for redressing their problems. MSMEs are facilitated in their efforts to promote marketing and enhance the competency for capturing the new market opportunities by way of organization / Participation in various domestic and international exhibitions/trade fairs, buyer-seller meets, intensive-campaigns and other marketing events. The scheme also aims at vendor development from MSMEs for the bulk manufactures through Buyer-Seller Meet. Further, intensive campaigns and other marketing events are organized all over the country to disseminate/propagate about the various schemes for the benefit of the micro and small enterprises and to enrich their knowledge w.r.t. the latest developments, quality standards etc.

Survey, Studies and Policy Research

The main objectives of the scheme are - (i) to regularly/periodically collect relevant and reliable data on various aspects and features of MSMEs. (ii) to study and analyses,

on the basis of empirical data or otherwise, the constraints and challenges faced by MSME sector as well as the opportunities available to them, and (iii) to use the results of these surveys and analytical studies for policy research and designing appropriate strategies and measures of intervention by the Government.

Training Institutions

This scheme has two components. Under the first components financial assistance is provided for strengthening training infrastructure of the existing and new entrepreneurship Development Institute (EDIs) at State/UT level and the second component provides financial assistance to three national level entrepreneurship Development Training Institutes set up by this Ministry viz., National Institute for Micro, Small and Medium Enterprises (ni-msme), Hyderabad (formerly known as National Institute for Small Industry Extension Training (NISIET), National Institute for Entrepreneurship & Small Business Development (NIESBUD), Noida and Indian Institute of Entrepreneurship (IIE), Guwahati for meeting their revenue deficit and capital expenditure. The Scheme is presently under review.

Rajiv Gandhi Udyami Mitra Yojana (RGUMY)

The main objective of the scheme is to promote and support establishment of new micro and small enterprises through handholding of potential first generation entrepreneurs, who have already successfully completed Entrepreneurship Development Programme (EDP)/Skill Development Programme (SDP)/Entrepreneurship-cum-Skill Development Programme (ESDP) of at least two weeks duration, or have undergone vocational training from it is. One of the main objective of handholding is to guide and facilitate the potential entrepreneurs in dealing with various procedural and legal hurdles and completion of various formalities which are required for setting up and running of enterprise successfully and to save them from harassment at the hands of various regulatory agencies for want of required compliances. It will not only increase the proportion of potential entrepreneurs trained under various EDPs/SDPs/ESDPs/Vocational Training (VT) in setting up their enterprises more importantly, it will also enhance survival/success rate of newly set up enterprises.

International Cooperation Scheme

Technology infusion and/or upgradation of Indian MSMEs, their modernization and promotion of their exports are the principal objectives of assistance under the International Cooperation Scheme. Under the Scheme, associations and organizations of MSMEs are facilitated for participation in international exhibitions/trade fairs. The Ministry of Micro, Small and Medium Enterprises in Agro and Rural Industries (ARI) sector has been implementing various schemes through Khadi and Village Industries Commission (KVIC) and Coir Board for the development of khadi, village industries and coir sectors based on local raw materials and skills and creating more employment opportunities in the rural non-farm sector.

Schemes/programmes under KVI sectors

Prime Minister's Employment Generation Programme (PMEGP)

- (i) The Government has introduced a new employment generation credit linked subsidy scheme titled Prime Minister's Employment Generation Programme (PMEGP) for setting up micro enterprises in rural and urban areas by merging two existing employment generation programmes of this Ministry namely Prime

Minister's Rozgar Yajana (PMRY) and Rural Employment Generation Programme (REGP). It is a significant initiative with a higher level of subsidy than PMRY and REGP. It is estimated to generate around 38 lakh additional employment opportunities in the remaining four years (2008-09 to 2011-12) of XXI Plan with a total plan outlay of Rs. 4735 crore including Rs. 250 crore for backward and forward linkages.

- (ii) Budget Estimates 2008-09 have provided Rs. 823 crore for PMEGP which includes Rs. 83 crore towards backward and Forward Linkages including EDP Training, publicity, marketing support, e-tracking of applications, physical verification of projects and so on. An estimated 6.17 lakh additional employment opportunities are targeted to be generated in 2008-09. Under PMEGO, full amount of Rs. 823 crore available in REs 2008-09 has been released to KVIC. Upto March, 2009, 1,91,938 applications have been received by various implementing agencies under PMEGP, of which 71,125 candidates have already been selected by district level Task Forces for assistance under PMEGP. Financial assistance for 26,588 projects has been sanctioned by banks. An estimated 7.40 lakh additional employment opportunities are targeted to be generated in 2009-10.

Workshed Scheme for Khadi Artisans

Workshed Scheme for Khadi Artisans was introduced in July 2008 for providing assistance for construction of Workshed for Khadi artisans for providing better work environment. An outlay of Rs. 25 crore has been provided in BEs 2008-09 of which Rs. 0.05 crore was earmarked for NER. Funds to the tune of Rs. 25 crore (including Rs. 0.05 crore for NER) have been released to KVIC in 2008-09. Against the target of providing assistance to 10000 worksheds, assistance to 11,076 worksheds (provisional) were provided upto March, 2009. It is estimated that assistance will be provided to 6000 worksheds in 2009-10.

Scheme for enhancing productivity & competitiveness of Khadi Industries and artisans was approved in July 2008 to assist 200 khadi institutions to make khadi industry competitive with more market driven and profitable production by replacement of obsolete and old machinery and equipment. An outlay of Rs. 10 crore was kept in the BEs 2008-09 of which Rs. 0.05 crore has been earmarked for NER against which entire funds have been released during 2008-09 to KVIC. Against the target of 25 projects, 21 projects were sanctioned upto March, 2009, Under this scheme, a target for assisting 23 khadi institutions has been fixed for 2009-10.

Interest Subsidy Eligibility Certification (ISES) Scheme

The interest Subsidy Eligibility Certification (ISEC) Scheme is the major source of funding for the khadi programme. It was introduced in May 1977 to mobilize funds from budgetary sources. Under the ISEC Scheme, credit at the concessional rate of interest of 4 per cent per annum for capital is provided by Banks to the khadi institutions. The difference between the actual lending rate and 4 per cent is paid by the Central Government through KVIC to the lending bank.

Institutions registered with the KVIC/State Khadi and Village Industries Board (KVIBs) can avail of financing under the ISEC scheme. Subsidy of Rs. 23.81 crore was provided by KVIC to banks under this scheme during 2008-09 and target for 2009-10 is Rs. 25.00 crore.

Rebate on sale of Khadi and khadi products is made available by the Government so as to make the price of khadi competitive with other textiles. Normal rebate (10 per

cent) all over the year and an additional special rebate (10 per cent) for 108 days are given to the customers. Rebate is allowed only on the sales made by institutions/centres run by the KVIC/State KVIBs and also at the sales centres run by the registered institutions which are engaged in the production of khadi and polyvastra. KVIC has released Rs. 136.22 crore to khadi institutions towards rebate during 2008-09 and target of Rs 86.78 crore has been tentatively fixed for 2009-10.

Product Development, Design Intervention and Packaging (PRODIP)

The Product Development Design Intervention and Packaging (PRODIP) scheme was launched in November 2002 as a small intervention by KVIC with a view to helping selectively indentified khadi institutions to improve the quality of khadi products and also to diversify into new product. The scheme envisages improvement in product quality, introducing new designs and better packaging of products. It also seeks to enhance the marketability of khadi by enlisting the support of professional designers approved by the institutions or entrepreneurs affiliated to the KVIC or State KVIBs upto Rs. 2 lakh per project per year or 75 per cent of the project cost, whichever is less. In the case of individual entrepreneurs, assistance is available upto Rs. 1 lakh or 75 per cent of the project cost, whichever is less. Internal studies conducted by KVIC have indicated that production and sale have increased approximately by 13 per cent and 21 per cent, respectively, in the case of projects taken up under PRODIP. Under this scheme 245 projects have been sanctioned during 2008-09 and target of 249 project has been fixed for 2009-10.

Khadi Karigar Janashree Bima Yojana

To provide insurance cover to khadi artisans, a scheme of group insurance in the name of Khadi Karigar Janashree Bima Yojana (JBY) was launched w.e.f 15 August 2003. This scheme was formulated by KVIC in association with the Life Insurance Corporation of India (LIC) with annual premium of Rs. 200/- per beneficiary. KVIC have been able to get the LIC reduce the premium to Rs.100/- with effect from 2005-06 which is shared as follows. "Rs. 50/- by Central Government Social Security Fund, Rs. 20/- by Khadi Institution and Rs. 12.50/- each by khadi artisan and KVIC."

Under this yojana, natural death cover of Rs. 30,000/- is provided, while in the case of death due to accident, and amount of Rs. 75,000/- is payable and in this case of partial disability Rs. 37,500/- is payable to the beneficiary. A financial assistance of Rs. 300/- per child per quarter is also provided as scholarship upto two school going children of the artisan as an add-on benefit under this scheme. So far, more than 2.50 lakh artisans have been covered under the JBY.

Khadi Reform Programme

Department of Economic Affairs, Ministry of Finance has tied up financial aid from Asian Development Bank amounting to US\$ 150 million over a period of three years for implementing a comprehensive Khadi Reform Programme. Under this Reform Package, it is proposed to revitalize the khadi sector with enhanced sustainability of khadi, increased incomes and employment, increased artisans welfare and empowerment and to enable KVIC to gradually stand on its own with decreasing dependence on Government Grants. Initially, programme will be initiated in 300 khadi institutions keeping the needs of regional balance, geographical spread and inclusion of backward areas. VSE Division of Planning Commission has given its in-principle approval to the Scheme, which is under consideration for approval.

Coir Board

Coir Board is looking after the promotion growth and development of coir industry, export promotion and expansion of the domestic market by providing marketing inputs, etc. Coir Board is implementing a number of schemes for the coir sector, which include assistance for participation in international exhibitions. Domestic Market Development, Mahila Coir Yojana and Development of Production Infrastructure. About 6.75 lakh persons are engaged in this industry and 80% of workforce is women. While the coir industry has roots in Kerala. It has become popular in Tamil Nadu, Karnataka and Andhra Pradesh and is spreading to other cocount growing States like Orissa, Tripura, Goa, etc.

The details of production, export and employment in the Coir sector during the last five years are given below:

Year	Production of Coir Fibre (Qty.in MT)	Export of Coir		Employment (No.of.persons)
		Qty.Value (In MT)	Value (Rs. Crore)	
2004-05	3,85,000	122927	473.40	6,06,000
2005-06	4,10,000	136027	508.45	6,22,000
2006-07	4,30,025	168755	605.17	6,40,500
2007-08	4,37,800	187566	592.88*	6,57,000
2008-09	4,91,000	189858	634.17	8,90,000

* In rupee terms, the export for the period was less by 2 percent compared to previous year's figure, mainly due to rupee appreciation. MT- Metric Tonnes

Targets of production of 5,30,000 MT Coir Fibre and exports of coir products of Rs. 650.00 crore have been fixed for 2009-10.

Scheme/programmes under coir Sector

Scheme for Rejuvenation, Modernisation and Technological Upgradation of Coir Industry

With a view to developing coir industry, the Ministry through Coir Board introduced a new central sector scheme titled 'Scheme for Rejuvenation, Modernisation and Technological Upgradation of Coir Industry' in March 2008 to assist spinners and tiny household sector. Under this scheme, assistance is provided for replacement of outdated ratts/looms and for constructing worksheds to groups of workers so as to increase their production and earnings. An outlay of Rs. 21.30 crore was kept in the BEs 2008-09 of which Rs. 2.50 crore has been earmarked for NER against which entire funds have been released during 2008-09 to Coir Board. Against the target for assisting 1000 spinning units and 800 tiny household units, 6404 applications (34.12 - spinning units and 2992 - tiny household units) have been received by the Implementing Agency upto March, 2009. Target for 2009-10 is 500 units each for spinning and tiny household.

Mahila Coir Yojana

The Mahila Coir Yajana is the first women oriented self employment scheme in the coir industry which provides self employment opportunities to the rural women artisans in regions producing coir fiber. Conversion of coir fibre into yarn on motorized ratt in rural households provides scope for large scale employment, in productivity

and quality, better working conditions and higher income to the workers. The scheme envisages distribution of motorized ratts for spinning coir yarn to women artisans after giving training. Not more than one artisan per household is eligible to receive assistance under the scheme. Women spinners are trained for two months in spinning coir yarn on motorized ratt at the Board's training centres. Under this Yojana, 3009 ratts were distributed and 5367 Women were trained during 2008-09. A target of distribution of 5000 ratts and training for 6250 women have been fixed for 2009-10.

Export Market Promotion

Export promotion is one of the important programmes being implemented by Coir Board for sustainable development of the industry. Under this programme. Coir Board in association with trade and industry is participating in major international fairs/exhibition on a country/product specific basis, product promotion programmes, catalogue show. extending external market development assistance to exporters etc. Coir Board along with coir producers has participated in 11 international exhibitions during 2008-09 for promotion of exports of coir and coir products. With the efforts of Coir Board, the export of coir and coir products reached the level of Rs. 634.17 crore in 2008-09. A target of Rs. 650 crore for exports of coir products has been fixed for 2009-10.

Scheme of Fund for Regeneration of Traditional Industries (SFURTI)

The scheme titled "Scheme of fund for Regeneration of Traditional Industries (SFURTI)" has been launched in October 2005 with a view to developing around 100 cluster in khadi, village and coir industry sectors with a total cost of Rs. 97.25 crore to make these industries more productive and competitive and to increase the employment opportunities in rural areas of the country. The scheme envisages need-based assistance for replacement of clusters have been approved by the Scheme Steering Committee. Upto 2007-08, Rs. 42.34 crore (Rs. 19.19 crore to KVIC and Rs. 13.15 crore to Coir Board) has been released to KVIC and Coir Board for implementing this scheme. Rs. 16.95 crore (Rs.13.45 crore to KVIC and Rs. 3.50 crore to Coir Board) have been released during 2008-09.

Mahatma Gandhi Institute for Rural Industrialisation

To strengthen the R&D activities in khadi and village industry sectors a national level institute namely 'Mahatma Gandhi Institute for Rural Industrialisation' by revamping Jamnalal Bajaj Central Research Institute has been established at Wardha, Maharashtra in association with IIT, Delhi. The project has been operationalised with the filling up of the post of Director and 35 scientific and technical staff in 2008-09. Funds to the tune of Rs. 1.80 crore were released during 2007-08 and Rs. 3 crore were released during 2008-09.

20 Justice and Law

THE Constitution of the Republic of India guarantees, besides other rights, protection of life and personal liberty and provides adequate safeguards against the arbitrary deprivation thereof by the State.

Adoption of a Constitution by India in 1950 did not disturb continuity of existing laws and unified structure of courts. Unity and uniformity of the judicial structure were preserved by placing such areas of law as criminal law and procedure, civil procedure, will, succession, contract including special form of contract, but not including contract relating to agricultural land, registration of deeds and documents, evidence, etc., in the Concurrent List.

SOURCE OF LAW

The main sources of law in India are the Constitution, statutes (legislation), customary law and case law. Statutes are enacted by Parliament, State legislatures and Union Territory legislatures. Besides, there is a vast body of laws known as subordinate legislation in the form of rules, regulations as well as bye-laws made by Central/ State governments and local authorities like municipal corporations, municipalities, gram panchayats and other local bodies. This subordinate legislation is made under the authority conferred or delegated either by Parliament or State or Union Territory legislatures concerned. Judicial decisions of superior courts like Supreme Court and High Courts are important sources of law. Decisions of Supreme Court are binding on all courts within the territory of India. Local customs and conventions which are not against statute, morality, etc., are also recognised and taken into account by courts while administering justice in certain spheres.

ENACTMENT OF LAWS

The Parliament is competent to make laws on matters enumerated in the Union List. State legislatures are competent to make laws on matters enumerated in the State List. Parliament alone has power to make laws on matters not included in the State or Concurrent List. On matters enumerated in the Concurrent List, laws can be made by both Parliament and legislatures. But in the event of repugnancy, law made by Parliament shall prevail and law made by State legislature, to the extent of repugnancy, be void unless the latter law having been reserved for consideration of President, has received his assent and in that event it shall prevail in that state.

JUDICIARY

At the apex of the entire judicial system exists Supreme Court of India with a High Court for each State or group of State and under High Courts; there is a hierarchy of subordinate courts. Panchayat courts also functional in some States under various names like *Nyaya Panchayat*, *Panchayat Adalat*, *Gram Kachehri* etc., to decide civil and criminal disputes of petty and local nature. Different State laws provide for jurisdiction of these courts.

Each state is divided into judicial districts presided over by a district and sessions judge, who is the principal civil court of original jurisdiction and can try all offences including those punishable with death. He is the highest judicial authority in a

district. Below him, there are courts of civil jurisdiction, known in different states as *munsifs*, sub-judges, civil judges and the like. Similarly, criminal judiciary comprises chief judicial magistrate and judicial magistrates of first and second class.

SUPREME COURT

The Supreme Court of India consists of 26 Judges (including the Chief Justice of India). The judges hold office until they attain the age of 65 years. The Supreme Court of India has original jurisdiction in any dispute arising: (a) between the Government of India and one or more States or (b) between the Government of India and any State or States on the one side and one or more states on the other or (c) between two or more States.

An appeal shall lie to the Supreme Court from any judgment, decree or final order of a High Court in the territory of India, whether in a civil, criminal or other proceeding.

HIGH COURTS

High Court stands at the head of the State's Judicial Administration. There are 21 High Courts in the country, three having jurisdiction over more than one State. Among the Union Territories, Delhi alone has a High Court of its own. Other six Union Territories come under jurisdiction of different State High Courts. Each High Court comprises a Chief Justice and such other Judges as the President may, from time to time appoint. The Chief Justice of a High Court is appointed by the President in consultation with the Chief Justice of India and the Governor of the state. The procedure for appointing of the High Courts judges is the same except that the recommendation for the appointment of Judges in the High Court is initiated by the Chief Justice of the High Court concerned. They hold office up to 62 years of age. To be eligible for appointment as a judge, one must be a citizen of India and should have held a judicial office in India for 10 years or must have practiced as an advocate of a High Court or two or more such courts in succession for a similar period.

Each High Court has power to issue any person or authority and Government within its jurisdiction, direction, orders or writs, including writs which are in the nature of habeas corpus, mandamus, prohibition, *quo warranto* and certiorari, for enforcement of Fundamental Rights and for any other purpose. This power may also be exercised by any High Court exercising jurisdiction in relation to territories within which the cause of action, wholly or in part arises for exercise of such power, even if the seat of such Government or authority or residence of such person is not within those territories. The total sanctioned strength of Judges and additional judges in different High Courts is 678 against which 587 Judges were in position as on 26 June 2006. Table 19.1 gives the seat and territorial jurisdiction of the High Courts.

TABLE 19.1 : JURISDICTION AND SEAT OF HIGH COURTS

Name	Year	Territorial Jurisdiction	Seat
Allahabad	1866	Uttar Pradesh	Allahabad (Bench at Lucknow)
Andhra Pradesh	1954	Andhra Pradesh	Hyderabad
Bombay	1862	Maharashtra, Goa, Dadra and Nagar Haveli and Daman and Diu	Mumbai (Benches at Nagpur, Panaji and Aurangabad)

Kolkata	1862	West Bengal	Kolkata (Circuit Bench at Port Blair)
Chhattisgarh	2000	Bilaspur	Bilaspur
Delhi	1966	Delhi	Delhi
Guwahati*	1948	Assam, Manipur, Meghalaya, Nagaland, Tripura, Mizoram and Arunachal Pradesh	Guwahati (Benches at Kohima, Aizawl, Imphal, Shillong, Agartala and Itanagar)
Gujarat	1960	Gujarat	Ahmedabad
Himachal Pradesh	1971	Himachal Pradesh	Shimla
Jammu and Kashmir	1928	Jammu and Kashmir	Srinagar and Jammu
Jharkhand	2000	Jharkhand	Ranchi
Karnataka#	1884	Karnataka	Bangaluru
Kerala	1958	Kerala and Lakshadweep	Ernakulam
Madhya Pradesh	1956	Madhya Pradesh	Jabalpur (Benches at Gwalior and Indore)
Madras	1862	Tamil Nadu and Puducherry	Chennai (Bench at Madurai)
Orissa	1948	Orissa	Cuttack
Patna	1916	Bihar	Patna
Punjab and Haryana@	1966	Punjab, Haryana and Chandigarh	Chandigarh
Rajasthan	1949	Rajasthan	Jodhpur (Bench at Jaipur)
Sikkim	1975	Sikkim	Gangtok
Uttarakhand	2000	Uttarakhand	Nainital

* Originally known as Assam High Court, renamed as Guwahati High Court in 1971.

Originally known as Mysore High Court, renamed as Karnataka High Court in 1973.

@ Originally known as Punjab High Court, renamed as Punjab and Haryana High Court in 1966.

Each High Court has powers of superintendence over all courts within its jurisdiction. It can call for returns from such courts, make and issue general rules and prescribed forms to regulate their practices and proceedings and determine the manner and form in which book entries and accounts shall be kept.

SUBORDINATE COURTS

The structure and functions of subordinate courts are more or less uniform throughout the country. Designations of courts connote their functions. These courts deal with all disputes of civil or criminal nature as per the powers conferred on them. These courts have been derived principally from two important codes prescribing procedures, i.e., the Code of Civil Procedure, 1908 and the Code of Criminal Procedure, 1973 and further strengthened by local statutes. As per direction of Supreme Court in WP (Civil) 1022/1989 in the All India Judges Association case, a uniform designation has been brought about in the subordinate judiciary's judicial officers all over the country viz., District or Additional District Judge, Civil Judge (Senior Division) and Civil Judge (Junior Division) on the civil side and on criminal side, Sessions Judge,

Additional Sessions Judge, Chief Judicial Magistrate and Judicial Magistrate, etc., as laid down in the Cr.P.C. Appropriate adjustment, if any, has been made in existing posts by indicating their equivalent with any of these categories by all State Governments/UT Administrations.

Under Article 235 of the Constitution of India, the administrative control over the members of subordinate judicial service vests with the concerned High Court. Further in exercise of powers conferred under provision to Article 309 read with Article 233 and 234 of the Constitution, the State Government shall frame rules and regulations in consultation with the High Court exercising jurisdiction in relation to such State. The members of the State Judicial Services are governed by these rules and regulations.

NATIONAL JUDICIAL ACADEMY

The National Judicial Academy has been set up by the Government of India to provide in-service training to Judicial Officers. The Academy was registered on 17 August 1993 under the Societies Registration Act, 1860. The Academy is located in Bhopal with its registered office in New Delhi. The National Judicial Academy building was inaugurated by the President of India on 5 September 2002.

The Academy will provide training and continuing education to judicial officers of States/UTs as well as ministerial officers working in the Supreme Court of India and the High Courts. The Academy will also function as a centre of excellence in judicial education, research and training.

The objectives of programmes of the Academy include Judicial Reform and Policy Development as well as Research Support Services for greater efficiency, fairness, access and productivity. It also includes improvements in Court administration and management for a litigant friendly justice system.

LEGAL AID

Article 39A of the Constitution of India provides for free legal aid to the poor and weaker sections of the society and ensures justice for all. Article 14 and 22(1) of the constitution also make it obligatory for the State to ensure equality before law and a legal system which promotes justice on the basis of equal opportunity to all. In 1987, the Legal Services Authorities Act was enacted by the Parliament which came into force on 9th November, 1995 with an object to establish a nationwide uniform network for providing free and competent legal services to the weaker sections of the society on the basis of equal opportunity. The National Legal Services Authority (NALSA) has been constituted under the Legal Services Authorities Act, 1987 to monitor and evaluate implementation of legal services available under the Act.

Hon'ble Mr. Justice K.G. Balakrishnan, the Chief Justice of India is the Patron-in-Chief and Hon'ble Mr. Justice S.B. Sinha, Judge Supreme Court of India is the Executive Chairman of the Authority.

In every State, a State Legal Services Authority and in every High Court, a High Court Legal Services Committee have been constituted. District Legal Services Authorities and Taluka Legal Services Committees have been constituted in the Districts and most of the Talukas in order to give effect to the policies and directions of the NALSA and to provide free legal services to the people and conduct Lok Adalats in the State. The State Legal Services Authorities are chaired by Hon'ble Chief Justice

of the respective Districts and the Taluka Legal Services Committees are chaired by the Judicial Officers at the Taluka Level.

Supreme Court Legal Services Committee has been constituted to administer and implement the legal services programme in so far as it relates to the Supreme Court of India.

FUNCTIONING OF NALSA

The NALSA issues guidelines for the State Legal Services Authorities to implement the Legal Aid Programmes and schemes throughout the country.

Primarily, the State Legal Services Authorities, District Legal Services Authorities, Taluka Legal Services Committees, etc. have been asked to discharge the following two main functions on regular basis:-

1. To Provide Free Legal Services to the eligible persons; and
2. To organize Lok Adalats for amicable settlement of disputes.

FREE LEGAL SERVICES

The Free Legal Services include:- (1) Payment of court fee, process fees and all other charges payable or incurred in connection with any legal proceedings; (2) Providing Advocate in legal proceedings; (3). Obtaining and supply of certified copies of orders and other documents in legal proceedings; (4) Preparation of appeal, paper book including printing and translation of documents in legal proceedings.

Eligible persons for getting free legal services include:- (1) Women and children; (2) members of SC/ST; (3) Industrial workmen; (4) Victims of mass disaster; violence, flood, drought, earthquake, industrial disaster; (5) disabled persons; (6) Persons in custody; (7) Persons whose annual income does not exceed Rs. 50,000/- (8) Victims of Trafficking in Human beings.

LOK ADALATS

Lok Adalat is a forum where the disputes/cases pending in the court of law or at pre-litigation stage are settled/compromised amicably. The Lok Adalat has been given statutory status under the Legal Services Authorities Act, 1987. Under this Act, an award made by a Lok Adalat is deemed to be a decree of a civil court and is final and binding on all parties and no appeal lies against thereto before any court.

Lok Adalats are being organized by the Legal Services Authorities/Committees u/s 19 of the Legal Services Authorities Act, 1987. Matters such as Matrimonial/Family Disputes. Criminal (Compoundable Offences) cases, Land Acquisition Cases, Labour Disputes, Workmen's Compensation cases, Bank Recovery cases, Pension cases, Housing Board and slum clearance cases & Housing Finance cases. Consumer Grievance cases, Electricity matters, disputes relating to Telephone Bills, Municipal matters including House Tax cases. Disputes with Cellular Companies etc. are being taken up in Lok Adalats.

With a view to provide compulsory pre-litigative mechanism for conciliation and settlement of disputes relating to 'Public Utility Services', the Parliament has amended the Legal Services Authorities Act, 1987. The amended Act stipulates the establishment of Permanent Lok Adalat for exercising jurisdiction in respect of disputes relating to Public Utility Services, such as transport service, postal, communication, supply of power, service in hospital/dispensary, insurance service, etc. A party to a dispute with such public utility service has to make an application to

the Permanent Lok Adalat established under Section 22B of the Legal Services (Amendment) Act, 2002 which has been vested with jurisdiction to decide the matter.

Subsequent to the amendment, Permanent Lok Adalats for Public Utility Services have been established in sixteen States/UTs i.e. Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala Madhya Pradesh, Meghalaya, Punjab, Rajasthan, Sikkim, Tripura and U.T. of Chandigarh.

NALASA SCHEMES

The NALSA has formulated the following schemes to perform its functions under the Legal Services Authorities Act, 1987;

LEGAL AND COUNSEL SCHEME

NALSA has initiated Legal Aid Counsel Scheme to provide meaningful legal assistance to undertrial prisoners on account of lack of resources or other disabilities cannot engage a counsels to defend them. Now, Legal Aid Counsel have been attached to each Magisterial Court who provide assistance and defend a person who is not able to engage a counsel, right from the stage he/she is produced in the court by the police.

PERMANENT AND CONTINUOUS LOK ADALAT SCHEME

A Permanent and Continuous Lok Adalat Scheme has been formulated and implemented to establish Lok Adalats under Section 19 of the Act in all the districts of the country. Under this scheme, the Lok Adalats are now organized regularly at designated venues, even away from court complexes and the cases which remain unsettled are taken up in the next Lok Adalat. Lok Adalats have thus acquired permanency and continuity and are no more occasional.

COUNSELLING AND CONCILIATION SCHEME

NALSA has formulated a Counselling and Conciliation Scheme to encourage the settlement of disputes by way of negotiations and conciliation. Under this scheme, Counselling and Conciliation Centres are being set up in all the Districts of the country for guiding and motivating the migrants to resolve their disputes amicably. Such Centres have been set up in most of the Districts.

LEGAL LITERACY PROGRAMME

NALSA has formulated a strategy to provide basic and essential knowledge to the vulnerable groups so that they can understand the law and know the scope of their rights under the law and eventually assert their rights as a means to take action, uplift their social status and being in social change.

NALSA has been organizing the Legal Aid Camps through State Legal Services Authorities, Taluka Legal Services Committees, NGOs. etc. in the rural area and slum areas for educating the weaker sections as to their rights and for encouraging them to settle their disputes through ADR Mechanism. The people are educated/made aware of their rights, benefits and privileges guaranteed by social welfare legislations, administration programmes and measures etc.

The NALSA has been organizing meetings, seminars and workshops connected with legal services programmes in different parts of the country. The NALSA has developed audio visual spots and publicity material to make the common man aware

of the various aspects of the legal services programmes. Documentary films have also been prepared and are being screened in the different parts of the country through Directorate of Field Publicity, Government of India.

ACCREDITATION OF VOLUNTARY SOCIAL SERVICE INSTITUTIONS

NALSA has formulated a scheme for accreditation of Voluntary Social Service Institutions to establish a nation wide network of voluntary agencies in order to spread legal literacy, legal awareness and publicity for legal services throughout the nook and corner of the country. All the State Legal Services Authorities have been urged to identify Social Service Institutions in all Districts and give them accreditation.

SCHEME ON SUPPORTING THE IMPLEMENTATION OF NATIONAL RURAL EMPLOYMENT GUARANTEE SCHEME (NREGS) THROUGH THE STATE LEGAL SERVICES AUTHORITIES

A scheme on Supporting the Implementation on NREGS through State Legal Services Authorities has been formulated by NALSA for generating awareness through Legal Literacy and Awareness Campaign and to establish a grievance redressal forum by Organising Lok Adalats to resolve the disputes/complaints or legal problems of any person in respect of implementation of the scheme and employment guaranteed under NREGA.

PLAN OF ACTION FOR 2009-2010

In order to implement the Legal Aid Schemes and Legal Services Programmes of NALSA in accordance with the object of the Legal Services Authorities Act, 1987, the following Plan for Action for the financial year 2009-2010 has been drawn up:

LEGAL AWARENESS PROGRAMME

1. Continuation of Micro Legal Literacy Projects in all States.
2. Continuation of the NALSA awareness programmes and Lok Adalats relating to NERGA matters.
3. State Legal Awareness Programmes in the States on the following laws :
 - (a) Maintenance and Welfare of Parents and Senior Citizens Act, 2007.
 - (b) Gram Nyayalaya Act.
 - (c) Protection of Women From Domestic Violence Act, 2005.
 - (d) Persons with Disabilities (Equal Protection of Rights and Full Participation) Act.
 - (e) National Trust Act.
 - (f) Laws relating to Marriage.
 - (g) Labour Laws.
 - (h) Environmental Protection Laws.
 - (i) Consumer Protection Laws.
 - (j) Campaign against Female Infanticide.
 - (k) Campaign against Human Trafficking.
4. Cooperation with National Commission for Women at the Centre and associating the activities of State Legal Services Authorities with the State Women's Commissions.

5. Conduct awareness programmes and seminars with the involvement of National Women's Commission, Ministry of Social Welfare, Ministry of Child Welfare and Development and Ministry of Rural Development.

Para-legal Volunteer Scheme : It is a scheme for building up a group of volunteers from among the rural people to act as intermediates between the common people and legal services institutions at Central, State, District and Taluka levels.

Lok Adalats : Widening the network of Lok Adalat to Government Departments, Petitions pending before Women's Commissions, various Tribunals, Labour Courts, Industrial Tribunal and Tax Tribunals etc. Setting-up Special Lok Adalats in all Family Courts.

LEGAL AID CLINICS

- (a) Establishing Legal Aid Clinics in all Gram Panchayats (similar to primary health centres) by engaging competent lawyers as legal consultants in the clinics. Give wide publicity about the clinics with the help of local Self-Government Institutions.
- (b) Setting-up Legal Aid Clinics in all law colleges and law universities and to encourage students to adopt remote village areas as their area of operation. For this purpose, the following strategies may be adopted :
 - (i) The students may be divided into small groups and deputed to the adopted villages.
 - (ii) In urban areas, colonies and slum areas where economically and socially backward people reside may be chosen for setting up Legal Aid Clinics.
 - (iii) Law Students should be guided by a team of senior Professors/Lecturers including part-time Lecturers. Rapport between the students and the people of the adopted area should be maintained throughout the year.
 - (iv) Law Students shall identify the problems which require Legal Aid. They shall discuss the problem with the teacher-in-charge and if it warrants further free legal services, the matter should be brought before the Legal Services Authorities/Committees concerned.
 - (v) The students shall be encouraged to organize legal awareness classes for small groups of people (4 or 5 houses together or 10 to 12 people). It should be more in the form of informal gatherings.
 - (vi) The students should aim at preventive and strategic legal aid.
 - (vii) In appropriate cases, senior students and postgraduate students who have already enrolled as lawyers, may be entrusted with the filing and conducting of the litigation in the Courts free of cost.
 - (viii) No fee shall be collected from the beneficiaries of legal aid clinic.

LEGAL AID

Bringing in more competent, well-known and senior lawyers for rendering Legal Services and Legal Aid.

- (a) Payment of better honorarium to the lawyers who provide Legal Aid.
- (b) Inclusion of all designated senior lawyers in the Legal Aid Schemes and requesting them to undertake at least two cases free of charge every year.
- (c) In appropriate cases, payment of the entire expenses including the normal fees of the lawyers.

- (d) Annual evaluation of the progress of cases in which Legal Aid was given. Success rate of the legal aid cases also should be a component of the evaluation measures.

Schemes, Projects and Programmes drawn up by the State Legal Services Authorities for the year 2009-10

- (a) Encouraging the preparation of blue-prints for activities for the year 2009-10 by the State Legal Services Authorities.
- (b) Calling for monthly progress reports in respect of each such programme.
- (c) Take steps for establishment of Permanent Lok Adalats for Public Utility Services U/s 22B in all Districts.
- (d) Take steps for appointing full time Secretaries in all District Legal Services Authorities.

Evaluation of Projects and Schemes

Directing the State Legal Services Authorities to set-up Committees for evaluation of the actual benefit received by the beneficiaries under Section 12 of this Act in respect of each project and programme and to send copy of such reports to NALSA.

Measures for Publicity

- (a) Liaison with the Information and Broadcasting Ministry and Prasar Bharti for timely briefing about the projects and programmes to the Press and Media.
- (b) Other publicity measures like, hoardings, production of short-films, skits in CD form and distribute copies to all TLSEc and DLSAs.
- (c) Printing of publicity materials like posters, pamphlets, booklets and distributing the required quantity of such materials to all States Legal Services Authorities in requisite number, advertisements in newspapers and television (both private and Government owned) etc.

To take necessary steps for ensuring commitment to the provisions in Part-IV of the Constitution of India

Improving the quality and contents of 'Nyayadeep', an official Newsletter of NALSA

Interaction and exchange of ideas : With the legal services institutions of the neighbouring countries (e.g. Sri Lanka, Bangladesh, Nepal, Malaysia, Singapore, Thailand, Taiwan etc.) and other Commonwealth Countries.

ACHIEVEMENT

Up to 31.03.2009 about 96.99 lakh persons have benefited through legal aid and advice throughout the country in which about 13.83 lakh persons belonging to Scheduled Caste and 4.64 lakh persons of Scheduled Tribe communities were beneficiaries. More than 10.22 lakh persons were women and about 2.35 lakh persons in custody were also benefited.

About 7.25 lakh Lok Adalats have been held throughout the country in which more than 2.68 crore cases have been settled. In about 16.87 lakh Motor Accident Claim cases, more than Rs. 7593 crores has been awarded as compensation.

ATTORNEY GENERAL

The Attorney General for India is appointed by the President and holds office during the pleasure of the President. He must be a person qualified to be appointed as a Judge of the Supreme Court. It is the duty of the Attorney-General in India to give advice to the Government of India upon such legal matters and to perform such other

duties of a legal character, as may be referred or assigned to him by the President and to discharge the functions conferred on him by or under the constitution or any other law. In the performance of his duties, he has the right of audience in all courts in India as well as the right to vote. In the discharge of his functions, the Attorney General is assisted by the Solicitor-General and the Additional Solicitors-General

ALTERNATIVE DISPUTE REDRESSAL (ADR)

With the steep growth in the number of laws and the number of cases, the Court system is under great pressure. In order to reduce the heavy demand on Court time, efforts need to be made to resolve the disputes by resorting to Alternative Dispute Resolution Methods before they enter the portals of the court.

The Arbitration, Mediation and Conciliation are tools of Alternative Dispute Redressal System.

ARBITRATION

Arbitration is a process in which a neutral third party or parties render a decision based on the merits of the case. In the Indian context the scope of the rules for the arbitration process are set out broadly by the provisions of the Arbitration and Conciliation Act 1998 and in the areas uncovered by the Statute the parties are free to design an arbitration process appropriate and relevant to their disputes.

MEDIATION

The Process of mediation aims to facilitate the development of a consensual solution by the disputing parties. The Mediation process is overseen by a non-partisan third party - the Mediator. The authority of the mediator vests on the consent of the parties that he should facilitate their negotiations.

CONCILIATION

This is a process by which resolution of disputes is achieved by compromise or voluntary agreement. In contrast to arbitration, the conciliator does not render a binding award. The parties are free to accept or reject the recommendations of the conciliator. The conciliator is in the Indian context, often a Government official whose report contains recommendations. So far as Department of Legal Affairs is concerned, this Department provides annual recurring Grants-in-aid to National Legal Services Authority (NALSA) which is a statutory body. During the financial year 2008-09, this Department released Grant-in-aid amounting to Rs. 18,82,69,495/- . Out of the Rs. 18,82,69,495/- grant in-aid amounting to Rs. 3 crore were released to NALSA for continuing the activities of the Mediation and Conciliation Project Committee in respect of Mediation.

As regards the promotion of alternative methods of dispute resolution, the International Centre for Alternative Dispute Resolution (ICADR) was set up by the Department of Legal Affairs as an autonomous body registered under the Societies Registration Act, 1860. The Hon'ble Minister for Law & Justice is the Chairman of ICADR. The main object of the ICADR is to promote popularize and propagate Alternative Dispute Resolution to facilitate early resolution of disputes so as to reduce the burden of arrears in the Courts.

LEGAL PROFESSION

In India, the law relating to legal profession is governed by the Advocates Act, 1961 and the rules framed there under by the Bar Council of India. It is a self-contained

code of law relating to legal practitioners and provides for the constitution of State Bar Councils and Bar Council of India. A person enrolled as an advocate under the Advocates Act, 1961, is entitled to practice law throughout the country. An advocate on the roll of a State Bar Council may apply for transfer to the roll of any other State Bar Council in the prescribed manner. No person can be enrolled as an advocate on the rolls of more than one State Bar Council. There are two classes of advocates, namely, senior advocates and other advocates. An advocate with his consent, may be designated as a senior advocate, if the Supreme Court or a High Court is of the opinion that by virtue of his ability, standing at the Bar or special knowledge or experience in law, he deserves such distinction. A senior advocate cannot appear without an advocate-on-record in the Supreme Court or without some other advocate on the State Roll in any other court or tribunal. Standards of education have been prescribed for enrolment as an advocate. There are also rules regulating standards of professional conduct and etiquette and other matters. State Bar Councils have disciplinary jurisdiction over advocates whose names appear on their rolls. This is subject to right of appeal to the Bar Council of India and a further right of appeal to the Supreme Court of India.

ADVOCATES WELFARE FUND

Social security in the form of financial assistance to junior lawyers and welfare schemes for indigent or disabled advocates, has always been a matter of concern for the legal fraternity. Certain States enacted thereon legislation on the subject. The Parliament enacted "Advocates Welfare Fund Act, 2001" applicable to the Union Territories and the States which do not have their own enactments on the subject, for consideration of "Advocates Welfare Fund" by the appropriate Government. This Act makes it compulsory for every advocate to affix stamps of the requisite value on every Vakalatnama file in any court, tribunal or other authority. Sum collected by way of sale of "Advocates' Welfare Funds Stamps" constitute an important source of the Advocates' Welfare Fund.

All practicing Advocates shall become members of the Advocates' Welfare Fund on payment of an application fee and annual subscription. The fund shall vest in and be held and applied by the Trustee Committee established by the appropriate Government. The fund shall, *inter-alia*, be used for making *ex-gratia* grant to a member of the fund in case of a serious health problem, payment of a fixed amount on cessation of practice and in case of death of a member, to his nominee or legal heir, medical and educational facilities for the members and their dependants, purchase of books and for common facilities for advocates.

NATIONAL TAX TRIBUNAL

Due to pendency of a large number of cases in the High Courts and huge revenue blocked in such litigation, it was proposed to establish a National Tax Tribunal to hear cases on substantial question of law from the decisions of the Income-tax Appellate Tribunal (ITAT) and the Customs Excise and Service Tax Appellate Tribunal (CESTAT).

The National Tax Tribunal Act, 2005 was notified in the Gazette of India on 21.12.2005. The above Act has, however, been challenged before various High Courts. In order to consolidate all the writ petitions, a Transfer Petition No. 92/2006 was filed on 02.02.2006 in the Hon'ble Supreme Court. The Supreme Court passed an order on 09.01.2007 observing that certain amendments may be considered by the

Government. In order to give effect to the observations of the Hon'ble Supreme Court, the National Tax Tribunal (Amendment) Ordinance, 2007 was promulgated on 29.01.2007, the said Ordinance has been replaced by National Tax Tribunal (Amendment) Bill, 2007 and the amended Act has been published in the Gazette of India dated 04.04.2007. The Transfer Petition is now pending before the Hon'ble Supreme Court which has reserved its decision.

LAW COMMISSION OF INDIA

The 18th Law Commission was reconstituted on 1 September 2006 for a period of three years with Hon'ble Dr. Justice A.R. Lakshmanan as its Chairman. A.R. Lakshmanan has been appointed its Chairman w.e.f. 28.05.2007 and Dr. D.P. Sharma as its Member-Secretary w.e.f. 31 March 2006. The terms of reference of the 18th Law Commission are:

- (a) Review/Repeal of obsolete laws:
 - (i) to identify laws which are no longer needed or relevant and can be immediately repealed;
 - (ii) to identify laws which are in harmony with the existing climate of economic liberalisation which need no change;
 - (iii) to identify laws which require changes or amendments and to make suggestions for their amendment;
 - (iv) to consider in a wider perspective the suggestions for revision/amendment given by Expert Groups in various Ministries/Departments with a view to coordinating and harmonising them;
 - (v) to consider references made to it by Ministries/Departments in respect of legislation having bearing on the working of more than one Ministry/Department;
 - (vi) to suggest suitable measures for quick redressal of citizens grievances, in the field of law;
- (b) Law and Poverty:
 - (i) to examine the Law which affect the poor and carry out post-audit for socio-economic legislation;
 - (ii) to take all such measures as may be necessary to harness law and the legal process in the service of the poor;
- (c) to keep under review the system of judicial administration to ensure that it is responsive to the reasonable demands of the time and in particular to secure:
 - (i) elimination of delays, speedy clearance of arrears and reduction in costs so as to secure quick and economical disposal of cases without affecting the cardinal principle that decisions should be just and fair;
 - (ii) simplification of procedure to reduce and eliminate technicalities and devices for delay so that it operates not as an end in itself but as a means of achieving justice;
 - (iii) improvements of standards of all concerned with the administration of justice;
- (d) to examine the existing laws in the light of Directive Principles of State Policy and to suggest ways of improvement and reform and also to suggest such

legislation as might be necessary to implement the Directive Principles and to attain the objective set out in the Preamble to the Constitution;

- (e) to revise the Central Acts of General Importance so as to simplify them and to remove anomalies, ambiguities and inequities;
- (f) to recommend to the Government measure of bringing the statute book up-to-date by repealing obsolete laws and enactments or parts thereof which have outlived their utility;
- (g) to consider and to convey to the Government its views on any other subject relating to law and judicial administration that may be referred to it by the Government through Ministry of Law and Justice (Department of Legal Affairs).

Various subjects were taken up by the Commission *suo motu* in view of the importance of the issues while some subjects were taken up on a reference from the Government/Supreme Court of India. The Commission has so far submitted 201 reports.

ENFORCEMENT AGENCIES

POLICE

The Police force in the country is entrusted with the responsibility of maintenance of public order and prevention and detection of crimes. Public order and police being state subjects under the Constitution, police is maintained and controlled by States.

The Police force in State is headed by the Director General of Police/Inspector General of Police. State is divided into convenient territorial divisions called ranges and each police range is under the administrative control of a Deputy Inspector General of Police. A number of districts constitute the range. District police is further sub-divided into police divisions, circles and police-stations. Besides the civil police, states also maintain their own armed police and have separate intelligence Branches, crime branches, etc. Police set up in big cities like Delhi, Kolkata, Mumbai, Chennai, Bangaluru, Hyderabad, Ahmedabad, Nagpur, Pune, etc. is directly under a Commissioner of Police who enjoys magisterial powers. All senior police posts in various States are manned by the Indian Police Service (IPS) cadres, recruitment to which is made on All-India basis.

The Central Government maintains Central Police forces, Intelligence Bureau (IB), Central Bureau of Investigation (CBI), Institutions for training of police officers and forensic science institutions to assist the states in gathering intelligence, in maintaining law and order, in investigating special crime cases and in providing training to the senior police officers of the State governments.

INDO-TIBETAN BORDER POLICE

The Indo-Tibetan Border Police (ITBP) was raised on 21 October 1962 after the Chinese aggression as an integrated intelligence/signal/pioneer/engineering/medical and guerrilla unit and was initially placed under the Intelligence Bureau for operational control. In 1975, the primary task of the ITBP was re-defined as security of northern borders, to check illegal immigration and trans-border crimes.

ITBP is given the responsibility of providing security/communication/medical cover to the pilgrims during Kailash-Mansarover Yatra besides being the Nodal Agency

Disaster Management in the Central and Western Himalayan region. The ITBP has 29 battalions including four specialist battalions.

BORDER SECURITY FORCE

Border Security Force (BSF) raised in 1965, is entrusted with the task of maintaining permanent vigilance on India's international borders. The present strength of BSF is 157 battalions and guards a total of 6,385.36 km of international borders, spread over mountains, inhospitable deserts, riverine, snow bound and marshy areas. BSF has been assigned the role of promoting a sense of security amongst the people living in the border areas and preventing trans-border crimes, such as smuggling, infiltration/exfiltration and other illegal activities.

ASSAM RIFLES

The Assam Rifles raised as Catchar Levy in 1835 is the oldest Police Force in the country. The force has 46 battalions. The force has a dual role of maintaining internal security in the North-Eastern region and guarding the Indo-Myanmar Border. The Assam Rifles contribution towards assimilation of the people of north-east into the national mainstream is truly monumental. The force is fondly called "The Sentinels of the North-East" and "Friends of the Hill People."

NATIONAL SECURITY GUARDS

The National Security Guards (NSG) modelled on the pattern of SAS of the UK and GSG-9 of Germany has been set up in 1984 for handling counter terrorists and counter hijacking operations including VIP security. It is a highly trained and motivated Force for effectively dealing with terrorist activities in the country. It also trains state police commandos to upgrade their capability to meet the terrorist threats and carry out bomb detection/defusion operations. The NSG maintains the only National Bomb Data Centre of the country. A counter terrorist operation was carried out by the commandos of NSG at Akshar Dham Temple, Ahmedabad in September 2002 and they were successful in eliminating the terrorists who took refuge in the temple complex. NSG has been presented Presidential colour on 16 October 2004.

CENTRAL RESERVE POLICE FORCE

The Central Reserve Police Force (CRPF) is an Armed Force of the Union of India for internal security management. This Force was raised in 1939 at Nimuch (MP) as the Crown Representative's Police and was renamed as the Central Reserve Police Force in 1949.

At present, CRPF has 191 Battalions including Rapid Action Force (RAF). The Force remained committed to internal security and counter insurgency-cum-anti-terrorist operations in various parts of the country. This is a Force with ladies contingents organised in two Mahila Battalions.

RAPID ACTION FORCE

Rapid Action Force (RAF) is an integral part of the Central Reserve Police Force. With 10 battalions it has been conceived in 1992 as a specially trained and equipped to be an effective strike force mainly to tackle communal riots and riot-like situations. Unlike the conventional force of law and order, the RAF in addition to its law enforcing role has got post-riot role in rescue and relief.

CENTRAL INDUSTRIAL SECURITY FORCE

The Central Industrial Security Force (CISF) was established in 1969 to provide security to industrial undertakings of the government. The Force numbering over 96,057 has the responsibility to protect and safeguard the industrial undertakings owned by the Central Government together with such installations as are specified as vital by the Government. CISF is presently providing security cover to 267 public sector undertakings. The security of 54 Airports and the Government buildings in Delhi together with such installations as specified vital has also been entrusted to the CISF. The CISF has launched security and fire protection consultancy services in 2001.

SARDAR VALLABHBHAI PATEL NATIONAL POLICE ACADEMY

The Sardar Vallabhbhai Patel National Police Academy is the premier police training institutions in the country which imparts basic as well as in-service training to Indian Police Service (IPS) officers. Established in 1948 at Mount Abu, Rajasthan, the Academy was shifted to Hyderabad in 1975. The Academy also promotes study and research on police-related topics.

SASHASTRA SEEMA BAL

Special Service Bureau (SSB) was set up in the early 1963 under Cabinet Secretariat in the wake of India China conflict of 1962 to build peoples' morale and inculcate spirit of resistance in the border population against threats of subversion, infiltration and sabotage from across the border. It is now under the administrative control of the Ministry of Home Affairs with effect from 15 January 2001 and assigned the responsibility to guard along the Indo-Nepal and Indo-Bhutan Borders. Name of SSB has been changed as "Sashastra Seema Bal" from 15 December 2003. For its dedicated and distinguished service, SSB was presented President's Colours in March 2004.

CIVIL DEFENCE

Civil Defence includes any measures not amounting to actual combat, for affording protection to any person, property, place or thing in India of any part of the territory thereof against any hostile attack whether from air, land, sea or other places or for operating/mitigating the effect of any such attack, whether such measures are taken before, during or after the time of such attack. Civil Defence is to be organised as an integral part of the defence of the country. Civil Defence aims at saving life, minimise damage to the property, maintaining continuity of industrial production and keeping the public morale high in the event of a hostile attack. Central financial assistance to the States for Civil Defence measures is confined to categorised Civil Defence towns only. Civil Defence is primarily organised on voluntary basis except for a small nucleus of paid staff and establishment which is augmented during emergencies. Civil Defence activities are restricted to 225 categorised towns spread all over the country. The present target of Civil Defence volunteers is 13 lakh, of which 6.64 lakh have already been raised and 5 lakh trained.

Civil Defence volunteers are also deployed, on a voluntary basis, in various constructive and nation building activities, including providing assistance to the administration in undertaking social and welfare services and in the prevention/mitigation of natural/man-made disasters as well as in post-disaster response and relief operations. The training of Civil Defence organisation is carried out in three tier levels. The training of trainers and specialised training is conducted at the National Civil Defence College, Nagpur and Team/Leadership training is conducted at State

Civil Defence Institutes. Training of the volunteers in Civil Defence Organisation is carried out at Local/Town levels by trained trainers in the form of short-term training programmes.

The Civil Defence has reached out to over 200 schools and colleges besides residential areas in Delhi and has trained over more than 10,000 women and girl students in self-defence.

HOME GUARDS

Home Guards is a voluntary force, first raised in India in December 1946, to assist the police in controlling civil disturbance and communal riots. Subsequently, the concept of the voluntary citizens force was adopted by several States. In the wake of Chinese aggression in 1962, the Centre advised the States and Union Territories to merge their existing voluntary organisations into one uniform voluntary force known as Home Guards. The role of Home Guards is to serve as an auxiliary to the police in maintenance of internal security, help the community in any kind of emergency such as an air-raid, fire, cyclone, earthquake, epidemic, etc., help in maintenance of essential services, promote communal harmony and assist the administration in protecting weaker sections, participate in socio-economic and welfare activities and perform Civil Defence duties. Home Guards are of two types—rural and urban. In border States, Border Wing Home Guards Battalions, have also been raised, which serve as an auxiliary to the Border Security Force. The organisation is spread over in all States and Union Territories except in Kerala.

Eighteen Border Wing Home Guards (BWHG) Battalions have been raised in the border States viz. Punjab (6 Bns), Gujarat (4 Bns) and one each of Battalions for Assam, Meghalaya, Tripura and West Bengal to serve as an auxiliary to Border Security Force for preventing infiltration on the international border/coastal areas, guarding of VVIPs and lines of communication in vulnerable areas at the time of external aggression.

Home Guards are raised under the Home Guards Act and Rules of the States/ Union Territories. They are recruited from various cross sections of the people such as doctors, engineers, lawyers, private sector organisations, college and University students, agricultural and industrial workers, etc., who give their spare time to the organisation for betterment of the community. All citizens of India, who are in the age group of 18-50, are eligible to become members of Home Guards. Normal tenure of membership in Home Guards is 3 to 5 years. Amenities and facilities given to Home Guards include free uniform for gallantry, distinguished and meritorious services. A Home Guard, whenever called out for duty/training, is paid duty/training allowance at prescribed rates to meet out-of-pocket expenses. Members of Home Guards with three years service in the organisation are trained in police in maintenance of law and order, prevention of crime, anti-decoity measures, border patrolling, prohibition, flood relief, fire-fighting, election duties and social welfare activities. In the event of national emergency, some portion of Civil Defence work is also entrusted to the Home Guards.

The Ministry of Home Affairs formulates the policy in respect of role, target, raising, training, equipping, establishment and other important matters of Home Guards Organisation. Expenditure on Home Guards is generally shared between Centre and State Governments as per existing financial policy on discrete financial terms.

FIRE SERVICE

Fire is a State subject and fire services are administered by the States/Union Territories. The Ministry of Home Affairs renders technical advice to States/Union Territories and Central Ministries on fire protection, fire prevention and fire legislation. For the modernisation of fire service in the states, the Ministry of Home Affairs arranges GIC loans through the Ministry of Finance. A sum of Rs 404.97 crore as GIC has been arranged for development of State Fire Services since 1980-81. In addition, Xth Finance Commission allocated Rs 80 crore as grant-in-aid for the modernisation of fire service in various States during the period 1995-2000. Eleventh Finance Commission further allocated Rs 201 crore as grant-in-aid for 2000-05. The training of the firemen is conducted in State Fire Training Centres—at present 14 in numbers. But the training of the Officers cadre is conducted at National Fire Service College, Nagpur. The National Fire Service College, Nagpur since its inception in 1956, trained 13,794 fire officers including 71 foreign trainees from twelve countries.

LOK NAYAK JAYAPRAKASH NARAYAN (LNJN) NATIONAL INSTITUTE OF CRIMINOLOGY AND FORENSIC SCIENCE

A premier institution for Criminology, the National Institute of Criminology and Forensic Science (MHA) was set up in 1972. It has been named as “Lok Nayak Jayaprakash Narayan National Institute of Criminology and Forensic Science” on 3 October 2003 and continues to function as the country’s nodal institution for training of functionaries of Criminal Justice System in the twin fields of Criminology and Forensic Science, as well as for research related to these fields.

Teaching Programmes/Training and Research : The Institute is affiliated with the Guru Gobind Indraprastha University, Delhi for running M.A/M.Sc programme in Criminology and Forensic Science. The courses started w.e.f. 3 August 2004. A DNA Lab with state-of-the-art equipments like Bio-robot workstation has been set up.

PERSONAL LAW

The people of India belong to different religions and faiths. They are governed by different sets of personal laws in respect of matters relating to family affairs, i.e., marriage, divorce, succession, etc.

MARRIAGE

Law relating to marriage and/or divorce has been codified in different enactments applicable to people of different religions. These are :

1. The Converts' Marriage Dissolution Act, 1866;
2. The Indian Divorce Act, 1869;
3. The Indian Christian Marriage Act, 1872;
4. The Kazis Act, 1880;
5. The Anand Marriage Act, 1909;
6. The Indian Succession Act, 1925;
7. The Child Marriage Restraint Act, 1929;
8. The Parsi Marriage and Divorce Act, 1936;
9. The Dissolution of Muslim Marriage Act, 1939;

10. The Special Marriage Act, 1954;
11. The Hindu Marriage Act, 1955;
12. The Foreign Marriage Act, 1969; and
13. The Muslim Women (Protection of Rights on Divorce) Act, 1986.

The Special Marriage Act, 1954 extends to the whole of India except the State of Jammu and Kashmir, but also applies to the citizens of India domiciled in Jammu and Kashmir. Persons governed by this Act can specifically register marriage under the said Act even though they are of different religious faiths. The Act also provides that the marriage celebrated under any other form can also be registered under the Special Marriage Act, if it satisfies the requirements of the Act. The section 4(b) (iii) of the Act was amended to omit the words "or epilepsy." Sections 36 and 38 have been amended to provide that an application for alimony *pendente lite* or the maintenance and education of minor children be disposed of within 60 days from the date of service of notice on the respondent.

An attempt has been made to codify customary law which is prevalent among Hindus by enacting the Hindu Marriage Act, 1955. The Hindu Marriage Act, 1955, which extends to the whole of India, except the State of Jammu and Kashmir, applies also to Hindus domiciled in territories to which the Act extends and those who are outside the said territories. It applies to Hindus (in any of its forms or development) and also to Buddhists, Sikhs, Jains and also those who are not Muslims, Christians, Parsis or Jews by religion. However, the Act does not apply to members of any scheduled tribes unless the Central Government by notification in the official Gazette otherwise directs.

Provisions in regard to divorce are contained in section 13 of the Hindu Marriage Act and section 27 of the Special Marriage Act. Common ground on which divorce can be sought by a husband or a wife under these Acts fall under these broad heads: Adultery, desertion, cruelty, unsoundness of mind, venereal disease, leprosy, mutual consent and being not heard of as alive for seven years.

As regards the Christian community, provisions relating to marriage and divorce are contained in the Indian Christian Marriage Act, 1872 and in section 10 of the Indian Divorce Act, 1869 respectively. Under that section the husband can seek divorce on grounds of adultery on the part of his wife and the wife can seek divorce on the ground that the husband has become convert to another religion and has gone through marriage with another woman or has been guilty of (a) incestuous adultery; (b) bigamy with adultery; (c) marriage with another woman with adultery; (d) rape, sodomy or bestiality; (e) adultery coupled with such cruelty as without adultery would have entitled her to a divorce, a *mensa etoro* (a system of divorce created by the Roman Catholic Church equivalent to judicial separation on grounds of adultery, perverse practices, cruelty, heresy and apostasy) and (f) adultery coupled with desertion without reasonable excuse for two years or more.

In the Indian Divorce Act, 1869 comprehensive Amendments were made through the Indian Divorce (Amendment) Act, 2001 (No. 51 of 2001) to remove discriminatory provisions against women in the matter of Divorce. Further, sections 36 and 41 of the Act were amended by the Marriage Laws (Amendment) Act, 2001 to provide that an application for alimony *pendente lite* or the maintenance and education of minor children be disposed of within 60 days from the date of service of notice on the respondent.

As regards Muslims, marriages are governed by the Mohammedan Law prevalent in the country. As regards divorce, i.e., *Talaq*, a Muslim wife has a much restricted right to dissolve her marriage. Unwritten and traditional law tried to ameliorate her position by permitting her to see dissolution under the following forms : (a) *Talaq-I-Tafwid*: This is a form of delegated divorce. According to this, the husband delegates his right to divorce in a marriage contract which may stipulate, *inter alia*, on his taking another wife, the first wife has a right to divorce him; (b) *Khula* : this is a dissolution of agreement between the parties to marriage on the wife's giving some consideration to the husband for her release from marriage ties. Terms are a matter of bargain and usually take the form of the wife giving up her *mehr* or a portion of it, and (c) *Mubarat* : this is divorce by mutual consent.

Further, by the Dissolution of Muslim Marriage Act, 1939, a Muslim wife has been given the right to seek dissolution of her marriage on these grounds; (i) whereabouts of the husband have not been known for a period of four years; (ii) husband is not maintaining her for a period of two years; (iii) imprisonment of husband for a period of seven years or more; (iv) failure on the part of husband to perform his marital obligations, without a reasonable cause, for a period of three years; (v) impotency of husband; (vi) two-year long insanity; (vii) suffering from leprosy or virulent venereal disease' (viii) marriage took place before she attained the age of 15 years and not consummated; and (x) cruelty.

The Parsi Marriage and Divorce Act, 1936 governs the matrimonial relations of Parsis. The word 'Parsi' is defined in the Act as a Parsi Zoroastrian. A Zoroastrian is a person who professes the Zoroastrian religion. It has a racial significance. Every marriage as well as divorce under this Act is required to be registered in accordance with the procedure prescribed in the Act. However, failure to fulfil requirements on that behalf does not make marriage invalid. The Act provides only for monogamy. By the Parsi Marriage and Divorce (Amendment) Act, 1988, scope of certain provisions of the Parsi Marriage and Divorce Act, 1936 have been enlarged so as to bring them in line with the Hindu Marriage Act, 1955. Recently, sections 39 and 49 of the Parsi Marriage and Divorce Act, 1936 were amended by the Marriage Laws (Amendment) Act, 2001 to provide that an application for alimony *pendent lite* or the maintenance and education of minor children be disposed of within 60 days from the date of service of notice on the wife or the husband as the case may be.

As for the matrimonial laws of Jews, there is no codified law in India. Even today, they are governed by their religious laws. Jews do not regard marriage as a civil contract, but as a relation between two persons involving very sacred duties. Marriage can be dissolved through courts on grounds of adultery or cruelty. Marriages are monogamous.

CHILD MARRIAGE

The Child Marriage Restraint Act, 1929, from 1 October 1978, provides that marriage age for males will be 21 years and for females 18 years.

ADOPTION

Although there is no general law of adoption, it is permitted by the Hindu Adoption and Maintenance Act, 1956 amongst Hindus and by custom amongst a few numerically insignificant categories of persons. Since adoption is legal affiliation of a child, it forms the subject matter of personal law. Muslims, Christians and Parsis

have no adoption laws and have to approach the court under the Guardians and Wards Act, 1890. Muslims, Christians and Parsis can take a child under the said Act only under foster care. Once a child under foster care becomes major, he is free to break away all these connections. Besides, such a child does not have the legal right of inheritance. Foreigners, who want to adopt Indian children have to approach the court under the aforesaid Act.

Hindu law relating to adoption has been amended and codified into the Hindu Adoptions and Maintenance Act, 1956, under which a male or female Hindu having legal capacity, can take a son or daughter in adoption. In dealing with the question of guardianship of a minor child, as in other spheres of family law, there is no uniform law. Hindu Law, Muslim Law and the Guardians and Wards Act, 1890 are three distinct legal systems which are prevalent. A guardian may be a natural guardian, testamentary guardian or a guardian appointed by the court. In deciding the question of guardianship two distinct things have to be taken into account—person of the minor and his property. Often the same person is not entrusted with both.

The Hindu Minority and Guardianship Act, 1956 has codified laws of Hindus relating to minority and guardianship. As in the case of uncodified law, it has upheld the superior right of father. It lays down that a child is a minor till the age of 18 years. Natural guardian for both boys and unmarried girls is first the father and then the mother. Prior right of mother is recognised only for the custody of children below five. In case of illegitimate children, the mother has a better claim than the putative father. The act makes no distinction between the person of the minor and his property and therefore guardianship implies control over both.

Under the Muslim Law, the father enjoys a dominant position. It also makes a distinction between guardianship and custody. For guardianship, which has usually reference to guardianship of property, according to Sunnis, the father is preferred and in his absence his executor. If not executor has been appointed by the father, the guardianship passes on to the paternal grandfather to take over responsibility and not that of the executor. Both schools, however, agree that father while alive is the sole guardian. Mother is not recognised as a natural guardian even after the death of the father.

As regards rights of a natural guardian, there is no doubt that father's right extends both to property and person. Even when mother has the custody of minor child. Father's general right of supervision and control remains. Father can, however, appoint mother as a testamentary guardian. Thus, though mother may not be recognised as natural guardian, there is no objection to her being appointed under the father's will.

Muslim law recognises that mother's right to custody of minor children (*Hizanat*) is an absolute right. Even the father cannot deprive her of it. Misconduct is the only condition which can deprive the mother of this right. As regards the age at which the right of mother to custody terminates, the Shia school holds that mother's right to the *Hizanat* is only during the period of rearing which ends when the child completes the age of two, whereas Hanafi school extends the period till the minor son has reached the age of seven. In case of girls, Shia law upholds mother's right till the girl reaches the age of seven and Hanafi school till she attains puberty.

The general law relating to guardians and wards is contained in the Guardians and Wards Act, 1890. It clearly lays down that father's right is primary and no other

person can be appointed unless the father is found unfit. This Act also provides that the court must take into consideration the welfare of the child while appointing a guardian under the Act.

MAINTENANCE

Obligation of a husband to maintain his wife arises out of the status of the marriage. Right to maintenance forms a part of the personal law.

Under the Code of Criminal Procedure, 1973, (2 of 1974), right of maintenance extends not only to the wife and dependent children, but also to indigent parents and divorced wives. Claims of the wife, etc., however, depends on the husband having sufficient means. Claim of maintenance for all dependent persons was limited to Rs 500 per month. But, this limit was removed by the Code of Criminal Procedure (Amendment) Act, 2001 (No. 50 of 2001). Inclusion of the right of maintenance under the Code of Criminal Procedure has the advantage of making the remedy both speedy and cheap. However, divorced wives who have received money payable under the customary personal law are not entitled to claim maintenance under the Code of Criminal Procedure.

Under Hindu Law, the wife has an absolute right to claim maintenance from her husband. But she loses her right if she deviates from the path of chastity. Her right to maintenance is codified in the Hindu Adoptions and Maintenance Act, 1956. In assessing the amount of maintenance, the court takes into account various factors like position and liabilities of the husband. It also judges whether the wife is justified in living apart from husband. Justifiable reasons are spelt out in the Act. Maintenance *pendente lite* (pending the suit) and even expenses of a matrimonial suit will be borne by either, husband or wife, if the other spouse has no independent income for his or her support. The same principle will govern payment of permanent maintenance.

Under the Muslim Law, the Muslim Women (Protection of Rights on Divorce) Act, 1986 protects rights of Muslim women who have been divorced by or have obtained divorce from their husbands and provides for matters connected therewith or incidental thereto. This Act, *inter alia*, provides that a divorced Muslim woman shall be entitled to (a) reasonable and fair provision and maintenance to be made and paid to her within the *iddat* period by her former husband; (b) where she herself maintains children born to her before or after her divorce, a reasonable and fair provision and maintenance to be made and paid by her former husband for a period of two years from the respective dates of birth of such children; (c) an amount equal to the sum of *mehr* or dower agreed to be paid to her at the time of her marriage or at any time thereafter according to the Muslim Law; and (d) all property given to her before or at the time of marriage or after her marriage by her relatives or friends or by husband or any relatives of the husband or his friends.

In addition, the Act also provides that where a divorced Muslim woman is unable to maintain herself after the period of *iddat*, the magistrate shall order directing such of her relatives as would be entitled to inherit her property on her death according to the Muslim Law and to pay such reasonable and fair maintenance to her as he may determine fit and proper, having regard to the needs of the divorced woman, standard of life enjoyed by her during her marriage and means of such relatives and such maintenance shall be payable by such relatives in proportion to the size of their inheritance of her property and at such periods as he may specify in his order.

Where such divorced woman has children, the magistrate shall order only such children to pay maintenance to her and in the event of any such children being unable to pay such maintenance, the magistrate shall order parents of such divorced woman to pay maintenance to her.

In the absence of such relatives or where such relatives are not in a position to maintain her, the magistrate may direct State Wakf Board established under Section 13 of the Wakf Act, 1995 functioning in the area in which the woman resides, to pay such maintenance as determined by him.

The Parsi Marriage and Divorce Act, 1936 recognises the right of wife to maintenance—both alimony *pendente lite* and permanent alimony. The maximum amount that can be decreed by the court as alimony during the time a matrimonial suit is pending in court, is one-fifth of the husband's net income. In fixing the quantum as permanent maintenance, the court will determine what is just, bearing in mind the ability of husband to pay, wife's own assets and conduct of the parties. The order will remain in force as long as wife remains chaste and unmarried.

The Indian Divorce Act, 1869 *inter alia* governs maintenance rights of a Christian wife. The provisions are the same as those under the Parsi Law and the same considerations are applied in granting maintenance, both alimony *pendente lite* and permanent maintenance.

SUCCESSION

The Indian Succession Act was enacted in 1925. The object of the Act was to consolidate the large number of laws which were in existence at that time. Laws governing succession to Muslims and Hindus were excluded from the purview of the Act. While consolidating the law in respect of succession, two schemes, one relating to succession to property of persons like Indian Christians, Jews and persons married under the Special Marriage Act, 1954 and the other relating to succession rights or Parsis, were adopted.

In the first scheme, applying to those other than Parsis, in the case of a person dying intestate leaving behind a widow and lineal descendants, the widow would be entitled to a fixed share of one-third of property and lineal descendants shall be entitled to the remaining two-third. This law was amended subsequently with the object of improving rights of widows and it was provided that where the intestate dies leaving behind his widows and it was provided that where the intestate dies leaving behind his widow and no lineal descendant and the net value of the estate does not exceed Rs 5,000, the widow would be entitled to the whole of this property. Where the net value of the estate exceeds Rs 5,000 she is entitled to charge a sum of Rs 5,000 with interest at four per cent payment and in the residue, she is entitled to her share. The Act imposes no restriction on the power of a person to will away his property.

Under the second scheme, the Act provides for Parsi intestate succession. By the Indian Succession (Amendment) Act, 1991 (51 of 1991), the Act was amended to provide equal shares for both sons and daughters in their parental properties, irrespective of the fact that it was that of the father or that of the mother. It also enables the Parsis to bequeath their property to religious or charitable purposes, etc., without any restrictions. In effect the amended law provides that where a Parsi dies intestate leaving behind a widow or widower as the case may be, and children, the property shall be divided so that the widow or widower and each child receives equal share.

Further, where a Parsi dies leaving behind one or both parents in addition to children, or widow widower and children, the property shall be so divided that the parent or each of the parents shall receive a share equal to half the share of each child.

This Act was amended by the Indian Succession (Amendment) Act, 2002. It was felt that section 32 of the principal Act is discriminatory to widows and as such the proviso to section 32 was omitted to remove discrimination in this regard. Section 213 was also amended by this amending Act to make Christians at par with other communities.

The law relating to intestate succession among Hindus is codified in the Hindu Succession Act, 1956 (30 of 1956). It extends to the whole of India except the State of Jammu and Kashmir. The remarkable features of the Act are the recognition of the right of women to inherit property of an intestate equally with men and abolition of the life estate of female heirs.

A vast majority of Muslims in India follow Hanafi doctrines of Sunni law. Courts presume that Muslims are governed by Hanafi law unless it is established to be the contrary. Though there are many features in common between Shia and Sunni schools, yet there are differences in some respects. Sunni law regards Koranic verses of inheritance as an addendum to pre-Islamic customary law and preserves the superior position of male agnates. Unlike Hindu and Christian laws, Muslim law restricts a person's right of testation. A Muslim can bequeath only one-third of his estate. A bequest to a stranger is valid without the consent of heirs if it does not exceed a third of the estate, but a bequest to an heir without the consent of other heirs is invalid. Consent of heirs to a bequest must be secured after the succession has opened and any consent given to a bequest during the lifetime of the testator can be retracted after his death. Shia law allows Muslims the freedom of bequest within the disposable third.

21 Labour

LABOUR policy in India has evolved in response to specific needs of the situation to suit requirements of planned economic development and social justice and has a two-fold objective, viz., maintaining industrial peace and promoting the welfare of labour.

LABOUR REFORMS

Labour Reforms essentially means taking steps to increase production, productivity and employment opportunities in the economy while protecting overall interest of labour. Essentially it means skill development, retraining, redeployment, updating knowledge base of workers-teachers, promotion of leadership qualities etc. Labour Reforms also includes labour law reforms. Changes in the labour laws are also done protecting the interests of workers. Brief notes on different labour laws are given in subsequent paragraphs.

THE MINIMUM WAGES ACT, 1948

The Minimum Wages Act, 1948 provides for fixation, review, revision and enforcement of minimum wage, both by the Central Government and the State Government, in respect of scheduled employments in their respective jurisdictions. There are 45 scheduled employments in the Central sphere whereas the number of these employments in the State sphere is 1596.

The Minimum Wages Act, 1948 does not allow discrimination between male and female workers or different minimum wages for them. All the provisions of the Act equally apply to both male and female workers.

In order to protect the minimum wages against inflation, the Central Government has made provision of Variable Dearness Allowance (VDA) linked to Consumer Price Index. As regards States/UT Administrations, 26 of them have made VDA as a component of minimum wages. Both Central and State Governments revise the minimum wages in respect of these scheduled employments from time to time. Accordingly, VDA is revised periodically twice a year effective April and October in the Central Sphere and the rates were last revised w.e.f. 01.04.2009.

NATIONAL FLOOR LEVEL MINIMUM WAGE

In order to have a uniform wage structure and to reduce the disparity in minimum wages across the country, a concept of National Floor Level Minimum Wage was mooted on the basis of the recommendations of the National Commission on Rural Labour (NCRL) in 1991. Keeping in view the recommendation of NCRL and subsequent rise in price indices, the National Floor Level Minimum Wage was fixed at Rs. 35/- per day in 1996. Keeping in view the rise in Consumer Price Index the Central Government raised the national Floor Level Minimum wage to Rs. 40/- per day in 1998, to Rs. 45/- w.e.f. 01.12.1999 and Rs. 50/- per day w.e.f. 01.09.2002

Based on the norms suggested by the Working Group and its acceptance by the Central Advisory Board subsequently in its meeting held on 19.12.2003, the National Floor Level Minimum Wage was revised upwards to Rs.66/- per day with effect from 1.02.2004. On the basis of increase in the Consumer Price Index, the Central

Government has recently revised the National Floor Level Minimum Wages from Rs. 66/- to Rs.80/- per day with effect from 01.09.2007.

It is, however, clarified that the National Floor Level Minimum Wage, is a non-statutory measure to ensure upward revision of minimum wages in different States/ UT's. Thus, the State Governments are persuaded to fix minimum wages such that in none of the scheduled employments, the minimum wage is less than National Floor Level minimum Wages.

RECENT INITIATIVES

Based on the recommendations of the Minimum Wages Advisory Board (MWAB) in its meeting held on 22.01.2008 and 26.06.2008, the Ministry of Labour & Employment has issued the Final Notification in the Gazette of India (Extra Ordinary) fixing the minimum rates of wages for workers employed in the scheduled employments "Employment of Sweeping and Cleaning' in the Central sphere at Rs. 120/- Rs. 150/- and Rs. 180/- per day and for "Employment of Watch and Ward" (a) without arms at Rs. 120/-, Rs. 150/- and Rs.180/- per day and (b) with arms at Rs. 140/-, Rs. 170/- and Rs. 200/- per day for Area 'C', 'B' and 'A' respectively and the Final Notifications in respect of revision of minimum rates of wages for workers engaged in the scheduled employments of "Construction" and "Loading and Unloading" in the Central sphere at Rs. 120/- Rs.150/-and Rs. 180/- per day for unskilled workers to Rs. 200/- Rs. 220/- and Rs. 240/- per day for highly skilled workers in Area 'C', 'B' and 'A' respectively and for workers engaged in "Non-Coal Mines" in the Central sphere at Rs. 120/- per day for unskilled Workers (Above Ground) to Rs. 240/- per day for highly skilled workers (Below Ground).

THE PAYMENT OF WAGES ACT, 1936

The Payment of Wages Act, 1936 was enacted to regulate payment of wages to workers employed in industries and to ensure a speedy and effective remedy to them against illegal deductions and/or unjustified delay caused in paying wages to them. The wage ceiling under Payment of Wages Act, 1936, was fixed at Rs. 1600/- pm in 1982. With a view to enhance the wage ceiling to Rs. 6500/- p.m. for applicability of the Act, to empower the Central Government to further increase the ceiling in future by way of notification and to enhance the penal provisions etc., the Payment of Wages (Amendment) Act, 2005, which was passed by both Houses of Parliament, was notified on 06.09.2005 as an Act 41 of 2005 by the Ministry of Law & Justice. Subsequently, the Ministry of Labour & Employment has issued the Notification S.O. 1577(E) to make the Payment of Wages (Amendment) Act, 2005 effective from the 9th November 2005.

Further, in exercise of the powers conferred by sub-section (6) of Section 1 of the Act, the Central Government, on the basis of figures of the Consumer Expenditure Survey published by National Sample Survey Organization, has enhanced the wage ceiling, further, to Rs. 10,000/- per month vide gazette notification No. S.O. 1380 (E) dated 8th August, 2007.

THE PAYMENT OF BONUS ACT, 1965

The Payment of Bonus Act, 1965 provides for payment of bonus to employees of factories and other establishments employing 20 or more persons.

The minimum bonus of 8.33% is payable by every industry and establishment under the Section 10 of the Act. The maximum bonus including productivity linked

bonus that can be paid in any accounting year shall not exceed 20% of the salary/wage of an employee under the sections 11 and 31 A of the Act.

Consequent to the deliberations held in the 40th & 41st session of the Indian Labour Conference (ILC), the Payment of Bonus Act, 1965 was amended to enhance the eligibility limit and calculation ceiling and bring employees employed through contractors on building operations within the ambit of the Act. Accordingly, the Payment of Bonus (Amendment) Act, 2007 (45 of 2007) was notified on 13th December 2007 enhancing the eligibility limit from Rs. 3,500/- to Rs. 10,000/- per month and calculation ceiling from Rs. 2500/- to Rs. 3500/- per month by amendment of sections 2 (13) and 12 of the Act. Section 32 (vi) of the Payment of Bonus Act 1965 has also been omitted so as to make the employees employed through contractors on building operations to be eligible to receive bonus. The amendment came into effect from 01.04.2006.

WAGE BOARDS

In the 1950s and 60s, when the organised labour sector was at a nascent stage of its development without adequate unionization or with trade unions without adequate bargaining power, Government in appreciation of the problems which arise in the arena of wage fixation, constituted various Wage Boards. The Wage Boards are tripartite in character in which representatives of workers, employers and independent members participate and finalize the recommendations. The utility and contribution of such boards in the present context are not beyond question. Except for the Wage Boards for Journalists and Non-Journalists, newspaper and news-agency employees, which are statutory Wage Boards, all other Wage Boards are non-statutory in nature.

The Second National Commission on Labour (NCL) has recommended that 'there is no need for any wage board, statutory or otherwise, for fixing wage rates for workers in any industry'. However, the Government decided not to accept the recommendations regarding the statutory wage boards i.e. Wage Boards for Working Journalists and Non-Journalists Newspaper Employees under the Working Journalists and Non-Journalists Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955.

WAGE BOARDS FOR WORKING JOURNALISTS AND OTHER NEWSPAPER EMPLOYEES

The Working Journalists and other Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955 regulates conditions of service of working journalists and other persons employed in newspaper establishments. The Act provides for setting up of Wage Boards for fixation and revision of rates of wages in respect of working journalists and non-journalists newspaper/news agency employees. The Wage Boards for such employees were set up in the years 1956, 1963, 1975, 1985 and 1994. The last Wage Board i.e. Manisana Wage Boards was constituted in the year 1994 and submitted its report to the Government on 25th July, 2000.

The Government has constituted two new Wage Boards one for Working Journalists and other for Non-Journalists Newspaper Employees under Sections 9 and 13 C respectively of the Working Journalists and Other Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955 vide notification in the Gazette of India (Extra Ordinary) S.O. Nos. 809 (E) and 810 (E) dated 24.05.2007 under the common Chairmanship of Dr. Justice K. Narayana Kurup. The Wage Boards

have a common full time Member Secretary besides two common independent members and three persons representing employers in relation to Newspaper establishments, three persons representing working journalists for Wage Board under Section 9 and three persons representing non-journalist Newspaper Employees under Section 13 C of the Act. The Wage Boards have been given three years to submit their report to the Union Government. The Headquarter of the Boards is at New Delhi.

The Wage Boards have recommended interim rates of wages at the rate of 30% of basic wage, which has been accepted by the Government and was notified in October, 2008.

Consequent upon the resignation of Dr. Justice K. Narayana Kurup, Justice G.R. Majithia has taken over as the common Chairman of the two Wage Boards w.e.f. 4th April, 2009.

A Central Level Monitoring Committee has been set up by the Government under the Chairmanship of Labour and Employment Adviser, Ministry of Labour and Employment to review the progress of the implementation of recommendations for the Wage Boards from time to time and liaise with the State Government/Union Territories, which are the appropriate Government, for effective implementation of Wage Boards Awards.

CONTRACT LABOUR

The system of employing contract labour is prevalent in most industries for different jobs including skilled and semi-skilled. It is also prevalent in agricultural and allied operations and to some extent, in the services sector. A contract labour is a person who is hired, supervised, contracted and remunerated by a contractor, who, in turn, is compensated by the user enterprises. The concern to improve the working and living conditions of contract labour and the Supreme Court of India's observations in the case of Standard Vacuum Refinery Company Vs. their Workmen, resulted in the enactment of the Contract Labour (Regulation and Abolition) Act, 1970.

The Act seeks to regulate the employment of contract labour in certain establishments and to provide for its abolition in certain circumstances and for matters connected therewith. The Act and the Contract Labour (Regulation and Abolition) Central Rules, 1971 came into force on 10 February 1971. The Act provides for the constitution of Central and State Advisory Contract Labour Boards to advise the respective Governments on matters arising out of the administration of the Act. The Act contains specific provisions to ensure payment of wages and certain amenities to be provided by the contractor to the contract labour.

The Central and State Governments are empowered to prohibit employment of contract labour in any activity in an establishment and also to grant exemption to establishments/contractors in the case of an emergency, from the applicability of the provisions of the Act. The Central Government has issued 76 notifications prohibiting employment of contract labour in different categories of works in different fields upto 01.09.2008.

CHILD LABOUR

Constitutional Provisions

The Government of India stands committed to the elimination of child labour in the country. Our Constitution provides for protection of children from involvement in economic activities and avocations unsuited to their age. Directive Principles of State Policy in the Constitution strongly reiterates this commitment and this is also provided

for in the Fundamental Rights. Realizing the multifaceted nature of this problem, the Government had embarked on a holistic and multi-pronged programme to eliminate child labour from the country in a phased manner, beginning with children working in hazardous occupations and processes and progressively covering those working in other occupations also. On the one hand, it provides for legal action for enforcement purposes and on the other, it also focuses on general development programmes for the economic empowerment of the families of children as well as project based action in areas of high concentration of child labour.

POLICY

As per Child Labour (Prohibition & Regulation) Act, employment of children below the age of 14 years is prohibited in notified hazardous occupations and processes. The Act also regulates employment of children in non-hazardous occupations and processes. On the recommendation of the Technical Advisory Committee on Child Labour, the Government has prohibited employment in one occupation, viz, diving; and 8 processes, viz. processes involving exposure to excessive heat (e.g. working near furnace) and cold; mechanised fishing; food processing; beverage industry; timber handling and loading; mechanical lumbering; warehousing; processes involving exposure to free silica such as slate, pencil industry, stone grinding, slate stone mining, stone quarries, and agate industry vide notification No. SO2280 (E) dated 25.09.2008. There are at present 16 hazardous occupations and 65 processes, where employment of children is prohibited. Some of the important prohibited occupations and processes are carpet weaving, building and construction work, brick kilns, production of hosiery goods, work as domestic servants, and in tea-shops, road side eateries, mechanized fishing, food processing, timber handling and loading, mechanical lumbering, warehousing etc.

As per the Census 2001, there are 12.6 million economically active children in the age group of 5 to 14 years, of which approximately 0.12 million are working in hazardous occupations. The NSSO has agreed to take up a fresh comprehensive nation wide survey of child labour in its 66th Round during 2009 - 2010, so as to have a clear picture for formulation of strategies to tackle this social menace.

PROGRAMMES

The Government had initiated the National Child Labour Project (NCLP) Scheme in 1988 to rehabilitate working children in 13 child labour endemic districts of the country. Its coverage was increased progressively to cover 271 districts in this country.

Under the NCLP Scheme, children are withdrawn from work and put into special schools, where they are provided with bridging education, vocational training, mid-day meal, stipend, health-care facilities etc. At present, there are more than 10,000 NCLP schools being run in the country with an enrolment of 5 lakh children. Above 5.21 lakh working children have already been mainstreamed to regular education under the NCLP Scheme from 1996-97 to 2008-09. Besides, children who have been provided with vocational training have joined the mainstream.

INITIATIVES

For the rehabilitation of migrant and trafficked child labour, the Government is taking number of steps and has developed a detailed protocol for prevention, rescue, repatriation and rehabilitation of these children in consultation with State Governments, ILO, NGOs and other stakeholders.

CONVERGENCE

Considering that the poverty and illiteracy are the root causes for child labour, the Government is following a multi-pronged strategy to tackle this problem. Educational rehabilitation of these children has to be supplemented with economic rehabilitation of their families so that they are not compelled by their economic circumstances to send their children to work. The Ministry of Labour & Employment is taking various proactive measures towards convergence between the schemes of different Ministries like Ministries of Human Resource Development, Women & Child Development, Urban Housing & Rural Poverty Alleviation, Rural Development, Panchayati Raj Institutions etc. so that child labour and their families get covered under the benefits of the schemes of these ministries also.

INTERNATIONAL PROGRAMMES

The International Programme on elimination of Child Labour is a global programme launched by the International Labour Organisation in December, 1991. India was the first country to join it in 1992. The long-term objective of IPEC is to contribute to the effective abolition of child labour. Its immediate objective are:

- Enhancement of the capability of ILO constituents and NGOs to design, implement and evaluate programmes for child labour.
- To identify interventions at community and national levels which could serve as models for replication; and
- Creation of awareness and social mobilization for securing elimination of child labour.

INDUS PROJECT

The Government of India and the US Department of Labour have initiated a joint US\$40 million project aimed at eliminating child labour in identified hazardous sectors across 21 districts in five States, namely, Maharashtra, Madhya Pradesh, Tamil Nadu, Uttar Pradesh and NCT of Delhi. The project ended its term on 31st March, 2009.

ANDHRA PRADESH PROJECT

Besides this, ILO has also implemented phase 1 of the State based project in Andhra Pradesh. The Phase-II of the AP Project is currently under implementation. In the second phase the project is focusing on two most child labour endemic districts in the State i.e. Mehboobnagar and Kurnool. The project is also focusing on the special problems of urban areas and attempt to evolve a strategy for Hyderabad city. The Project has concluded on 31.3.2009

KARNATAKA PROJECT

This State based project is being implemented in 2 districts of the State, i.e. Chamarajanagar & Bidar. The project is being funded by the Government of Italy and has budget of US\$ 3.29 million. It has already been launched and the duration of the project is three years. The project will implement all the components of the NCLP Scheme with some additionalities. Interventions under the Project are being made on pilot basis for future replication in other areas.

GOI-UNICEF JOINT MASTER PLAN

Under Joint Master Plan of Operations on Child Protection between the Government of India and the UNICEF, this Ministry is implementing activities on

child labour elimination. The UNICEF will fund these activities and the present budget is US\$ 120,000. Main activities include development of National Tracking System to monitor children in NCLPs and development of National Communication Strategy on child labour. A prototype of National Tracking System has already been developed and field trials are being conducted in the states of Karnataka, Andhra Pradesh, Uttar Pradesh and West Bengal.

CONVERGING AGAINST CHILD LABOUR: SUPPORT FOR INDIA'S MODEL

The Government of India has approved the project to be implemented through ILO with the funds from the United States of America, Department of Labour (US\$ 68,50,000) in two districts each in Bihar, Jharkhand, Gujarat, Madhya Pradesh, and Orissa to develop convergence based models on a pilot basis to be replicated throughout the Country at a later stage. The duration of the project will be 42 months.

WOMEN LABOUR

Women constitute a significant part of the work force of India but they lag behind men in terms of level and quality of employment. The Census of India (2001) has registered 25.60 per cent of female population as workers numbering 127.22 million in absolute terms out of a total female population of 496 million. The majority of women workers are employed in the rural areas. Amongst rural women workers, 87 per cent are employed in agriculture as labourers and cultivators. Amongst the women workers in the urban areas, 80 per cent are employed in unorganized sectors like household industries, petty trades and services building and construction, etc. The employment of women in the organized sector (both public and private sectors) as on 31.03.2002, was about 4.935 million. This constitutes 17.8 per cent of the total organised sector employment in the country. The distribution of women employees in major industries reveals that community, social and personal services sectors continued to absorb the majority of women employees. The lowest employment of women was noticed in electricity, gas and water sectors. The main focus of the policies of the Government with regard to women labour has been to remove the handicaps under which they work, to improve their wages and working conditions, to enhance their skills and to open up better employment opportunities for them.

A separate cell, namely, Women Labour Cell is functioning in the Ministry of Labour and Employment to address these problems. The Maternity Benefit Act, 1961, and the Equal Remuneration Act, 1976, are the two protective and anti-exploitative legislations, which have been enacted to protect and safeguard the interest of women workers at the workplaces. The Equal Remuneration Act, 1976 stipulates payment of equal remuneration to men and women workers for same and similar nature of work. The Act also prohibits any gender discrimination in recruitment and service conditions. Under the Act, a Committee has been set up at the Centre, to advise the Government on providing increasing employment opportunities for women and generally reviewing the steps taken for effective implementation of the Act. The State Governments and Union Territory Administrations have also set up similar Committees. The Central Advisory Committee at the National level and the Advisory Committees at the State level along with competent authorities; oversee the process of implementation of the Equal Remuneration Act, 1976.

Further, the Women Cell in the Ministry is also administering a Grants-in-Aid Scheme for the welfare of women labour. This Scheme is implemented through voluntary organizations that are provided grants-in-aid for running projects for

awareness generation among women workers with a view to educate them about their rights, women related schemes and programmes, etc. being implemented by Central/State Government. It is proposed to enhance the outlay to Rs. 270 lakh during the 11th Plan from the approved 10th Plan outlay of Rs. 245 lakh for providing Grants-in-aid.

The Supreme Court of India in its landmark judgement dated 13.08.1997, in the matter of *Visakha and others vs. the State of Rajasthan and others*, laid down detailed guidelines/norms for prevention of sexual harassment of women workers at work-places. These guidelines have the force of law under Article 141 of the Constitution.

The Government has taken up a number of initiatives to give effect to the guidelines laid down by the Supreme Court. These include circulation of the guidelines for action as indicated therein to all secretaries to the Government of India/Chief Secretaries of the State Governments/Union Territories, Heads of Central Public Sector Undertakings and employees/employers organisations. Conduct Rules application to Government employees and officers of All India Services have been amended to incorporate the Supreme Court guidelines. To make the guidelines applicable to employees in the private sector, the Industrial Employment (Standing Orders) Act, 1946 has also been amended suitably.

BONDED LABOUR

The system of debt bondage in India is an outcome of certain categories of indebtedness, which have been prevailing for a long time involving certain economically exploited, helpless and weaker sections of society. The system originated from the uneven social structure characterized by feudal and semi-feudal conditions.

The issue of 'bonded labour' came to forefront in national politics, when it was included in the old 20-Point Programme in 1975. To implement this, Bonded Labour System (Abolition) Ordinance was promulgated. This was later replaced by the Bonded Labour System (Abolition) Act, 1976. It freed unilaterally all the bonded labourers from bondage with simultaneous liquidation of their debts.

The district and sub-divisional magistrates have been entrusted with certain duties/responsibilities towards implementation of statutory provisions. The Act also provides for constitution of Vigilance Committees at the district and sub-divisional level for implementation of the provisions of the law. The Act provides for imprisonment up to three years and fine up to Rs.2, 000 whoever compels any person to render any bonded labour and whoever advances any bonded debt. Under the Bonded Labour System (Abolition) Act, 1976 identification and release of bonded labourers and rehabilitation of freed bonded labourers is the direct responsibility with the State Government concerned.

The issue of bonded labour has been discussed in the Supreme Court/High Court in the form of Public Interest Litigations. The Supreme Court has directed that the National Human Rights Commission (NHRC) should be involved in dealing with the issue of bonded labour.

The Centrally Sponsored Scheme was modified in May 2000. In the modified scheme, besides increasing the rehabilitation assistance from 10,000/- to Rs.20,000/- per bonded labour, provision has also been made for giving Central grants to the States/U.Ts. for awareness generation, survey of bonded labour and evaluatory studies. As per the modified scheme, Rs.10.00 lakhs are provided per annum to State Government for creating awareness generation, Rs.2.00 lakh per district to survey

of bonded labourers once in 3 years in a district and Rs.5.00 lakhs per annum for conducting evaluatory studies. So far 2, 68,136 identified bonded labourers have been rehabilitated with the Central assistance of Rs.6983.36 lakhs.

UNORGANISED SECTOR

The term 'unorganised labour' has been defined as those workers who have not been able to organize themselves to pursue their common interests due to certain constraints like casual nature of employment, ignorance and illiteracy, small and scattered size of establishments, etc.

The workers in unorganised sector fall in various categories but a large number of them are home-based workers who are engaged in occupations like beedi rolling, agarbatti making, papad making, tailoring, zari and embroidery.

As per the survey carried out by the National Sample Survey Organisation in the year 2004-2005, the total employment, in both organised and unorganised sectors in the country was of the order of 45.9 crore, i.e., around 2.6 crore in the organised sector and the balance 43.3 crore workers in the unorganised sector.

In order to take care of the social security and welfare of unorganised workers, two-pronged strategy, i.e., legislative measures, and, implementation of welfare schemes and programmes have been followed so far. The legislative measures include the Minimum Wages Act, 1948, the Workmen's Compensation Act, 1923, the Maternity Benefit Act, 1961, the Bonded Labour System (Abolition) Act, 1976, the Contract Labour (Regulation & Abolition) Act, 1970, the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979, the Building and Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996, etc.

The Government has set up Welfare Funds for providing welfare measures to the beedi, non-coal mine and cine workers. The Funds are used to provide financial assistance to these workers for education of their children, recreation, medical and health facilities, construction of houses, etc. The Building and Other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 also has provision for setting up of welfare Board/Fund by every State Government to provide welfare/social security measures to the construction workers. Some States like Kerala, have constituted welfare funds for specific categories of workers in the unorganised sector.

The Government enacted the Unorganised Workers' Social Security Act, 2008. The Act provides for constitution of National Social Security Board at the Central level and State Social Security Boards at the State level which shall recommend formulation of social security schemes for unorganised workers. The National Board shall recommend social security schemes viz., life and disability cover, health and maternity benefits; old age protection, and any other benefit as may be determined by the Central Government. The State level Boards shall recommend welfare schemes viz. provident fund, employment injury benefit, housing, educational schemes for children, skill upgradation of workers, funeral assistance; and old age homes.

The salient features of the Act are as under:

- Section (2) provides for the definitions, including those relating to unorganised worker, self-employed and wage worker.
- Section 3 (1) provides for formulation of schemes by the Central Government for different sections of unorganised workers on matters

relating to (a) life and disability cover; (b) health and maternity benefits; (c) old age protection (d) any other benefit as may be determined by the Central Government.

- Section 4 relates to funding of the schemes formulated by Central Government.
- Section 5 envisages constitution of National Social Security Board under the chairmanship of Union Minister for Labour & Employment with Member Secretary and 34 nominated members representing Members of Parliament, unorganized workers, employers of unorganized workers, civil society, Central Ministries and State Governments.
- Provision for adequate representation to persons belonging to the Scheduled Castes, the Scheduled Tribes, the Minorities and Women.
- The functions of National Board, inter-alia, include: to recommend to the Central Government suitable schemes for different sections of unorganised workers; monitor the implementation of schemes and advise the Central Government on matters arising out of the administration of the Act.
- Section 6 has provision for constitution of similar Boards at the State level.
- Section 7 relates to funding pattern of the schemes formulated by the State Governments.
- Section 8 prescribes record keeping functions by the District Administration. For this purpose, the State Government may direct (a) the District Panchayat in rural areas; and (b) the Urban Local Bodies in urban areas to perform such functions.
- Section 9 provides for setting up of constitution of Workers' Facilitation Centre to (a) disseminate information on social security schemes available to them (ii) facilitate the workers to obtain registration from district administration and enrollment of unorganized workers.
- Section 10 provides for eligibility criteria for registration as also the procedure for registration under the Act.
- Sections 11-17 contain miscellaneous provisions for implementing the Act.

The Unorganised Workers Social Security Act, 2008 has been notified in the Gazette and the Unorganised Workers Social Security Rules, 2009 under the Act have been framed and notified. The Act has since been enforced with effect from 16th May, 2009.

LABOUR STATISTICS

The Labour Bureau, Chandigarh/Shimla is engaged in collection, compilation, analysis and dissemination of labour statistics at All-India level on different facets of labour, such as, employment, wages and earnings, strikes and lockouts, absenteeism, labour turnover, labour cost, working and living conditions of workers, etc., both in organized and unorganized sector of industries. It also constructs, maintains and publishes Consumer Price Index Numbers for: (i) Industrial Workers (Base 2001=100), (ii) Rural Labourers (Base 1986-87=100) and (iii) Agricultural Labourers (Base 1986-87=100). Labour Bureau also compiles Retail Price Indices of 31 essential commodities for both rural and urban centres and Wage Rate Indices for 21 industries. It imparts

training to price collectors, entrepreneurs or their representatives filing statutory returns under various Labour Act. IES/ISS probationers and international students under ISEC programme. The Labour Bureau, with the approval of the Government, has released on 09.03.2006 the new Series of CPI-IW with effect from January, 2006. The new Series is an improvement over the old Series (1982=100) as more centres, markets and consumption items are covered. An Index Review Committee under the Chairmanship of Prof. G.K. Chaddha has also been constituted to review various aspects of the CPI -IW . The Committee has submitted its report in April, 2009.

During 2008-2009, Labour Bureau, has also initiated the conducting of quarterly Quick Surveys on Effect of Economic Slowdown on Employment in India. Two such surveys relating to the quarters October-December, 2008 and January-March 2009 have been conducted and results released. Third Survey for the quarter April-June 2009 has been launched in Junly, 2009.

LABOUR RESEARCH

V.V. Giri National Labour Institute, NOIDA (Uttar Pradesh) is an autonomous body engaged in research pertaining to labour and training of labour administrators, trade unions, public sector managers and other government functionaries concerned with labour. Seminars, workshops and lectures are organized on specific issues from time to time.

Research occupies a primary place in the activities of the Institute. It comprises a broad spectrum of labour related issues and problems, in both the organized and unorganised sectors. Issues of topical concern and relevance of policy are taken up for research. The Institute continues to place greater emphasis on the disadvantaged groups, such as, child labour, women labour and rural labour.

Research activities also explore the basic needs of different groups of trainees, such as trade union leaders and organizers in both organized and unorganised sectors, managers of public and private sectors, labour administrators and volunteers of non-governmental organisations. There are seven Centres which carry out studies on the major themes related to research. Each Centre is guided by a Research Advisory Group, which consists of experts in the respective areas.

The Institute undertakes research projects in the areas of labour market, employment and regulations; agrarian relations and rural labour, integrated labour history, child labour and prevention of HIV/AIDS in the workplace. N.R.D Research Centre on Labour Information (NRDRCLI) at the Institute is one of the most reputed library-cum-documentation centres in the area of labour studies in the country. Integrated Labour History Research Programme (ILHRP) has been started in the Institute with an aim to initiate, integrate and revive research on labour history.

The Union Minister of Labour and Employment is the President of the General Council comprising representatives from Central Government, organization of employers and workers and Members of parliament and distinguished persons who have made noteworthy contributions in the field of labour. The Council elects the Executive Council, which is responsible for the management of the affairs of the Institute.

WORKERS' EDUCATION

The Central Board for Workers Education (CBWE) was established in 1958 by the Ministry of Labour & Employment, Government of India to implement the workers'

education scheme at national, regional and unit/village levels for the workers from organized, unorganized and rural sectors. Supervisory and managerial cadres are also covered through joint educational programmes. The Board's training programmes aim at creating awareness and education among the workforce for their effective participation in the socio-economic development of the country.

The Board has its headquarters at Nagpur, with a network of 50 Regional and 9 Sub-Regional Directorates spread throughout the country. The five Zonal Directorates at Delhi, Guwahati, Kolkata, Chennai and Mumbai monitor the activities of the Regional Directorates within their respective Zone. The Board had set up its Indian Institute of Workers Education, an apex training Institute at Mumbai to conduct national level training programmes for the activists of Central Trade Union Organisations/Federations besides in-house training programmes for the Board's officials. The Board has so far conducted 3,91,630 training programmes and has trained 1,12,14,218 workers at various levels till 31st March, 2007.

To generate awareness among the informal sector workers about various welfare schemes of the Central Government, the Board designed a new programme called Labour Welfare & Development programme through which detailed information of the relevant schemes are given to the participants besides extending the necessary help as and when required by them.

WORKERS' SAFETY

SAFETY, HEALTH AND WELFARE OF WORKERS IN FACTORIES

The Factories Act, 1948 is the principal legislation for regulating various aspects relating to safety, health and welfare of workers employed in factories. This Act is a Central enactment, which aims at protecting workers employed in factories from industrial and occupational hazards. State governments and Union Territory Administrations frame rules under the Act and enforce provisions of the Act and rules through their factory inspectorate. The Directorate General, Factory Advice Service and Labour Institute (DGFASLI), Mumbai, an attached office of the Ministry of Labour and Employment, renders technical advice to the States/Union Territories in regard to administration and enforcement of the Factories Act, 1948. With five regional labour institutes at Mumbai, Kolkata, Kanpur, Chennai and Faridabad under its control, the DGFASLI also undertakes support research facilities and carries out promotional activities through education and training in matters concerning occupational safety and health. The Directorate General also reviews the position regarding implementation and enforcement of the Act.

Prescribing a 48-hour week for adult workers, the Factories Act forbids employment of children under 14 years of age in any factory. Minimum standards of lighting, ventilation, safety and welfare services, which employers must provide in their factories, have also been laid down. Factories employing over 30 women workers are required to provide a crèche for their children, shelters, rest-rooms and lunch-rooms are required to be provided by factories employing over 250 workers. Factories with 250 workers or more have to appoint welfare officers. The Factories Act was amended in 1987 in order to impose a general duty on employers to ensure health and safety of workers and on designers, manufacturers, importers and suppliers to ensure that articles designed, manufactured, etc., are without risk to the health and safety of workers. A new chapter for regulating safety and health aspect in hazardous industries was incorporated in the Act.

SAFETY IN PORTS AND DOCKS

Provisions relating to safety, health and welfare of workers employed in docks are contained in the Dock Workers (Safety, Health and Welfare) Act, 1986 and rules and regulations framed thereunder. The Act came into force on 15 April 1987. Enforcement of this Act in all the major ports is the responsibility of the Ministry of Labour and Employment and this responsibility is discharged through the DGFASLI, Mumbai. The DGFASLI, being the Chief Inspector of Docks is also entrusted with the responsibility of enforcing in major ports the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 framed under the Environment (Protection) Act, 1986.

SAFETY IN MINES

Provisions for safety, health and welfare of workers employed in mines are contained in the Mines Act, 1952 and rules and regulations framed thereunder. These provisions are enforced by the Ministry of Labour and Employment through the Directorate General of Mines Safety. The Directorate General, with its headquarters at Dhanbad and its zonal, regional and sub-regional offices spread all over the mining areas in the country undertakes its functions, inspection of mines, investigation of all fatal accidents and also certain serious accidents depending upon the gravity of the situation, grant of statutory permission, exemptions and relaxations in respect of various mining operations, approval of mines safety equipment, appliances and material, conduct examinations for grant of statutory competency certificate, safety promotional incentives including organization of national awards and national safety conference, etc.

NATIONAL SAFETY COUNCIL

The National Safety Council was set up in 1966 to promote safety consciousness among workers to prevent accidents, minimize dangers and mitigate human suffering, arrange programmes, lectures and conferences on safety, conduct educational campaigns to arouse consciousness among employers and workers and collect educational and information data, etc. National Safety Day is celebrated on 4th March every year to mark the foundation day of the National Safety Council.

AWARDS

PRIME MINISTER'S SHRAM AWARDS

Prime Minister's Shram Awards are given to workmen working in the departmental undertakings and the public sector undertakings of the Central Government and State Governments in recognition of their outstanding contribution in the field of productivity and for showing exemplary zeal and enthusiasm in the discharge of their duties. These awards are also given to the workmen working in the manufacturing units in the private sector employing 500 or more workers. The awards, in order of precedence, are: Shram Ratna, Shram Bhushan, Shram Vir/Shram Veerangana and Shram Shree/Shram Devi. The awards carry presentation of a sanad and cash prize of Rs. two lakhs, Rs. one lakh, Rs. 60,000 and Rs. 40,000 respectively. The total number of awards is 33.

NATIONAL SAFETY AWARDS

To give recognition to good safety performance on the part of the industrial undertakings and to stimulate and maintain the interest of both management and

workers in accident prevention programmes, the Government instituted in 1965 the National Safety Awards. This is applicable to factories, docks and Nuclear Power Projects & Nuclear Power Stations.

The National Safety Awards for mines were instituted in 1983. It is meant for giving recognition to outstanding safety performances of mines of national level, which comes within the purview of the Mines Act, 1952. There are 34 awards—17 winners and 17 runners-up, which are given to the management.

VISHWAKARMA RASHTRIYA PURASKAR

Shram Vir Awards, now known as Vishwakarma Rashtriya Puraskar were instituted in 1965. These are meant for workers of factories, mines, plantations and docks, and are given to them in recognition of their meritorious performance, which leads to high productivity or economy or higher efficiency. There are a total of twenty-eight awards in three classes, i.e. Class-A – 5 awards, Class-B – 8 awards and Class-C – 15 awards and carry cash prizes of Rs. 75,000 Rs. 50,000 & Rs. 25,000 each respectively.

INDUSTRIAL RELATIONS

THE INDUSTRIAL DISPUTES ACT, 1947

The Industrial Disputes Act, 1947 basically provides for investigation and settlement of industrial disputes. The main objectives of the Act are: promotion of measures for securing and preserving amity and good relations between the employer and workmen; investigation and settlement of industrial disputes, between employers and employers, employers and workmen or workmen and workmen, with a right to representation by registered trade union or a federation or trade unions or an association of employers or a federation of associations of employers; prevention of illegal strikes and lock-outs; relief to workmen in the matter of lay-off and retrenchment; and collective bargaining.

The special provisions relating to lay off, retrenchment and closure are applicable to the establishments employing not less than 100 workmen on an average per working day. The Act also provides for protection in the shape of retrenchment compensation and notice to the workmen who have completed 240 days continuous service in the establishment in the preceding 12 months before effecting retrenchment, closure etc.

- The Industrial Disputes (Amendment) Bill, 2009 has been introduced in the Rajya Sabha on 26.02.2009. The Bill seeks:
- Amendment of the term "appropriate Government" defined under section 2 (a) of the Act to amplify the existing definition;
- Enhancement of wage ceiling of a workman from one thousand six hundred rupees per month to ten thousand rupees per month under section 2 (s) of the Act;
- Direct access for the workman to the Labour Court or Tribunal in case of disputes arising out of section 2(a) of the Act;
- Expanding the scope of qualifications of Presiding Officers of Labour Courts or Tribunals under sections 7 and 7A of the Act;
- Establishment of Grievance Redressal Machinery in every industrial

establishment employing twenty or more workmen for the resolution of disputes arising out of individual grievances;

- Empowering the labour court or tribunal to execute the awards, order of settlements arrive at by labour courts or tribunals;
- To empower Government to make rules to decide and review the salaries and allowances and other terms and conditions for appointment of presiding officers.

THE TRADE UNION ACT, 1926

The Trade Unions Act, 1926 provides for registration of trade unions of employers and workers, and, in certain respects, it defines the law relating to registered trade unions. It confers legal and corporate status on registered trade unions. The Trade Unions Act, 1926 is administered by the concerned State Governments.

The Trade Union Act, 1926 has been amended and the following amendments have been enforced from 9th January, 2002: No trade union of workmen shall be registered unless at least 10% or 100, whichever is less, of workmen engaged or employed in the establishment or industry with which it is connected are the members of such trade union on the date of making an application for registration. In no case, a union shall be registered without a minimum strength of 7 members; a registered trade union of workmen shall, at all times, continue to have not less than 10% or 100 of the workmen, whichever is less, subject to a minimum of 7 persons engaged or employed in the establishment or industry with which it is connected, as its members; a provision for filing an appeal before the industrial tribunal/labour court in case of non-registration/restoration of registration has been provided; all office bearers of a registered trade union, except not more than one third of the total number of office bearers or five, whichever is less, shall be persons actually engaged or employed in the establishment or industry with which the trade union is connected; Minimum rate of subscription by members of the trade union has been revised as one rupee per annum for rural workers, three rupees per annum for workers in other unorganized sectors and 12 rupees per annum in all other cases.

RASHTRIYA SWASTHYA BIMA YOJANA

The Government has launched the National Health Insurance Scheme namely, the 'Rashtriya Swasthya Bima Yojana' for BPL families (a unit of five) in unorganised sector on 1st October, 2007. The estimated number of 6 crore BPL families are proposed to be covered in five years upto 2012-13. The scheme provides for smart card based cashless insurance cover of Rs. 30,000/- per annum per family to the beneficiary. The premium will be borne by Central Government and State Government in the ratio 75:25. In case of North Eastern States and Jammu & Kashmir, the premium will be in the ratio of 90:10. The cost of smart card will be borne by the Central Government. The beneficiary would pay Rs. 30/- per annum as registration/renewal fee. The scheme has become operational w.e.f 01.04.2008.

The benefits under the scheme include:

- Health Insurance cover would be Rs. 30,000/- per family per annum on a family floater basis.
- Cashless attendance to all covered ailments

- Hospitalization expenses, taking care of most common illnesses including maternity benefits.
- All pre-existing diseases to be covered.

Transportation costs (actual with maximum limit of Rs. 100/- per visit) within an overall limit of Rs.1000/-

INDUSTRIAL TRIPARTITE COMMITTEES

The Industrial Tripartite Committees have been constituted with the view to promote the spirit of tripartism. These tripartite bodies aim at deliberating on the industry-specific problems related to workers in that particular industry. These Committees are non-statutory and ad-hoc and their meetings are convened as and when required. At present, there are eight Industrial Tripartite Committees, one each for engineering, electricity generation & distribution, road transport, chemical, sugar industry, cotton textiles, jute industry and plantation.

SOCIAL SECURITY

THE WORKMEN'S COMPENSATION ACT, 1923

A beginning was made in social security with the passing of the Workmen's Compensation Act, 1923. The Act provides for payment of compensation to workmen and their dependents in case of injury and accident (including certain occupational diseases) arising out of and in the course of employment and resulting in disablement or death. The Act applies to railway servants and persons employed in any such capacity as is specified in Schedule II of the Act. It includes persons employed in factories, mines, plantation, mechanically propelled vehicles, construction works and certain other hazardous occupations. Minimum rates of compensation for permanent total disablement and death are fixed at Rs.90,000 and Rs.80,000 respectively. Maximum amount for death and permanent total disablement can go up to Rs.4.56 lakh and Rs.5.48 lakh respectively depending on age and wages of workmen.

THE MATERNITY BENEFIT ACT, 1961

The Maternity Benefit Act, 1961 regulates employment of women in certain establishments for a certain period before and after childbirth and periods for maternity and other benefits. The Act applies to mines, factories, circus industry, plantation, shops and establishments employing ten or more persons, except employees covered under the Employees' State Insurance Act, 1948. The State Governments can extend it to any other establishment or class of establishments. There is no wage limit for coverage under the Act. At present, every woman entitled to maternity benefit under this Act shall also be entitled to receive from her employer a medical bonus of Rs. 2500/-, if no pre-natal confinement and post natal care is provided for by the employer free of charge.

THE EMPLOYEES' STATE INSURANCE ACT, 1948

The Employees State Insurance Act, 1948 is applicable in the first instance, to non-seasonal factories using power and employing 10 or more persons and non-power using factories employing 20 or more persons. It covers employees drawing wages not exceeding Rs.10,000/- with effect from 18.10.2006. The Act provides medical care in kind and cash benefits in the contingency of sickness, maternity and employment

injury and pension for dependents in the event of death of a worker because of employment injury. Full medical care including hospitalization is also being progressively made available to members of the family of the insured persons. With effect from 01.04.2005, the Employees State Insurance Corporation has introduced "Rajiv Gandhi Shramik Kalyan Yojana" for the workers covered under the Scheme, who lose their job involuntarily due to retrenchment, closure of factories/ establishments and permanent disability not arising out of employment injury. The beneficiaries under this Scheme are entitled to get a monthly cash allowance of about 50-53 per cent of the wage as well as medical care for themselves and their dependant family members, for a maximum of six months which may be available in a single spell or in spells of not less than one month each.

The main benefits provided under the Act are medical care for the entire family of the Insured Person (IP), cash compensation for loss of wages on account of sickness, temporary and permanent disablement arising out of employment injury, periodical payments to dependants of Insured Person who dies due to employment injury, maternity benefit in cash to Insured Women and funeral expenses.

As on March, 2008 there were 144 Hospitals, 42 Annexes, 27,727 beds including 2955 beds reserved in hospitals other than ESI Hospitals/Annexes, 1397 ESI dispensaries, 1753 clinics of Insured Medical practitioners (IMPs) under the Scheme. The total number of IPs is 1.21 crore which also includes 20,29,440 Insured Women. The total number of beneficiaries under the scheme is 468.33 lakh.

THE PAYMENT OF GRATUITY ACT, 1972

The Payment of Gratuity Act, 1972 is applicable to factories, mines, oil fields, plantations, ports, railways, motor transport undertakings, companies, shops and other establishments. The Act provides for payment of gratuity at the rate 15 days' wages for each completed year of service or part thereof in excess of six months subject to the maximum of Rs.3.50 lakh. In case of seasonal establishments, gratuity is payable at the rate of seven days' wages for each season. The Act does not affect the right of an employee to receive better terms of gratuity under any award or agreement or contract with the employer.

THE EMPLOYEES PROVIDENT FUNDS AND MISCELLANEOUS PROVISIONS ACT, 1952

The Act seeks to provide the financial social security to the employees in the form of provident fund, pension and deposit-linked insurance. It extends to the whole of India except the State of Jammu and Kashmir. It applies to every establishment specified in the Schedule and in which twenty or more persons are employed. The Central Government by notification in the Office Gazette may specify, any other establishment employing twenty or more persons or class of such establishments, to which the Act shall apply. At present the Act covers 182 specified industries/classes of establishments. Three schemes are framed under the Act viz, Employees Provident Fund Scheme 1952, Employees' pension Scheme 1995, Employees' deposit Linked Insurance Scheme 1976. The Central Board of Trustees (CBT) through Employees Provident Fund Organisation (EPFO) administers the schemes. The CBT (EPF) is a tripartite body headed by the Hon'ble Union Minister of Labour and Employment. Employees Provident Fund Organisation (EPFO) has approximately 43 million subscribers enrolled in the three schemes. Employees Provident Fund Organisation provides various services ranging from collection of members' contribution from establishments to maintenance of members' accounts to actual disbursement of money under various defined benefit plans to members and their nominees.

EMPLOYEES PROVIDENT FUND SCHEME, 1952

The Employees Provident Fund Scheme, 1952 provides financial security to the employees in an establishment by providing a system of compulsory savings. The scheme covers the employees getting wages not exceeding Rs. 6500 per month. From 01.11.1990 onwards the employee becomes the member of the Fund from the date of joining the factory/establishment. As on 31st March 2008, total number of establishment and factories covered were 532702 in which total membership was 449.19 lakh. During the year 2007-2008, 61024 new establishments and factories enrolling 18.43 lakh new members were brought under the purview of the Act.

THE EMPLOYEES' PENSION SCHEME, 1995

The Employees' Pension Scheme, 1995 came into effect from 16th November 1995 and aims at providing for economic sustenance during old age and survivorship coverage. The new entrants to the membership of Provident fund from 16.11.95 will also acquire membership of the Scheme on compulsory basis. On the introduction of EPS 95 the erstwhile Employees' Family Pension Scheme, 1971 ceased to operate and its existing members compulsorily became the members of the new Scheme. A minimum of 10 years service is required for entitlement to pension. The total membership of EPS 95 as on 31st March 2006 is 324 lakh out of which net addition during 2005-2006 is 12.4 lakh. The quantum of pension payable to a member shall correspond to the sum of pensionable service (i.e. service after 16.11.95) benefit and past service (i.e. service before 16.11.95) benefit.

Total number of beneficiaries as on 31.03.2006 is 23.36 lakh. The Employees' Pension Scheme, 1995 provides the following benefits to members and their families:

- Monthly member Pension
- Permanent total disablement Pension
- Return of Capital
- Commutation up to 1/3rd of pension amount
- Widow/widower Pensioner
- Children Pension
- Orphan Pension
- Disabled Children
- Nominee Pension
- Pension to dependent Father/Mother

The Scheme is financed by diversion of 8.33% of wages from employer's share of Provident fund contribution and Central Government contribution at the rate of 1.16% of the wage of the employee. The upper wage limit was raised from Rs. 5000 to Rs. 6500 with effect from 1st June 2001. As on 31.03.2008 the corpus stands at Rs. 94101.42 crore.

THE EMPLOYEES' DEPOSIT LINKED INSURANCE SCHEME, 1976

Another important social security measure, Employees' Deposit Linked Insurance Scheme, 1976, was introduced for members of the Employees' Provident Fund and exempted Provident Funds with effect from 1st August, 1976. On the death of an employee, while in service, who is a member of the Employees' Provident Fund or of the exempted Provident Fund, the persons entitled to receive the provident fund

accumulations would be paid an additional amount equal to the average balance in the provident fund account of the deceased during the preceding 12 months. The maximum amount of benefit payable under the Scheme is Rs. 60000 and the employees do not have to make any contribution to it.

EMPLOYMENT AND TRAINING

To help the youth build their career, the Directorate General of Employment and Training (DGE&T) has evolved various training programmes. These are formulated within the national framework as far as possible and also in collaboration with foreign countries and financial assistance from GOI and World Bank etc.

Craftsmen Training : Industrial Training Institutes (ITIs) were set up all over the country to impart skills both in engineering and non-engineering trades to young men and women in the age group of 14-40 years. By 31.03.2009, 6906 such institutes with a total capacity of about 9.53 lakh were providing training to school leavers in the country. At present, 112 trades are covered under the scheme. The duration of the course varies from 6 months to 3 years for engineering and non-engineering trades. Educational qualifications for admission vary from eighth standard to 12th standard depending upon the trades. Some State Governments and Union Territories have introduced training in certain trades to meet the requirements of local industries under the jurisdiction of state councils for vocational training.

Apprenticeship Training Scheme : The Apprentices Act, 1961 makes it obligatory for employers in specified industries to engage apprentices for undergoing Apprenticeship Training, which varies from six months to four years. The training consists of basic training followed by on-the-job or shop floor training in accordance with standards prescribed by the Government in consultation with the Central Apprenticeship Council. Presently 188 trades are designated for trade apprentices and 2.5 lakhs seats located in establishments in central and state public sector & private sector. The Act was amended in 1973 to include training of graduate and diploma engineers as "Graduate" & "Technician" apprentices. The Act was again amended in 1986 to bring within its purview the training of 10+2 vocational stream as "Technician (Vocational)" apprentices. 114 subject fields have been designated for the category of graduate & technician apprentices and 102 for the category of technician (vocational) apprentices. 96,7474 seats are located for these categories.

Women's Vocational Training Programme: Vocational training facilities for women in the country are organized through a network of 370 women industrial training institutes and 818 women wings in general ITIs/private WITIs with a seating capacity of about 51,236 under the control of State Governments.

National Council for Vocational Training has recommended that in general ITIs upto 25-30 per cent of the sanctioned seats may be reserved for women candidates. These seats could be filled up based on general reservation policy of each of the State/UT. Under the Vocational Training programme, managed directly by the Central Government and a National Vocational Training Institute (NVTI) for Women, NOIDA as an apex centre ten Regional Vocational Training Institutes (RVTIs) for Women at Mumbai, Bangalore, Thiruvananthapuram, Hisar, Kolkata, Tura, Allahabad, Indore, Vadodara and Jaipur have been set up with an intake capacity of 3568 in basic, advanced and instructional skills. Besides this, short-term courses are also organized as per availability of infrastructure facilities. Till March, 2009 about 67,246 women have been trained in these institutes since inception.

Craft Instructors Training: Advanced Training Institutes (ATIs) at Howrah, Mumbai, Kanpur, Ludhiana and Hyderabad and Central Training Institute for Instructors at Chennai were established in 1960s to train instructor trainees in the techniques of imparting industrial skills, who in turn train and make available skilled manpower for industry. These institutes with a seating capacity of 1099 offer a series of one-year courses, which provide comprehensive training, both in skill development and principles of teaching. Refresher courses are also conducted to update and upgrade the knowledge and skill of the instructors and keep them abreast of technological developments in industry. Facilities for training of instructors in some selected special trades continue to be available in farm mechanic trades at ATI, Ludhiana and Mechanic Machine Tool Maintenance Trade at ATI Kanpur, Howrah and Ludhiana where seats for scheduled caste and scheduled tribe candidates are reserved as per the Central government norms. A course on Principles of Teaching of three months' duration has been introduced in 11 institutes to train large number of untrained instructors.

Advanced Vocational Training Scheme: Advanced Vocational Training Scheme was launched in October 1977 for training of highly skilled workers and technicians in a variety of advanced and sophisticated skills not available for other vocational training programmes. Regular full time courses of two to 12 weeks duration are offered under the Scheme in a variety of advanced skill areas. The Scheme was introduced in six advanced training institutes located at Mumbai, Kolkata, Hyderabad, Kanpur, Ludhiana, Chennai and 16 selected industrial training institutes under 15 State Governments. These institutes were modernized to conduct various advanced courses under the Scheme as per requirement of the local industry.

National Instructional Media Institute (NIMI): National Instructional Media Institute (NIMI), Chennai has been set up to make available well prepared Instructional material for the use of the trainees and trainers in (i) Industrial Training Institutes (ITIs) and (ii) Industries and establishments implementing the Apprenticeship Training programme. The institute develops Instructional Media Packages (IMPs) comprising Written Instructional Material, Transparencies & Charts for different trades. So far, the following work has been done:-

IMPs for 22 trades have been developed in English of which 174 books covering 22 trades have been published. Books for allied subjects and supporting materials have also been published.

- IMPs for 13 trades have been translated in Hindi of which 70 books have been published.
- IMPs for 12 trades have been translated in Tamil of which 55 books have been published.
- IMPs for 3 trades have been translated in Telugu of which 6 books have been published.
- IMPs for 6 trades have been translated in Kannada of which 26 books have been published.
- IMPs for 5 trades have been translated in Bengali of which 13 books have been published.
- IMPs for 8 trades have been translated in Marathi of which 26 books have been published.

- IMPs for 1 trades have been translated in Oriya of which 4 books have been published.

CENTRES OF EXCELLENCE (CoE):-

- IMPs for 10 sectors been developed in English of which 31 books covering 7 sectors have been published.
- 29 books covering 5 sectors are ready for publication.
- 70 titles have been translated into Hindi and 6 other regional languages.

MODULAR EMPLOYABLE SKILLS (MES):

- IMPs for 235 courses have been developed in English of which 134 books have been published and 101 titles are ready for publication.
- Instructional material for 218 courses has been developed in English.
 - Question Banks have been developed for 259 courses.
 - Terminal competencies have been developed for 349 courses.
 - Video Instructional Programme has been developed for 40 courses.
 - 32 titles have been translated and published into Hindi and other regional languages.

FOREMEN TRAINING/SUPERVISORY TRAINING

Training programmes for supervisors/foremen for industry are organized at two Foremen Training Institutes located at Bangaluru and Jamshedpur.

CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE

The Government in collaboration with the Government of Republic of Germany has set up the Central staff Training and Research Institute, Kolkata in 1968. The Institute has three wings - Training, Research and Development. The Training wing provides training to the executives and administrators of vocational and industrial training in the country. The Research wing conducts problem-oriented studies on different aspects of vocational training and the Development Wing is to develop and disseminate instructional material and, aid/model for effective execution of industrial training.

INITIATIVES UNDERTAKEN IN THE RECENT PAST

Upgradation of 500 Existing ITIs into Centers of Excellence: The objective of the scheme is to upgrade the existing 100 ITIs with the help of domestic funding into "Centers of Excellence (CoE)" for producing multi-skilled workforce of world standard. The highlights of the scheme are introduction of multiskilling courses during the first year, followed by advanced/specialized modular courses subsequently by adopting industry wise cluster approach, multi-entry and multi-exit provisions, and Public-Private-Partnership in the form of Institute Management Committee (IMC) to ensure greater & active involvement of industry in all aspects of training. Curricula of 219 modules covering 21 sectors have been developed and finalized.

As regards, upgradation of remaining 400 ITIs with World Bank assistance, the agreement with World Bank was signed on 2nd Nov. 2007 (made effective from 17th December 2007). World Bank is providing a credit of the amount of US \$280 million. So far, 400 ITIs have been taken up for upgradation. The remaining 1396 Government ITIs are being upgraded through Public private Partnership (PPP).

Establishment of Industrial Training Institutes (ITIs) in North-Eastern States and Sikkim and the State of Jammu & Kashmir : A hundred per cent centrally sponsored scheme for upgrading the 37 existing ITIs in the State of Jammu and Kashmir and for setting up of new Women ITI at Jammu has been taken up during the financial year 2005-06. After the scheme is fully implemented, it would result in an increase of 1836 training seats in the State. A hundred per cent centrally sponsored scheme for the North Eastern states including Sikkim, with a total outlay of Rs.100 crores, for establishing 22 new ITIs and upgrading 35 existing ITIs have been completed. In addition, 3 ITIs - 2 in Sikkim and 1 in the State of Assam are being established with an additional amount of Rs. 13.70 crores. This component of the scheme will continue till 31.03.2010. This has resulted in doubling the seating capacity in ITIs from 7244 to 16,144.

UPGRADATION OF 1396 GOVERNMENT ITIs THROUGH PUBLIC PRIVATE PARTNERSHIP

In the Budget Speech 2007-08, Hon'ble Union Finance Minister announced upgradation of 1396 Government ITIs into Centres of Excellence through Public Private Partnership. In pursuance of this announcement a scheme " Upgradation of 1396 Government ITIs through Public Private Partnership" has been formulate with a total outlay of Rs. 3550 crores (Rs. 3490 crore for upgradation of 1396 Govt. ITIs @ Rs. 2.5 crore per ITI and Rs 60 crore for management, monitoring and evaluation of the scheme) to improve the employment outcome of ITI graduates from the vocational training system, by making design and delivery of training more demand responsive.

Under the Scheme an Industry Partner is associated with each ITI to lead the process of upgradation. The Industry Partner is selected by the State Government in consultation with the Industry Associations. An Institute Management Committee (IMC) is constituted/ reconstituted for each selected ITI (it consists of Industry Partner or his representative, as the Chairperson, four members from local industry are nominated by the Industry Partner, five members are nominated by the State Government and Principal, ITI, as ex-officio member Secretary). The IMC is registered by the State Government as a Society under Societies Registration Act. The interest free loan of upto Rs. 2.5 crores is given by the Central Government directly to the IMC based on the Institute Development Plan (IDP) prepared under the leadership of Industry Partner. The IMC is given financial and academic autonomy to manage the affairs of the ITI. The IMC is also allowed to determine 20% of the admissions in the ITI. The State Government will remain the owner of the ITI and will continue to regulate admissions and fees except 20% of the admissions which are allowed to be determined by the IMC. The interest free loan shall be payable in equal annual installments over a period of 20 years. The IMC may generate revenue by running production-service centers, short terms courses, providing consultancy services, etc, National Implementation Cell and State Implementation Cell is set up at Central and State level to implement the Scheme. The Scheme is monitored by National Steering Committee and State Steering Committee at Central and State levels having adquate representation from Industry Associations.

An amount of Rs. 1500 Cr. has been released @ Rs. 2.5 crore to each IMC Society of ITI as interest free loan for upgradation of 600 ITIs during 2007-08 and 2008-09. The third batch of 300 ITI is being taken up for upgradation during 2009-10.

SKILL DEVELOPMENT INITIATIVE

A new scheme – “Skill Development Initiative” for imparting vocational training/ testing of competencies to one million persons over a period of five years by imparting short-term training courses with an outlay of Rs.550 crore has been taken up.

Hon'ble Minister of Finance during the budget speech 2005-06 made the following announcement:

"To meet the demand for specific skills of a high order, a Public Private Partnership between Government and Industry is proposed to promote skills development Programme under the name "Skill Development Initiative'..."

Accordingly, Ministry of Labour & Employment in pursuance of excellence in vocational training has developed a new strategic framework for skill development for early school leavers and existing workers in close consultation with industry, State Governments and experts, Implementation of the SDI scheme was operationalised from May, 2007.

The objectives of the scheme are:-

- To provide vocational training to school leavers, existing workers, ITI graduates, etc. to improve their employability by optimally utilizing the infrastructure available in Govt., private institutions and the Industry. Existing skills of the persons can also be tested and certified under this scheme.
- To build capacity in the area of development of competency standards, course curricula, learning material and assessment standards in the country.
- Demand driven short term training courses based on Modular Employable Skills (MES) decided in consultation with industry. MES is the 'minimum Skills set' which is sufficient for gainful employment.
- Central government facilitates and promotes training while industry, private sector and State Governments train the persons.
- Optimum utilization of existing infrastructure to make training cost effective.
- Flexible delivery mechanism (part time, weekends, full time, onsite/ offsite) to suit needs of various target groups.
- Different levels of programmes (Foundation level as well as skill upgradation) to meet demands of various target groups.
- The services of existing or retired faculty or guest faculty is utilized.
- Courses are available for persons having completed 5th standards.
- Testing & certification of skills acquired informally.
- Testing of skills of trainees by independent assessing bodies, which are not involved in training delivery, to ensure that it is done impartially.
- The essence of the scheme is in the certification that is nationally and internationally recognized.

ACTIVITIES UNDERTAKEN

- 436 Modules for employable skills covering 40 sectors have been developed.
- 22 Assessing Bodies have been empanelled for conducting assessment.
- IL&FS have been appointed Consultant for development of Web based software for implementation, monitoring and evaluation of the scheme.

- More than 1,75,000 persons have been trained/ tested (since inception).
- 3963 Vocational Training Providers (VTPs) registered.
- Guidelines for selection of VTPs have been approved and circulated to State Governments for Implementation.

EMPLOYMENT

Employment in the organized sector, i.e., in all public sector and non-agricultural establishments employing 10 or more persons in private sector increased marginally from 264.58 lakh in March 2005 to 269.93 lakh in March 2006 recording an increase of 0.1 per cent. The increase in private sector employment during 2006-07 was 4.2 per cent.

NATIONAL EMPLOYMENT SERVICE

The national Employment Service (NES) has a network of 965 employment exchanges/University Employment Information and Guidance Bureau (UEIGBx) as on August 2008. The Employment Exchanges assist all employment seekers including special groups like handicapped, ex-servicemen, scheduled castes and scheduled tribes, women, etc. through placement against jobs notified by employers. NES also carries out other functions such as vocational guidance and employment counselling, coordination and dissemination of employment market information and conducts studies in the field of employment and occupational research with a view to generate data for framing employment and manpower policies.

Under the Employment Exchanges (Compulsory Notification of Vacancies), Act, 1959, it is obligatory for all establishments in public sector and such of those non-agricultural establishments in private sector which employ 25 or more workers to notify their vacancies (with certain exemptions) to Employment Exchanges and supply periodic information as prescribed in the Act and the rules there under. Development of these programmes at the national level, particularly in the area of evolving common policies, laying down common standards and procedures, training of officers and evaluation of the programmes is the responsibility of the Central Government. The day-to-day administration of the Employment Exchanges on the other hand, rests with the State Governments/UT Administrations. There are 43 special Employment Exchanges for physically handicapped. Twenty vocational rehabilitation centers provide a comprehensive package of rehabilitation services to the physically challenged.

Vocational guidance: Vocational and Employment Counselling services are provided to youth (applicants without any experience) and adults (with specific work experience). Such units were functioning in 392 Employment Exchanges as on March, 2007. In addition, University Employment Information and Guidance Bureaux are functioning in 82 Universities. These units assist applicants and youth in planning their career. A special scheme operates in 22 selected districts to motivate and guide job seekers to take up self-employment.

SC/ST Job Seekers: Coaching-cum-Guidance Centers for Scheduled Castes and Scheduled Tribes provide registration guidance, pre-submission guidance, confidence building training, pre-recruitment training and special coaching in typing and shorthand to job-seekers.

22 Mass Communication

THE Ministry of Information and Broadcasting, through the mass communication media consisting of radio, television, films, press and print publications, advertising and traditional modes of communication such as dance and drama, plays an effective role in helping people have access to free flow of information. The Ministry is involved in facilitating the entertainment needs of various age groups and focusing attention of the people on issues of national integrity, environmental protection, health care and family welfare, eradication of illiteracy and issues relating to women, children minority and other disadvantaged sections of the society. The Ministry is divided into 4 wings i.e. the Information Wing, the Broadcasting Wing, the Films Wings and the Integrated Finance Wing. The Ministry functions through its 24 media units/ attached & subordinate offices, autonomous bodies and PSUs.

The Information Wing under the Additional Secretary (Policy & Administration) handles policy matters of the print and press media and publicity requirements of the Government. This Wing also looks after the general administration of the Ministry.

The Broadcasting Wing under Joint Secretary (Broadcasting) handles matters relating to the electronic media. It formulates policies and frames rules and regulations for this Sector, which include public service broadcasting, operation of cable television, private television channels, FM and Community Radio etc.

The Film Wing under Joint Secretary (Films) handles matters relating to the Film Sector. It is involved in the production and distribution of documentary films, development and promotional activities relating to the film industry including training, organization of film festivals, import and export regulations, etc.

The Integrated Finance Wing, under AS & FA looks after the financial aspects of the Ministry including budget, Plan Coordination and O & M activities. AS & FA is assisted by Economic Advisor.

PRASAR BHARATI

Prasar Bharati is the public service broadcaster in the country, with All India Radio and Doordarshan as its two constituents. It came into existence on 23 November 1997, with a mandate to organise and conduct public broadcasting services to inform, educate and entertain people and to ensure balanced development of broadcasting on radio and television.

The major objectives of the Prasar Bharati Corporation, as laid out in the Prasar Bharati Act, 1990, are as follows: i) Upholding the unity and integrity of the country and the values enshrined in the Constitution; ii) Promoting national integration, iii) Safeguarding citizen's rights and to be informed on all matters of public interest and presenting a fair and balanced flow of information; iv) Paying special attention to the fields of education and spread of literacy, agriculture, rural development, health and family welfare and science and technology; v) Creating awareness about women's issues and taking special steps to protect the interests of children, the aged and other vulnerable sections of society; vi) Providing adequate coverage to the diverse cultures, sports and games and youth affairs; vii) Promoting social justice, safeguarding the rights of working classes, minorities and tribal communities; and viii) Expanding

broadcasting facilities and promoting research and development in broadcast technology.

Headquartered in Delhi, the Corporation is governed by the Prasar Bharati Board, which comprises a Chairman/Executive Member (also known as Chief Executive Officer), a Member, a representative of the Ministry of Information and Broadcasting and Directors General of All India Radio and Doordarshan as ex-officio Members. The Chairman is a part-time member with a six-year tenure. The Executive Member, the Member (Finance) and the Member (Personnel) are whole-time members with a six-year tenure, subject to the age limit of sixty two years.

ALL INDIA RADIO

Radio Broadcasting started in India in the early 1920's. The first programme was broadcast in 1923 by the Radio club of Bombay. This was followed by setting up Broadcasting Services in 1927 with two privately-owned transmitters at Bombay and Calcutta. The Government took over the transmitters in 1930 and started operating them under the name of Indian Broadcasting Service. It was changed to All India Radio (AIR) in 1936 and it came to be known as Akashvani from 1957.

ORGANISATIONAL SET UP

The Directorate General, All India Radio functions under the Prasar Bharati. The Prasar Bharati Board functions at the apex level ensuring formulation and implementation of the policies of the organisation and fulfillment of the mandate in terms of the Prasar Bharati Act, 1990. The Executive member functions as a Chief Executive Officer (CEO) of the Corporation subject to the control and supervision of the Board. The CEO, the Member (Finance) and the Member (Personnel) perform their functions from Prasar Bharati headquarters at 2nd Floor, PTI Building - Parliament Street, New Delhi-110001.

All important policy matters relating to Finance, Administration and Personnel are submitted to CEO and the Board through the Member (Finance) and Member (Personnel) as required, for the purpose of advice, implementation of proposals and decisions thereon. Officers from different streams working in the Prasar Bharati Secretariat assist the CEO, Member (Finance) and Member (Personnel) in integrating action, operations, plans and policy implementation as well as to look after the budget, accounts and general financial matters of the Corporation.

Prasar Bharati also has a unified vigilance set up at the headquarters, headed by a Chief Vigilance Officer.

The Director General of All India Radio is headed by the Director General. He functions in close association with the Member (Finance) and Member (Personnel) and the CEO in carrying out the day to day affairs of AIR. In AIR there are broadly five different Wings responsible for distinct activities viz, Programme, Engineering, Administration, Finance and News.

PROGRAMME WING

The Director General is assisted by Deputy Directors General in the Headquarters and Deputy Directors General in the regions for a better supervision of the stations. The Headquarters of the Regional DDGs are situated at Kolkata (ER), Mumbai and Ahmedabad (WR), Lucknow (CR-I) Bhopal (CR-II) and Guwahati (NER). Chennai SR-I), Bangaluru (SR-II), Delhi (NR-I), Chandigarh (NR-II). A new DDG office is prepared to be opened at Ahmedabad (WR-IE)

ENGINEERING WING

In respect of technical matters of All India Radio, The Director General is assisted by the Engineer-in-Chief and Chief Engineers posted in the headquarters and the zonal Chief Engineers. In addition, there is a Planning and Development Unit in the Headquarters to assist the Director General in respect of Development Plan Scheme of All India Radio. In respect of Civil Construction activities, the Director General is assisted by the Civil Construction Wing, which is headed by a Chief Engineer, CCW who also caters to the needs of Doordarshan.

ADMINISTRATIVE WING

A Dy. Director General (Administration) assists the Director General on all matters of administration while Dy. Director General (Programme) assists DG in administration of Programme personnel. A Director looks after the Engineering Administration of All India Radio, while another Director (Admin. & Finance) assists DG in matters of administration and finance.

SECURITY WING

The Director General is assisted by a Deputy Director General (Security) Asstt. Director General (Security) and a Dy. Director (Security) on matters connected with the security and safety of AIR installations, transmitters, studios, offices etc.

AUDIENCE RESEARCH WING

There is a Director, Audience Research to assist the Director General in carrying out surveys of audience research on the programmes broadcast by various station of All India Radio.

ACTIVITIES OF SUBORDINATE OFFICES OF AIR

There are a number of subordinate offices of All India Radio performing distinct functions, Broad activities, in brief, are given below.

NEWS SERVICES DIVISION

News Services Division works round the clock and broadcasts over 620 news bulletins both in the home and external services. The bulletins are in Indian and Foreign languages. It is headed by Director General, News Service. There are 45 regional News Units. The bulletins vary from region to region according to news interest.

EXTERNAL SERVICE DIVISION

External Services Division of All India Radio broadcasts in 16 foreign and 11 Indian languages for approx. 72 hours in a day covering more than 100 countries.

TRANSCRIPTION & PROGRAMME EXCHANGE SERVICE

This service looks after exchange of programmes among the stations, building and maintenance of sound archives and commercial release of prestigious recordings of music maestros.

RESEARCH DEPARTMENT

The functions of the Research Department include Research and Development of equipment required by AIR and Doordarshan, investigation and studies relating to AIR and Doordarshan, Development of Prototype models of R&D equipment for limited use field trials in the network of AIR and Doordarshan.

CENTRAL STORE OFFICE

The Central Store Office located at New Delhi performs functions relating to procurement, stocking and distribution of engineering stores required for the maintenance of technical equipment at All India Radio Stations.

STAFF TRAINING INSTITUTE (PROGRAMME)

The Staff Training Institute (Programme) started with Directorate since 1948 has presently two main branches functioning from Kingsway Camp, Delhi and Bhubaneswar. It imparts in service training to programme Personnel and Administrative Staff and induction course for the newly recruited staff and short duration refresher courses. It conducts examinations for administrative staff.

In addition, at present five Regional Training Institutes at Hyderabad, Shillong, Lucknow, Ahmedabad and Thiruvananthapuram are working.

STAFF TRAINING INSTITUTE (TECHNICAL)

The Staff Training Institute (Technical), part of the Directorate since 1985, now functions at Kingsway Camp, Delhi. The Institute organizes Training Courses for the engineering staff of All India Radio and Doordarshan from the level of Technician to the Superintending Engineer. It also conducts Departmental Qualifying and Competitive Examinations. There is one regional staff training institute (Technical) at Bhubaneswar.

CBS CENTRES & VIVIDH BHARATI

There are 40 Vividh Bharati cum Commercial Broadcasting Service (CBS) Centres including 3 Exclusive VB Centres, The work relating to CBS is performed in two wings i.e., Sales and Production. A separate independent office known as Central Sales Unit along with 15 main CBS Centres looks after marketing of broadcasting time. There are two more Vividh Bharati Centres at Varanasi and Kochi.

RADIO STATIONS

All India Radio, since independence, has become one of the largest broadcasting networks in the world. At the time of independence largest broadcasting networks in the world. At the time of independence there were six radio stations and 18 transmitters (6 MW & 12 SW), which covered 11% population and 2.5% area of the country.

Today, there are 232 AIR stations and a network of 374 transmitters (149 MW, 54 SW & 171 FM) which provides coverage to 99.16% of the population spread over 91.82% area of the country. There are 32 uplink stations (Captive Earth Stations) in the country.

Activities undertaken during the year

1. FM Transmitters at Leh (J&K) was commissioned.
2. Existing 100 KW MW Transmitter at Najibabad has been replaced by a 200 KW MW transmitter incorporating state-of-the art technology.
3. As a part of J&K special Package for boosting border coverage, new Station with 1 KW MW Transmitter at Padum in Kargil region was commissioned.
4. Digital Captive Earth Stations at Leh, Varanasi, Rohtak, & Aurangabad were commissioned. New Uplink stations at Dehradun and Silchar are under implementation

5. Direct to Home (DTH) Service through the Ku Band of Prasar Bharati. 21 Radio channels including Radio Kashmir are now available country wide through the Ku band DTH platform of Prasar Bharati (DD+), benefiting the listeners all over India.
6. AIR News-on-Phone Service: 'AIR News' is also available on phone. The listeners can listen on telephone latest new highlights in Hindi and English by just dialing a specific telephone number at any time from anywhere in the world. AIR 'News on Phone Service' is now available at 14 places. i.e. Delhi, Mumbai, Chennai, Patna, Hyderabad, Ahmedabad, Jaipur, Bangaluru, Thiruvananthapuram, Imphal, Lucknow, Raipur, Guwahati, and Shimla.

NEW INITIATIVES

Digitalisation: All India Radio is laying thrust on modernization and Digitalization of existing network. Digitalization of programme production facilities, uplink & downlink facilities is in progress to ensure good quality convergence-ready content, which will also support interactive radio. This will be followed by Digitalization of transmitters.

- Computer Hard Disc based recording, editing and playback system was available at 76 AIR Stations. During the year, 61 more AIR stations were equipped with this facility. Provision of Hard Disc Based System at 48 major stations of All India Radio is also currently in progress.

Phase-II of North East Package

Phase-II of special Package was improvement and expansion of AIR set up in North East region including Sikkim and Island territories is under implementation. The package includes:

- (i) I KW FM station - 19 Nos.
 1. Arunachal Pradesh : Daporjio, Anini, Bomdila, Changlang, Khonsa
 2. Assam : Karimganj, Lumding, Goalpara
 3. Manipur : Ukhral, Tamenglong
 4. Meghalaya : Cherrapunjee in lieu of Dawki
 5. Mizoram : Tuipang, Cheraphai, Kolosib
 6. Nagaland : Wokha, Zunheboto, Phek
 7. Tripura : Udaipur, Nutan Bazar
- Out of 19 numbers of FM stations with 1 KW FM transmitters, sites have been taken over at ten places at Bomdila, Changlang, Khonsa, Daponjo, Goalpara, Champhai, Tuipang, Nutan Bazar, Udayapur and Tamenglong, Sites at Kolasib Karimganj and Phek are being handed over shortly by State Government.
 - (ii) Silchar 5 KW FM transmitter and Gangtok-10 KW FM transmitter - Civil works are in progress and FM transmitters are under procurement.
 - (iii) 100 W FM relay centres at 100 places - List of places has been finalized. Installation is complete at 15 places and at other places it is expected to be completed during the current year.
 - (iv) Chinsurah - 1000 KW MW transmitter - Order placed.

- (v) Kavaratti- 10 KW MW transmitter - Procurement of transmitter is under process.
- (vi) Digital Satellite News Gathering Systems/MSS terminals - Procurement of Equipment is under process.

Implementation of Phase II is likely to be completed by 2009-10. Case of Chinsura and Kavaratti is under litigation.

Computerization of AIR stations and offices is in progress to facilitate online exchange of information and improvement of efficiency.

Permanent Studios with digital equipment & Computerised Hard Disc Based work stations for recording, dubbing, editing & playback facilities etc. are being provided at AIR Leh, Mysore, Jaipur & Tawang.

Activities of AIR Resources

AIR has started AIR Resources as one of its commercial arm to provide consultancy and turn-key solutions in the field of broadcasting. Its present activities include the following:

- It is providing turn-key solutions to IGNOU in setting up FM Transmitters for their Gyan-Vani station at 40 places in the country. Infrastructure like land, building and tower has also been leased out to Gyan-Vani stations.
- 26 Gyan-Vani stations are already operational and their operation and maintenance has also been undertaken.
- Infrastructure i.e. land, building and tower has also been given on rental/ license fee basis too private broadcasters at 4 cities for 10 FM Channels as part of Phase-I scheme of the Ministry of I&B. Agreement for sharing of this infrastructure under Phase-II of the scheme proposed in 87 cities for 245 FM channels has been signed with all the private broadcasters. Agreement has also been signed with private broadcasters for setting up of Interim set ups in six cities i.e. Delhi, Kolkata, Bangaluru, Chennai, Hyderabad and Jaipur, Infrastructure has also been rented out to Mobile Service Operators.
- AIR Resources has earned revenue of about Rs. 46.40 crores during the year 2007-08. Revenue earned during the period 1st April.08 to 31st October,08 is Rs. 13.15 crores.

Research & Development

The Research Department is engaged in Research and Development work for incorporating state-of-the-art technology in Radio & Television Broadcasting. It is a premier National R&D institute involved in broadcast engineering. Following activities were undertaken during the year.

Achievements during the period April 2008 to March 2009

- (i) Telemetry System for Medium Wave Transmitters
- (ii) Development of high power FM transmitting antenna for power rating 20 KW to 40 KW has been undertaken.
- (iii) Propagation studies and investigation extensive reception survey of AIR and foreign transmitters in MW, SW and FM band and propagation study to investigate the shrinkage (if any) in the coverage area in medium Wave (MW) transmitters during day time.

- (iv) Acoustic Test & Measurement of AIR stations, testing and evaluation (NRC, STC, FIIC etc) of acoustic materials including evaluation of electro-acoustic transducers viz, microphones and speakers in accordance with existing national and international standards.
- (v) Experiment Digital Radio Transmission (DRM) for delivering digital quality multiple audio channels. As a pilot project, a 250 KW SW transmitter available at High Power Transmitters, Khanpur, Delhi was modified for DRM transmission.
- (vi) Telemetry system for FM Transmitters of Remote Control & Monitoring of 10 KW FM transmitter installed at Shankracharya hills, Srinagar.
- (vii) Multilingual News Automation System for Regional News Units of AIR for integration of news received through World Space receiver and VSAT receive terminal.

Activities from the period January 2008 to March 2009

The following work/projects are envisaged during this period :

- (i) Experimental Digital Radio Transmission (DRM)
- (ii) Emergency Warning Broadcast System (EWBS)
- (iii) FM Telemetry System

NEWS SERVICES DIVISION

Key Developments

- Launch of 102 additional FM Headline Bulletins from, 15 AIR stations across the country.
- Introduction of 8 additional regional news bulletins.
- Extension of duration of 3 regional news bulletins.
- Launching of 4 new news based programmes on FM Gold from Delhi.
- Organizing All India RNU Heads Conference in Delhi in July, 2008.
- Making available news updates through SMS.
- Coverage of all important events and VVIP visits.
- Coverage of State Assembly Elections of 10 States

The News Services Division, NSD, made a significant progress during the year 2008-09 with regard to expansion of news and News based programmes. With a view to meet the information needs of the masses in regional languages, NSD undertook many news expansion initiatives during the year and has plans to take many more initiatives in the remaining period of the 11th plan. 16 additional FM headline bulletins were started in November 2008 from four places. Earlier in July 2008, 86 additional FM Headline bulletins were introduced from 12 places across the country. With these the total number of FM headline bulletins increased to 294 from 36 places.

Multi-mode News Dissemination

NOP: News on Phone, NOP is very popular service. The news is updated every hour and listener from any place or part of India can access brief news in English, Hindi &

Regional language at any time. At present, this News on Phone (NoP) service is available from 14 places i.e. Delhi, Mumbai, Chennai, Guwahati, Imphal, Hyderabad, Bangaluru, Thiruvananthapuram, Patna, Ahmedabad, Jaipur, Lucknow, Raipur and Shimla. In view of the popular response evoked by this service, it has been gradually expanded to new cities in last few years. This service will be further extended to 30 more places in the country under 11th plan. This service is on revenue sharing basis with BSNL/MTNL.

Website: Latest news in various categories i.e. National, International, Regional, Business, Sports, Science & Technology and Art & Culture can be accessed through NSD. Website ([www:newsonair.com](http://www.newsonair.com)). Audio of all national bulletins, 40 regional bulletins from 22 Regional News Units (RNUs) in 14 regional languages, 32 language bulletins in 13 languages from NSD headquarters, four newly introduced news based programmes on FM Gold and various other news based programmes of primary channels are available on the website.

SMS: National news headlines can now be accessed from any part of the country through SMS as well. This service was launched from Delhi in May, 2008 and has a very high potential. With the breaking of any news, the contents of SMS are updated. Listeners can now send their questions as well as their feedback to Market Mantra programme through SMS NSD has also plans to gradually introduce this service across the country for the regional news as well.

PROGRAMME ACTIVITIES

- 1 Regular publicity is being given to Governments Flagship Programme Covering 12 Themes viz. (1) Sarva Siksha Abhiyan (2) Mid-day Meal Scheme (3) Rajiv Gandhi Drinking Water Mission (4) Total Sanitation Campaign (5) National Rural Health Mission (6) Integrated Child Development Services (7) National Rural Employments Gurantee Scheme (8) Jawaharlal Nehru National Urban Renewal Mission. (9) Implementation of Scheduled Tribes And Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (10) Programmes For Minority Welfare (11) Programmes for Workers in Unorganized Sector and (12) Rehabilitation Policy and Law. A fortnightly report of action taken by various AIR Stations is being submitted to the CEO. Prasar Bharati.
- 2 Regular publicity is being given to National Common Minimum Programme on each of the following thrust area viz. 1. Employment Opportunities 2. Agriculture Growth 3. Education 4. Health 5. Women and Children 6. Food and Nutrition 7. Panchayti Raj 8. SCs and STs 9. Social harmony and Welfare of minorities 10. Industry 11. Infrastructure Development 12. Development of J & K, North East and Border States. Special mention can be made of the publicity given to schemes such as Employment Guarantee Scheme. etc., formulated by the various Central Ministers/Departments.
3. The year 2008 was declared as the Year of Planet Earth by UNESCO. Befitting the occasion, Prasar Bharati signed an MOU with Vigyan Prasar to broadcast a 52 episode science serial 'Dharti Meri Dharti' in 19 languages from 117 stations spread across the country from January to December, 2008.
4. **Sardar Patel Memorial Lecture** in English was organised in New Delhi on 13th October, 2008. Dr. Rajendra Pachauri, Eminent Environmentalist delivered the lecture on the subject "Enlightened Governance for Sustainable

Development'. Its recording was broadcast on national hook-up on 31 October, 2008 on the occasion of the birth anniversary of Sardar Patel.

5. **Dr. Rajendra Prasad Memorial Lecture** in Hindi was organized at Koltaka on 22nd November, 2008. Dr. Kedarnath Singh, Eminent Poet delivered, the lecture on the subject 'Bhartiya Sahitya Kya Hai - Visheshtya Aaj Ki Kavita Ke Sandarbh Mein". Its recording was broadcast on the national hook-up on 3rd December, 2008 on the occasion of the birth anniversary of Dr Rajendra Prasad.
6. **Sarva Bhasha Kavi Sammelan** was held on 16 January, 2009 at Bhubaneshwar in which eminent poets of different Indian languages recited their poems.

Coverages

- Live broadcast of the inaugural of "The India's Global Agro Industries forum Summit 2008" addressed by The Prime Minister Dr. Manmohan Singh held at Vigyan Bhavan, New Delhi on 10 April 2008.
- Live Broadcast of the Prime Minister's Address to the National Convention of the Chairpersons of the Zilla Parishads and the Intermediate Panchayats from Burari Ground, Delhi on 10.04.2008.
- Radio Report on the Inaugural Session of the National Convention of the chairpersons of the Zilla Parishads and Intermediate Panchayats.
- Broadcast of the recording of speech delivered by the Prime Minister. Dr. Manmohan Singh to the Joint Session of the National Assembly of Bhutan on 17.05.2008.
- Prime Minister, Dr. Manmohan Singh's address to the Nation on 4.06.2008, (In the context of price hike of petroleum products)
- Radio Report of the Balshree Award Function held at Rashtrapati Bhawan on 11.06.2008.
- Direct relay of the Inagural Function of the South Asian Conference on Sanitation from Vigyan Bhawan, New Delhi on 18.11.2008.
- Live broadcast of Inaugural Ceremony of 39th International Film Festival of India at Panji, Goa on 22.11.2008.
- Live Running commentary on the funeral of the former Prime Minister Late Shri Vishwanath Pratap Singh from Allahabad on 29.11.2008.
- Prime Minister, Dr. Manmohan Singh's Address to the Nation on 29.11.2008 (in the context of the Mumbai Terrorist attack).

State Assembly Elections

Party Political Broadcasts were duly organised for the State Legislative Assembly. Elections for Karnataka (May, 2008) and Delhi, Madhya Pradesh, Chhattisgarh, Mizoram, Rajasthan and J&K (November-December, 2008) as per the Guidelines of the Election Commission of India. Special composite live programmes on results of the Karnataka State Legislative Assembly Elections for Delhi, Madhya Pradesh, Chhattisgarh, Rajasthan and Mizoram was broadcast on 08 December, 2008. Another such programme on the result of J&K State Legislative Assembly Elections was broadcast on 28 December, 2008.

Special Programmes / Coverages from January to March 2009

1. Publicity to Agriculture Debt Waiver and Debt Relief Scheme 2008 for farmers announced by the Union Finance Minister in his budget speech 2008-2009.
2. Coverage of Pravasi Bharatiya Diwas 2009 held at Chennai from 07 -09 January, 2009. (Curtain Raiser, Inaugural Session, Valedictory Session)
3. Direct relay of Thyagaraja Music Festival 2009 from Thiruvayyur 15 January, 2009.
4. Wide publicity to Integrated Low Cost Sanitation Schemes of M/o Housing & Urban Poverty Alleviation.
5. Radio report on Birth Anniversary of Netaji Subhas Chandra Bose on 23 January, 2009.
6. President Smt. Pratibha Devi Singh Patil's address to the nation on 25 January, 2009, on the eve of Republic Day.
7. Recording of Sarvabhasha Kavi Sammelan organized by AIR broadcast on 25 January, 2009.
8. Direct Relay of the Republic Day Parade and Cultural Pageant form Rajpath on 26 January. 2009.
9. Direct relay of the last rites of the late former President Sh. R. Venkataraman from Ekta Sthal, New Delhi and tributes programmes in his memory on 27, 28 & 29 January, 2009.
10. 60th year of Indian Republic.
11. Radio report on 61 Anniversary of Martyrdom day of Mahatma Gandhi on 30 January. 2009.
12. National Girl Child Day - 24 January, 2009.
13. Tribute programme in the memory of renowned Hindi Poet Late Sh. Sudeep Banerjee (11 February, 2009).
14. Direct relay of President's address to the Joint Session of Parliament (12.02.09), Presentation of Interim Rail Budget (13.02.09) and Interim General Budget. (16.02.09).
15. Direct Relay of unveiling ceremony of the statute of Chhatrapati Sahu Ji Maharaj in the Parliament House.
16. Report on National Science Day on 28 February, 2009.
17. Report on presentation ceremony of the Akashwani Annual Awards function 2009 held at Lucknow (28.02.09)
18. Report on Central Industrial Security Force Raising Day function.
19. Meteorological Day.
20. National Productivity Week- 12-18 February, 2009. Theme 'Prosperity Through Productivity'.
21. National Safety Day, 4 March, 2009
22. Live Phone in programmes. Topics covered were 'Right To Information Act' (19.01.09). 'Women's Rights' (02.03.09). 'Consumer Rights' (09.03.09).

23. 1st March, 2009 International Children's Day of Broadcasting. Theme of the year. 'Unite For Children Tune Into Kids'.
24. IMPCC - Core Committee on Price Rise, etc.
25. Special programmes on Rights of Persons with disabilities, training programmes, participation in cultural recreation, liaison and reports.
26. AAM ADMI BIMA YOJNA - media strategy.
27. Publicity of task force for giving recommendation on the subject of convergence and coordination of Government programmes for gender equality and fighting social evils.
28. *Bharat Mein Hai Vishwas* (Developmental activities)

Sports

AIR has provided appropriate and effective coverage to various National and International sporting events held in India and abroad viz. Asia Cup Cricket Series - 2008 in Pakistan June - July. 08, India - Sri Lanka Cricket Series - 2008 in Sri Lanka July - August, 08, India - England ODI Cricket Series - 2008 in India November, 2008.

AIR has also broadcast the Torch Rally of Beijing Olympics - 2008 at Beijing from 8.8.2008 to 23.8.2008. Curtain Raiser of Baton Relay of Commonwealth Youth Games 2008, Live coverage of Baton Relay of Commonwealth Youth Games 2008 from Delhi, Commonwealth Youth Games 2008 in Pune from 12.10.2008 to 18.10.2008.

AIR has also provided extensive coverage to 6th Men's Junior Asia Cup Hockey - 2008 in Hyderabad, 25th Surjit Singh Hockey Memorial 2008 in Jalandhar. Asian Football Confederation Challenge Cup 2008 in Hyderabad and Delhi. 121st Durand Cup Football - 2008 in Delhi.

AIR has also covered Delhi Half - marathon in Delhi & 23rd Pune International Marathon - 2008.

During the period January to 31st March, 2009. AIR has provided appropriate and effective coverage to various National and International sports events like-113 Beighton Cup Hockey Tournament at Kolkata. Four Nation Punjab Gold Cup Hockey Tournament at Chandigarh and Chennai Open Tennis Championship.

AIR has also broadcast ball-to-ball cricket commentary to India-New Zealand Cricket Series-2009 in New Zealand.

Farm & Home Broadcasts

The commitment of All India Radio to the rural audience dates back to more than 50 years. All stations of All India Radio broadcast Farm & Home programmes directed at rural audience. In fact, special programmes have been designed to cater to the day-to-day seasonal needs of the farming community. To broadcast the latest technology and information for agricultural output is a continuous process of its Farm & Home programme. These programmes not only provide information about agriculture but also create awareness about the ways and means to improve the quality of their lives. The programmes are broadcast daily in the morning, noon and evening. The average duration of Farm & Home broadcast is 60 to 100 minutes per day. Farm & Home programmes also include programmes for Rural Women, rural Children and Rural Youth.

The Farm & Home units of All India Radio broadcast composite programmes, which include equal segments of Rural Development Schemes and hardcore Agriculture Programmes. These programmes include hardcore agriculture subjects like animal husbandry, fisheries, agriculture related activities, dry & wasteland agriculture, and also talks about the employment schemes, loans, training facilities, sanitation, health-hygiene and nutrition etc.

AIR has stepped up its Agriculture Broadcast with the launch of an exclusive project Mass Media Support to Agriculture Extension with the title Kisan Vani on AIR from 15th February, 2004 in collaboration with Ministry of Agriculture to inform local farmers about the daily market rates, weather reports and day to day activities in their area at micro level. Presently, Kisan Vani is being broadcast from 96 FM Stations of AIR.

Health & family Welfare Programmes

The themes covered in regular broadcast of health programmes are - raise in marriage age, delay the first child, space between two children, terminal methods, maternal care, child survival, women empowerment, promotion of inter-spouse communication male responsibility, neutralizing male preference syndrome, medical termination of pregnancy, promotion of institutional legal provisions. management of reproductive tract infections (RTI) and sexually transmitted infections (STI), Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act 1994, AIDs, drug abuse, breast feeding, child right, child labour, girl child, disability, T.B, leprosy and reproductive child health etc.

Red Ribbon Express

National AIDs Control Organization launched the Red Ribbon Express train carrying messages on HIV/AIDs which traversed 180 stations across the country. All India Radio has given wide publicity and coverage to the campaign to mobilize listeners to visit the train. News bulletins highlighted the issue and special programmes were mounted to increase the knowledge and awareness among the masses.

Women Programmes

These programmes cover subjects related to socio-economic development of women, health and family welfare, food and nutrition, scientific home management, women entrepreneurship, education. including adult education, women empowerment, gender issues etc. These programmes also aim at creating social awareness about the rights and privileges of women through the propagation of legal literacy.

All India Radio strives, through its programmes, to raise the social consciousness of the country in regard to attitude towards women. Different traditional folk forms are used to communicate specially with the rural women audience.

International Women's Day/Week is observed in March every year with special women's programmes, discussions and talks.

Children's Programmes

All AIR Stations broadcast programmes for children on regular basis. In the programmes addressed to women and general audiences, stress has been laid on programmes regarding health and care of mother as well as children. Programmes dealing with immunization, primary health and education form a regular part of our broadcasts.

Programmes are planned keeping in mind the following action points:

1. Protection of rights of children, specially, regarding child labour.
2. Care and support to disabled children.
3. Care and support to children under difficult circumstances.
4. Equal status of girls and equal rights to girls.
5. Universal access to basic education to children and more attention of girl's education.
6. Awareness towards eco-friendliness.
7. Providing safe and supportive environment to children.
8. Improvement in the economic condition of family and self reliant society.
9. National and International cooperation for better future of a child.
10. Safe drinking water facility and sanitary means of excreta disposal.

Special programmes focusing on the status and importance of the girl child in various formats such as discussion, compering, talks, short stories, jingles, spots, etc. are being broadcast on a continuous basis at regular intervals, throughout the year to create social awareness.

Children's Day is celebrated on November 14th every year with special children activities; stage shows and invited audience programmes.

EXTERNAL SERVICES DIVISION (ESD)

External Services Division of All India Radio ranks high among the External Radio networks of the world both in reach and range, covering about 100 countries in 27 languages. AIR through its external broadcasts, aims to keep the overseas listeners in touch with the ethos of India. The languages in which AIR reaches its foreign audience are English, French, Russian, Swahili, Arabic, Persian, Pushtu, Dari, Baluchi, Sinhalese, Nepali, Tibetan, Chinese, Thai, Burmese and Indonesian. The services in Hindi, Tamil, Telugu, Malayalam and Gujarati are directed at overseas Indians, while those in Urdu, Punjabi, Sindhi, Sairaki, Kannada and Bengali are meant for listeners in the Indian Sub-continent.

The three major services of External Services Division are (a) The General Overseas Service (GOS) in English, (b) AIR External Service in Hindi and (c) AIR External Service in Urdu. The External Services broadcasts follow a composite pattern and generally comprise News and Current Affairs. Review of the Indian Press, Newsreel, Magazine Programmes on sports and literature documentaries and features, talks and discussions on social, cultural, economic, political and historic subjects, Music is also broadcast in good measures. The ESD also supplies recordings of music, spoken word and other programmes to about 25 foreign broadcasting organizations under the cultural exchange programme.

During the period from 1st April, 2008 to 31st March, 2009, extensive coverage was given to all major National and International Conferences, seminars, symposia etc. in the form of commentaries, radio reports and interviews. Wide coverage was also given to the visits of various Heads of States, Governments and other Foreign Dignitaries to India like Sri Lankan Foreign Minister's visit, Prime Minister of Bhutan, Lyonchen Jigme Y. Thinley's first visit to India and WTO Chief Pascal Lamy's Delhi visit.

Wide coverage was given to President Pratibha Patil's visit to Latin American Nations, Prime Minister Dr. Manmohan Singh's visit to Japan for G-8 Summit and External Affairs Minister Shri Pranab Mukherjee's visit to UAE, Pakistan and China.

TRANSCRIPTION & PROGRAMME EXCHANGE SERVICE

The Transcription Service was started on 3rd April 1954 and entrusted with the main function of preparing transcription of speeches of all dignitaries with a special reference to the Prime Ministers and Presidents of the country.

This office has the following functional units :

- a. Central Archives
- b. programme Exchange Unit (Internal & Foreign)
- c. Transcription Unit
- d. Refurbishing Unit
- e. Digital Sound Archives
- f. Commercial Release & Marketing
- g. Central Tape Bank

Since April 2003 All India Radio central archive has been releasing music albums under the banner 'Akashvani Sangeet'. Till now, 59 albums have been released which include two albums of Shabad Kirtan titled 'Bani Guru Guru Hai Bani' to commemorate the tri-centenary celebrations of the Guru Granth Sahib.

Marketing of these releases is mostly done in-house by AIR stations and some Marketing Divisions of Prasar Bharati. Sales counters are running in around fifty AIR stations for sales.

Central Archives

The Sound Archives of All India Radio can be called as the National Audio Archive of the nation as its is the treasure house of precious recordings of more than 15000 hours of duration containing music and spoken word recordings in different categories. It is the largest library of Indian Music recordings and it possesses more than 12000 tapes of Hindustani, Carnatic and various folk music traditions.

The library preserves a separate collection of Mahatma Gandhi's speeches including the first and the last prayer speeches of Mahatma Gandhi recorded on 11th May 1947 at Sodepur Ashram.

Calcutta and 29th January 1948 at Birla House, Delhi respectively. The only broadcast by Gandhiji from AIR Delhi on 12th November 1947 is also preserved. AIR Sound Archive preserves speeches of Pt. Jawaharlal Nehru in 3000 analogue tapes. The library contains recordings of all the Presidents and Prime Ministers of India.

Other important voice recordings of eminent personalities like Rabindranath Tagore, Subhas Chandra Bose, Dr. B.R. Ambedkar, Sardar Patel, Sarojini Naidu etc. have also been preserved. Apart from this, award-winning radio dramas, features, documentaries etc, and memorial lectures are available in the library.

In the category of Radio Autobiography there are around 300 recordings of eminent personalities from various walks of life. People of eminence are identified and recorded by AIR stations. These recordings are forwarded to Central Archives for preservation.

PROGRAMME EXCHANGE UNIT

(i) Internal Programme Unit

The main purpose of this unit is to exchange good quality programmes among the stations as per their requirements. In PEU library approx. 8000 tapes containing the recordings of music and spoken word programmes are preserved for this purpose.

Besides, containing both music and spoken word items in different Indian language PEU library is also preserving the Language Lessons in Bengla, English, Gujarati, Kannada, Malayalam, Marathi, Oriya, Sanskrit, Tamil and Telugu.

(ii) Foreign Programme Unit

The Foreign Programme Unit co-ordinates the exchange of programmes, received from broadcasting organizations across the world. These programmes include wide spectra of topics ranging from Science, Current Affairs, Western Light, Classical, Western Pop and Rock to Women and Environment. This unit also coordinates the broadcast of SAARC Audio Visual Exchange (SAVE) Programmes in India. All the hues and shades of listeners' interest are covered in these programmes.

Transcription Unit

One of the main functions of this service is to transcribe the recording of speeches delivered by President and Prime Minister and preserve them in the form of volumes in chronological order.

It is obligatory on the part of AIR stations to record all the speeches delivered in public functions by the President and Prime Minister. Tapes containing recording of speeches are received from various concerned AIR stations. The bound volumes of all transcription are prepared and kept in the archive.

Refurbishing Unit

The old recordings preserved in archives get accumulated with some additional noises from the atmospheric surroundings with passages of time. These noises are removed by refurbishing the tapes. In order to refurbish the vintage music recordings in Archives, this unit was installed some years back with the assistance of United Nations Development Programme. Hundreds of hours of recording of music and voices of Mahatma Gandhi, Pandit Nehru etc. were refurbished here. At present this unit takes care of the audio quality of the recording being released by AIR.

Digital Sound Archives

A special project was launched to digitize all Archival recordings in 2001 and the project was completed in 2005. By this Akashvani has become one of the major digital libraries in the broadcasting network with modern tape numbering system in tune with the internationally accepted norms.

Programme transferred into digital medium are approximately 15900 hours, Break up of recordings transferred into the digital format is as follows:

Prime Minister's speeches	:	3200 hours
President's speeches	:	1150 hours
Mahatma Gandhi	:	280 hours
Sardar Patel	:	35 hours
Gurudev Tagore and recordings on Tagore	:	175 hours

Radio autobiography	:	525 hours
Hindustani Classical	:	3000 hours
Carnatic Classical	:	1400 hours
Light Music	:	1000 hours
Folk Music	:	500 hours

At present the accessioning of the new digital library is completed. In the Second Phase of the digitalization, which began in 2008, approximately 500 hours of recordings have been digitized. There are approximately 5000 hours of programmes in analog tapes that are to be transferred to the digitized format in the Second Phase of digitalization.

Commercial Release & Marketing

Since April 2003 All India Radio central archive has been releasing music albums under the banner 'Akashvani Sangeet'. Till now, 59 albums have been released which include two albums of Shabad Kirtan titled 'Bani Guru Guru Hai Bani' to commemorate the tri-centenary celebrations of the Guru Granth Sahib.

Marketing of these releases is mostly done in-house by AIR stations and some Marketing Divisions of Prasar Bharati. Sales counters are running in around fifty AIR stations for sales.

Central Tape Bank

This unit was initially functioning as the banker of blank tapes to be supplied to the stations on their demand. With technological advancement, the tapes have been replaced by Compact Discs which are procured and used by the stations independently on their own. As such this Unit has presently become nonfunctional.

INTERNATIONAL RELATIONS UNIT

International Relations Unit of DG: AIR remained active in carrying out and coordinating various activities/commitments relating to foreign in nature concerning All India Radio.

During the period, AIR unit coordinated the participation of many officials of All India Radio/Prasar Bharati in the international events held abroad.

- 1) Programme Executive, CBS, AIR, Mumbai participated in the AIBD/RCI Regional Workshop on Radio Co-production on Cultural Diversity & Migration held in Kuala Lumpur, Malaysia from March, 10.12.2008.
- 2) CEO Prasar Bharati, participated in the National Association of Broadcasters-2008, Electronic Media Show and its associated conferences were held from 14th - 17th April, 2008 at Las Vegas, USA.
- 3) AIR personnel from AIR Sambalpur participated in the 9th International Radio Festival of Iran held from May 18-22, 2008 in Isfahan, Iran.
- 4) Three foreign language experts of External Services Division, All India Radio visited the regions concerned with their languages of broadcast in a foreign country with the objective of language familiarisation with the purpose of improving the quality of broadcast in foreign languages.
- 5) Programme Executive, CBS, AIR, Thiruvanthapuram participated in the Refresher Course organized by Radio Netherland Training Centre (RNTC), on "Using Educational Media to engage Children, Young People and Women in Development" held in Hanoi, Vietnam from 3rd to 14th November 2008.

- 6) CEO Prasar Bharati participated in the 45th ABU General Assembly and Associated Meetings held at Bali, Indonesia from 22nd November to 25th November 2008.

Co-productions: All India Radio maintained good relations with other broadcasting organisations across the world. In this process, All India Radio, Delhi and Deutsche Welle Radio, Germany carried out a joint radio co-operation in October 2008 on 'Renewable Energies' an international-series. In which one Deutsche Welle producer and one AIR producer participated and produced a documentary on various techniques and alternate source of energy being encouraged in India for saving energy.

Several AIR stations participated in the ABU's Project of creating awareness on 'Global Warming and Climate Changes' on June 21, 2008 (Summer Solstice Day) through a special campaign launched through radio to spread awareness on this vital issue.

Under the Cultural Exchange Programme Agreements (CEP) signed between Government of India and different countries, the IR Unit coordinates exchange of radio programmes with broadcasting organizations of different countries. There are 41 countries at present with whom Government of India has live 'Cultural Exchange Programmes Agreements' concerning Radio/broadcasting. Programmes on Bulgarian Music broadcast over AIR Delhi on the occasion of Bulgaria's National and Independence Days were well noticed.

Bi-lateral Cooperation: Many high-level delegations from many countries visited AIR during the period with the aim to explore avenues for better cooperation with AIR/Prasar Bharati. Many organisations in other countries have also shown interest in AIR's broadcast content to use the same in their networks.

AIR participated in the radio programme series of Radio Television Hong Kong (RTHR)-Radio-4, titled 'Music Beyond Borders'. The month of September was assigned as the 'Month of India' by RTHK. All India Radio contributed variety of music from its rich archives for the programme through Indian Consulate in Hong Kong.

Participation in the International Radio Competitions: IR Unit continued its efforts towards participation of AIR productions in international radio competition held abroad and providing chance to the hard work and efforts put in by the AIR producers in producing good programmes at international platforms. Radio entries were called from different AIR stations, screened at the directorate and good programmes were sent to many international competitions like AIBD Awards 2008, ABU Prizes 2008, CBA Awards 2009, International Grand Prix Radio Competition (URTI) 2008. 9th International Radio Festival of Iran, Prix Italia 2008 and Turquoise 2008.

Awards won at the international radio competitions in 2008: Programme produced by Sh. Padmalochan Das, PEX, AIR Sambalpur, titled 'Janiba Ame Kama Kariba' (Think Globali, Act Locally) bagged the first prize in the category of Children Programmes in the 9th International Radio Festival of Iran held from 17th to 23rd May, 2008. The award included a cash prize of 2000 Euro, a trophy and a plaque besides a free trip to Iran for participation in the festival.

Sh. Padmalochan Das, also bagged CBA-UNESCO Award for 'Science Reporting and Programming' for his Oriya radio programme, 'Kemiti Rakhiba Bundae Pani' (the Drop that Counts). Shri Das was invited by the CBA to attend the award presentation ceremony during its General Conference at Nassau, Bahamas in February 2008.

Shri Biju Mathew, Programme Executive, AIR, Devikulam won ABU-MAE Project Awards programme. The Project aims to provide small awards of US\$1000 to help motivate and underwrite the development and production of local television and radio programming on HIV/AIDS and related issues in Asia-Pacific region.

AIR Sambalpur's entry 'Our Home, the Planet Earth' (Ei Pruthibi, Ama Needa) produced by Dr. Hrushikesh Panda got the 'Radio Special Commendation' certificate in ABU Prize 2008 competition.

AIR Kurnool's team comprising N. Sudhakara Reddy, Producer, and Dr. K. Vijaya (Co-Producer), and Sri K. Ramanjaneyulu (Technical Assistant) has won the 'CBA UNESCO Award for Science Reporting' for their entry 'Favour Begets Fortune" that was sent for 2009 CBA Awards. The winning programme is a feature on how to achieve good output without using chemical pesticides.

The mike-publicity given for the Commonwealth short Story Competition 2008 by All India Radio helped five amateur Indians writers to win the prestigious Commonwealth Short Story Award 2008.

STAFF TRAINING INSTITUTE (PROGRAMME)

Staff Training Institute (Programme) was established in 1948 at Delhi as an Attached Office of DG, AIR, New Delhi. It was declared as a subordinate office with effect from 01.01.1990. Staff Training Institute (Programme) at Delhi and Bhubaneshwar alongwith five other Regional Training Institute (Programme) at Ahmedabad, Hyderabad, Lucknow, Shillong and Thiruvananthapuram impart training to all the Programme and Administrative Cadres of AIR and Doordarshan.

VANI Certificate Courses

VANI (Voice Articulation and Nurturing Initiative) Certificate courses for newly selected Comperes, Announcers, Presenters, News readers, Editors and Reporters are being conducted on payment basis at various stations of AIR. Till November 2008, about 1948 candidates have been trained in 97 batches.

The handbook 'VANI' provided on payment, is proving to be helpful to the participants of Vani Certificate Course as a supplementary material.

Outside Courses

Prasar Bharati has been given practical training to the students of Post Graduate Diploma in Radio Prasaran (PGDRP) and Post Graduate Diploma in Audio Programme production (PGDAPP) as per MoU signed with IGNOU. This year 143 students have been given practical training in 11 batches at 7 AIR Stations.

Three Workshops in collaboration with Asia Pacific Institute for Broadcasting Development (AIBD) were organised in October - November 2008, for the programme staff of Prasar Bharati.

In addition, many AIR stations have taken students of Radio Journalism from Universities for practical training on payment.

Staff Training Institutes (Technical)

Staff Training Institute (Tech.) at Delhi caters to the training needs of engineering personnel. Regional training institutes have also been set up at Bhubaneshwar, Shillong & Mumbai too augment the training facilities.

The institute at Delhi was established in 1948 and has since grown into a center of excellence for technical training in electronic media. A well-organised Library and

a Computer center with advanced multi-media equipment are available as part of the institute.

The institute conducts training courses for departmental candidates as well as for candidates of similar foreign organizations. Workshops at different field offices are also held. The institute conducts recruitment examination for direct recruit engineering assistants and also holds departmental competitive examinations for promotions in the subordinate engineering cadres. The regional institutes conduct training courses like use of Computerized Hard Disc Based Recording, Editing & Playback system.

a) Number of staff trained from 01.04.2008 to 31.03.2009.

1.	STI(T) Delhi	910
2.	RSTI(T) Bhubaneswar	172
3.	RSTI (T) Malad	71
4.	RSTI (T) Shillong	22

b) Number of Courses conducted from 01.04.2008 to 31.12.2008:

1.	Inside & Outside Courses conducted by STI (T) Delhi	61
2.	Course conducted at RSTI (T)Bhubaneswar	21
3.	Courses conducted at RSTI(T) Malad	07
4.	Courses conducted at RSTI (T) shillong	02

c) A special workshop for news officials of AIR & DD under the aegis of Prasar Bharati, AIBD & CBA was done in the computer lab of STI(T). Total technical support and facility was provided by STI(T)

d) STI(T) has been awarded IABM Tom McGann Bursary Training award for the year 2008-09. STI(T) has received this award for the third time, a feat unaccomplished by any other Institution.

e) International participants from various countries attended the different courses at STI(T) Delhi. Eleven from BBS Bhutan and four from MBC Mauritius.

f) Summer Training for Diploma/Degree Engg. Students for four/six weeks was conducted by STI(T) and this was attended by total 160 Engg. Students.

(1) Revenue generated by STI(T) Delhi: Rs. 4,24,000/-

(2) Revenue generated by RSTI(T) Bhubaneswar Rs. 38,59,066/- Total.

AUDIENCE RESEARCH UNIT

The Largest Feedback and Research Support Network.

In this era of market driven broadcasting, it may not be possible for any media organization to survive without feeling the pulse of their audience and knowing the market. This compelled the media organization, particularly electronic media, to get the syndicated media research done to know the viewership/listenership of their programmes & market potential for them. No broadcasting agency can afford to move faster without the viewer/ship/listenership data in hand.

The case of radio broadcasting is not different, the competition is intensifying day by day due to opening of more and more private radio stations but none of the upcoming radio broadcasting agencies across the country, other than All India Radio, has such a large in-house audience feedback and research support network. The Audience Research units of All India Radio provide instant feedback and research support not only to the in-house programme planners & producers but also to the sponsor, advertisers & marketers.

With the changing mass communication scenario, particularly market oriented broadcasting; Audience Research Unit of AIR has also reoriented itself.

Efforts are afoot to create the ripple of changes and to carve a niche for itself among the sponsors, advertiser and marketers. This is evident from the studies assigned to the Audience Research Units in the recent past by the various agencies.

Sponsored Studies

- i) Impart Assessment study on *Koshish Sunehare Kal Ki* and *Fantastic Four* sponsored by Ministry of Environment & Forests.
- ii) Survey on AIDS control programme *Ini Onu Vidhi Seivom* sponsored by Tamil Nadu State Aids control Society (TANSACS).
- iii) Quick feedback on Education Broadcasts - *Keli-Kali*, *Chukki-China* and *Chinnaro-Chukki* sponsored by DSERT, Government of Karnataka.
- iv) Kisanvani Survey sponsored by Ministry of Agriculture, Government of India.

Audience Research activities undertaken during 2008-09

- i) Indian Radio Audience Survey FM Rainbow & Gold Channel, 2008 at 18 places across the country.
- ii) Feedback/Impart Assessment Study in respect of Programme. *Koshish Sunehare Kal Ki* and *Fantastic Four* sponsored by Ministry of Environment & Forests at 11 places across the country.
- iii) Study on "Distribution of Community Radio Sets" in Arunachal Pradesh (out of Eastern Regional Special Package, Phase-II).
- iv) Survey on AIDS Control Programme *Ini Onu Vidhi Seivom* sponsored radio programme of HIV/AIDS by Tamil Nadu State Aids Control Society (TANSACS) conducted at 18 places under coverage areas of 8 AIR Stations.
- v) Survey on Education Broadcast on *Keli-Kali*, *Chukki-Chinna*, and *Chiannara Chukka* radio programmes sponsored by DSERT, State Government of Karnataka.
- vi) Review workshops on Kisanvani programme and online feedback systems conducted at four places across the country.
- vii) Indian Radio Audience Survey 2008 on primary channel 2008 at 64 places across the country has been conducted.
- viii) Study on impact of flagship programmes broadcast from AIR was conducted at 20 places across the country.
- ix) A compendium of All India Radio-2007 was brought out in 2008.

DOORDARSHAN

Doordarshan, a Public Service Broadcaster, is among the largest terrestrial television network in the world. The service was started in New Delhi on 15 September 1959 to transmit educational and development programmes on an experimental basis with half-an-hour programming.

Commencement of regular television service as part of All India Radio commenced in Delhi (1965); Mumbai (1972); Kolkata (1975), Chennai (1975).

Doordarshan was established on 15 September 1976. A major landmark thereafter was the introduction of colour television in 1982 coinciding with the 9th Asian Games held in New Delhi that ushered in a major revolution in broadcasting in the country. This was followed by a phase of rapid expansion of Doordarshan when, in 1984 more or less every day saw the installation of a transmitter in the country.

Other significant milestones that followed thereafter were :

- Launch of second channel
- Delhi (9 August 1984), Mumbai (1 May 1985), Chennai (19 November 1987), Kolkata (1 July 1988)
- Networking of second channels to launch the Metro Channel (26 January 1993)
- Launch of International channel DD India (14 March 1995)
- Formation of Prasar Bharati (Broadcasting Corporation of India) (23 November 1997)
- Launch of sports channel DD Sports (18 March 1999)
- Launch of enrichment/cultural channel DD Bharati (26 January 2002)
- Launch of 24 hours news channel DD News (3 November 2002)
- Launch of free to air Direct-to-Home Service DD Direct + (16 December 2004)

DOORDARSHAN TODAY

Doordarshan network consists of 64 Doordarshan Kendras/Production Centres, 24 Regional News Units, 126 Doordarshan Maintenance Centres, 202 High Power transmitters, 828 Low Power Transmitters, 351 Low Power Transmitters, 18 Transposers, 30 Channels and DTH Service and has a sanctioned strength of 21708 officers and staff of various categories.

DD's Transmitters

Channel	HPT	LPT	VLPT	transposer	Total
National (DD1)	128	747	346	18	1239
DD News	70	81	5	-	156
Others	4	-	-	-	4
Total	202	828	351	18	1399

DOORDARSHAN CHANNELS

National Channel (5) : DD1, DD News, DD Bharati, DD Sports and DD Urdu. **Regional Language Satellite Channel (11)** : DD North-East, DD Bengali, DD Gujarati, DD Kannada, DD Kashir, DD Malayalam, DD Sahyadri, DD Oriya, DD Punjabi, DD Podhigai, and DD Saptagiri. **Regional State Network (11)** : Bihar, Jharkhand, Chhattisgarh, Madhya Pradesh, Uttar Pradesh, Haryana, Uttrakhand, Himachal Pradesh, Rajasthan, Mizoram and Tripura. **International Channel (1)** : DD India.

Doordarshan has a three-tier programme service - National, Regional and Local.

- The emphasis in the programmes in the National service is on events and issues of interest to the entire nation.
- The programmes in the regional service focus on events and issues of interest to the people of that particular State.
- The local service caters to the needs of the populace living in the areas falling within the reach of a particular transmitter through area specific programmes in the local languages and dialects.

In addition, the programmes in the national and regional services are also available in satellite mode to the viewers all over the country.

Terrestrial Coverage of Doordarshan : The coverage of the two terrestrial channels of Doordarshan is shown below :

Channel	Coverage (%) National average (As on 30.6.2006)	
	By Area	By Population
DDI	79.4	9.4
DD News	24.4	48.5

DD Direct + : Doordarshan's free-to-air Direct-to-Home service DD Direct + was launched by the Prime Minister on 16 December 2004. Starting with 33 TV channels (Doordarshan/Private) and 12 Radio (AIR) channels, the capacity of the service was increased 36 TV channels and 20 Radio channels. The signal of this service can be received all over India , except A&N Islands, with the help of a receiver system. The subscriber base of this service is in excess of 5 million.

DD-NATIONAL CHANNEL

DD-I CHANNEL (NATIONAL)

Doordarshan DD-I Channel continues to make significant contributions to accelerate socio-economic changes, promote national integration, stimulate scientific temperament, disseminate knowledge, educational programmes, public awareness, means of population control, messages on family welfare, preservation of environment and ecological balance, measures for women welfare, children and under-privileged, etc. It also promoted sports, and artistic and cultural heritage of the country.

Apart from Public Service Broadcasts, it also telecasts entertainment programmes, including serials on different subjects of social relevance as sponsored/commissioned/Self Financed Commissioned programmes, films, etc.

The service of National Channel is available in terrestrial mode as well as satellite mode from 5.30 AM to 00.00 (mid-night) and thereafter in satellite mode till next morning up to 5.30 AM.

Regional Language Satellite Service : The eleven regional Language Satellite Services are :

DD-Malayalam	DD-Saptagiri (Telugu)
DD-Bengali	DD-Chandana (Kannada)
DD-Oriya	DD-Sahyadri (Marathi)
DD-Gujarati	DD-Kashir (Kashmiri)
DD-Punjabi	DD-North-East
DD-Podhigai (Tamil)	

The Regional Language Satellite Services and Regional State Networks broadcast a wide spectrum of programmes covering developmental news, serials, documentaries, news and current affairs programmes to communicate with the people in their own language. General infotainment programmes, social programmes and film programmes as other major genres are also telecast.

Regional State Network : The Regional State networks cater to the people living in Hindi Belt comprising U.P., Bihar, Jharkhand, Chhattisgarh, M.P. Rajasthan, Haryana and H.P. The programmes of this service are produced and broadcast from the capital Kendras of the respective states between 3.00 and 8.00 pm and are relayed by all the ground transmitters of the state.

DD-News : The DD-News channel the country's only 24 hours terrestrial news channel telecasts over 16 hours of live news bulletins daily in Hindi and English. News Headlines, News updates, breaking news on the scroller are regular features on this channel. A daily bulletin in Sanskrit and Urdu is also telecast. Besides, the Regional News Units attached to different Doordarshan Kendras also telecast daily news bulletins in regional languages of varying duration and frequency. The DD News headlines can now be accessed through the SMS.

DD News also carries Stock and Commodities indices throughout the day in an automated delivery mode, accessing information from NSE & BSE and leading commodity exchanges like NCDEX, MCX, etc.

DD Sports : DD Sports remains the country's only free-to-air sports channel. It continues to provide coverage to international and domestic games, including cricket, football, hockey, tennis, kabaddi, Archery, Athletics and other indigenous games, etc.

A cash outflow system was introduced to cover non-Olympic and traditional sports on DD Sports. The channel continued to cover sporting events organised by the different Sports Federations and Association.

DD Bharati : DD-Bharati Channel was launched on 26 January 2002. Besides programmes on adventure, quiz contests, fine arts/paintings, crafts and designs, cartoons, talent hunts, etc., it also telecasts "MERI BAAT" an hour-long phone-in 'live' show with young people.

Programmes emphasising on a healthy life style and focusing on prevention rather than cure, both in our traditional and modern forms of medicine are also being telecast.

Classical dance/music performances by top class artists of national and international fame are also featured on this channel are programmes on theatre, literature, music, paintings, sculpture and architecture.

The channel also telecast programmes in collaboration with organisations like IGNC, CEC, IGNOU, PSBT, NCERT and Sahitya Akademi. The channel also provides extensive coverage to the AIR sangeet sammelans. Contributions made by the Regional Doordarshan Kendra's are regularly telecast live/recorded.

DD India : The programming on this channel continues to be done in a manner to enable it to meet its primary objective of providing a window to the world especially for the Indian diaspora to witness the Indian social, cultural, political and economic scene. The Channel continues to carry news bulletins in Hindi, English, Urdu, Sanskrit, Gujarati, Malayalam and Telugu, features on topical events and discussions on issues of international significance. It also beams many entertainment programmes, serials, theatre, music and dance besides feature films.

Programmes in regional languages such as Punjabi, Urdu, Telugu, Tamil, Bengali, Kannada, Malayalam, Gujarati and Marathi form an essential ingredient of this channel. Live Coverage of national events like Independence Day, Republic Day Celebrations, the Budget presentation and other happenings of national and international importance are regularly carried on this channel.

PRESS AND PRINT MEDIA

REGISTRAR OF NEWSPAPERS FOR INDIA

The Office of the Registrar of Newspapers for India (RNI) came into existence on 1 July 1956, on the recommendation of the First Press Commission in 1953 and by amending the Press and Registration of Books Act, 1867. The Registrar of Newspapers for India, commonly known as the Press Registrar, is required, inter alia to submit an Annual Report to the Government by 31 December every year on the status of newspapers. The period for which the annual statements were to be furnished, was changed from the calendar to financial year in 2002. Earlier the Annual Report was compiled on financial year basis. The total number of registered Newspapers/Periodical was 69,323 as on 31 March 2008. These were 7,710 dailies, 379 tri/bi-weeklies, 23,414 weeklies, 9,053 fortnightlies, 20,948 monthlies, 4,687 quarterlies, 605 annuals, and 2,518 of the other periodicity. (The figures have been updated only for the registered newspapers for the year 2007-08).

According to the report submitted by the Press Registrar for the year 2007-08, Newspapers were registered in 123 languages and dialects. Apart from English and 22 other principal languages listed in the Eighth Schedule of the Constitution, newspapers were registered in 100 other languages and dialects mostly Indian but also in a few foreign languages too. Orissa had the distinction of publishing newspapers in 18 out of 23 principle languages. Maharashtra came next with publication in 17 languages followed by Delhi with publications in 16 principle languages.

Of the 69,323 newspapers registered as on 31 March 2008, only 9,072 submitted Annual Statements during 2007-08. The total circulation of these 9,072 newspapers was 20,71,08,115 copies per publicity day. The largest number of newspapers and periodicals registered in any Indian language is in Hindi (25,527). The second largest number of newspapers and periodicals registered in any language is in English

(10,000). The state with the largest number of registered newspapers is Uttar Pradesh (10,799). The state with the second largest number of registered newspapers is Delhi (8,545).

PRESS INFORMATION BUREAU

The Press Information Bureau (PIB) is the nodal agency of the Government of India to disseminate information to the print and electronic media on government policies, programme initiatives and achievements. It functions as an interface between the Government and the media and also serves to provide feedback to the Government on people's reaction as reflected in the media.

PIB disseminates information through different modes of communication viz. Press Releases, Press Notes, Feature Articles, Backgrounders, Press Briefings, Press Conferences, Interviews, Photographs, Database available on Bureau's website, Press Tours etc. PIB releases information in any of the above format. Information disseminated through Press Releases, Press notes etc is released in English, Hindi and Urdu and subsequently translated in other Indian languages to reach out to about 8,400 newspapers and media organizations in different parts of country.

ORGANIZATIONAL SET-UP

PIB has its Headquarters in New Delhi. It is headed by the Principal Director General (Media & Communication) who is assisted by a Director General and eight Additional Director Generals. Besides, the Bureau has Departmental Publicity Officers varying in ranks from Directors to Assistant Directors and Media & Communication Officers who are attached with different Ministers in order of the Officer's rank and Ministry's size, importance and sensitivity.

PIB also runs Control room (News Room) at Headquarters to ensure dissemination of information after normal working hours on weekdays from 6.00pm to 9.00 pm and from 3.00 pm to 9.00 pm on weekends and holidays respectively.

PIB has 8 Regional Offices headed by Additional Director Generals and 34 Branch offices and Information Centers to cater to information needs of regional press and other media. In addition to release of publicity material issued from the Headquarters in local languages, these Regional and Branch Offices of PIB issue original press releases, press notes, backgrounders etc. whenever an important event is organized by any of the Central Ministries of Public Sector Undertakings in a particular region. These Offices also take up the decisions of the Central Government which may be of special importance to a particular region for focused publicity based on information dissemination on sustained basis.

Activities of PIB can be broadly classified in three Categories viz;

Publicity

FeedBack

Accreditation & other Facilities.

PUBLICITY

Departmental Publicity Officers (DPOs) attached to various ministries and departments for disseminating information to the media through press notes, backgrounders etc. and also by arranging press conferences, press tours, media briefings etc, have been in turn also meeting the information needs of media in respect

of those Ministries. DPOs also advise their respective Ministries on all matters pertaining to information needs of media and Ministers' publicity requirements.

During the period for Bureau including Regional Branch office of PIB issued 82286 press releases, 4541 features, and organized 8363 press conferences and briefings. Beside the routine publicity work, the Bureau made some special endeavours towards publicity which are as under:

Five Year Achievements

Major decisions of the present Union Government were complied on the occasion of completion of its five years in Office in the form of a booklet which was released as 'Programmes for the People - 2004-09'. It was printed in English and Hindi and thereafter disseminated widely amongst media persons and others. Apart from this, eight brochures on the sectoral achievements of the Govt, on flagship programmes were compiled separately and issued by the Bureau in Hindi, English and Urdu.

Commonwealth Youth Games, Pune

Press Information Bureau had set up a Media Centre for information dissemination to media persons during the Commonwealth Youth Games, Pune held from October 12-18, 2008 in which 71 countries participated. Approximately 700 journalists were accredited to cover the games. The Main Press Centre (MPC), a part of the Media Centre was state of the art centralized wi-fi media facilitation Centre having world class facilities including 100 workstations, computer terminals for filling and preparing stories by print media persons, 25 dedicated workstations (computer) for still photographers for editing and sending their photographs with facilities of scanner, card reader etc. laptop connectivity, media video wall consisting of nine plasmas which were connected to all nine stadia, cable TV, acoustically sound proof conference hall in the MPC where press conferences were organized, telephone, fax, photocopier printer, scanner, ISD phone and fax facilities for foreign journalists.

In addition, at each venue (stadium) there was a mini Media Centre, known as Venue Media Centre. There was also a mini media lounge at each venue. Each Venue Media Centre had computers, fax, telephone and internet facility.

Economic Editors Conference

Economic Editor's Conference-2008, an annual event was organized from November 24-26, 2008 at new Delhi. Around 43 outstation and about 300 local economic editors, lead writers and journalists attended it. Ministries of Finance, Information and Broadcasting, Tourism, Petroleum, Food Processing etc. participated. The Conference provided a platform for interaction on government policies, programmes and achievements with the editors and the Ministers of concerned Ministries. The Conference was inaugurated by the Finance Minister, Shri P. Chidambaram.

PM and Cabinet Committees

Besides coverage of PMs visit to Jharkhand, J&K, Assam, Tamil Nadu and his speeches at home, the Bureau made special arrangements for the coverage of PM's visits to Bhutan, New York for signing of the Nuclear deal and his address to the UN General Assembly, India-EU Summit-France, G-5 Summit- Japan, 15th SAARC Summit - Sri Lanka, ASEM Summit - China etc.

PIB arranged for media briefing on Cabinet decisions as well as decisions of various Cabinet Committees.

Inflation

In the wake of steep rise in inflation during the year, special efforts were made by the Bureau to publicize measures taken by the Government to moderate the inflationary pressures. A weekly report on the measures taken by various economic Ministries viz. Finance, Commerce and Industry, textiles, Petroleum, Agriculture etc. was prepared and sent to the Ministers and Secretaries to the Government of India for use at appropriate fora. Another weekly report on Action Taken by the concerned Ministries and on feedback from the media was also prepared and made available to Secretary, I&B for use in the Committee of Secretaries meeting.

Public Information Campaigns (PICs).

Public Information Campaigns (PICs) had being designed with the strategy to combine information dissemination with the delivery of services at the doorsteps for the beneficiaries particularly in rural areas.

136 PICs have been organized since Jan, 2008 to March 2009. These campaigns organized so far have been attended by a large number of people.

Press tours

Successful people's programmes/projects in remote and backward regions of the country are identified and national and local media are taken on tours to visit these developmental projects to witness the efforts of the individuals, organizations and Government agencies. During the year 2008 (from January to December 2008). 11 Press tours were organized. Eight Press tours have been organized in the current financial year. (January 2009 to October 2009).

Indian Science Congress

PIB provided media coverage to the 96th Indian Science Congress held in North Eastern Hill University, Shillong from 3-7 January, 2009. The theme "Science Education and Attraction of Talent for Excellence in Research" was appropriately highlighted. The event was inaugurated by Hon'ble Prime Minister and galaxy of scientists from India and abroad addressed various sessions which were attended by 4,000 delegates and students from across the country. About two hundred media persons covered the event.

Media related activities for this event organized by PIB included media interaction with the Prime Minister, a press tour for 12 media persons from Delhi during 2-8 January, 2009, a day-long tour of Guwahati based media persons for coverage of the inaugural function on 01.01.09 and a press tour to Cherapunj on 07.01.2009.

International Film Festival of India-2008

PIB set up a Media Centre at Goa for the International Film Festival of India-2008 held from November 22 to December 2, 2008. The Media Centre was equipped with workstations with Internet and fax facilities for use of Media Persons, an Information Desk for smooth dissemination of festival information to the media, a Conference Hall for holding Press Conferences etc. Information with regard to inaugural, closing and other important events during the Festival were arranged to facilities media related activities.

A total of 357 media persons were accredited online. During the Festival 41 Press Conferences were conducted. Besides, a special session was organised to condole the tragic incidents in Mumbai, which enabled eminent film journalists to express their feelings.

During the IFFI-08, 75 Press Releases, 282 Synopses, 70 Background material, 155 Photographs and 2 Features were put out in Hindi, Marathi and English for the extensive coverage of the events taking place.

Pravasi Bhartiya Diwas

The Pravasi Bhartiya Diwas, a flagship event of the Ministry of Overseas Indian Affairs is held every year with the objective to bring the knowledge, expertise and skill of the vast and diverse overseas Indian Community on a common platform and to shape an agenda for a symbiotic relationship between India and its Diaspora and establish an institutional framework for sustainable engagement with overseas Indians.

The PIB gave media support to the 7th Pravasi Bhartiya Diwas was held in Chennai from January 7-9, 2009.

Media Exchange Programme

The main objective of this scheme is to strengthen the friendly ties with different countries in the fields of information and print media, inspired by a common desire to establish and develop closer relations with other countries in the field of information and mass media. The components of the scheme are (i) Cultural Exchange Programmes (ii) Joint Working Groups and (iii) Agreement on cooperation in the field of information.

Editors Conference on Social Sector Issues (ECSSI)

Editors Conference on Social Sector issues - 2009 was held at New Delhi on February 3-4 2009. More than 150 local Editors and Correspondents and 24 outstation Editors also participated in the 2-day event. Eight participating Ministries were Ministry of - Rural Development, Social Justice and Empowerment, Women and Child Development, Science and Technology, Labour, Housing and Urban Poverty Alleviation, Health and Family Welfare and Human Resource Development.

The emphasis was on the role of Minister in the social sectors development.

WEB ENABLED SERVICES

The website of PIB (www.pib.nic.in), an important source of information to small & medium newspapers of India, was reviewed to make it more attractive and incorporate new features. PIB also has 7 sister websites in 7 different languages viz. Tamil, Malayalam, Kannada, Telugu, Bengali and in Mizo languages.

Feedback feature and photo service

As part of the Special Services, the Feedback Cell in PIB prepared daily digests and special digests based on news stories and editorials from National as well as Regional dailies and periodicals for the use by ministries. Feedback Cell of PIB also prepared a weekly action taken report on measures taken by concerned Ministries to moderate the inflationary pressures as well as provided a weekly feedback on media reporting on the price rise.

The Feature Unit of the Bureau issued backgrounders, updates, info-nuggets, features and graphics, which were also sent to the Regional/Branch Offices for translation and circulation to the local media. The unit releases special features highlighting policies and programmes of the Government. These include features and success stories on flagship programmes and other topical issues. On an average over 230 features are produced annually including photo features and backgrounders. More than 70 success stories have already been released in the current financial year.

During April 2008-March, 2009 the Photo Publicity Unit of the Bureau covered 804 assignments, released 4893 photos and distributed 25825 prints of photographs to the Press and Regional/Branch Offices of PIB.

Accreditation and other services

PIB provides accreditation to media representatives including foreign media at the Headquarters, Government of India. This facilitates them to access information from the Government sources. About 1508 correspondents and 454 cameramen/photographers are accredited. Besides, 152 technicians and 82 editors and media critics have also been granted accreditation.

One of the major features introduced by PIB was electronic press accreditation cards with enhanced security features.

NEWS AGENCIES

PRESS TRUST OF INDIA

India's largest news agency, Press Trust of India (PTI) is a non-profit sharing cooperative owned by the country's newspapers with a mandate to provide efficient and unbiased news to all subscribers. Founded on 27 August 1947, PTI began functioning from 1 February 1949.

The PTI offers its news services in English and Hindi languages. *Bhasha* is the Hindi language news service of the agency. PTI subscribers include 500 newspapers in India and scores abroad. All major TV/radio channels in India and several abroad, including BBC in London, receive PTI service.

The PTI now has its own satellite delivery system through a transponder on an INSAT satellite for reaching its services directly to subscribers anywhere in the country. Increasingly more and more subscribers are opting for satellite reception. Photo service is delivered by satellite as well as accessed by dial-up. PTI has also now begun satellite transmission by Ku band which offers subscribers the option of receiving news through a cheaper and small size satellite receiver.

PTI is on the Internet too. The agency's news services have been showcased on its website <http://www.ptinews.com>. Clients also have the option of taking any of PTI's services through Internet. PTI news is also available through World Space radio broadcast reception.

The Photo service is delivered by satellite as well as accessed through dial-up. The agency is now engaged in archiving its photos. Once launched the on-line photo archives will help access photos from the agency's old files dating from 1986 when the Photo service was launched.

With a staff of about 1300 including 350 journalists, PTI has 80 bureaux across the country and foreign correspondents in major cities of the world including Beijing, Colombo, Dhaka, Dubai, Islamabad, Kathmandu, Kuala Lumpur, London, Moscow, New York and Washington. In addition, about 350 stringers contribute to the news file at home while 20 PTCs bring news from rest of the world. The agency has also a networks of photo stringers across the country numbering about 200.

Besides the news and photo services, the other services of the agency include mailer packages of Feature, Science service, Economic service and Data India, and screen-based services as News-scan and stock scan. A television wing, PTI-TV, does features and undertakes corporate documentaries on assignment basis.

The PTI has arrangements with the Associated Press (AP) and agency France Press (AFP) for distribution of their news in India. AP's photo and international commercial information are also distributed in the country through PTI.

The PTI is a partner in Asia Pulse International, a Singapore-registered company, formed by PTI and five other Asian media organisations to provide an on-line data bank on economic developments and business opportunities in Asian countries. PTI is also a participant in Asianet, a cooperative arrangement among 12 news agencies of the Asia-Pacific region, for distribution of corporate and government press releases.

The PTI is a leading participant in the NAM News Network, the Internet-based news exchange arrangement of the Non-Aligned Countries, and the Organisation of Asia-Pacific News Agencies. It also has bilateral news exchange arrangements with several news agencies belonging to the countries of Asia, Africa, Europe and Latin America.

UNITED NEWS OF INDIA

United News of India (UNI) was incorporated under the Companies Act, 1956 on 19 December 1959 and started functioning effective 21 March 1961.

In the past four decades, UNI has grown into a major news organisation in India and, with its vibrant presence, provided the much-needed spirit of competition in the vital areas of news gathering and dissemination.

UNI's innovative spirit was evident when it became the first news agency in India to launch a full-fledged Hindi wire service 'UNIVARTA' in 1982 and a Photo Service and a Graphics Service in the same decade. In the early 90s, it launched the first-ever wire service in URDU.

UNI today has about 719 subscribers. It also has 71 offices in India and an employee strength of more than 975 persons, including 391 journalists. Apart from its own correspondents in all major cities of the country, it also has about 305 stringers who report from all the important towns. This countrywide network has enabled UNI to provide coverage of events from all the regions of the country.

Further, UNI has Correspondents in Washington, New York, London, Moscow, Dubai, Islamabad, Kathmandu, Colombo, Dhaka, Singapore, Toronto (Canada), Sydney (Australia), Bangkok (Thailand) and Kabul (Afghanistan).

UNI distributes world news from Reuters, the world's largest information company. Besides, it has news exchange arrangements with Xinhua of China, RIA Novosti of Russia, UNB of Bangladesh, Anadolu of Turkey, WAM of the United Arab Emirates, GNA of Bahrain, KUNA of Kuwait, ONA of Oman and QNA of Qatar and CNA of Taiwan.

UNI's Photo Service distributes about 200 pictures every day, including sixty international photographs from EPA, the European Pressphoto Agency and Reuters. Its Graphics Service distributes five or six graphics every day. UNI today has a countrywide network of 27 photographers and an equal number of photo stringers who contribute round-the-clock for UNI's daily photo report of about 200 pictures.

In the 46-odd years of its existence, UNI has acquired an enviable reputation for its fast and accurate coverage of news events.

UNI has always been in the vanguard in adapting modern technology to suit its requirements in news gathering and dissemination. As part of its modernisation

drive, UNI has computerised nearly all its offices in India. It was a quantum jump for UNI when it upgraded its nationwide teleprinter network, extending to over 10,00,000 km. From 50 baud to 300 baud Data circuits. This again was a temporary changeover as UNI further advanced to 1,200 baud speed Data Circuits and then to the state-of-the-art satellite technology for its nationwide distribution of news at a speed of 56 kbps. Switching over to VSAT technology has meant that all our subscribers across the country would get our stories simultaneously without any loss of time. Further, we would also be able to deliver our pictures through this system.

UNI is already the first Indian news agency to deliver its entire news services in English and Hindi as well as its Photo Service through the Internet. Subscribers can download the stories and pictures from the UNI and UNIVARTA websites. The respective addresses of UNI and UNIVARTA websites are: UNI: www.uniindia.com and UNIVARTA : www.univarta.com

NAM NEWS NETWORK

NAM News Network (NNN) is the new Internet-based news and photo exchange arrangement of the news agencies belonging to member countries of the non-aligned movement. News and photo contributions of NAM news agencies including Press Trust of India are uploaded onto the NNN website <http://www.namnewsnetwork.org> for on-line access by all. Malaysian news agency Bernama is at present handling the operation of the website from Kuala Lumpur.

Operational from April 2006, NNN was formally launched by the Malaysian Information Minister Mr Zainuddin Maidin in Kuala Lumpur on 27 June 2006. NNN replaces the Non-aligned News Agencies Pool (NANAP) which had acted as the news exchange mechanism among non-aligned countries for the last 30 years. With internet a cheap and reliable mode of communication, NNN is expected to contribute to sustained flow of information in the 116 member non-aligned world.

The decision to replace NANAP with NNN was taken at the Sixth Conference of Ministers of Information of Non-Aligned Countries (COMINAC VI) held in Kuala Lumpur in November 2005. The meeting felt that NANAP had lost its momentum due to declining support from member countries and that it "should be revitalised through a new workable mechanism, if necessary in a new form, to move forward." The meeting endorsed a Malaysian proposal for NANAP's replacement by the Internet-based NNN.

NANAP, set up in 1976, was the first attempt of the non-aligned movement to provide for exchange of news among its member countries. During its 30 years of operation, it played a significant role in improving the flow of communication in the non-aligned world. At a time when communication costs were very high, NANAP provided for sharing of communication channels of member news agencies to ensure a common network for exchange of news among all countries of the non-aligned movement. News was exchanged under the arrangement in four international languages - English, French, Spanish and Arabic.

PRESS COUNCIL OF INDIA

Press Council is a statutory quasi-judicial authority mandated by the Parliament to preserve the freedom of the press and maintain and improve the standards of newspapers and the news agencies in India. It is an autonomous body with equal

quasi-judicial authority over the authorities and the press persons. For the discharge of the above objects, the Council comprises of a Chairman and 28 members. While the Chairman handed convention been a sitting or retired judge of the Supreme Court of India, of the 28 members, 20 represent various segments of the Press and eight, overseeing the readers' interests are representatives of the two Houses of Parliament and premier literary and legal bodies of the country i.e. University Grants Commission, Bar Council of India and Sahitya Academy. The council has its own funds for performance of its functions under Act that comprises of the fee collected by it from newspapers and other receipts and grants from the Central Government. The Council is presently chaired by Hon'ble Mr. Justice GN Ray.

The Council discharges its functions primarily through adjudications on complaint cases received by it either against the Press for violation of journalistic ethics or by the Press for interference with its freedom. Where the Council is satisfied, after inquiry, that a newspaper or a news agency has offended against the standards of journalistic ethics or public taste or that an editor or working journalist has committed any professional misconduct, the Council may warn, admonish or censure them or disapprove of their conduct. The Council is also empowered to make such observations as it may think fit in respect of the conduct of any authority, including Government, for interfering with the freedom of the press. The decisions of the Council are final and cannot be questioned in any court of law.

Complaints before the Council

During the year under review, a total of 726 complaints were instituted in the Council. Of these, 185 complaints were by the Press against authorities of the Government for violation of press freedom and 541 complaints were directed against the press for breach of journalistic ethics. With 759 matters pending from the last year, there were a total of 1485 matters for disposal by the Council. Of these 581 matters were disposed of during the year, either by way of adjudication or through summary disposal by the Chairman on account of settlement by the mediation of the Chairman or due to lack of sufficient grounds for holding inquiries or non-prosecution, withdrawal or on account of matters having become sub-judice. Out of these 581 matters three directly placed before for adjudication. In all 904 matters were being processed at the close of the year. Besides 443 matters were decided under the provision to Section 14(1) of the Press Council Act, 1978.

The Press Council of India under the mandate of Section 13 (2) (b) of the Press Council Act, 1978 is to build up a set up guidelines to facilitate the functioning of the Media. Therefore, in pursuance of Order of Hon'ble Court of Juvenile, Thiruvananthapuram in a writ petition No. CMP 2/2008 filed by National Network of Positive People objective to an incident relating to visual screened by the media of two children afflicted with HIV/AIDS, the Council in consultations with the representatives of UNAIDS and activists in the field has this year updated the guidelines drawn up in 1993 on HIV/AIDS and the Media. The Council proposes wide dissemination of these guidelines with translation in other languages to facilitate better understanding of the issue in state by regional and local media.

The 2005 edition of "Norms of Journalistic Conduct" has also been updated and the new edition will be brought out shortly.

Advisory Functions

In its advisory capacity the Council provided the Government and other authorities with its views on:-

1. Reference from Ministry of Information and Broadcasting regarding Draft Cabinet Note on the amendments to certain provisions of the Industrial Dispute Act, 1947.
2. Growth of Print Media in Liberalized Economy: To Consultative committee of MPs attached to the Ministry of Information and Broadcasting on 2.6.2008.
3. Opinion on Exit polls during Election Process: To Parliamentary Standing Committee on Personal, Public Grievances, Law and Justice-examination of the Representation of the People (Second Amendment) Bill-2008.
4. Guidelines on caution against overseas employment advertisement.
5. Constitution of Committee of Governors (COG) to study and recommend strategies for speedy Economic Development and Empowerment of Women.
6. Setting up of Institute of Journalism, non interference of the government with print media but to strengthen the hands of the Press Council: To Consultative Committee of MPs attached to Ministry of Information and Broadcasting.
7. Reference from Government of India regarding implementation of the provisions of UN Convention on Rights of Persons with Disabilities (UNCRPD) by Ministry of Information and Broadcasting.
8. Meeting with Departments/Ministries on "NGO Database" and "National Policy on the Voluntary Sector"

Suo motu Cognizance

The Council took suo motu cognizance of the incidents of violation against media-persons and threats to press freedom in the following cases:

1. Harassment of Journalist on the basis of the news report published by Jansatta in its issue dated 21.4.2008.
2. Attack on the offices of Andhra Jyoti on the basis of news report published in Hindu issue dated 27.5.2008.
3. Sedition and treason charges against The Times of India, Ahmedabad by the City Police Commissioner on the basis of the news items published in The Hindu and The Indian Express dated 2.6.2008 and The Times of India, dated 3.6.2008.

Since the Government has chosen to proceed with the matter and the case being sub-judice the issue has been kept pending for the present.

4. Attack on Loksatta Editor's Home published by Hindustan Times, Indian Express and Hindu dated 6.6.2008.
5. Attack on the editorial office of a Nepali Daily Hamro Prajashakti, Gangtok, Sikkim as per the Press Release dated 5.7.2008 issued by the Sikkim Pradesh Congress Committee, Gangtok.

6. Attack on the media freedom in Jammu & Kashmir on the basis of a news report published by the Indian Express, New Delhi issue dated 3.9.2008.
7. Bid to attack The Hindu office in Coimbatore on the basis of a news item published by The Hindu in its issue dated 14.10.2008.
8. Killing of journalists in Assam and Manipur on the basis of attention drawn by the former member PCI and press release, issued by the Journalist Union of Assam and news items published in Hindustan Times dated 25.11.2008.
9. An SOS, subversion of Press Freedom in Mangalore and Udupi on the basis of complaint filed by Editor-in-Chief Karavali Ale, Mangalore.

The Council on March, 2, 2009 adopted the report of the Assessment Committee set up to examine the charges of attack on Editor-in-Chief of Karavali Ale, Mangalore by antisocial elements and the unsatisfactory role of the police authorities in subsequent days.

The Council had been examining the matter relating to press coverage of Batla/Jamia encounter for its alleged unethical reporting on the said episode which attempted to divide communities. The report in this regard will be finalized in ensuring financial year.

In its efforts to encourage debates on media matters, the Council organized/participated in discussions in various parts of the country. Pursuant to the successful two day long workshop on Reporting of Court Proceedings by media at Vigyan Bhawan, New Delhi jointly organized in March 2008 by the Press Council, Supreme Court Legal Services Committee and Editors Guild of India, Regional workshops on the subject were also organized at Kochi on 21.6.2008, Mumbai on 19.8.2008 and Cuttak on 30.8.2008. Hon'ble Mr. Justice G.N.Ray, Chairman, Press Council of India delivered keynote address at all of the workshops. Following the successful completion of National and Regional workshops by the Supreme Court of India, National Legal Service Authority Press Council of India and Editors Guilds of India on "Reporting of Court Proceedings by Media and Administration of Justice" the need for in depth training to the legal Correspondents/Journalists was felt. Thus Five days Residential Training course on 'Reporting of Court Proceedings by Media and Administration of Justice' for Legal Correspondents/Journalists was organized by National Legal Services Authority and IGNOU in association with Press Council of India and Editors Guild of India from 7th - 11th December 2008 at Indira Gandhi National Open University, New Delhi.

The Press Council of India in collaboration with the Editor's Guild of India and Tilak Patrakar Bhawan Trust organized a workshop in Nagpur on January 21, 2009 on 'News Coverage During Crisis: Rights and Responsibilities of Media'. The workshop spread into three Sessions including inaugural session was addressed by Council members and eminent mediapersons. Many other prominent personalities held active panel discussions on the subject.

National Press Day, 2008

The National Press Day, this year was dedicated to "Women and Media" Hon'ble President of India, Smt. Pratibha Devisingh Patil inaugurated the celebrations in Delhi. A sonvenir released on the occasion carried valuable articles on the subject. The states also commemorated the day at various levels with discussions on the subject.

The Council successfully published its quarterly house journals in Hindi and English that chronicle the activities/important developments of the press world.

e-governance

1. Update the judgments of Press Council uploaded on net in bilingual form.
2. Latest Annual Reports are available on the website.
3. Provident Fund record of the employees computerized.
4. Levy records of arrears put up on website.
5. Index of orders of the Press and Registration Appellate Board since 1982 onwards are available on the Council's Website.

Data pertaining to Index of Adjudications rendered by the Council in complaints by the Press as well as against the Press since its inception has been prepared and will be shortly uploaded on Council's website.

The Press Council of India has been entrusted by the Parliament with the additional responsibility of functioning as Appellate Authority under Section 8 (c) under the Press and Registration Books Act 1867 and the Appellate Board comprises of the Chairman of the Council and a number of the Council.

At the beginning of the period under review, 12 appeals were pending before the board and eight new appeals were preferred. The board held four sittings during the year. Out of these 20 appeals, eight appeals were disposed off, 12 appeals are pending for consideration before the Appellate Board.

1. Pursuant to the workshop on 'Standardization of Media Education' organized jointly with Makhn Lal Charuvedi National University of Journalism and Mass Communication, a Core Committee has been set up which comprises of nominees of prominent institutions in the field of media industry, media education, professional media bodies and academic institutions to draw a common minimum framework of Journalism and Mass Communication Education in India. Two meetings of the core committee have been held till November 2008 and the areas of focus are curriculum, faculty, infrastructure, training programmes and validation of media teaching institute.
2. 'State of Newspaper Scene 2007' Report detailing the trends in newspaper journalism during the relevant period, was submitted by Centre of Media Studies, New Delhi. The report has been adopted by the Council in its meeting held on October 14, 2008 and is being displayed on the website of the Council.

The Council paid particular attention to the propagation of Hindi in its office working in statutory functions. Therefore, while all of its staff members, already notified under Section 10 (4) are encouraged to work in Hindi. As a part of "Hindi Pakhwada" a Workshop was organized in the Secretariat of the Council on 10th of September on the subject "Administrative & Technical Terminology, noting drafting". A debate was also organized for the employees on the subject "Rashtra Ki Ekta Aur Akhandta Mein Hindi Ka Yogdan". The employees of the Press Council of India were also given awards under Protsahan Yojana for the participation and contribution in encouraging the use of language in the office practices and procedures. A workshop was also organized on March 24, 2009 to promote Hindi in the Council on the subject-

"Section 3 (3) of official languages Act, other rules and quarterly report of Rajbhasha. The adjudications and other pronouncements of the Council were recorded in bilingual form and brought in public domain.

RESEARCH, REFERENCE AND TRAINING DIVISION

Set up in 1945, the Research, Reference and Training Division functions as an information-serving agency for the Ministry of Information and Broadcasting, its media units and their field offices. It serves as an information bank as well as an information feeder service to the media units to help their programming and publicity campaigns. It also studies trends in Mass Communication Media and maintains a reference and documentation service on Mass Communication. The Division provides background, reference and research material and other facilities for the use of the Ministry, its media units and others engaged in mass communication.

Apart from its regular service, the 'Diary of Events', brought out every fortnight, the Division compiles two annual reference works, one titled INDIA, an authentic work of reference on India, and the other, MASS MEDIA IN INDIA, a comprehensive publication on mass communication in the country. INDIA is simultaneously released in Hindi language under the title—BHARAT.

Reference Library : The Division has a well-stocked library with a large collection of documents on various subjects; bound volumes of select periodicals and various reports of the Ministries, Committees and Commissions. Its collection includes specialised books on subjects pertaining to journalism, public relations, advertising and audio-visual media, all prominent encyclopedia series, yearbooks and contemporary articles. The library facilities are available to accredited correspondents from both Indian and foreign Press and to government officials.

National Documentation Centre on Mass Communication: The National Documentation Centre on Mass Communication (NDCMC) was created in 1976 as a part of the Division on the recommendation of an Expert Committee set up by the Ministry, for collecting, interpreting and disseminating information about the events and trends in Mass Media through its periodical services. The NDCMC documents all news items, articles and other information material available on mass communication. The current activities of the Centre range from collecting and documenting information, to dissemination, not only for the development of cross-country mass communication but also for participation in the international information flow.

The information collected is maintained and disseminated through services like 'Current Awareness Service'—annotated index of select articles; 'Bibliography Service' - annotated subject index of articles; 'Bulletin on Films' - abstract of various developments in the film industry; 'Reference Information Service', 'Who's Who in Mass Media' - biographies of eminent media personalities; 'Honours Conferred on Mass Communicators' - details of awards conferred on Mass Communicators and 'Media Update' - diary of national and international media events.

The NDCMC also compiles and edits a reference annual Mass Media in India. It was first published in 1978. The Annual contains articles on various aspects of the mass media, information on the status of media organisations in Central Government, States and Union Territories. It also includes the general information on print and electronic media. The annual serves as a reference compendium for media practitioners, policy makers, researchers, teachers and students of journalism.

PHOTO DIVISION

Photo Division, an independent media unit meant for visual support for the varied activities of the Government of India, is a subordinate officer of the Ministry of Information and Broadcasting and the biggest production unit of its kind in the country in the field of photography.

The Division is responsible for visual documentation and the preparing photographs both in Black & White and Colour initially, for both of internal and external publicity on behalf of the Government of India.

The major function of the Photo Division is to document photographically, the growth, Development and the political, economical and social changes in the country and to provide visuals (still) to the media units of the Ministry of Information & Broadcasting and other Central and State Government Agencies, Ministries/ Departments including President Secretariat, Vice-President Secretariat, Prime Minister's Office, Lok Sabha & Rajya Sabha Secretariats and Indian Missions abroad through XP Division of the Ministry of External Affairs.

External Publicity Division of the Ministry of External Affairs, DAVP and the PIB gets the major support and services provided by the Photo Division. External Publicity Division of the Ministry of External Affairs takes the major chunk of its production for the external publicity of the Government of India. This includes extensive documentation of the visit of all the Heads of States/Government of Foreign countries and presentation of the albums of the documentation of these visits on the departure of VVIP's. On the other hand PIB now get the major routine coverage of the local VIP's and uses the picture taken by the Division for the day-to day feeding to the Press through Internet. Where as DAVP depends on the complete visual support from the archives of the Division, which is developed during the last five decades for the preparation/production of various kind of Exhibition/advertising materials to be circulated amongst the large population of the country.

The Division also supplies photographs on payment both in Black & White and Colour to the non-publicity organizations and general public through its Pricing Scheme.

The Division has substantially updated its laboratories and equipment for handling different kind of photographic production and assignments in Black & White and Colour both in conventional system as well as the state of art Digital technology. News Photo Network for transmission of images has been installed at the office of Photo Division, at Sookna Bhawan, New Delhi and the network could be linked from all corners for photo publicity of the Government activities.

Division established a Digital Photo Library at its Headquarter at Sookna Bhawan for digital storing of the conventional images acquired by the Division time to time. Processing of the transfer of the images from the conventional photo images to the digital form and placing it to Digital Photo Library is also in progress. Images acquired by the Digital System of Photography are available *off line* at the moment. However, it would be available online very soon.

To keep a synergy between the other Media Units, Division has taken up various measures. To avoid the delay in sending photographs to newspaper through network, Division is now equipped to send picture to the PIB desk without much delay. It has been now using V Data System to use wireless internet facility particularly for sending

images of the Prime Minister from outside Delhi. To produce excellent publicity materials, director Photo Division took various steps to take up updated documentation be it for the printing of calendar or for thematic exhibitions etc. To disseminate its expertise it also took measures to organise Workshop etc. in collaboration with Media Units and also with State Government.

MAJOR ACTIVITIES

During the period Division has initiated the collection of Old images with Cellular Jail Authorities who had some unique collection of old photographic records from 1885 onwards till the Independence and about 50 photographs were collected from the British Museum. After a meeting with the Additional Secretary in the Ministry and Director. Photo Division with the Secretary (Culture) of the Andaman and Nicobar Administration, it was decided to have the images digitalized and Photo Division would be able to use these images for the cross-referencing purpose and other necessary needs. Accordingly 50 such images and 119 portraits of unknown freedom fighters who were detained in the Cellular Jail have been digitalized by the Division.

Outsourcing of Images

In order to enrich its Photo Archives and to have a cross-referencing of the existing images, Photo Division through its Scheme National Centre of Photography had decided to acquire old photographs of archival value of at least 50 years old from the photographers, collectors and individuals having old records. A committee in this respect was formed with two outside experts, an eminent historian Dr. Narayani Gupta and an eminent Photographer Shri Raghu Rai in addition to two Directors from the Ministry and Director, Photo Division as the Chiarman of the Committee. Division has given countrywide announcement for the collection from the collectors. The committee met twice before finalizing the images which have been received from 28 respondents out of which eight were short-listed and 323 images were finalized. There were some unique images of the period 1880 onwards. The Division has acquired some of these images.

Photo Division conducted its 21st National Photo Contest on the theme "Life and Environment".

The aim of the Photo Contest was to encourage photographers of the country so that talent available in the field could be projected and be given due recognition. The theme was rather wide in its scope and this gave the contestants a large arena from which to select their subjects.

Secretary, Ministry of Information and Broadcasting, Smt. Sushma Singh inaugurated the exhibition and distributed the awards to the winners on 29th December 2008 at Indira Gandhi National Centre for Arts, New Delhi and inaugurated the exhibition.

The prize winning and selected photographs of the 20th National Photo Contest entitled "The Spirit of Independent India" has also been exhibited at Bangaluru, Bhopal, Lucknow, Ahmedabad, Kolkata, Guwahati and Indore.

On the occasion of the Communal Harmony Week, the Division displayed an exhibition, "Secular India" in Soochna Bhawan, New Delhi.

PUBLICATIONS DIVISION

The Publications Division is a repository of books and journals highlighting subjects of national importance and India's rich cultural heritage. It is publishing books in

English and Hindi as well as in all major Indian languages at affordable prices. The subjects range from art, history, culture, biographies of eminent persons, land and people, flora and fauna, children's literature, science and technology and Gandhian literature to works of references like India - A Reference Annual. Set up in 1941, the Division has published nearly 8000 titles so far in English, Hindi and regional languages. In the year 2008-09, it published 116 titles on varied subjects. The Division also brings out selected speeches of the Presidents and the Prime Ministers.

With headquarters at Delhi, the Division functions through its various field units - Sales Emporia at New Delhi, Mumbai, Chennai, Kolkata, Patna, Lucknow, Hyderabad, Thiruvananthapuram and Yojana Offices at New Delhi, Mumbai, Kolkata, Chennai, Ahmedabad, Guwahati, Hyderabad and Bangaluru. The offices of Employment News and Journals Unit are located in New Delhi.

Apart from books on India's art, culture, history, land and people, flora and fauna, Gandhian literature, children's literature, science and technology biographies of eminent Indians, the Division also publishes books to commemorate national events and centenaries of great leaders.

Keeping in view the changing times, Publications Division has taken initiative to publish books on areas of contemporary relevance such as globalization, disaster management, environment, ICT, tracts on modern disciplines, economy, finance etc. It has published books on Environment - *Paryavaran* by Prof Pushpesh Pant, *Why People Protest* by Subhash Sharma, *Earth in Peril* etc. ; Globalisation-*Bhoomandalikaran* by Prof. Pushpesh Pant in Hindi, *Science-India in Space Age* by Mohan Sundar Rajan, *Einstein* by Gunakar Mule in Hindi and other books such as *Rashtramandal Khel Safarnama Maitri Khelon Ka* by Devendra Bharadwaj, *Democracy and Human Development* by Naresh Gupta etc. It has also published 'Selected Speeches of Prime Minister Manmohan Singh-Vol IV'. These have been some of the noteworthy topics published in the year 2008-09.

Some of the important publications released during the period April 2007 to March 2008 are 'My Book of Human Rights', 'Legends and Folk Tales from and around Asia', '1857— The Uprising', 'Selected Speeches of Prime Minister Manmohan Singh Vol. III', 'A Guide to Home Gardening', - (English), 'Kavi Soordas', 'Safalta Ka Mantra', 'Kathaien', 'Nehru-a Pictorial Biography'- (Regional Languages). In all, 103 books were published during this period. Work on a number of similar projects is also underway. The list of books published by Publications Division is available at www.publicationsdivision.nic.in.

Journals

Apart from the books, the Division publishes 21 periodicals in English, Hindi and regional languages- *Yojana* in 13 languages, *Kurukshetra* in English and Hindi, *Ajkal* in Hindi and Urdu, *Bal Bharati* in Hindi. *Employment News* (weekly) in English, Hindi and Urdu.

Bal Bharati

The popular children's monthly 'Bal Bharati' in Hindi is being published regularly since 1948. Its objective is to provide healthy entertainment to children while educating them and inculcating human values and scientific temper through short stories, poems, and informative articles.

Aajkal

The prestigious literary magazine 'Aajkal' in Hindi and Urdu. covers different aspects of Indian culture and literature. The magazine has entered its 65th year of publication in May , 2009.

Yojana

The flagship journal of the Division seek to carry the messages of planned development to all sections of society and serves as a forum to promote a healthy discussion representing a cross-section of views on socio-economic aspects of development. Published in 13 languages. Yojana presents an All-India perspective while highlighting regional development, innovations and initiatives. The series *Shodh Yatra* which was re-introduced in the magazine in November 2008 was awarded by Grassroots Innovation Augmentation Network, Jaipur.

Digitization of all the 13 editions of Yojana (Hindi, English, Urdu, Tamil, Telugu, Kannada, Malayalam, Marathi, Gujarati, Punjabi, Oriya, Bengali and Assamese) and Kurukshetra (English and Hindi) has been done in first two years (2007-09) of the 11th Five Year Plan. Website of Yojana has been operationalized and working satisfactorily Computerization and modernization of Yojana offices have been completed.

Kurukshetra

Kurukshetra is a lead magazine on rural development issues being published in Hindi and English for the last 57 years and enjoys one of the highest circulation (Over 40,000) in its category of magazines. It is a platform where academicians, planners, NGOs, and thinkers discuss issues on rural development objectively and in detail.

As the name would suggest, the magazine covers micro issues evaluating the effect of government policies at the grassroots level. Kurukshetra is an essential reference magazine for those interested in issues related to rural society-its life. culture and economy.

Apart from this, the Division also publishes the 'India Reference Annual' and Bharat' These are also updated on our website.

Besides its own publications and journal, the Division also handles marketing of publications brought out by other Government Departments. State Governments and Autonomous Organisations such as National Book. Trust, Sahitya Academy. CSIR, ICAR, ICCR etc.

Employment News

Employment News, a weekly, published in English, Hindi and Urdu languages is the flagship publication of the Publications Division.

The weekly carries advertisements for job of Central and State Governments, Public Sector Undertakings, autonomous Bodies, universities, admission notices for professional courses examination notices and results of organizations like UPSC, SSC and other general recruitment bodies and mid level career promotion opportunities (Deputation) in addition to this, there is also an editorial segment, which carries articles relating to career opportunities. Also the Career Guidance series contains new and upcoming fields or professional activities with information

on the employment prospects in the area, qualifications required to enter the profession and the institute to avail education and training.

The journal commands an average circulation of about 4 lakh copies. It has a network of about 297 sales distributors and 4051 direct subscribers spread all over the country. The revenue of the journal has shown sustained growth over the years. The website of Employment News launched under the domain name *www.employmentnewsgov.in* has become very popular amongst the job seekers throughout the country. The website is now equipped with state of the art Search Engine which enables viewers to quickly retrieve material from the website. Over 65,000 youngsters are now getting free services provided on a routine basis by the website which is in addition to the hits on daily basis made by the viewers. The website has archived write-ups on various career options available and carries over 1300 answers to variety of career related questions.

Bharatendu Harischandra Awards

To promote original writing in Hindi, Publications Division organises Bharatendu Harischandra Awards annually in four categories namely Journalism and Mass Communication, Women's Issues, Children's Literature and National Integration. These prestigious awards were started 25 years back.

FILMS DIVISION

The Films Division was constituted in January 1948 by rechristening the erstwhile Information Films of India and the Indian New Parade set up in 1943, primarily for war coverage. The Cinematograph Act of 1918 was Indianised in 1952 which made the screening of documentary films compulsory throughout the country.

Since 1949, Films Division has been releasing a documentary or news- based or an animation film every single Friday for the theatres spread across the country, in 15 national languages. Over the decades, the Division has virtually recorded the country's entire post-independence history. With headquarters in Mumbai, Films Division is equipped with all facilities of production studios, recording theatres, editing rooms, animation unit, cameras, video set-up and preview theatres. Dubbing of films in 15 Indian languages is also done in-house.

The story of the Films Division is synchronous with the eventful years of the country since Independence and over the last 60 years. The Division has been motivating the broadest spectrum of the Indian Public with a view to enlisting their active participation in nation building activities. The aims and objectives of the Division, focused on national perspectives, are to educate and motivate people in the implementation of national programmes and to project the image of the land and the heritage of the country to Indian and foreign audiences. The Division also aims at fostering the growth of the documentary film movement, which is of immense significance to India in the field of national information, communication and integration.

The Division produces documentaries, short films, animation films and news magazines from its headquarters at Mumbai, films on Defence and family welfare from in Delhi unit and short fiction films for rural audience from the regional production centers at Kolkata and Bangalore. The Division caters to nearly 8500 cinema theatres all over the country and to the non theatrical circuits like units of the

Directorate of Field Publicity, mobile units of the State Governments, Doordarshan, field units of the Department of Family Welfare, educational, institutions, film societies and voluntary organisations. The documentaries and newsreels of State Government are also featured in the Division's release on the theatrical circuit. This Division also sell prints, stock shots, video cassettes and distribution rights of documentaries and feature films in India and abroad. Apart from production of films, Films division also gives on hire, its studio, recording theatre, Editing Rooms & other Cine Equipments to private film makers.

Ministry of Information & Broadcasting, Govt of India has entrusted the task of organizing the Mumbai International films Festival (MIFF) fix Documentary, Short and Amination Films to Films Division.

The aim of MIFF contest is the dissemination of images contributing to wider knowledge and close knit fraternity among the nations of the world. This event provides a unique opportunity and platform to filmmakers, film producers, distributors, exhibitors and film critics from different countries to meet and interact during festival. Over the year, MIFF has become a preferred and much awaited event for the filmmakers to showcase their work, internet and exchange ideas. MIFF began in historic journey way back in 1990 and since then it has groups in size and stature as one of the promise international events of the documentary film movement. The biennial MIFF is attended by a large number of prominent documentary and short filmmakers and intellectuals, students from India and other parts of the world. Nearly, 35-40 countries with more than 500 entries participate in every edition of the festival. The 10th edition of Mumbai International film Festival (MIFF) for Documentary, short and Animation was held from 3- February; 2008 at national Centre for the Performing Arts (NCPA), Mumbai in co-operation with the Govt. of Maharashtra.

The organisation of the Division is broadly divided into four wings viz. (1) Production, (2) Distribution, (3) International documentary, Short and Animation Film Festival and (4) Administration

PRODUCTION WING

The production wing is responsible for production of films such as (1) Documentary Films (20 short Feature films specially designed for rural audience (3) Animation films and (4) Video films. In addition to the headquarters at Mumbai, three production centres of the Division are located at Bangalore, Kolkata and New Delhi.

The documentaries range in theme and topic from agriculture to art and architecture, from industry to the international scenes, from to festivals, from health care to housing, from science and technology to sports, from trade and commerce to transport, from tribal welfare to community development etc. Normally, the division reserves about 40 percent of its production schedule for allotment to independent film makers from all over the country with a view to encouraging individual talent and thus promoting the documentary movement in the country. In addition to its normal production programme, the Division provides assistance to all the Ministries and Departments of Government including public sector organisations in producing documentary films.

Newsreel Wing of films Division encompasses a network spread over main cities and towns including State and Union Territory capital engaged in covering of

major Events. VVIP visits, etc to the different parts of the country and abroad and other events like natural calamities etc. These coverages are used for making the fortnightly news magazines and also in compilation of archival material.

Cartoon films Unit of Films Division has also become high-tech with Computer animation replacing cell or classical animation. Equipped with the state-of-the-art technology both in hardware and software, the Unit now can churn out productions in U.S. animation, 2-D and 3-D animation with advanced software including Opus, Concerto, High-end and Maya.

The Commentary Section looks after the dubbing of films and news magazines into 14 Indian languages and foreign languages from the basic version (English/Hindi)

The Delhi based Unit of the Division has the responsibility of production of instructional and motivational films for the Ministry of Defense and the Department of Family Welfare and other Ministries/Depts. With a view to adapting to the changing scenario, the unit has lately been equipped with video film making facilities.

The regional centres of the Division at Kolkata and Bangalore also produce social and educational documentaries to spread the message of social and national issues such as family welfare, communal harmony, dowry, bonded labour, untouchability. etc.

DISTRIBUTION WING

The Distribution Wing (DHO) is headed by the Officer-in-charge of Distribution and control 10 Distribution Branch Offices situated in Kolkata, Lucknow, Nagpur, Mumbai, Hyderabad, Vijayawada, Bangalore, Chennai, Maduarai and Thiruvananthapuram. These branches are headed by either Sr. Branch Manager or Branch manager who function as Head of Office as well as DDO of the Branches concerned and are responsible for the supply of Approval films to all the cinema theatres (required under the Central Cinematograph Act, 1952), execution of Agreement, issue of films Division Certificate as well as collection of 1% rent from the exhibitors.

Films Division has released 7917 prints of 52 approved films in cinema houses through out the country and has earned Rs. 498.74/- as rent revenue up to March,2009.

The distribution Wing has redefined itself and has made Film Festivals a regular activity at State and district levels, independently as well as in collaboration with NGOs, film societies, educational institutions etc; to reach out to the masses and to promote and encourage documentary movement. The Distribution Branch Offices have conducted 34 film festivals till March 2009 reaching out to even the remotest places in India. These festivals were appreciated by the audiences from all walks of life.

FILM LIBRARY SECTION

The Film Library of films Division is treasure of valuable archival material of India's contemporary history and its rich heritage and artistic traditions. It is in great demand by the Film makers throughout the world. It contributes vital footage for the production

of films by rendering services besides bringing out revenue through the stock footage sale. The total collection of film Library is about 1.9 lakhs items of 8200 titles which include original picture negatives, debu/inter negatives, sould negatives, master inter positives, saturated prints, pre dub sound negatives, 16 mm prints, library prints and answer prints etc. The films are categorized based on the archival value as Most Precious, Precious and Normal films. 1239 films of Most Precious category have been restored digitally in high definition format, and 7403 titles have been transferred on Standard Definition Format. This library has user friendly computerized information system. The details of Film Library are also available in the web site.

ADMINISTRATING WING

The Administration Wing provides the necessary facilities like Finance, Personnel, Stores, Accounts, Factory Management and General Administration. This Wing is directly under the control of Senior Administrative Officer who is assisted by the following officers :

1. Assistant Administrative Officers in the matters relating to personnel Management, Purchase, General Administration, Vigilance and Security.
2. Accounts Officer in consultation with Internal Festival Adviser in the matters of Finance and Accounts.

CENTRAL BOARD OF FILM CERTIFICATION

The Central Board of Film Certification (CBFC), set up under the Cinematograph Act, 1952, certifies films for public exhibition in India. It consists of a Chairperson and twenty-five other non-official members. The Board has its headquarters at Mumbai and nine regional offices located at Bangalore, Kolkata, Chennai, Cuttack, Guwahati, Hyderabad, Mumbai, New Delhi and Thiruvananthapuram. The regional offices are assisted in the examination of films by advisory panels consisting of persons from different walks of life. Smt. Sharmila Tagore, a well-known film personality, is presently working as Chairperson of the Board.

Till March 2009, 17 Feature Films were refused certificates as they were found to violate one or more of the statutory guidelines issued by the Central Government under section 5B(2) of the Cinematograph Act, 1952. Some of them were subsequently certified in their revised versions.

The 115th meeting of the members of the Central Board of Film Certification was held on 7th July, 2008 at Kolkata. The 116th meeting of the members of the Central Board of Film Certification was held on 6th September 2008 at New Delhi. The 117th meeting of the members of the Central Board of Film Certification was held on 26th December, 2008 at New Delhi. All the meetings were presided over by Ms Sharmila Tagore, the Chairperson of the Board.

Workshops were held for Advisory Panel Members for censoring of films. As in the last year, workshops were arranged at various regional centres for the benefit of the members of the Advisory Panels and Examining Officers. Various issues involved in the examination of the films were discussed at the workshops and cut portions from some selected films were screened to illustrate the various guidelines for certification of films. The need for observing a code of conduct and discipline was also emphasised.

Under the Cinematograph Act, neither the Board nor the Central Government has power to enforce the Board's decisions at the time of public exhibition of films. The authority rests with the State Governments and Union Territory Administrations. The Board has, from time to time, sought to systematise the detection of interpolations in films.

During the period January to December 2006, 46 cases of interpolations in films were detected at various places and the verification reports were sent to the concerned Judicial Magistrates for necessary action.

The workload of CBFC has increased considerably due to the certification of film various channels as per the Mumbai High Court Judgment. The increase in certification of video films has increased from 4188 in 2005 to 7129 in 2006. In order to speed up the certification work meet the target and timelimit CBFC has distributed the work of different satellite channels to different regions of CBFC Additional Examining Officers have been taken on deputation from other Central Government Offices to dispose off the films.

NATIONAL FILM DEVELOPMENT CORPORATION LIMITED

The National Film Development Corporation Limited (NFDC) was incorporated in 1975. It got restructured in 1980 after amalgamation of Indian Motion Pictures Export Corporation (IMPEC) and Film Finance Corporation (FFC). The primary objective of NFDC is to foster excellence in cinema and to develop state-of-the-art technology in audio-visual and related fields. The main activities of the Corporation includes financing and producing of films with creative and artistic excellence, on socially relevant themes and experimental in form. The NFDC arranges distribution and dissemination of films through various channels. NFDC provides essential pre-production and post-production infrastructure to the film industry, keeping pace with the latest technology. The NFDC also endeavours to promote culture and understanding of cinema by organising Film Weeks, Indian Panaroma and Film Festivals in collaboration with Film Societies, National Film Circle and other Agencies representing Indian and Foreign Films.

The NFDC encourages the concept of low-budget films which are high in quality, content and social values. During 2005-06 (up to December 2005) the Corporation had exported 10 films. During the same period NFDC participated in 8 international and regional film festivals showcasing 19 Indian films.

NFDC's film PARINAAMAM (Malayalam) directed by Venu, has won international award for best screen play in ASHDOD International Film Festival, Israel.

The corporation in collaboration with CII has organised Film Bazaar at Goa during the 36th IFFI.

The Cine Artistes Welfare Fund of India set-up by NFDC, is the biggest ever trust in the Indian Film Industry with a corpus fund of Rs 4.48 crore.

DIRECTORATE OF FILM FESTIVALS

The Directorate of Film Festivals was set up under the Ministry of Information and Broadcasting in 1973 with the prime objective of promoting good cinema. This is undertaken by organising a range of activities under these broad categories.

- (a) The International Film Festival of India.

- (b) The National Film Awards and the Dada Saheb Phalke Award.
- (c) Cultural Exchange Programme and organising screening of Indian films through the missions abroad.
- (d) The selection of Indian Panorama.
- (e) Participation in international film festivals abroad.
- (f) Special film expositions on behalf of the Government of India.
- (g) Print collection and documentation.

These activities provide a unique platform for exchange of ideas, culture and experiences between India and other countries in the field of cinema. It also provides a powerful platform for Indian cinema and fosters commercial opportunities for Indian films. Within the country, the latest trends in global cinema are made accessible to the general public, film industry and students.

NATIONAL FILM ARCHIVE OF INDIA

The National Film Archive of India was established in February 1964 as a media unit under the Ministry of Information and Broadcasting. The primary charter of NFAI is to safeguard the heritage of Indian Cinema for posterity and act as a centre for dissemination of a healthy film culture in the country. Promotion of film scholarship and research on various aspects of Cinema also form part of its objectives. Familiarising foreign audiences with Indian Cinema and to make it more visible across the globe is another declared function of the Archive.

NFAI has been a member of the International Federation of Film Archives since May 1969, which enables it to get expert advice and material on preservation techniques, documentation, etc. The archive has its own film vaults designed according to international film preservation standards. The construction of specialised vaults for preserving colour films is underway. The well-stocked library of over 25,000 books on Cinema published across the globe is a boon to serious students of Cinema. More than 100 Indian and foreign journals on Cinema are received in the library. Over 30,000 filmscripts both Indian and foreign received from the Central Boards of Film Certification are also preserved in the Archive.

It is an ongoing job at the Archive to trace and acquire national and international films to enrich its collection. The well-stocked library of about 30,000 books on Cinema published across the globe is a reservoir of information to serious students of Cinema. More than 100 Indian and foreign journals on Cinema are received in the library. Over 30,000 filmscripts both Indian and foreign received from the Central Boards of Film Certification are also preserved in the Archive.

The Research and Documentation Centre has a large collection of ancillary material on Indian Cinema. This Centre attempts to collect photographs/stills, song-booklets, wallposters, pamphlets and other publicity material of films certified by the various Film Certification Boards in the country.

The NFAI encourages and promotes research and academic activities on every aspect of Cinema. It assigns monographs on eminent Indian filmmakers and pioneering film personalities, research fellowships on themes related to Indian cinema, and aural history recordings of senior artists and technicians. The Archive has published 12 such projects so far. As a part of its activities of disseminating film

culture, NFAI has a Distribution Library of films which supplies films to film societies, educational institutions and cultural organisations in the country. It also conducts joint-screening programmes at centres like Mumbai, Kolkata, Bangalore, Chennai, Hyderabad, Thiruvananthapuram, Cochin, Jamshedpur, Pune and Delhi. It is a major source of films for international film festivals in India and abroad.

NFAI has been conducting its Annual Film Appreciation Course of four weeks duration at Pune in collaboration with Film and Television Institute of India for the last three decades. Participants from different professions from all over India are exposed to the best of Indian and World Cinema. Among the major topics taught are the Basics of the Film Medium, Cinema as an Art, Film History, Film Theory, Relationship of Cinema with other Arts and so on. The Archive also coordinates short-term courses on similar lines in collaboration with educational institutions and cultural organisations outside Pune.

A large number of scholars and researchers on Cinema from within the country and abroad look forward to NFAI as a major resource Centre where they have easy access to the largest repository of Indian Cinema and perhaps the best library of books on Cinema and related arts in the country. The website of NFAI can be visited at <http://www.nfaipune.gov.in>.

CHILDREN'S FILM SOCIETY, INDIA

Children's Film Society, India (CFSI) was established in 1955 to provide value-based entertainment to children through the medium of films. CFSI is engaged in production, acquisition, distribution/exhibition and promotion of children's films. The Head Office of the CFSI is located in Mumbai with branch/zonal offices in New Delhi and Chennai. Films produced/procured by the Society are exhibited through State/District wise Children's Film Festivals as well as through theatrical, non-theatrical exhibition in schools through Distributors, NGOs, etc. CFSI participated in Toronto International Films Festival Group, 8th International Films Festival, 11th Seoul International Yatra Festival and Shanghai International Film Festival. The CFSI Marketing Deptt. with its Head Office at Mumbai's Zonal Offices at Delhi and Chennai could reach out to a record number of 22,65,968 children by arranging 10,147 shows during the year 2008-09.

DIRECTORATE OF ADVERTISING AND VISUAL PUBLICITY

The Directorate of Advertising and Visual Publicity (DAVP) is the nodal multi-media agency of the Government to meet the publicity requirements of various Ministries and Departments in a cost-effective manner. It provides single window service for publicising Government Policies and Programmes from conception to design and execution through various media formats including press advertisements, print publicity (Folders, Posters, Brochures, Kits, Booklets, Calendars and Diaries), outdoor publicity (Hoardings, Bus-Back Panels, Banners, Kiosks, Computer Animation displays, etc.), audio-visual publicity (Audio-Video spots, short films, docu-dramas, jingles, sponsored programmes, etc.) and exhibitions. DAVP with its headquarters in New Delhi, has two Regional Offices at Bangalore and Guwahati, besides 32 Field Exhibition Units across the country.

Press Advertisements : DAVP has on its panel over 4100 newspapers and periodicals in 22 languages covering all states for release of advertisements. Empanelment of

publications is done as per the guidelines and procedures of the Advertisement Policy of the Government of India. The primary objective is to secure the widest possible coverage through advertisement keeping in view the message, target and the budget, 32,000 advertisements were released by the Directorate in the financial year 2008-2009.

Audio Visual Publicity : The Audio Visual Cell of DAVP produces and broadcasts/telecasts programmes and spots on social themes for Ministries/Departments. DAVP arranges telecast/broadcast of Audio/Video spots on AIR, Doordarshan and private radio/television channels. The audio/video programmes are produced through empanelled producers. These programmes include audio and video spots/jingles, sponsored and folk music based radio programmes, promotional tele-films which are dubbed in Hindi, English and regional languages for national telecast/broadcast. More than 500 A.V. and Radio spots, Jingles, Documentaries and Docu-dramas were produced and 160 Campaigns launched on TV and Radio in 2008-09. DAVP has over 250 Audio and Video producers, 170 private TV channels and over 100 private FM channels on its panel apart from Doordarshan. AIR and Lok Sabha T.V.

Printed Publicity : Different kinds of publicity materials like posters, folders, booklets, brochures, calendars, diaries, wall hangers, stickers, etc., are designed and produced by DAVP in Hindi, English and various Indian languages to take socially relevant messages of the Government of India to the masses. During the year 2008-2009, DAVP brought out publicity items in various languages worth Rs. 800 lakh.

Exhibitions : Photo exhibitions are important means of propagating messages of national development and other issues of social relevance. DAVP conceptualises, designs, develops and mounts exhibition material, montages and artefacts for exhibitions on specific themes. In the year 2008-2009, 600 photo exhibitions were held all over the country, over a period of 2000 exhibition days.

Outdoor Publicity : Publicity through various outdoor formats like hoardings, wall paintings, cinema slides, computerized animation displays, kiosks, bus queue shelters, bus-back panels, etc., are utilised by DAVP to display messages on policies/programmes of Ministries/Departments of the Central Government. It is a conventional but an effective means of spreading any message and the displays serve as a constant reminder to passers by and viewers. In 2008-2009, a total number of over 380 jobs worth Rs 1389 Lakh were executed by the Directorate.

Mass Mailing : The Mass Mailing Wing of DAVP has over 16.5 lakh addresses to reach out to a wide spectrum of people across the country. Over 170 jobs work taken up in 2008-2009 in which nearly 1 crore copies of the printed material were despatched to various mailing address.

Studio : DAVP has a full-fledged Studio with qualified artists for designing of publicity material required for different campaigns. The designs are mostly prepared in-house, keeping in mind the special publicity requirements of the region where the publicity campaign is to be launched. The Studio is equipped with DTP facility for making designs for Print Publicity, Press Advertisements, Outdoor Publicity, etc.

DIRECTORATE OF FIELD PUBLICITY

The Directorate of Field Publicity with its headquarters in New Delhi is the largest rural oriented interpersonal communication medium in the country. It operates as a

two-way channel for dissemination of information among masses and gathering feed back for the Government. It acts as a bridge between the people and the Government. Established in 1953 as 'Five Year Plan Publicity Organisation' with sole objective of publicity of Five Year Plans, the Directorate assumed its present format and role in 1959 with its publicity scope widened and made all inclusive. Over the years, its area of operation as also its aims and objectives have diversified. These in brief are: (a) to inform, educate, motivate and involve the people of India, especially at the grassroot level, in the process of development so that the vision of the framers of the constitution as outlined in its preamble is realised. (b) to generate public opinion for the implementation of developmental programmes and mobilise popular participation in the process of nation building. (c) to keep the public, especially the weak, the marginal and the remotely placed, informed about the policies and the programmes of the Government and generate awareness on several national and social issues of relevance. (d) to keep the Government informed of the people's reactions to its programmes and policies and their implementation at the field level thereby facilitating corrective measures as and where required.

DFP communicates with the people through various mode of communication inter personal communication is the basic of essence of all its programme activities. The Directorate resorts largely to interactive medium like Group Discussions, Seminars/Symposia, Public Meetings, Elocution Contest, Question-Answer sessions, etc., to convey its message to the masses. It also resorts to visual and live entertainment programmes like Film shows, Photo Exhibitions, Song & Drama, etc., to communicate with the people. The Directorate also conducts competitions like quiz, essay, drawing and painting, slogan writing and rural sports, etc., to disseminate message on the chosen themes. Providing feed back of public perception to the authorities is also major function of DFP.

During the year the Directorate conducted massive awareness campaign on National Rural Health Mission, AIDS Awareness, Iodine Deficiency Disorders Control, Non-Conventional Energy Sources, Legal Literacy and Free Legal Aid Programmes for the poor, Common Minimum Programme of UPA Govt., etc. Public Information Campaign was a new and important feature of the publicity activities of the Directorate. DFP participated in about 100 PIB led PICs on Bharat Nirman in different parts of the country. In every PIC four Field Publicity Units were deployed for five days of pre PIC phase and five days of main PIC. In all the PICs DFP put up a stall where information on a variety of topics of public interest was disseminated. DFP ensured that people in large numbers participated in the PICs across the country.

Observance of Days and Weeks of National Importance is yet another way DFP whereby help generate public participation in nation building process by instilling nationalism and communal harmony among the people. During the year DFP observed all the important Days and Weeks of national importance in a befitting manner.

SONG AND DRAMA DIVISION

The Song and Drama Division was set up in 1954 as a unit of All India Radio and was given the status of an Independent media unit in 1956 with the mandate of development communication. This is the largest organization in the country using performing arts as a medium of communication. The Division uses a wide range of

art forms such as drama, ballets, operas, dance-dramas, folk and traditional recitals, puppetry. In addition, the Division organizes theatrical shows on national themes such as communal harmony, national integration, secularism, promotion of cultural heritage, health, environment, education, etc., through Sold and Light Programmes.

ORGANIZATIONAL SET UP

Functioning from Headquarters at Delhi the Division has the following field offices : (a) Ten Regional Centres at Bangalore, Bhopal, Chandigarh, Chennai, Delhi, Guwahati, Kolkata, Lucknow, Pune, and Ranchi; (b) Seven Border Centres at Imphal, Jammu, Shimla, Nainital, Darbhanga, Jodhpur and Guwahati; (c) Six Drama troupes at Bhubaneswar, Delhi, Hyderabad, Patna, Pune and Srinagar; (d) Nine troupes of Armed Forces Entertainment Wing at Delhi and Chennai; (e) Two Sound and Light Units at Bangalore and Delhi and (f) A Tribal Pilot Project at Ranchi.

ARMED FORCES ENTERTAINMENT WING

The Division caters to the entertainment requirements of the Armed Forces in most inhospitable, remote, border and forward areas. The Armed Forces Entertainment Wing troupes are very popular for presenting folk dances from all the states in original and attractive forms, colour and costume, thereby highlighting the cultural integration of the country. The areas visited by these tropes include Leh, Ladakh, Chamathang, Thoyas, Partapur, Mokok Chung, Lung Talai, Alon Samdhu, Pang, Port Blair, Indo-China and Burma, Pak, Bangla borders interior parts of J&K and North East Region.

TRIBAL PUBLICITY

Ranchi Tribal Centre was established in 1980 to enhance awareness activities by involving more tribal artistes in the developmental process. 419 Programmes were presented by the Troupes in Tribal Areas of Bihar, Chattisgarh, Jharkhand, Madhya Pradesh & Orissa to educate the people about various developmental schemes designed for them during 2007-08.

BORDER PUBLICITY TROUPES

The Border Publicity Troupes are Departmental troupes functioning at Imphal, Guwahati, Darbhanga, Nainital, Shimla, Jammu and Jodhpur. These troupes have undertaken publicity in the remote border areas to educate the people about various developmental schemes of Government of India and also to counter the propaganda across the border. These Programmes were organized in close coordination with SSB, BSF and other Government agencies. The troupes present programme on National Importance in local dialects and Hindi touching Indo China, Pak, Myanmar and Banga borders.

DEPARTMENTAL DRAMA TROUPES

During the year, the Departmental Drama Troupes situated at Delhi, Pune, Patna, Hyderabad, Bhubaneswar, Jammu/Srinagar and Delhi presented plays on various themes like Family Welfare, AIDS, Drug Abuse, National Integration, Communal Harmony, Environmental Issues etc. These troupes presented shows especially in local fairs and festivals and during the India International Trade Fair 2007 where large number of people congregate. Various issues on Health and family Welfare were presented in styles of plays.

PLAN SCHEME

Under the Plan schemes, the Division has a comprehensive programme in the form of "Live Arts & Culture for Rural India" Scheme.

During 2008-09 the following are the special components of the approved plan scheme of the Division :

- (a) Information, Communication, Technology activities in hilly/tribal/desert/sensitive & border areas.
- (b) Activities in 76 identified districts.
- (c) Publicity on Common Minimum Programmes in 12 Regional Centres.
- (d) Special Activities in J&K and North East.
- (e) Presentation of Theatrical shows on National/social themes.
- (f) Reversed Development and Training.
- (g) Conducting impact assessment studying to ascertain effectiveness of the programme.

ICT ACTIVITIES IN HILLY/TRIBAL/DESERT/SENSITIVE & BORDER AREAS

The Division also presents Programmes in Tribal, Hilly and Desert areas with the view to create awareness among the isolated tribes living in the hilly and desert areas regarding the developmental activities initiated for their welfare. These Programmes aim at promoting amongst them a sense of belonging to the country and to encourage them for their participation in the on going developmental activities around them by devising programmes which are intelligible to them. These programmes are presented in the language/dialects of the local people. The Division has presented 5029 programmes against the target of 3640.

ACTIVITIES IN 76 IDENTIFIED DISTRICTS

Under plan schemes activities in 76 identified districts the Division presented Programmes in the specially identified districts all over the India. National Integration, Communal Harmony, Anti-Terrorism and Patriotism are the themes being highlighted through these Programmes. The Division has successively Implemented the Scheme and prescribed 1082 programmes against the target of 760 programmes during the year.

PUBLICITY ON COMMON MINIMUM PROGRAMME

Under the Plan scheme for Publicity on Common Minimum Programme, this Division presented 685 Programmes against the target of 480 during 2008-09.

SPECIAL ACTIVITIES IN J&K AND NORTH EAST REGIONS

During the year 2008-09, this Division presented 552 Programmes providing special coverage for North-East, Jammu & Kashmir and other identified districts.

PRESENTATION OF THEATRICAL SHOWS ON NATIONAL THEMES

With the objective of educating the people in general and youth in particular about the rich cultural and historical heritage of the country, the Sound & Light Unit of the Division mounts Sound and Light programmes in various parts of the country.

RED RIBBON EXPRESS—PUBLICITY ON AIDS

In order to provide wide and effective publicity NACO has flagged off a special train "Red Ribbon Express" from 1st December 2007. In all its 111 halting places the Division presented 1515 programmes covering Rajasthan, Madhya Pradesh, Maharashtra, Chattisgarh, Uttar Pradesh, Uttrakhand, Bihar, Jharkhand, West Bengal and Assam.

BHARAT NIRMAL-PUBLIC INFORMATION CAMPAIGN

During 2008-09, the Division participated in all the Public Information Campaigns organized by the Min. of Information & Broadcasting in which all the media units played remarkable role in giving publicity on themes like National Rural Employment Guarantee scheme, National Rural Health Mission, Sarvshiksha Abhiyan, Universal Mid-day meal programme, Jawaharlal Nehru Urban Renewal Mission, Right to Information Act, Prime Minister's 15 point programme on minorities etc. In addition to presenting colorful programmes at the place of the campaign, the Division also presented pre and post publicity programmes for five days before and after the campaign in the surrounding villages thereby creating awareness on the developmental schemes under the Common Minimum Programmes.

TRAINING**FILM AND TELEVISION INSTITUTE OF INDIA**

The FTII, Pune, is a premiere institution for imparting training in the art and craft of filmmaking and television production. It conducts three-year post-graduate diploma courses in film and television and one-year certificate course in television. Now, it has also started a one-year certificate course in feature film screenplay writing and a two-year diploma course in Acting. From the academic year 2005-06, the Institute has launched a two-year post-graduate diploma course in art direction (in which 12 candidates were admitted) and a 1½-year certificate course in animation and computer graphics. The Institute conducts in-service training courses for Doordarshan personnel in television production and technical operations, and has completed training of more than five thousand trainees of till now. The Institute also conducts short-term courses in various media-related professional subjects.

The Institute regularly enters its student films in national and international festivals in both competitive and non-competitive sections to ensure greater exposure and visibility of its works. Several of these films have gone on to win national and international awards. The Institute is also involved in strengthening ties with other leading film schools in the world by way of exchange programmes for its students as well as faculty members.

One of the important annual features of the FTII is conducting of four-week summer course in film appreciation in collaboration with National Film Archive of India, Pune.

SATYAJIT RAY FILM AND TELEVISION INSTITUTE

Satyajit Ray Film and Television Institute (SRFTI), Kolkata, an autonomous academic institution under the Ministry of Information and Broadcasting, was registered in 1995 under the West Bengal Societies Registration Act, 1961. The Institute is a National Centre offering 3 year post-graduate diploma courses in: (i) Film Direction and Screenplay Writing; (ii) Motion Picture Photography; (iii) Editing (Film and Video) and (iv) Sound Recording. The Institute holds an all India basis competitive

examination each year, to select prospective students for its different streams. Documentary Films titled 'Chen Pao-Chinese Chilly Sauce', 'Here is my Nocturne' and 'Flights of Distress' have got the official entry in the Mumbai Film Festival 2006. It is a matter of rare distinction that the documentary 'Here is My Nocturne' has been selected for screening at the Cannes Film Festival-2006. Many of the Institute's productions got invitations of many national and international film festivals both in India and abroad. The efforts of the Institute's students always garner wide appreciation from the cine lovers across the globe. The Institute regularly organises seminars/conferences/exhibitions on films and visual arts/media, sometimes jointly with some reputed organisations. SRFTI organised the first ever retrospective of films produced by the NFDC- "NFDC in Retrospect" from May 24 to May 28, 2008.

INDIAN INSTITUTE OF MASS COMMUNICATION

The Indian Institute of Mass Communication (IIMC) which was set up in response to a need felt to evolve a methodology and effective use of communication resources as a part of the country's overall development strategy, made a small beginning on 17 August 1965, as a department of the Ministry of Information and Broadcasting, Government of India. Later it was registered as an autonomous organisation under the Societies Registration Act (XXI) of 1860 on 22 January 1966. The Institute which receives funds for its recurring and non-recurring expenditure as grant-in-aid from the Government of India through the Ministry of Information and Broadcasting, is today recognised as a "Centre of Excellence" in the field of communication teaching, training and research. It provides knowledge and skills to young communicators in a variety of disciplines including print, photography, radio and television, as also development communication, communication research, advertising and public relations.

The Institute also collaborates with national and international agencies in conducting training, seminars and workshops as well as in undertaking joint research projects. It also conducts short courses addressed to the specific needs of the industry, government and public sector organisations.

During the year 2008-09, the IIMC conducted the following long-term training programmes and Diploma Courses: (a) Post-graduate Diploma Course in Journalism (English) at New Delhi and Dhenkanal (Orissa); (b) Post-graduate Diploma Course in Journalism (Hindi); (c) Post-graduate Diploma Course in Advertising and Public Relations; (d) Post-graduate Diploma Course in Radio & TV Journalism; (e) Post-graduate Diploma Course in Oriya Journalism; and (f) Diploma Course in Development Journalism.

In addition, the Institute runs short-term academic programmes for middle and senior level officers of the Indian Information Service and the personnel of different media units.

The Institute also provides consultancy services on request to Central and State Government Departments and Public Sector Undertakings, and helps in designing and organising training and research programmes related to Development Communication.

Continuing the tradition of the non-aligned movement's efforts to improve journalistic skills in developing countries as well as to evolve a third world perspective, the Institute offers a Diploma Course in Development Journalism. Two such courses

are held every year, each of four months' duration. The 51st course in the series (Aug-Nov) commenced on 1 August 2008.

IIMC has only one Scheme viz. "Converting IIMC into International Media University in the 11th five year plans".

The IIMC branch at Dhenkanal is fully functional since August 1993 and is attracting a large number of students from the Eastern Region. The branch has all infrastructure facilities and is conducting two Post-graduate Diploma Courses in Journalism (English and Oriya).

As part of the initiative in the Northeast and under the Plan Scheme "Collaboration with Regional Centres of Learning" IIMC has entered into a collaboration with Nagaland University for organising Post-Graduate Diploma Course in Journalism and Mass Communication. The MoU between Indian Institute of Mass Communication and Nagaland University in this regard was signed on 17 September 2004. The first such course with 14 students commenced from 20 January 2005.

The IIMC has established a Community Radio Station "Apna Radio FM 96.9 MHz." Inaugurated on 9 September 2005 it provides hands-on experience to the students in public service broadcasting.

23 Planning

PLANNING in India derives its objectives and social premises from the Directive Principles of State Policy enshrined in the Constitution. Public and private sectors are viewed as complementary. The private sector covers, besides organised industry, small-scale industries, agriculture, trade and housing, construction and related areas. Individual efforts and private initiatives are considered necessary and desirable in the national endeavour for development with optimum voluntary cooperation.

The Prime Minister of India, Dr. Manmohan Singh is the Chairman of the Planning Commission and Shri Montek Singh Ahluwalia is its Deputy Chairman. Shri V. Narayansamy, Minister of State for Planning, is the ex-officio member of the Planning Commission. Other members are Shri B.K. Chaturvedi, Shri Sanmitra Chandhri, Dr. (Ms.) Syeda Saiydain Hameed, Dr Narendra Jadhav, Prof. Abhijit Sen, Dr. Mihir Shah, Dr. K. Kasturirangan and Shri Arun Maira.

FIRST PLAN

Keeping in view the large-scale import of foodgrains in 1951 and inflationary pressures on the economy, the First Plan (1951-56) accorded the highest priority to agriculture including irrigation and power projects. About 44.6 per cent of the total outlay of Rs 2,069 crore in the public sector (later raised to Rs 2,378 crore) was allocated for this purpose. The Plan aimed at increasing the rate of investment from five to about seven per cent of the national income.

SECOND PLAN

The Second Five-Year Plan (1956-57 to 1960-61) sought to promote a pattern of development, which would ultimately lead to the establishment of a socialistic pattern of society in India. Its main aims were (i) an increase of 25 per cent in the national income; (ii) rapid industrialisation with particular emphasis on the development of basic and heavy industries; (iii) large expansion of employment opportunities; and (iv) reduction of inequalities in income and wealth and a more even distribution of economic power. The Plan aimed at increasing the rate of investment from about seven per cent of the national income to 11 per cent by 1960-61. It laid emphasis on industrialisation, increased production of iron and steel, heavy chemicals including nitrogenous fertilizers and development of heavy engineering and machine building industry.

THIRD PLAN

The Third Plan (1961-62 to 1965-66) aimed at securing a marked advance towards self-sustaining growth. Its immediate objectives were to: (i) secure an increase in the national income of over five per cent per annum and at the same time ensure a pattern of investment which could sustain this rate of growth in the subsequent Plan periods; (ii) achieve self-sufficiency in foodgrains and increase agricultural production to meet the requirements of industry and exports; (iii) expand basic industries like steel, chemicals, fuel and power and establish machine building capacity so that the requirements of further industrialisation could be met within a period of about 10 years mainly from the country's own resources; (iv) fully utilise the manpower resources of the country and ensure a substantial expansion in employment

opportunities; and (v) establish progressively greater equality of opportunity and bring about reduction in disparities of income and wealth and a more even distribution of economic power. The Plan aimed at increasing the national income by about 30 per cent from Rs 14,500 crore in 1960-61 to about Rs 19,000 crore by 1965-66 (at 1960-61 prices) and per capita income by about 17 per cent from Rs 330 to Rs 386 over the same period.

ANNUAL PLANS

The situation created by the Indo-Pakistan conflict in 1965, two successive years of severe drought, devaluation of the currency, general rise in prices and erosion of resources available for Plan purposes delayed the finalisation of the Fourth Five Year Plan. Instead, between 1966 and 1969, three Annual Plans were formulated within the framework of the draft outline of the Fourth Plan.

FOURTH PLAN

The Fourth Plan (1969-74) aimed at accelerating the tempo of development of reducing fluctuations in agricultural production as well as the impact of uncertainties of foreign aid. It sought to raise the standard of living through programmes designed to promote equality and social justice. The Plan laid particular emphasis on improving the conditions of the less privileged and weaker sections especially through provision of employment and education. Efforts were directed towards reduction of concentration of wealth, income and economic power to promote equity.

The Plan aimed at increasing the net domestic product (at 1968-69 factor cost) from Rs 29,071 crore in 1969-70 to Rs 38,306 crore in 1973-74. The average annual compound rate of growth envisaged was 5.7 per cent.

FIFTH PLAN

The Fifth Plan (1974-79) was formulated against the backdrop of severe inflationary pressures. The major objectives of the Plan were to achieve self-reliance and adopt measures for raising the consumption standard of people living below the poverty line. This Plan also gave high priority to bring inflation under control and to achieve stability in the economic situation. It targeted an annual growth rate of 5.5 per cent in the national income. Four Annual Plans pertaining to the Fifth Plan period were completed. It was subsequently decided to end the Fifth Plan period with the close of the Annual Plan 1978-79.

SIXTH PLAN

Removal of poverty was the foremost objective of the Sixth Plan (1980-85). The strategy adopted was to move simultaneously towards strengthening the infrastructure for both agriculture and industry. Stress was laid on tackling inter-related problems through a systematic approach with greater management, efficiency and intensive monitoring in all sectors and active involvement of people in formulating specific schemes of development at the local level and securing their speedy and effective implementation.

The actual expenditure in the Sixth Plan stood at Rs 1,09,291.7 crore (current price) as against the envisaged total public sector outlay of Rs 97,500 crore (1979-80 prices) accounting for a 12 per cent increase in nominal terms. The average annual growth rate targeted for the Plan was 5.2 per cent.

SEVENTH PLAN

The Seventh Plan (1985-90) emphasised policies and programmes, which aimed at rapid growth in foodgrains production, increased employment opportunities and productivity within the framework of basic tenets of planning, namely, growth, modernisation, self-reliance and social justice. Foodgrains production during the Seventh Plan grew by 3.23 per cent as compared to a long-term growth rate of 2.68 per cent between 1967-68 and 1988-89 and the growth rate of 2.55 per cent in the eighties due to overall favourable weather conditions, implementation of various thrust programmes and concerted efforts of the Government and the farmers. To reduce unemployment and consequently, the incidence of poverty, special programmes like Jawahar Rozgar Yojana were launched in addition to the existing programmes. Due recognition was accorded to the role, small-scale and food processing industries could play in this regard. The total expenditure during the entire Seventh Plan stood at Rs 2,18,729.62 crore (current prices) as against the envisaged total public sector outlay of Rs 1,80,000 crore, resulting in a 21.52 per cent increase in nominal terms. During this Plan period, the Gross Domestic Product (GDP) grew at an average rate of 5.8 per cent exceeding the targeted growth rate by 0.8 per cent.

ANNUAL PLANS

The Eighth Five-Year Plan (1990-95) could not take off due to the fast-changing political situation at the Centre. The new Government, which assumed power at the Centre in June 1991, decided that the Eighth Five-Year Plan would commence on 1st April 1992 and that 1990-91 and 1991-92 should be treated as separate Annual Plans. Formulated within the framework of the Approach to the Eighth Five-Year Plan (1990-95), the basic thrust of these Annual Plans was on maximisation of employment and social transformation.

EIGHTH PLAN

The Eighth Five-Year Plan (1992-97) was launched immediately after the initiation of structural adjustment policies and macro stabilisation policies, which were necessitated by the worsening Balance of Payments position and the position of inflation during 1990-91. The various structural adjustment policies were introduced gradually so that the economy could be pushed to a higher growth path and improve its strength and thus prevent a crisis in Balance of Payments and inflation in the future. The Eighth Plan took note of some of these policy changes, which were to come about due to these reforms. The Plan aimed at an average annual growth rate of 5.6 per cent and an average industrial growth rate of about 7.5 per cent. These growth targets were planned to be achieved with relative price stability and substantial improvement in the country's Balance of Payments.

Some of the salient features of economic performance during the Eighth Five-Year Plan indicate, among other things, (a) a faster economic growth, (b) a faster growth of the manufacturing sector and agriculture and allied sectors, (c) significant growth rates in exports and imports, improvement in trade and current account deficit and a significant reduction in the Central Government's fiscal deficit. However, a shortfall in expenditure in the Central sector due to inadequate mobilisation of internal and extra budgetary resources by the PSUs and various departments was witnessed. In the States sector, the reason for the shortfall was lack of mobilisation of adequate resources due to deterioration in the balance of current revenues, erosion in

the contribution of state electricity boards and state road transport corporations, negative opening balance, mounting non-Plan expenditure and shortfalls in the collection of small savings, etc.

The total expenditure during the entire Eighth Plan stood at Rs 4,95,669 crore [by taking 1996-97 (RE) as actual] at current prices as against envisaged total public sector outlay of Rs 4,34,100 crore (1991-92 prices) resulting in a 14.2 per cent increase in nominal terms. The Eighth Plan envisaged an annual average growth rate of 5.6 per cent. Against this an average annual growth rate of 6.8 per cent was achieved during this plan period.

NINTH PLAN

The Ninth Plan (1997-2002) was launched in the fiftieth year of India's Independence. The Plan aimed at achieving a targeted GDP growth rate of seven per cent per annum and there was emphasis on the seven identified Basic Minimum Services (BMS) with additional Central Assistance earmarked for these services with a view to obtain a complete coverage of the population in a time-bound manner. These included provision of safe drinking water, availability of primary health service facilities, universalisation of primary education, public housing assistance to shelterless poor families, nutritional support to children, connectivity of all villages and habitations and streamlining of the public distribution system with a focus on the poor. The Plan also aimed at pursuing a policy of fiscal consolidation, whereby the focus was on sharp reduction in the revenue deficit of the Government, including the Centre, States and PSUs through a combination of improved revenue collections and control of inessential expenditures, particularly with regard to subsidies and through recovery of user charges and decentralisation of planning and implementation through greater reliance on States and Panchayati Raj Institutions.

The Specific objectives of the Ninth Plan included: (i) priority to agriculture and rural development with a view to generate adequate productive employment and eradication of poverty; (ii) accelerating the growth rate of the economy with stable prices; (iii) ensuring food and nutritional security for all, particularly the vulnerable sections of society; (iv) providing the basic minimum services of safe drinking water, primary health care facilities, universal primary education, shelter, and connectivity to all in a time-bound manner; (v) containing the growth rate of population; (vi) ensuring mobilisation and participation of people at all levels; (vii) empowerment of women and socially disadvantaged groups such as Scheduled Castes, Scheduled Tribes and Other Backward Classes and minorities as agents of socio-economic change and development; (viii) promoting and developing people's participatory institutions like Panchayati Raj Institutions, cooperatives and self-help groups; and (ix) strengthening efforts to build self-reliance.

The Ninth Plan envisaged an average target growth rate of 6.5 per cent per annum in GDP as against the growth rate of 7 per cent approved earlier in the Approach Paper. The scaling down of the target was necessitated by the changes in the national as well as global economic situation in the first two years of the Ninth Plan. Against this, the achievement in the growth-rate on an average was to be 5.5 per cent per annum.

Achievements : During the period from 1950-51 to 2002-03, the national income - Net National Product (NNP) had increased 8.7 times from Rs 1,32,367 crore to Rs 11,56,714 crore (at 1993-94 prices) implying a compound growth rate of 4.2 per cent per annum. The per capita income (NNP) had increased three times from

Rs 3,687 to Rs 10,964 (at 1993-94 prices) registering a compound growth rate of 2.1 per cent—all the aggregates measured at factor cost at 1993-94 prices.

The following table gives the growth performance of the Indian economy in terms of GDP, relative to the targets set in the various Plans right since the inception of planning in India. The economy has performed better than the target in five of the nine previous plans, and even in the Second Plan, the gap was not large. As far as the Third and Fourth Plans are concerned, the shortfalls were largely due to severe exogenous shocks that could not possibly have been predicted including the drought years of 1965 and 1966 and the Indo-Pakistan War of 1965. The Fourth Plan experienced three consecutive years of drought (1971-73) and the first shock of rises in oil-price of 1973. More importantly, since the Fourth Plan, the growth rate of the economy had improved steadily until the Ninth Plan, when it received a setback. Thus, the evidence suggests that the track record of planning in India has been reasonably good and indeed tends to err on the side of caution.

GROWTH PERFORMANCE IN THE FIVE-YEAR PLANS

(per cent per annum)

Sl.No.	Plan	Target	Actual
1.	First Plan (1951-56)	2.1	3.60
2.	Second Plan (1956-61)	4.5	4.21
3.	Third Plan (1961-66)	5.6	2.72
4.	Fourth Plan (1969-74)	5.7	2.05
5.	Fifth Plan (1974-79)	4.4	4.83
6.	Sixth Plan (1980-85)	5.2	5.54
7.	Seventh Plan (1985-90)	5.0	6.02
8.	Eighth Plan (1992-97)	5.6	6.68
9.	Ninth Plan (1997-2002)	6.5	5.5

Note: The growth targets for the first three Plans were set with respect to National Income. In the Fourth Plan it was the Net Domestic Product. In all Plans thereafter, it has been the Gross Domestic Product at factor cost.

TENTH FIVE-YEAR PLAN

The Tenth Five-Year Plan (2002-07) was approved by the National Development Council on 21st December 2002. The Plan has further developed the NDC mandate objectives, of doubling the per capita income in ten years and achieving a growth rate of eight per cent of GDP per annum. Since economic growth is not the only objective, the Plan aims at harnessing the benefits of growth to improve the quality of life of the people by setting the following key targets: Reduction in the poverty ratio from 26 per cent to 21 per cent, by 2007; Decadal Population Growth to reduce from 21.3 per cent in 1991-2001 to 16.2 per cent in 2001-11; Growth in gainful employment, at least, to keep pace with addition to the labour force; All children to be in school by 2003 and all children to complete five years of schooling by 2007; Reducing gender gaps in literacy and wage rates by 50 per cent; Literacy rate to increase from 65 per cent in 1999-2000, to 75 per cent in 2007; Providing potable drinking water to all villages; Infant Mortality Rate to be reduced from 72 in 1999-2000, to 45 in 2007; Maternal mortality ratio be reduced from four in 1999-2000, to

two in 2007; Increase in Forest/Tree cover from 19 per cent in 1999-2000, to 25 per cent in 2007; and Cleaning of major polluted river stretches.

The Tenth Plan has a number of new features, that include, among others, the following :

Firstly, the Plan recognises the rapid growth in the labour force. At current rate of growth and labour intensity in production, India faces the possibility of rising unemployment, which could lead to social unrest. The Tenth Plan therefore aims at creating 50 million job opportunities during the period, by placing special emphasis on employment intensive sectors of agriculture, irrigation, agro-forestry, small and medium enterprises, information and communication technology and other services.

Secondly, the Plan addresses the issue of poverty and the unacceptably low levels of social indicators. Although these have been the objectives in earlier Plans, in the current Plan there are specific monitorable targets, which will need to be attained along with the growth target.

Thirdly, since national targets do not necessarily translate into balanced regional development and the potential and constraints of each State differ vastly, the Tenth Plan has adopted a differential development strategy. For the first time a statewise growth and other monitorable targets have been worked out in consultation with the States to focus better on their own development plans.

Another feature of this Plan is the recognition that Governance is perhaps one of the most important factors for ensuring that the Plan is realised, as envisaged. The Plan has laid down a list of reforms in this connection.

Finally, considering the present market-oriented economy, the Tenth Plan has dwelt at length on the policies that would be necessary and the design of key institutions. The Tenth Plan not only includes a carefully crafted medium-term macro-economic policy stance, both for the Centre and the States, but also lays out the policy and institutional reforms that are required for each sector.

The incremental capital-output ratio (ICOR) of the economy is likely to come down to about 3.6 as against 4.5 during the Ninth Plan. This decline in ICOR is to be achieved mainly through better utilisation of existing capacities and suitable sectoral allocation of capital and its efficient utilisation. The growth target, therefore, would require an investment rate of 28.4 per cent of GDP. This requirement will be met from domestic savings of 26.8 per cent of GDP and external savings of 1.6 per cent. The bulk of the additional domestic savings will have to come from reduction in Government dissavings from -4.5 (2001-02) to -0.5 per cent (2006-07) of GDP.

The Tenth Plan has identified measures to improve efficiency, unleash entrepreneurial energy and promote rapid and sustainable growth. Agriculture is to be the core element of the Tenth Plan. Key reforms for the agriculture sector include: Eliminating inter-state barriers to trade and commerce; Essential Commodities Act to be amended; Amending Agriculture Produce Marketing Act; Liberalising agri-trading, agri-industry and exports; Encouraging contract farming and permitting leasing in and leasing out of agriculture lands; Replacement of various acts dealing with food by one comprehensive 'Food Act'; Permit futures trading in all commodities; Removal of restrictions on financing of stocking and trading.

Some other key reform measures include repeal of SICA, and strengthening bankruptcy and foreclosure laws to facilitate transfer of assets; Reform of labour

laws; Policy reforms for village and small scale sectors to improve credit, technology, marketing and skill availability, and a phased dereservation of small scale industries; Early enactment of Electricity Bill; Coal Nationalisation Amendment Bill and Communication Convergence Bill, Abolish restrictions and encourage decontrol of private road transport passenger services and private sector participation in road maintenance; Early adoption of a Civil Aviation Policy, establishment of a regulatory framework for the sector and development of major airports with active private participation. Likewise, the growing regional imbalances are a matter of concern and the Plan aims at promoting a balanced and equitable regional development. The Plan gives a statewise break-up of the targets in order to provide the requisite focus. The need for urgent policy and administrative reforms has also been recognised.

Governance is perhaps one of the most important factors for ensuring that the Plan is realised, as envisaged. Some steps required in this direction are: Improved people's participation, especially through strengthening Panchayat Raj Institutions and urban local bodies; Involvement of civil society, especially voluntary organisations, as partners in development; Enactment of the Right to Information Act; Civil Service reforms for improving transparency, accountability and efficiency; security of tenure, a more equitable system of rewards and punishments; Right sizing both the size and role of Government; Revenue and judicial reforms and using information technology for good governance.

Mid-Term Appraisal of Tenth Plan : The Mid-Term Appraisal of the Tenth Plan was approved by the National Development Council in June 2005. It presented a detailed assessment of the performance of the economy as a whole as well as an assessment of performance in individual sectors in comparison with the Tenth Plan targets. The picture that emerged from the appraisal was mixed. According to it, the economy performed well in many areas and these gains needed to be consolidated but there were some important weaknesses also, which, if not corrected could undermine even the current performance level.

The Average GDP growth for the first three years was 6.5 per cent and it was anticipated that the average growth rate is likely to be below 7 per cent in the Tenth Plan period, well short of the target of 8 per cent. Growth in 2005-06 was projected to accelerate to 7.6 per cent and could accelerate further if the corrective steps were speedily implemented. An important reason for lower growth rate was that investment did not increase in line with available investable resources and a decelerated growth in agriculture sector.

Increase in the price of oil led to serious problems of inflation in mid 2004 but it has since been under control. Private sector investment had revived after a long phase of dormancy. The Tenth Five Year Plan had created a favourable climate for the development of Foreign Direct Investment. The external payment position was comfortable with substantial inflows. The performance of industrial sector had improved in 2004-05 after a dull record in first two years of Tenth Plan period. The average of first three years was 7 per cent with considerable success in the field of manufacturing sector, pharmaceuticals, biotechnology, automobiles, auto components, etc., other than IT sector.

These positive features were clearly a source of strength and the aim of policy was to consolidate these gains and accelerate growth in the remaining years of the Tenth Plan. However, a Mid-Term Appraisal for the Tenth Plan also identified some important signs of weaknesses which were a cause for concern like decelerating

agriculture growth, infrastructure inadequacies, poor health and education facilities disturbing gender gaps, large rural-urban differences, inequality, poverty, imbalanced regional development, rising unemployment, etc., and needed corrective steps.

The scope for correcting all these deficiencies within the Tenth Plan period is limited. However, it was felt necessary to define a corrective agenda and to initiate the process as quickly as possible. The Mid-Term Appraisal of the Tenth Plan identified many policy initiatives to overcome these weaknesses. Some of the priority areas of action were: investment in irrigation/water management, fertilizer pricing, improving the effectiveness of SSA, National Rural Health Mission, oil pricing, National E-Governance Plan, small-scale industry, etc. These suggestions deserve careful consideration and should form the framework for policy formulation leading to the Eleventh Plan.

AGRICULTURE

Agriculture contributes approximately one-fifth of total gross domestic product (GDP). It provides the means of livelihood to about two-thirds of the country's population. The Sector provides employment to 58.4 per cent of the country's work force and is the single largest private sector occupation. Agriculture accounts for about 10 per cent of the total export earnings and provides raw material to a large number of industries. Besides, the rural areas are the biggest markets for consumer goods, including consumer durables, apart from a major source of domestic savings. Above all, agriculture is the only source of food security for the nation.

Foodgrains production based on 4th Advance Estimates for 2005-06 amounts to 208.30 million tonnes, comprising 195.19 million tonnes of cereals and 13.11 million tonnes of pulses. The production of food grains in 2005-06 marked an increase of 5 per cent as compared to the final production estimated at 2004-05. The production of oilseeds in 2005-06 has been estimated at 27.73 million tonnes, which marked an increase of about 14 per cent over the production of 24.35 million tonnes in 2002-03. Sugarcane production in 2005-06 at 278.38 million tonnes registered an increase of 17 per cent as compared to the level of 237.08 million in 2004-05. Cotton production during the year is estimated at 19.57 million bales of 170 kg each and jute and mesta at 10.74 million bales of 180 kg each.

Milk production during the year 2004-05 was provisionally estimated at 91 million tonnes. India is the highest producer of milk in the world. Fish production was 6.3 million tonnes in 2004-05. Horticulture production (fruits, vegetables, flowers, nuts, plantation crops and spices) was about 144 million tonnes in 2002-03. Fostering rapid and sustained agricultural growth remained a priority agenda of the Government. In order to disseminate agricultural technologies, priority was given for the establishment of agriculture clinics/agri-businesses and Krishi Vigyan Kendras (KVKs). A National Kissan Commission was also constituted to examine the various issues confronting farmers and improving their income. To improve water management through enhanced water use efficiency by the use of drip-and sprinkler-irrigation systems, a new programme of Micro-Irrigation has been initiated. Significant agricultural marketing reforms were initiated. Kissan Call Centres were established to enable farmers to get expert advice on agriculture related issues and problems. Also, a Krishi Darshan TV Channel and a Krishi Vani Radio Channel were launched with the objective of telecasting programmes addressing area-specific issues and problems of farmers.

IRRIGATION

The country has made impressive strides in irrigation development since the first Plan. The ultimate irrigation potential of the country is assessed as 139.88 million hectare (m.ha.). From the pre-Plan period (before 1951) potential of 22.6 m.ha., the potential created up to Ninth Plan (March 2002) was 93.98 m.ha., with major and medium irrigation projects contributing 36.98 m.ha and minor irrigation contributing 59.02 m.ha. The potential utilised up to end of Ninth Plan is 80.02 m.ha. The total investment in irrigation sector since First Plan to Ninth Plan is Rs 1,55,624.97 crore (at fixed prices). Approved state sector outlay for irrigation in Tenth Plan is Rs 92,143.42 crore which is 15.59 per cent of the over all Plan outlay for Tenth Plan in the state sector. The targeted potential creation for Tenth Plan was 16.743 m.ha. The Mid-Term Appraisal (MTA) of the Tenth Plan has indicated a revised target of 10.5 m.ha. for irrigation (6.5 m.ha. for major and medium irrigation and 4 m.ha. for minor irrigation) and a likely expenditure of 70 per cent of the approved outlay. The recent Bharat Nirman initiative of the Government is for achieving the targets providing assured irrigation to one crore hectare (10 million hectare) by 2009. The future strategy for tackling the challenges of this sector is to enhance investments in irrigation, bridging the gap between the created and utilised potential, empowerment of Water Users Association for collection of water tariff and retention of a part of it for operation and maintenance (O&M) of canal stems, and setting up of water regulators for periodical revision of water tariff to recover at least the O&M costs.

POWER

Under the Power sector, the total installed capacity (including non-utility), which was only 2,301 MW in 1950, increased to 1,43,772 MW (including non-utility of 19,485 MW) by the end of March 2005. Under the rural electrification programme, about 4.38 lakh villages had been electrified out of 5.94 lakh villages (as per 2001 Census) by the end of March 2005, which is 78.8 per cent.

INDUSTRY

In order to achieve a doubling of per capita income over the next decade, the Tenth Plan targets a Gross Domestic Product (GDP) growth rate of eight per cent per annum. The corresponding growth target for the industrial sector is 10 per cent. This represents a major step-up in view of the less than seven per cent growth during the last decade. Presently, Indian Industry, especially the manufacturing sector, is recording a consistently high growth record. That this performance is with lower protection rate shows robustness of Indian Industry, particularly automobile/auto components and pharmaceutical sub-sectors.

For sustaining the pace of growth and investment, several initiatives have been launched for modernising/technology upgradation, reducing transaction cost, increased export thrust, so as to enhance its global competitiveness and achieve balanced regional development. For example, in the Industry and Trade sectors, a number of initiatives/schemes have been launched in order to reduce transaction cost such as, Industrial Infrastructure Upgradation Scheme (IIUS) and Modernisation of Patent Offices, etc., by Department of Industrial Policy and Promotion. Further, in order to give export thrust, Department of Commerce has launched major initiatives such as Assistance to States for Infrastructure Development for Exports (ASIDE), Market Access Initiatives (MAI), Special Economic Zones (SEZs) Policy, Modernisation

of Director General of Foreign Trade (DGFT), etc. For meeting the objectives of balanced industrial development, industrial policy packages have been announced for special category states of Uttaranchal, Himachal Pradesh, J & K and North East States. Social security issues have been addressed through insurance cover for workers in handloom, agro and rural industrial and processed marine product sectors. For specially addressing the requirement of Textile Industry, being one of the major employment intensive sector, special schemes/packages were introduced such as Technology Upgradation Funds Scheme (TUFS), which is expected to improve the access for decentralised powerloom sector to Technology Upgradation Fund. The Government of India also approved a capital subsidy of 10 per cent benchmarked processing machinery under TUFS for a period of one year over and above the 5 per cent interest reimbursement, considering the fact that processing units are capital intensive and have a longer gestation period to break even and become financially viable. Like-wise, sector oriented intervention has been made by way of launching of a new scheme titled 'Integrated Development of Leather Sector' by DIPP aimed at enhancing global share of leather exports.

The implementation of National Automotive and R&D Infrastructure Project (NATRIP) to set up a world class infrastructure to test vehicles and components has commenced. The first phase of project involving plan funding of Rs. 430 crore will be completed by the end of 10th Plan.

In March 2006, the National Manufacturing Competitiveness Council brought out a document titled 'The National Strategy for Manufacturing'. Setting up of a High Level Committee on Manufacturing (HLCM) under the Chairmanship of Hon'ble Prime Minister has been an important development. The first meeting of the HLCM took place on 4th August 2006 when the National Strategy for Manufacturing (NSM) was adopted. The Committee inter-alia would engage in suggesting and reviewing implementation of National Manufacturing Initiative for achieving a sustained growth of 12 per cent in manufacturing.

In 2004, the Government constituted Board for Reconstruction of Public Sector Enterprises (BRPSE) to address the problems relating to strengthening, modernising, reviving and restructuring of Public Sector Enterprises. Till December 2005, the Board has considered the proposals of 33 cases of sick PSEs. The Government has taken decisions of revival/restructuring of specific Public Sector Enterprises based on these recommendations.

Besides the above, other major highlights in the Industry sector included the following: (i) Inducing the States to evolve Industrial Policy and Plans away from direct subsidy and with greater emphasis on enabling investor-friendly climate/efficient infrastructure; (ii) A principled stand has been evolved with regard to VRS, which is not funded through the Plan; (iii) Review of MOU Systems for Central Public Sector Undertakings (CPSEs); (iv) Initiating Evaluation of Growth Centre Scheme through Programme Evaluation Organisation (PEO); (v) Institutionalised Quarterly Performance Review (QPR) Mechanism resulting in more effective Planning Resource Allocation; (vi) Experience sharing between States and replication of good ideas/best practices; (vii) Acting as a facilitator towards identification of frontier technologies e.g., Nano Technology, Information and Communication Technologies (ICT) and lean manufacturing for industrial applications; and (viii) Global Competitiveness — a

new paradigm evolved in the manufacturing sector as is evident from the performance of manufacturing sector and exports.

The rate of growth of industrial sector as measured in terms of Index of Industrial Production (IIP) during 2005-06 was 8.1 per cent compared to a growth of 8.4 per cent in the corresponding period of 2004-05. The manufacturing sector having a share of 79.36 per cent in the index of industrial production recorded a growth of 9.1 per cent in 2005-06 as compared to 9.2 per cent in 2004-05.

With respect of use-based classification of industries, the growth rate in the capital sector in 2005-06 at 15.8 per cent indicated a substantial improvement over the growth of 13.9 per cent during the last year. Consumer goods, both durable and non-durable segments, also recorded improved performance with a double-digit growth in the last two years. The turn-around in consumer durables since 2003-04 continued. In 2005-06, growth rate of basic goods remained at 6.6 per cent which is higher than that of 2004-05.

MINERAL SECTOR

Recognising the need and to further improve the investment climate for mining in the country, the Planning Commission as constituted a High Level Committee on 14 September 2005 under the Chairmanship of Shri Anwarul Hoda, Member, Planning Commission to review the National Mineral Policy. The terms of reference of the Committee are : (i) to review the National Mineral Policy 1993 and the Mines and Minerals Development and Regulation (MMDR) Act, 1957 and suggest changes needed for encouraging investment in public and private sector in exploration and exploitation of minerals, (ii) to review the existing procedures for granting RP/PL/ML and suggest ways for their streamlining and simplification, (iii) to review the procedures for according clearance to mineral exploration and mining projects under Forest (conservation) and Environment (Protection) Act 1986, and suggest ways for speeding them up, (iv) to prioritise the critical infrastructure needs of the Indian mining sector and make recommendations on ways to facilitate investment to meet these needs, (v) to examine the implications of the policy of mineral rich States to make value addition within the State a condition for grant of mineral concession and make appropriate recommendations in this regard, (vi) to examine ways of augmenting State revenues from the mineral sector and (vii) to examine any other issue relevant to stimulating investment flows and inducting state-of-the-art technology into the sector. The report of the committee is under finalisation.

Concept of zero based budgeting was introduced in the Annual Plan 2002-03 (the first year of the Tenth Plan) and accordingly organisations such as Geological Survey of India (GSI) and Indian Bureau of Mines (IBM) have categorised their activities as per zero based budgeting and the monitoring of the schemes in terms of physical and financial targets and achievements is being done through Quarterly Performance Review (QPR)/Half-Yearly Performance Review (HPR) in the Planning Commission.

Keeping in view the goals and objectives outlined in the National Common Minimum Programme of the Government and priorities emerging from Mid-Term appraisal of the Tenth Five Year Plan, a plan outlay of Rs 883.69 crore has been made for the Mineral sector in AP 2006-07, which is comprised of Rs 250 crore (GBS) and Rs 633.69 crore (IEBR). Of the total outlay, an allocation of Rs 18.95 crore has been earmarked for the North-East Region (NER).

EDUCATION

Education is the most crucial investment in human development. Over the decades, considerable progress has been achieved in terms of literacy, school enrolment, network of schools and spread of institutions for higher education including technical education. The literacy rate has gone up from 18.43 per cent in 1951 to 64.84 per cent in 2001. The decade of 1990s has been a watershed for basic education as the Census 2001 showed 12.63 percentage point increase in literacy, the highest since 1951. The Gross Enrolment Ratio (GER) at primary level has increased from 42.6 per cent in 1950-51 to 98.3 per cent in 2003-04. Similarly, for upper primary, it has gone up from 12.7 per cent to 62.5 per cent for the corresponding period.

The number of primary schools has increased by more than three folds from 2.10 lakh to about 7.12 lakh and that for upper primary schools, 19 times from 13,600 to about 2.62 lakh. As per the Provisional results of Seventh All India Educational Survey (2002), about 87 per cent of the 12.31 lakh habitations in the country were served with primary schools within a distance of one kilometer. In habitations not covered by regular schools, EGS/AIE centres have been set up and access to schooling has been almost universalised in all States/UTs. The total number of Elementary teachers increased from 6.24 lakh in 1950-51 to 36.89 lakh in 2003-04, i.e., registering an increase of more than five times. The number of female teachers increased from 0.95 lakh to 14.88 lakh.

However, there are still some gaps. The dropout rate at elementary level has declined from 78.3 in 1960-61 to 52.32 per cent in 2003-04, however, it is still high. The quality of education too requires improvement and there are gender, social and regional disparities. Besides, there are various systemic issues like inadequate infrastructure, high teacher vacancies/absenteeism and poor laboratory and library facilities. The number of out-of-school children has reduced steadily since 2002-03. This number came down to 1.35 crore in November 2005. States and UTs have reported that by March 2006 this number has further reduced to 95 lakh only.

The thrust areas in the Ninth Five Year Plan included *Universalisation of Elementary Education (UEE)*, full adult literacy, raising the quality of education at all levels and improving learner achievement. Elementary education was given the highest priority reiterating the country's strong resolve to achieve the goal of *Education for All (EFA)* during the Plan period. This was sought to be achieved through several measures including amendment to the Constitution of India making elementary education a fundamental right, decentralisation of planning, supervision and management of education through local bodies, social mobilisation for adult literacy, developing a stronger partnership with NGOs and provision of opportunities for adult literacy, developing a stronger partnership with NGOs and provision of opportunities for non-formal and alternative education for out-of-school children in the most backward areas and for the, as yet, unreached segments of the population. The major initiatives taken to bring about quantitative and qualitative improvement in elementary education include Operation Black Board, Non-formal Education Programme, Teacher's Education, District Primary Education Programme (DPEP), National Programme of Nutritional Support to Children of Primary Education popularly known as Mid-Day Meal Scheme.

Against this backdrop, the Tenth Plan had set the crucial Monitorable Targets that aims at all children in schools by 2003; all children to complete five years of schooling by 2007, reduction in the gender gap in literacy by at least 50 per cent and increase in the literacy rate by 75 per cent.

The Tenth Plan strategy for achieving UEE has been designed with a holistic approach as the existing policies and programmes are either for specific target groups/regions (Lok Jumbish) or aspects (Operation Blackboard, which mainly targeted the school infrastructure). An all-comprehensive programme, Sarva Shiksha Abhiyan (SSA), launched in 2000-01 covering the entire country, will be the main vehicle for achieving the goals of UEE. The scheme has a special focus on educational needs of girls, economically and socially deprived segments and other children in difficult circumstances. The programme is implemented in a mission mode with the Prime Minister heading the National Mission for SSA.

The involvement of the community is made more systematic by involving the Panchayati Raj Institutions (PRIs) and urban local bodies. Further down the hierarchy, the Village Education Committees (VEC), Mother-Teacher Associations (MTA) and Parent-Teacher Associations (PTA) would have a formal role in the management of schools in the village. Efforts are also made for the social mobilisation of local communities for adult literacy campaigns and for the promotion of primary education. Community-ownership of the school system is a key element in SSA.

The National Programme of Nutritional Support to Primary Education (NP-NSPE) or the Mid-Day Meal (MDM) Scheme, was launched on 15 August 1995 to give a boost to universal primary education by increasing enrolment, attendance and retention and improving the nutritional status of children in primary classes in Government, local body and government-aided schools. The programme has been extended to children studying under the Education Guarantee Scheme and in other Alternative Innovative Education Centres. The Programme has been universalised at Primary level from 1st September 2004 and covers about 11 crore children. This scheme is mostly funded by the Central Government.

The National Policy on Education (NPE, 1986) as modified in 1992 was a landmark in the field of policy on women's education in that it recognised the need to redress traditional gender imbalances in educational access and achievement. The subsequent Plan of Action, 1992 stated that it was impossible to achieve UEE unless concerted efforts were made to reach out to the girl child. Specific steps taken so far in this direction include mandatory recruitment of at least 50 per cent female teachers under Operation Black Board, a separate budget for girls' centres under Non-Formal Education Scheme, EGS schools, bridge courses, back to school camps, residential camps for out of school girls, Lok Jumbish (Rajasthan) to bridge the gender gap in primary education, DPEP in low female literacy districts, Mahila Sanghas under Mahila Samkhya Scheme for women's empowerment, a National Programme for Education for Girls at Elementary Level (NPEGEL) a component of SSA, and residential schools under Kasturba Gandhi Swatantrata Balika Vidyalaya (KGBV), which specifically target the girl child in educationally backward districts/blocks.

Under Adult Education, Total Literacy Campaign (TLC) is the principal strategy adopted by the National Literacy Mission (NLM) for eradication of illiteracy in the country. The literacy campaigns are area specific, time-bound and are developed through voluntary, cost-effective and outcome-oriented methods. The NLM aims to provide functional literacy to persons in the age group of 15-35 years to threshold sustainable level of 75 per cent by the year 2007. So far, out of 600 districts in the country, 128 had been covered under Total Literacy Campaign, 164 under Post Literacy Programme and 305 under Continuing Education Programme. As such, 597 districts had been covered under these schemes. According to the Census 2001, literacy had increased from 52.21 per cent in 1991 to 64.84 per cent in 2001. Female literacy, which

was 39.29 per cent in 1991, has increased by 14.38 percentage points to 53.67 per cent in 2001 whereas, the male literacy rate, which was 64.13 per cent in 1991 has risen by 11.13 percentage points to 75.26 per cent in 2001. Thus, female literacy has increased at a faster rate than that for males. Special emphasis has been laid by NLM on women's participation (60 per cent) in Literacy Programmes.

Secondary education serves as a bridge between elementary and higher education and prepares young persons between the age group of 14-18 for entry into higher education.

The number of secondary schools in India increased from 7,416 in 1950-51 to 1,45,962 in 2003-04. The major thrust in the Tenth Five Year Plan thus, is to meet the increased demand for secondary education. The Plan will also focus on a revision of curricula with emphasis on vocationalisation and employment-oriented courses, expansion and diversification of the open learning system, re-organisation of teacher training and greater use of new information and communication technologies, particularly computers.

The Higher education system has seen a seventeen-fold increase in the number of universities and 35-fold increase in the number of colleges in comparison to the number at the time of Independence. During the year 2005-06 (as on 31st December 2005) there were 335 Universities of which 215 were State Universities, 20 Central Universities, 100 Deemed to be Universities, apart from five institutions established under State Legislation Acts and 13 institutes of national importance established by Central legislation. There were nearly 17,625 colleges including 1,849 women's colleges in the country. At the beginning of year 2005-06, the total number of students enrolled in the formal system of education in universities and colleges has been 104.81 lakh, 13.88 lakh in university departments and 90.93 lakh in the affiliated colleges.

The number of technical institutions has shown a phenomenal increase. As compared to 562 degree level institution in 1997-98, the total number of approved engineering colleges in 2005 was 1478. The intake capacity increased from 1,34,298 in 1997-98 to 5,08,595 in 2005-06.

HEALTH AND FAMILY WELFARE

Improvement in the health and nutritional status of the population has been one of the major thrust areas for the social development programmes of the country. Over the last five decades, India has built up a vast health infrastructure and manpower primary, secondary and tertiary care in government, voluntary and private sectors. Improvement in access to healthcare services combined with technological advances in a field of health has resulted in substantial improvement in health indices of the population and a steep decline in mortality. However, there are wide intra-regional and intra-state disparities in health service coverage.

Some of the factors responsible for the poor functional status of the health system are : (i) Mismatch between personnel and infrastructure; (ii) Lack of Continuing Medical Education (CME) programmes for orientation and skill up-gradation of the personnel; (iii) Lack of appropriate functional referral system; and (iv) Absence of well established linkages between different components of the system.

Some of the major initiatives taken in the Health Sector are : (i) Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) has been initiated with the avowed objective of

providing specialty and super-specialty medical care in different States. The imbalances in the availability of tertiary care hospitals/ medical colleges is also sought to be mitigated by ensuring high quality services to the uncatered areas. The concomitant thrust of the programme is to enhance the quality of medical services as well. Under the programme, 6 AIIMS-like Institutions are proposed to be established in the States of Bihar, Chhattisgarh, Madhya Pradesh, Orissa, Rajasthan and Uttaranchal. One Medical College each in the States of Jharkhand, Tamil Nadu, West Bengal, Kerala, Karnataka, Maharashtra, Gujarat and UP and two medical colleges each in Andhra Pradesh and J&K will also be upgraded to the level and standard of AIIMS. (i) With a view to improving the Disease Surveillance Programme to ensure early detection of warning signals of impending outbreaks, a comprehensive Disease Surveillance Programme at the district level is being implemented. It would facilitate the study of the disease patterns including new emerging diseases and would provide data to monitor programmes of disease control and help in optimising allocation of resources; (ii) Hospital Infection Control and Waste Management has been incorporated as an essential component of the health delivery to co-ordinate and provide policy guidelines in this regard; (iii) Empowered Action Group (EAG)-to bolster the efforts in improving the health delivery systems in the backward states which manifest high fertility and mortality rates, an Empowered Action Group has been set up in the Ministry of Health and Family Welfare. The States included under the programme are: Bihar, Uttar Pradesh, Madhya Pradesh, Rajasthan, Orissa, Uttaranchal, Jharkhand and Chhattisgarh. The underlying objective is to promote an environment for provision of quality services particularly in terms of demographic indices. The main activities undertaken are : capacity building and to ensure single window clearance point for policy decisions and provision of special assistance. Subsequent to the launch of National Rural Health Mission (NRM) & the RCH II programme (Reproductive Health Programme), the EAG scheme (Empowered Action Group) has been subsumed under NRHM.

The recently launched National Rural Health Mission (2005-12) (launched on 12 April 2005) seeks to provide effective healthcare to rural population throughout the country with special focus on 18 States, which have weak public health indicators and/or weak infrastructure. These 18 States are Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu & Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland, Orissa, Rajasthan, Sikkim, Tripura, Uttaranchal and Uttar Pradesh.

The Mission is an articulation of the commitment of the Government to raise public spending on health from 0.9 per cent of GDP to 2-3 per cent of GDP. It aims to undertake architectural correction of the health system to enable it to effectively handle increased allocations as promised under the National Common Minimum Programme and promote policies that strengthen public health management and service delivery in the country.

It has as its key components provision of a female health activist in each village; a village health plan prepared through a local team headed by the Health and Sanitation Committee of the Panchayat; strengthening of the rural hospital for effective curative care and made measurable and accountable to the community through Indian Public Health Standards (IPHS); and integration of vertical health and family welfare programme and funds for optimal utilisation of funds and infrastructure and strengthening delivery of primary healthcare. It seeks to revitalise local health traditions and mainstream AYUSH into the public health system. It aims

at effective integration of health concerns with determinants of health like sanitation and hygiene, nutrition and safe drinking water through a District Plan for Health.

The RCH II (2005-09) is a key component of NRHM. It is an integrated vision on maternal health, new born/child health, RT/STI and family planning within a comprehensive approach involving both public and private/NGO sectors. It will support the paradigm shift in India's Family Welfare Programme by promoting States' ownership with pro-poor focus. It encompasses programmes in rural and urban areas and addresses a significant proportion of mortality and morbidity burden among women and children and also contributes to strengthening of public health systems. Thus, it includes many of the key strategies proposed under NRHM and contributes to several of its key outcomes.

In order to reduce the magnitude of under-nutrition in adolescent girls and pregnant and lactating women, a pilot project was launched in 51 districts of the country. Two backward districts in each of the major States and most populous districts have been taken up under this programme. The scheme envisages provision of free-of-cost foodgrains to the identified families. An amount of Rs 141 crore was earmarked under this programme in the year 2004-05. The programme has been revived and the Ministry of Women and Child Development has obtained Cabinet approval for implementing the scheme in 2005-06 and 2006-07.

NATIONAL POPULATION POLICY, 2000

The immediate objective of the National Population Policy, 2000 is to address the unmet needs of contraception, health infrastructure and health personnel and to provide integrated service delivery for basic reproductive and child health care. The medium-term objective is to bring the Total Fertility Rate to replacement level by 2010 through vigorous implementation of inter-sectoral operational strategies. The long-term objective is to achieve population stabilisation by 2045, at a level consistent with the requirements of sustainable economic growth, social development and environment protection.

NATIONAL COMMISSION ON POPULATION

The National Commission on Population was constituted on 11th May 2000 under the Chairmanship of the Prime Minister of India to provide overall guidance for population stabilisation by promoting synergy between demographic, educational, environmental and developmental programmes.

The National Commission on Population has been re-located from Planning Commission to the Ministry of Health and Family Welfare for ensuring comprehensive and multisectoral coordination of Planning and implementation between health and family welfare on the one hand and the schemes of the related Departments on the other. The Commission has since been reconstituted with 40 members, the first meeting of which was held on 23rd July 2005. Five Expert Groups have been constituted for studying the population profile of the States of Bihar, Uttar Pradesh, Rajasthan, Madhya Pradesh and Orissa in order to identify weaknesses in the health delivery systems and to suggest measures to improve the health and demographic status of these States.

PANCHAYATI RAJ INSTITUTIONS

The enactment of the 73rd Constitutional Amendment Act, 1992 marks a new era in the federal democratic set-up of the country bestowing a constitutional status to the

Panchayati Raj Institutions (PRIs). Pursuant to the Act, barring the States of Jammu and Kashmir, the National Capital Territory of Delhi and Uttaranchal, all the States have enacted the necessary legislation for setting up of strong, viable and responsible panchayats at different levels in their respective States/Union Territories. In all the States, panchayats have been constituted according to new laws except in the States of Arunachal Pradesh, NCT of Delhi and Pondicherry.

The Amendment Act contains provisions for devolution of powers and responsibilities to the panchayats both for preparation of Plans for economic development and social justice and for implementation, in relation to 29 subjects listed in the Eleventh Schedule of the Constitution. Pursuant to this, the States are expected to devolve administrative and financial powers alongwith the functionaries in respect to these 29 subjects to the PRIs. The State Government's are in the process of transferring these subjects to the PRIs. Recognising the need for taking concrete action to empower PRIs, the Government has set up an "Empowered Sub-Committee of National Development Council on Financial and Administrative Empowerment of PRIs" to look into the whole gamut of issues relocated to devolution of powers, functions and financial resources to the PRIs.

At present, panchayats receive funds from three sources, namely: (i) local body grants as recommended by the Central Finance Commission, (ii) funds for implementation of centrally-sponsored schemes; and (iii) funds released by State Governments on the recommendations of State Finance Commissions. Further, States are required to enact laws to enable Panchayats to raise tax and non-tax revenue so as to make them effective institutions.

The State Governments are required to constitute District Planning Committees (DPCs) as envisaged under Article 243 ZD of the Constitution at the district level to facilitate the process of decentralised planning by consolidating the development Plans prepared by the panchayats and municipalities for the district as a whole covering both rural and urban areas.

According to Article 243 (A) of the Constitution, the Gram Sabha may exercise such powers and perform such functions at the village level as the legislature of a State may, by law provide. Most State Acts have vested in the Gram Sabha responsibilities and functions such as : (i) supervising and monitoring the functioning of the Gram Panchayats; (ii) approval of plans and selection of schemes, beneficiaries and locations; and (iii) mobilisation of voluntary labour contributions in cash or kind for community welfare programmes and to promote unity and harmony among all sections of society. Of late, however, as a result of several initiatives of the Central Government in partnership with State Governments a view has emerged which favours strengthening of Gram Sabhas as the bedrock of democracy at the grass-roots level.

The States have been requested to take the following measures to empower the Gram Sabha : (i) to ensure that Gram Sabhas should meet at least once in each quarter preferably on Republic Day, Labour Day, Independence Day and Gandhi Jayanti; (ii) vest powers in Gram Sabhas giving them the powers of ownership, management and control over natural resources, as envisaged under the provision of the Panchayats (Extension to the Scheduled Areas) Act, 1996; (iii) Gram Sabhas should have full powers for determining the priorities for various programmes; (iv) Panchayats should be made accountable to the Gram Sabha in unequivocal terms; (v) members of Gram Sabhas should be made aware of their powers and responsibilities and steps should

be taken to ensure mass participation, particularly of SCs/STs and women; and (vi) A Gram Sabhas should have the powers to evolve its own procedures to carry out social audit of development programmes.

The provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 extends Panchayats to the tribal areas of nine States viz, Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Maharashtra, Madhya Pradesh, Orissa and Rajasthan. It strives to enable a tribal society to assume control over their own destiny to preserve and conserve their traditional rights over natural resources.

SOCIAL WELFARE

The Ministry of Social Justice and Empowerment in coordination with the Planning Commission and State Governments has been working towards the mainstreaming of the disadvantaged and marginalised sections of the society. The objective is to empower the target groups through their educational, economic and social development and to bring them on par with rest of the society.

The Social Welfare Division continued its efforts towards fulfilling the Tenth Plan commitments of: (i) Empowering Persons with Disabilities, (loco-motor, visual, hearing, speech and mental disabilities); (ii) Reforming the social deviants who come in conflict with law (juvenile delinquents/vagrants, drug addicts, alcoholics, sex workers, beggars, etc.); and (iii) Caring for the other disadvantaged (the aged children in distress such as street children, orphaned/abandoned children, etc.), through effective coordination with the Ministry of Social Justice and Empowerment and other related Ministries and Departments/State Governments/UTs to ensure the efficient implementation of various policies and programmes for these target groups.

Persons with Disabilities (PWD) are defined as those suffering from four types of disabilities viz., Visual, loco-motor, hearing and speech and mental disabilities. In the Ninth Plan (1992-97), the earlier paradigm shift in approach from "welfare" to development was moved further to "empowerment" which is more holistic by including both the welfare and development perspective. The major thrust in the Tenth Plan has been to consolidate and strengthen the various programmes through coordinated efforts and innovative interventions in attending to the special problems and needs of these disadvantaged groups. One of the thrust areas during the Tenth Plan has been to prepare disabled-friendly policies to create a hurdle-free environment for the person with disabilities.

To optimise the use of available resources and achieve synergy and convergence in functioning, the Planning Commission has taken up an in-depth exercise on the rationalisation, convergence, merging and weeding out of the on-going schemes in the social welfare sector being implemented by the Ministry of Social Justice and Empowerment. The outcome of this exercise was discussed in the Core Committee on Zero Based Budgeting of Central and Centrally-Sponsored Schemes. In accordance with the decisions of the Core Committee, the 39 schemes (36 CS and three CSS) implemented during the Ninth Plan, have rationally been reduced to only 16 schemes (15 CS + one CSS) and retained in the Tenth Plan.

There are 10 CS ongoing schemes for the welfare of the disabled during the Tenth Plan with an outlay of Rs 1,469 crore.

There are 5 CSS +1 CSS Scheme for Social Defence and other disadvantaged groups with an outlay of Rs 535 crore. The total outlay for the Tenth Plan for the Social Welfare Sector has been kept at Rs 2,004 crore.

Recognising the complementing/supporting role played by the voluntary organisations in the welfare sector, majority of the schemes/programmes have been implemented with full or partial involvement of the NGOs.

Tribal Development Sector : The Government continues its efforts for the welfare and development of Scheduled Tribes, who constitute eight per cent of the total population of the country. Of these, 1.8 million belong to the Primitive Tribal Groups (PTGs).

The objective of the Tenth Plan and Annual Plan 2006-07 is for empowering scheduled tribes through a three-pronged strategy of Social Empowerment, Economic Empowerment and Social Justice. During the Tenth Five-Year Plan, an amount of Rs 5,754 crore was approved as plan outlay and for Annual Plan 2006-07, Rs 1,760.19 crore has been proposed.

The Tribal Sub-Plan strategy adopted during the Fifth Plan is being implemented by the Centre as well as the State Governments through various schemes. In addition to Special Central Assistance to the Tribal Sub-Plan, Grants are also being provided to the State Governments to implement specific schemes for the welfare and development of Scheduled Tribes.

The National Scheduled Tribes Finance and Development Corporation has been set up to give focused attention to the economic development of tribals. Rs 30 crore has been allocated for Annual Plan 2006-07.

Socially Disadvantaged Groups : The process of empowering the disadvantaged groups of SCs, OBCs and Minorities will continue in more intensified and effective manner in the Annual Plan 2006-07. The SCs account for 166.63 million, representing 16.2 per cent and Minorities numbering about 188.9 million, representing 18.4 per cent of the country's population (estimated) in 2001. Social Empowerment amongst the disadvantaged groups is being carried out through reduction programmes and through removal of prevailing inequalities, disparities besides providing access to other Basic Minimum Services. Educational development is being carried out through the implementation of schemes like Post and Pre-matric Scholarships, Hostels and allied Coaching Schemes.

Special Central Assistance (SCA) to Special Component Plan (SCP) for SCs is being extended as 100 per cent grant to States/UTs to fill the critical gaps and missing inputs in family oriented income generating schemes with supporting infrastructure development having focus on BPL families. National Finance and Development Corporations for weaker sections have been set up exclusively at the national level for the disadvantaged groups for micro-credit, employment, income generating schemes and skill upgradation. These include: (i) National Scheduled Caste Finance and Development Corporation; (ii) National Safai Karamchari Finance and Development Corporation; (iii) National Minorities Development and Finance Corporation; and (iv) National Backward Classes Finance and Development Corporation besides the State level Scheduled Castes Development Corporations.

URBAN DEVELOPMENT

Cities everywhere are recognised as contributing substantially to economic, social, educational and infrastructural needs of the country. While they offer a higher standard

of amenities to city-dwellers, they also have an important role in ensuring a range of services to the rural hinterland creating demand for rural output as well as providing avenues for access to inputs. Towns and cities act as nodal centres for services in marketing, health-care, education and also in opening a window to the larger world. The 74th Constitutional Amendment, with its provisions to decentralise the responsibility for urban management, is intended to increase the participation of the people and accountability in the administration. However, the challenge to be met in the Tenth Plan period is to assist the elected bodies to grow organisationally to fulfill the demands of urban residents for a quality life at par with world standards. Substantial work has already been done to upgrade the urban infrastructure and urban development authorities have acquired considerable skills in planning and executing projects. Programmes such as the Mega City project for five selected cities, the Integrated Development of Small and Medium Towns (IDSMT) and the Accelerated Urban Water Supply Programme (AUWSP), all schemes subsumed in Jawaharlal Nehru National Urban Renewal Mission (JNNURN) since December, 2005, have shown varying degrees of success in meeting some of the urban needs. The parastatals and development authorities are designed to play a supportive role to the elected bodies rather than taking over the functions which properly belong to the Urban Local Bodies (ULBs).

In order to augment the financial position of ULBs, reforms are being introduced through introduction of accrual-based double entry system of accounting, e-governance, property tax reforms, levy of reasonable user charge, etc., by ULBs. To bridge the gap between requirement of funds by the ULBs and available financial resources, the Twelfth Finance Commission has recommended Rs 5,000 crore for local bodies as grants-in-aid for the period from 2005 to 2010, out of which Rs 2,500 crore is specifically earmarked for solid waste management in ULBs. At the State level to improve the financial position of the ULBs, actions have been taken to implement the recommendations of the State Finance Commission through taxes, duties, fees, etc., assigned to ULBs and distribution of their proceeds between the State and the ULBs.

In order to develop a database at town levels, a new scheme, National Urban Information System (NUIS) has been designed. The NUIS comprises two major sub-components viz. (a) Urban Spatial Information System Scheme (USIS), i.e., generation of digital maps through satellite/aerial survey, to meet spatial (maps/images) data/information requirements of urban planning for routine functions and (b) National Urban Databank and Indicators (NUDB&I) to develop town level urban database to support development of indices.

New Reform linked approach to Urban Development :

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) has been launched on 3rd December 2005 to provide reform linked Central assistance for urban development. The Mission period is 2005-2012. There are various sub components of JNNURM, eg. Urban Infrastructure and Governance (UIG) and Basic Services to Urban Poor (BSUP) for selected 63 Mission cities. Also for all towns and cities not included in Mission cities, sub scheme on Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and Integrated Housing and Slum Development Programme (IHSDP) are applicable both under JNNURM. While the Ministry of Urban Development implements UIG & UIDSSMT components of JNNURM, the Ministry of Housing & Urban Poverty Alleviation implements BSUP & IHSDP.

The number of mission cities has been increased to 65 from 63 by way of inclusion of the city of Triupati and Porbandar as Mission cities under Urban Infrastructure and Governance (UIG) and Basic Services to Urban Poor (BSUP) of JNNURM in the 5th meeting of National Steering Group held on 5.1.2009.

States are provided with Additional Central Assistance (ACA) as grant in various proportions of project cost. The Mission is envisaged to take care of urban infrastructure projects, including water supply, sanitation, sewerage, solid waste management, road net work, urban transport and redevelopment of inner city areas.

The main thrusts of the revised strategy is to link asset creation with asset management, improvement in service delivery, improvement of financial soundness of Urban Local Bodies (ULBs) leading to overall improvement in urban infrastructure and governance. In this improved environment, public-private participation models for provisioning of various services would also become feasible. To achieve this objective, State Governments, Urban Local Bodies and Parastatal Agencies will be required to accept implementation of an agenda of reforms. The proposed reforms both at State and Urban Local Bodies and Parastatal Agencies will be required to accept implementation of an agenda of reforms. The proposed reforms both at State and Urban Local Bodies levels shall broadly fall into two categories : (i) Mandatory reforms, (ii) Optional reforms.

Some mandatory and optional reforms at State/ULBs levels are: (i) Adoption of modern, accrual based double entry system of accounting, (ii) Introduction of system of E-Governance in housing, IT applications like GIS and MIS for various services. (iii) Reforms of Property Tax with GIS applications, (iv) Levy of reasonable user charges by ULBs to cover full cost of O&M. (v) Implementation of decentralisation measures as envisaged in 74th Constitutional Amendment Act. (vi) Repeal of Urban Land Ceilings and Regulation Act. (vii) Reform of Rent Control Laws balancing the interests of landlords and tenants. (viii) Rationalisation of Stamp Duty to bring it down to no more than 5 per cent within the next five years. (ix) Enactment of Public Disclosure Law to ensure preparation of medium-term fiscal plan of ULBs and release of quarterly performance information to all stakeholders. (x) Revision of bye-laws to streamline the approval process for construction of buildings, development of sites, etc. (xi) Introduction of Property Title Certification System in ULBs. (xii) Introduction of computerised process of registration of land and property. (xiii) Encouraging Public/Private Partnership.

URBAN INFRASTRUCTURE AND GOVERNANCE

A total number of 463 projects have been sanctioned under the Urban Infrastructure and Governance (UIG) component of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) at a total approved cost of Rs. 49743.46 crore where the ACA committed is Rs. 23648.33 crore. As on 31.05.2009, and amount of Rs. 8253.00 crore has been released as ACA to various states and UTs. About 75% of UIG allocation (Rs. 31,500 crore) has been committed for projects of the various Mission cities. So far, 32 project have been reported as physically completed.

URBAN INFRASTRUCTURE DEVELOPMENT SCHEME FOR SMALL AND MEDIUM TOWNS

The Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) was launched on 3rd December 2005 under the Jawaharlal Nehru

National Urban Renewal Mission (JNNURM) for development of infrastructural facilities in all towns and cities as per 2001 Census except those covered under JNNURM. Under UIDSSMT the main thrust is on planned and integrated development of small and medium towns. The Scheme envisages improving the urban governance so as to make the Urban Local Bodies financially sound with enhanced credit rating and ability to access market capital for undertaking new programmes and expansion of services. In this improved environment, public private participation models for provisioning of various services would also become feasible. To achieve this objective, State Governments, Urban Local Bodies and parastatal agencies are required to be implementation of an agenda of reforms Mandatory and Optional Reforms. On completion of the scheme, it is expected that the town covered under the Scheme will have:-

- Modern and transparent budgeting, accounting, financial management system, etc. for urban services and governance function.
- Application of e-governance in core functions of ULBs/ parastatals resulting in reduced cost and time in service delivery.

Till 31.03.2009, ACA was released in respect of 747 projects for 631 towns, for which approved project cost was Rs. 12777.80.

URBAN TRANSPORT

Increasing urban population coupled with increased city size has led to a rapid growth in the urban travel demand. Rapid growth in the use of personal motor vehicle alongwith neglect of public transport, pedestrianisation and non-motorized modes has resulted in increased congestion, air pollution, higher incidence of accidents as well as an increasing consumption of petroleum products. Significant improvement in public transport pedestrianisation and non-motorized modes are a critical requirement for improving mobility in urban areas and thereby facilitating economic growth. Such improved mobility would also have a beneficial impact on the urban poor by improving their access to employment, education and health care. For urban planning it is necessary to give attention to an appropriate policy for integration of transportation and traffic plans with land use plans for every urban agglomeration.

A National Urban Transport Policy has been formulated by the Central Government. The focus of the policy is to "Move People Not vehicles." This policy envisages integrated land use and transport planning, significant improvements in public transport, encouragement of non-motorised modes of travel, provision of adequate parking spaces as also a comprehensive set of measures for capacity building in urban transport planning.

While the major projects under implementation at present are the Delhi, Bangaluru and Kolkata Mass Rapid Transit system, Approval has been accorded for implementation of Chennai Metro Rail Project also.

The Delhi MRTS is being funded through equity contribution towards capital investment and subordinate debt for land acquisition and payment of Central Taxes from the Government of India and the Government of National Capital Territory (NCT) of Delhi in equal proportion, as well as soft loan assistance from Japan International Corporation Agency (JICA). The funds from JICA are being make available as pass through assistance. Besides these, grants is being provided by the Government of Haryana & Uttar Pradesh and Government of India in 80:20 ratio of the capital

works of extension of Delhi Metro to Gurgaon and Noida. Phase-I of Delhi MRTS has been completed and Phase-II, including extension to Gurgaon, Noida, Central Secretariat to Badarpur, Airport Express Link to Indira Gandhi International (IGI) Airport are under active implementation and targeted for completion before Commonwealth Games, 2010.

Bangaluru Metro Rail Project, Kolkata Metro Rail Project and Chennai Metro Rail Project are also being implemented on the pattern of Delhi Metro Rail Project. The construction as well as operation and maintenance of the system in these Metros is also through joint venture companies of Government of India and the concerned State Governments. A Special Purpose Vehicle (SPV) has been constituted in each for successful execution of the project. Equity participation of GOI and State Government is on 50:50 basis.

Since buses continue to be the major form of public transport, all the State Governments and Cities are being encouraged to launch Modern ITS enabled City Bus Service on Public Private Partnership mode and of such a quality that can be marketed to public as a "Branded Product". Modern City Bus Service has been launched/contemplated in Bhopal, Jodhpur, Udaipur, Jullunder, Ludhiana and Jaipur cities. In addition, in view of the cost effectiveness, feasibility and scalability, many cities have opted for Bus Rapid Transit System which is under implementation in Delhi, Ahmedabad, Surat, Rajkot, Indore, Bhopal, Pune, Pimpri-Chinchwad, Jaipur, Vijayawada & Vishakhapatnam. Further, under the second stimulus package, as a one-time measure up to June, 2009, a scheme has been launched for providing Central financial assistance in the form of grant to States/UTs/ULBs/Parastatals for procurement of buses for their urban transport system under JNNURM. The financing is meant exclusively for City Bus service and Bus Rapid Transit System (BRTS) for all mission cities. Around 15000 buses are to be procured under the scheme for various cities. The sanctioning of the buses has been tied with certain conditions including those related to various reforms in Urban Transport namely i.e. setting up of Unified Metropolitan Transport Authority (UMTA), mechanism to enforce parking policy, advertisement policy which taps advertisement revenue on public Transport, Intermediate public transport Fund, setting up of control-cum-Information Central with toll free number, prioritization of buses with demarcated/dedicated lanes, setting up of City Specific SPV for city bus service operations, waiver/reimbursement of State/ULB tax on buses etc.

TELECOM SECTOR

The predominant role of the Telecom sector in the rapid social and economic development has been recognised world-over. The telecom sector in India has undergone a series of changes and institutional reforms since 1991. The new Telecom Policy, 1999 has laid down the basic framework for the future development and growth of the Telecom sector in the country. Following this approach, the major objectives envisaged in the Tenth Five Year plan include: (i) Affordable and effective communication facilities to all citizens; (ii) Provision of universal service to all uncovered areas including rural areas; (iii) Building a modern and efficient telecommunication infrastructure to meet the convergence of Telecom, IT and Media; (iv) Transformation of the telecommunication sector to a greater competitive environment providing equal opportunities and level playing field for all players;

(v) Strengthening Research and Development efforts in the country; (vi) Achieving efficiency and transparency in the spectrum management; (vii) Protecting the defence and security interests of the country, (viii) Enabling Indian telecom companies to become truly global players.

Towards fulfilment of these objectives, India's more than 125 million telephone network is one of the largest networks in the world, which continues to grow at a blistering pace. The higher growth rate has continued during the first three quarters of the year 2005-06 and showed a growth rate of 35 per cent between December 2004 and December 2005. The total number of phones has reached 125.8 million as on 31 December 2005. The performance during the year has been so impressive that the average monthly addition crossed to 3 million lines. During 2005-06, 274.15 lakh new connections (50.90 lakh by BSNL & MTNL and 223.25 lakh by private sector were provided).

The private sector has continued its dynamism and entrepreneurial spirit to play a significant role in the growth of telecom sector. The share of private sector in the total telephones has increased from 47 per cent as on 31 March 2005 to 55 per cent as on 31 December 2005. Of the 274.15 lakh additional phones provided during 2005-06 the major share, i.e., 223.25 lakh, amounting to more than 81 per cent was provided by the private sector. The preference of subscribers in the urban areas is for wireless telephony and the trend continues. This has now been transformed into a mass consumption service.

Efforts are on to develop rural telephony. Under the Bharat Nirman, all the 66,822 uncovered villages are to be covered by November 2007. Against this target 25,870 uncovered villages have already been covered upto May 2006.

"One India Tariff" is another important feature introduced from 1 March 2006 under which the customers of BSNL and MTNL can call from one end of India to another at the cost of Rs. 1 per minute, any time of the day to any phone.

POSTAL SECTOR

The Department of Post is one of the largest public sector employers in the country employing more than 5.7 lakh persons equally divided between permanent employees and extra-departmental employees. It has completed 150 years of its service and has a network of 1.55 lakh post offices. Besides, providing a variety of postal services, the Indian postal system plays, a vital role in the resource mobilisation efforts especially in rural areas. The Tenth Plan aims at making the postal services self-financing by the end of the Plan period. An outlay of Rs 200 crore was approved for the Annual Plan 2004-05.

Computerisation and Networking of Post Offices was the single most important scheme being implemented by the Department during their annual Plan 2004-05. The Department has taken up a number of new initiatives such as Postal Finance Mart, On-line domestic money transmission service, sale of postage stamps and postal stationery by the postman at the doorstep of the customer, thereby bringing the post office closer to people, and also the collection of mail by the postman. Speedpost Gold Service has been introduced between business districts of Delhi and Mumbai in February 2006. This Service assures next day forenoon delivery, automatic refunds in case of delay, electronic proof of delivery on e-mail/SMS and specialised arrangements for collection, transmission and delivery.

INFORMATION TECHNOLOGY

The software and ITES exports from India grew from US\$ 12.9 billion in 2003-04 to US \$ 17.7 billion in 2004-05. It is estimated that total software and ITES exports from India will exceed US \$ 23.4 billion during 2005-06. Software and services exports are estimated to grow at 32 per cent in dollar terms during 2005-06. The Indian software and services exports has grown at a CAGR of 28 per cent during last 5 years. The industries' contribution to national GDP has risen from 1.2 per cent in 1999-2000 to a projected 4.8 per cent during 2005-06.

The total number of IT and ITES-BPO professionals employed in India is estimated to have grown from 2,84,000 in 1999-2000 to 12,87,000 in 2005-06 growing by over 2,30,000 in the last year alone. In addition, the Indian IT-ITES sector is estimated to help create an additional 3 million job opportunities both direct and induced.

INFORMATION AND BROADCASTING

The activities of Information and Broadcasting (I&B) Sector cover three areas, viz., Broadcasting (Doordarshan and All India Radio), Information and Film Sector with the functions of each complementing the other. Many means of communication deployed in the past to reach the large segment of the population either became outdated or underwent radical technological changes, and yet goals like providing the people with development information and wholesome entertainment at a minimal cost, facilitating healthy growth and competition within the sector remained as valid as ever. It is noteworthy that both DD and AIR have made substantial progress in terms of geographical and population coverage. This has necessitated a review of the challenges facing the sector and reworking of priorities for the Tenth Five-Year Plan.

Some of the policy initiatives taken by the Government are, to encourage adoption of alternative technologies that enable increased and improved access to public and private broadcasters at affordable cost for the common man and to allow setting up of Low Power Community Radio Stations in FM mode by local communities including nonprofit organisations such as Universities, NGOs, etc., for educational, cultural and economic development of the respective communities. Stress has been laid on introducing Special Packages to improve TV and Radio services in J & K and North-East States including Sikkim and Island Territories.

An outlay of Rs 5,130 crore has been approved for the I&B sector with a budgetary support of Rs 2,380 crore for the Tenth Plan.

The Annual Plan (2006-07) outlay for the sector has been kept at Rs 538.00 crore (GBS). The breakup for Broadcasting, Information and Film is Rs 469.77 crore, Rs 27.28 crore and Rs 40.94 crore, respectively. Total Budgetary support for the year 2006-07 is Rs 538.00 crore (GBS) without any IEBR support. During this plan year, an amount of Rs 10.00 crore has been earmarked for providing co-location of facilities to private broadcasters with Prasar Bharati in the field of FM broadcasting. Stress has also been laid on the development of the Children Film Society complex at Hyderabad, scheme of computerisation and modernisation for training and skill development at Satyajit Ray Film Institute, Kolkata, and ICT programme at Song and Drama Division. Enhanced fund have also been provided for the activities. In addition to this a fund of Rs 10.00 crore has been provided to modernise Jyoti Chitraban Film Studio at Guwahati.

TRANSPORT

Transport system in India comprises a number of distinct modes and services, notably railways, roads, road transport, ports, inland water transport, coastal shipping, airports and airlines. Railways and roads are the dominant means of transport carrying more than 95 per cent of the total traffic generated in the country. The transport sector has expanded manifold in the first 50 years of planned development, both in terms of spread and capacity.

Railways : Indian Railways has completed more than 150 years of service to the nation in May 2002. Railways, with a capital base of about Rs 55,000 crore and a network of about 63,000 kms route, is the principal mode of transportation for bulk freight and long distance passenger traffic. The main thrust in the Tenth Plan is on the capacity expansion through modernisation and technological upgradation of railways system, improvement in quality of service, rationalisation of tariff in order to improve the share of rail freight traffic in the total traffic and to improve safety and reliability of railway services.

Given the present growth in GDP of 8 per cent, the Railways are expected to carry about 1100 million tonnes freight traffic by the end of the Eleventh Plan. To sustain this kind of growth, it is essential to have Dedicated Freight Corridors. Therefore, it is decided to have two Dedicated Freight Corridors between Ludhiana and Son Nagar (Eastern Corridor — 1230 km) and between Mumbai (JNPT) and Tuglakabad/Dadri (Western Corridor — 1469 km) to augment the capacity of Indian Railways to handle the large increase in the coming years. These Dedicated Freight Corridors along with the strengthening of feeder routes of Indian Railways will ensure availability of sufficient capacity in the face of rising demand of transport.

Roads : Priority was accorded for improving mobility and accessibility. Providing connectivity to villages and habitations is extremely crucial to realise the objective of accessibility. Providing connectivity to villages and habitations is extremely crucial to realise the objective of accessibility. Hence, necessary priority was accorded by re-phasing the PMGSY whose target was to provide connectivity to habitations with 1000 and above by 2003 and those with a population of 500 and above by 2007 (250 + for hilly and tribal areas) — to achieve the Bharat Nirman target of connecting 1000 + habitations (500 + for hilly and tribal areas) by 2009.

Also, keeping in view the need for nationwide connectivity and increased mobility, an expanded programme for highway development as also a Special Accelerated Development Road Programme for the North Eastern Region (SARDPNE), as proposed by the Committee on Infrastructure, under the chairmanship of the Prime Minister, is being taken up with full vigour.

Besides, in order to remove deficiencies, the thrust would continue to be on construction of missing links, improvement of low-grade sections, rehabilitation and reconstruction of weak bridges, construction of bypasses and 4-laning and strengthening of weak 2-lanes.

Financing of investment for the expanded programme of highway development is a massive task. Thus, involvement of private sector for development of roads under National Highway Development Programme through Build Operate Transfer (BOT) route has been taken up in a major way. Accordingly, it has been decided that for NHBP Phase-III onwards, all contracts for provision of road services would be awarded only on BOT basis with Engineering Procurement Contracts (EPC) awards being made in specified exceptional cases only. In order to facilitate involvement of private

sector in road development programme various enabling measures have been taken by the government. A Model Concession Agreement for BOT projects has been evolved.

It is also proposed to strengthen the institutional capacity of NHAI by making it a multi-disciplinary professional body with high quality expertise.

Ports : The Ports act as transshipment point between water transport and service transport and, therefore, play a crucial role in the transportation system for facilitating international trade. There are 12 major ports and 184 minor/intermediate ports along India's 7516 km coastline. The major ports handle about 75 per cent of the port traffic of the country and remaining 25 per cent is handled by minor/State ports.

The thrust in the Tenth Plan is on creation of general and bulk cargo handling facilities with focus on container traffic and improvement in the efficiency and productivity through private sector participation by the introduction of organisational changes and rationalisation of manning scales.

Keeping in view the need for meeting the requirement of traffic efficiently and at minimum cost to the users, there is a need to formulate a perspective plan for long-term development of each major port. The augmentation of berth capacity may be preferably through private investment or public-private partnership.

In order to ensure smooth evacuation of cargo from the port and movement to the port, it has been decided that all major ports will be provided rail-road connectivity on priority.

There has been steady improvement in the port performance over the years. Traffic handled at major ports has gone up from 383.62 MT during 2004-05 to 423.42 MT during 2005-06.

Inland Water Transport (IWT) : IWT is an energy efficient, environmentally clean and economical mode of transport. India is richly endowed with waterways comprising river systems and canals. It is estimated that a total of 14544 km of waterways could be used for passenger and cargo movement. However, capacity of the sector is grossly under-utilised as most navigable waterways suffer from hazards like shallow water and narrow width of channel during dry weather, silting of river beds and erosion of banks, absence of adequate infrastructural facilities like terminals for loading and berthing and surface road links.

The thrust in the Tenth Plan is on development of infrastructure facilities with a focus on NE region and private sector participation so that there is a gradual shift of domestic cargo from rail-road modes to inland water transport.

CIVIL AVIATION

The main advantage of air transport lies in its speed. No other mode of transport can approach the aircraft in speed and travel particularly, over long distances. Aviation shrinks the planet and facilitates international commerce and trade. Aviation facilitates tourism. Strategic and Defence requirements also necessitate the provision of an efficient and reliable network of air services and airports.

The Civil Aviation sector has played an important role in India's economy. It provides fastest and reliable transport for movement of passenger and cargo traffic. The sector is broadly structured into three distinct functional entities - regulatory-cum-development, operational and infrastructure. Directorate General of Civil

Aviation and Bureau of Civil Aviation Security perform the regulatory functions, operational functions are performed by Air India Ltd., Indian Air Lines Limited, Pawan Hans Helicopters Ltd. and other scheduled/non-scheduled airlines operations and infrastructure facilities are provided by the Airport Authority of India.

The main thrust in the Tenth Plan for Civil Aviation development is to provide world-class infrastructure facilities and efficient, safe and reliable air services to meet the requirement of domestic and foreign trade and tourism. In order to ensure time bound creation of world class airports and evolve a policy and regulatory framework for Public-Private Partnership (PPP) to maximise capital inflows and efficiency the Committee on Infrastructure (CoI) under the chair of Prime Minister decided inter alia to set up a statutory regulatory body for economic regulation and dispute resolution, formulate a comprehensive national policy on civil aviation, prepare a Model Concession Agreement (MCA) to promote PPP restructure of Delhi and Mumbai airports using PPP approach and to revamp the Airport Authority of India.

Considerable headway has been made with regard to the implementation of decisions taken. The paper on economic regulatory and dispute resolution, the Civil Aviation Policy as also the MCA are in the process of being finalised. Four metro airports at Delhi, Mumbai, Chennai and Kolkata; six Greenfield airports and 35 non-metro airports would be developed.

TOURISM

The Tenth Plan recognised the vast employment generating potential of Tourism and the role it can play in furthering the socio-economic objectives of the Plan. The Travel and Tourism sector creates more jobs per million rupees of investment than any other sector of the economy and is capable of providing employment to a wide spectrum of job seekers from the unskilled to the specialised even in the remote parts of the country. Tourism is the third largest net earner of foreign exchange for the country. The new Tourism Policy envisages a framework, which is Government led, private-sector driven and oriented towards community welfare, with the Government creating the legislative framework and basic infrastructure for tourism development, the private sector providing the quality products and the community providing active support. The new policy is being achieved through five key strategic objectives, viz.: (i) positioning tourism as a national priority; (ii) enhancing India's competitiveness as a tourist destination; (iii) improving and expanding product development; (iv) creation of world class infrastructure; and (v) effective marketing plans and programmes.

India's share in international tourist arrivals was 0.34 per cent in 2002 and increased to 0.49 per cent during 2005. The increasing trend has been maintained over the last three years and international tourist arrivals touched 3.92 million in 2005. The World Travel and Tourism Council have identified India as one of the foremost growth centres in the world in the coming decade. Higher plan outlays have been provided during the Tenth Plan for development of infrastructure at tourist destinations and circuits and for effective marketing and promotion. An aggressive 'Incredible India' campaign and active participation of State Governments in promoting tourism are expected to enhance India's share of international arrivals in the coming years. Domestic tourism is estimated to be much higher than international tourism and has also been rising rapidly.

VOLUNTARY ACTION CELL

The Voluntary Action Cell (VAC) of the Planning Commission acts as a facilitator for

the Government-Voluntary Sector collaboration. VAC primarily deals with broad policy matters relating to the voluntary sector and is preparing and updating a comprehensive database on NGOs.

A Draft National Policy on the Voluntary Sector has been prepared by Planning Commission in consultation with VOs/NGOs and sent to the PMO for suggestions. A Steering Committee on voluntary sector for 11th Five-Year Plan (2007-12) has been constituted. VAC has coordinated five Regional Consultations with NGOs on the Draft Approach Paper to the 11th Five-Year Plan.

ENVIRONMENT AND FORESTS

Cleaning of major rivers by 2007 is one of the monitorable targets under the Tenth Plan. With a view to improve the water quality of major rivers in the country under the National River Conservation Plan (NRCP), various activities are being undertaken during the Tenth Plan. NRCP presently, includes river pollution abatement works in 157 towns along 31 polluted stretches of rivers spread over 18 states. For 2005-06, the target under NRCP was creation of 564.43 million litres per day (MLD) of STP capacity to be created through commissioning of 33 STPs. The achievement was indicated as 311.94 MLD of STP capacity created through commissioning of 13 STPs.

The target of increasing the existing 23.68 per cent tree/forest cover of the country to 25 per cent is another monitorable target in the Tenth Five-Year Plan. Bio-diesel Mission, mooted as one of the measures towards this objective, involves cultivation of non-edible oil-seeds including *Jatropha* in wastelands for production of bio-diesel and subsequent blending with petro-diesel. Planning Commission has mooted this Mission that would start with 5 per cent blending of bio-diesel with petro-diesel which would be later expanded to reach 20 per cent level. The project is being implemented by the Ministry of Rural Development (Nodal Ministry). The Ministry in 2005-06 took steps to get EFC approval for spending Rs. 50 crore for planting about 18 crore *Jatropha* saplings in about 8000 ha spread over 9 States. Subsequently, the Mission would be extended to other States also. The Mission would create employment in rural areas and greening created will be entitled for emission trading under Kyoto Protocol.

The MoEF has been streamlining the procedure to bring all forest fringe villages under the ambit of the Joint Forest Management (JFM) Scheme. The MoEF provides assistance for afforestation activities through JFM under the Centrally Sponsored Scheme—National Afforestation Programme (NAP) which includes JFM Committees. 28 States have adopted JFM so far. Till 31 July 2005, about 20.11 million hectares of forest area had been brought under 99,708 JFMCs.

The proposed National Bamboo Mission envisages promotion of cultivation, processing of bamboo and manufacturing of high and modern products for large-scale use in housing, transport and other industries. Full Planning Commission has recently approved a CSS for this purpose at an estimated cost of Rs 600 crore to be implemented through the Ministry of Agriculture. This will create employment/livelihood opportunities from cultivation and value addition of bamboo at community level apart from providing wood substitution by bamboo products.

PEO

The Programme Evaluation Organisation (PEO) undertakes evaluation of selected programmes/schemes under implementation, as per requirements of the Planning

Commission and Ministries/Departments of Government of India. The evaluation studies are designed to assess the performance, process of implementation, effectiveness of the delivery system and impact of programmes. The PEO also provides technical guidance and assistance to various Ministries in evaluating the on-going programmes. It also shares its experience in development evaluation with various government agencies through training programmes, seminars, scrutiny of research proposals and other modes of interactions. The PEO has so far conducted 195 studies/activities, and there are 17, ongoing prioritised studies.

PROGRAMME IMPLEMENTATION

MONITORING OF INFRASTRUCTURE SECTORS

The Infrastructure and Project Monitoring Division (IPMD) in the Ministry of Statistics and Programme Implementation monitors the performance of the country's eleven key infrastructure sectors, namely, Power, Coal, Railways, Shipping and Ports, Telecommunications, Cement, Fertilisers, Petroleum, Road and Civil Aviation. It prepares and submits monthly Review Reports and Capsule Reports on the performance of infrastructure sectors, *inter-alia*, to the Prime Minister's Office and the Cabinet Secretariat. The growth rate in respect of each infrastructure sector since 1997-98 and the production/achievement during 2005-06 is given in table 22.1

MONITORING OF TWENTY-POINT PROGRAMME

The Twenty-Point Programme (TPP) was conceived for coordinated and intensive monitoring of a number of schemes implemented by the Central Government and the State Governments with the objective of improving the quality of life of the people, especially those living below the poverty-line. It was meant to give a thrust to schemes relating to poverty alleviation, employment generation in rural areas, housing, education, family welfare and health, protection of environment and many other schemes having a bearing on the quality of life in the rural areas. The programme was initiated in the year 1975 and restructured in 1982 and again in 1986.

The present programme, known as TPP-86, comprises 20 Points containing 119 items. Out of which 54 are monitored on the basis of evaluatory criteria and 65 704 India 2008 against pre-set physical targets. Of the later, 20 important items have been selected for monitoring on a monthly basis. The targets are fixed by the administrative Ministries at the Centre in consultation with the State Governments/Union Territory Administrations.

MONITORING DESIGN AT THE CENTRE

At the Central Government level, the progress is monitored and reviewed both by the Departments/Ministries concerned and the Ministry of Statistics and Programme Implementation (MOSPI). While the administrative Ministries monitor the specific schemes they are responsible for, this Ministry monitors the whole gamut of the schemes included in the Programme.

The Ministry brings out Monthly Progress Report (MPR) on Twenty-Point Programme in respect of 20 selected items. The report covers achievements vis-a-vis pre-set physical targets for these items. The States are ranked on the basis of their performance in respect of 12 key items out of the 20 items chosen for monthly monitoring.

The Ministry also brings out a Monthly Capsule Report and an Yearly Review Report on Twenty-Point Programme. The Capsule Report contains highlights of the Monthly Progress whereas the Yearly Review Report contains information on all the items covered under Twenty-Point Programme.

The performance of the monthly monitoring items under the Twenty-Point Programme for the last three years, i.e., 2003-04, 2004-05 and 2005-06 is given in the table 22.2.

MEMBER OF PARLIAMENT LOCAL AREA DEVELOPMENT SCHEME

The Member of Parliament Local Area Development Scheme (MPLADS) was launched on 23 December 1993, to enable Members of Parliament to recommend works for creation of fixed community assets, based on locally felt developmental needs. The Scheme is governed by a set of guidelines, which have been comprehensively revised and issued in November 2005.

Some of the salient features of the scheme are enumerated below :

- Works which are developmental in nature, based on locally felt needs and always available for public use at large, are eligible under the scheme.
- The Members of Parliament have a recommendatory role under the Scheme. The MPs recommend their choice of works to the concerned District Authorities who get them implemented by following the established procedure of the concerned State Government.
- Examining the eligibility, sanctioning, funding, selection of implementing agencies, prioritisation and overall execution, monitoring of the scheme at the ground level, is done by the district authorities.
- The Lok Sabha Members can recommend works in their respective constituencies. The elected members of Rajya Sabha can recommend works anywhere in the State from which they are elected. Nominated Members of the Lok Sabha and Rajya Sabha may select works for implementation anywhere in the country.
- The funds released under the scheme are non-lapsable, i.e., the liability of funds not released in a particular year is carried forward for making releases in the subsequent years subject to eligibility. The annual entitlement per MP is at present Rs. 2 crore.
- Important items of works like drinking water, education, public health, and funds for development of SC/ST are given priority.
- There is no limit for a work to be executed by Government Agencies. There is a ceiling of Rs. 25 lakh for the works of Trust/Societies.
- The maximum limit for rehabilitation of work in the affected areas by severe calamities is now Rs. 50 lakh.
- In order to give special attention to Development of areas inhabited by Scheduled Castes and Scheduled Tribes, 15 per cent of MPLADS funds would be utilised for areas inhabited by SC population and 7.5 per cent for areas inhabited by ST population.
- The role of Panchayati Raj Institutions and Urban Local Bodies as the implementing Agency is now stressed.
- Release of Rs. 1 crore in respect of MPs at the time of constitution of Lok Sabha

and election to the Rajya Sabha is done automatically without waiting for a monthly progress report.

- To bring in more financial accountability, a Utilisation Certificate for the previous financial year and the Audit Certificate for the funds released in the year prior to the previous year are also prerequisites for the release of the second instalment. Release of first instalment is made on the basis of the release of second instalment of previous year having been made.
- The normal financial and audit procedures prevalent in the states in which the works are executed apply with regard to the implementation of the works.

Since its inception, the Scheme has immediately benefited the local community by meeting their various developmental needs such as drinking water facility, education, electricity, health and family welfare, irrigation, non-conventional energy, community centres, public libraries, bus stands/stops, roads, pathways and bridges, etc.

As on 31 March 2006, Rs 14,923.70 crore has been released, since the inception of the Scheme. As reported from the Districts, an expenditure of Rs 13,301.12 crore has been incurred. The percentage utilisation over release is 89.13. A total of 9,04,955 works have been sanctioned and 8,00,973 works have been completed, as on 31 March 2006, since the inception of the scheme. Percentage of works completed as sanctioned is 88.50.

MPLADS performance has improved due to pro-active policy initiatives, focused monitoring and review. The substantial achievement in scheme performance from April 2004 till March 2006 is as under :

- There has been a remarkable improvement in the utilisation of funds. Percentage utilisation over release has risen to 89.13 from 82.18 as on 31 March 2004.
- There has been a reduction of Rs 470.57 crore in the unspent balance, due to policies towards financial discipline.
- Substantial increase in the number of works completed has been achieved. The percentage of works completed to the sanctioned has increased to 88.50 from 80.14 as on 31 March 2004.

TABLE 22.1 : ANNUAL GROWTH RATE OF INDUSTRIAL INFRASTRUCTURE SECTORS

S.No.	Sector	Growth Rate (in %age)										Actuals (2005-06)
		1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06		
		per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	
06)												
1.	Power	6.6	6.6	7.1	3.9	3.1	3.2	5.0	5.2	4.8	615.75	(BU)
2.	Coal	3.6	-2.0	3.0	3.6	4.2	4.4	5.6	6.1	6.4	401.52	(MT)
3.	Finished Steel	0.6	-1.5	12.5	6.7	4.3	9.2	13.7	7.6	6.0	44.78	(MT)
4.	Railway Revenue Earning Freight Traffic	5.0	-2.0	8.4	3.7	4.0	5.3	7.5	8.1	10.7	667.39	(MT)
5.	Cargo Handled at Major Ports	10.6	0.1	8.0	3.4	2.4	9.0	10.0	11.3	10.3	423.41	(MT)
6.	Telecommunications:											
	a) Addition in Switching Capacity	13.0	36.1	40.2	6.4	-2.6	-35.6	0.1	49.8	85.8	12475.29	(000 Lines)
	b) Telephone Connections	27.1	16.4	29.7	20.5	-4.7	-39.8	148.8	-17.7	123.3	15546.47	(000 Nos.)
	c) Cell Phone connections	N.A.	N.A.	N.A.	N.A.	N.A.	119.2	115.3	10.4	89.4	28172.37	(000 Nos.)
7.	Fertilizers	17.1	3.7	4.8	2.9	-0.5	-1.1	-1.4	8.0	0.8	15.52	(MT)
8.	Cement	9.1	5.6	14.0	-2.8	9.5	8.8	6.1	8.2	10.7	147.81	(MT)
9.	Petroleum											
	a) Crude Oil	2.8	-2.8	-2.2	1.5	-1.2	3.2	1.0	1.8	-5.3	32.20	(MT)
	b) Refinery	3.6	5.2	25.3	20.3	3.7	4.9	8.2	4.3	2.1	129.84	(MT)
10.	Civil Aviation											
	a) Export Cargo handled	-0.2	-4.4	10.8	5.1	4.1	13.3	1.0	12.4	7.3	466659	(Tonnes)
	b) Import Cargo handled	1.4	-2.4	16.2	3.6	-1.0	18.6	13.4	24.4	15.8	319010	(Tonnes)
	c) Passengers handled at International Terminals	3.1	0.0	0.0	4.6	-5.0	4.8	6.5	14.0	12.8	168.44	(Lakh No.)
	d) Passengers handled at Domestic Terminals	-2.8	0.9	7.5	7.7	-5.7	9.6	13.1	23.6	27.1	302.63	(Lakh No.)
11.	Roads											
	a) Upgradation of Highways	-3.4	47.6	68.6	32.9	1.1	53.5	-16.6	16.1	-23.4	5296	(Kms.)
	b) Rehabilitation/construction of bridges	-62.5	137.5	82.5	28.8	-8.2	16.3	-14.0	-14.6	-5.7	9.9	(Nos.)

BU - Billion Units MT - Million Tonnes * Provisional

Source : C.S.O., M/o Statistics & P.I.

TABLE 22.2 : ALL INDIA PERFORMANCE OF 20-POINT PROGRAMME
From 2003-2004 to 2005-2006

Sl. No.	Point Items 2005-06	Unit	2003-04					2004-2005				
			Target	Achieve- ment	%	Target	Achieve- ment	%	Target	Achieve- ment	%	
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	01B	Sampoorna Gramin Rozgar Yojana @ Lakh Mandays			7523.6	-	-	7904.0	-	-	7294.1	-
2.	05A	Distribution of Surplus Land	000 Acre	17.6	24.0	136.4	17.6	36.3	206.3	20.0	54.1	270.5
3.	07A	Drinking Water Supply (Villages/Habitations)	000 Nos.	111.1	40.8	36.7	74.9	73.1	97.6	56.3	93.1	165.6
4.	08A	Community Health Centres (CHC)	Nos.	575.0	148.0	25.7	514.0	64.0	12.5	575.0	397.0	69.0
5.	08B	Primary Health Centres (PHC)	Nos.	406.0	41.0	10.1	406.0	423.0	104.2	406.0	475.0	117.0
6.	08D	Immunisation of Children (DPT, Polio & BCG)	Lakh Nos.	253.5	274.1	108.1	256.9	292.2	113.7	258.0	260.3	100.9
7.	09C	ICDS Blocks Oprl. (Cum.)	Nos.	5132.0	5263.0	102.6	5652.0	5419.0	95.9	5652.0	5747.0	101.7
8.	09D	Anganwadies Oprl. (Cum.)	000 Nos.	673.0	640.8	95.2	743.2	706.6	95.1	754.8	760.3	100.7
9.	11A	SC Families Assisted	000 Nos.	2400.0	2559.4	106.6	2490.5	2811.2	112.9	2470.0	3257.6	131.9
10.	11B	ST Families Assisted	000 Nos.	1117.0	1411.0	126.2	1116.6	1563.3	140.0	1131.6	1873.1	165.5
11.	14C	Indira Awaas Yojana	000 Nos.	1484.6	1198.1	80.7	1562.4	1420.6	90.9	1441.2	1414.7	98.2
12.	14D	EWS Houses Provided	000 Nos.	58.2	58.2	100.0	50.2	52.4	104.4	43.4	104.6	241.0
13.	14E	LIG Houses	000 Nos.	6.8	12.8	188.2	16.9	22.3	132.0	24.4	21.8	89.3
14.	15	Slum Improvement (Population)	000 Nos.	3670.5	4991.1	136.1	5197.6	6170.6	118.7	1521.7	1626.1	106.9
15.	16A	Tree Plantation	Lakh Nos.	8622.0	7611.4	88.3	12923.6	9076.1	70.2	12560.0	10265.3	81.7
16.	16B	Area to be covered (Under Pln.) Public & Forest Lands	000 Hect.	1071.7	844.4	78.8	1477.9	1126.1	76.2	1629.5	1485.6	91.2
17.	19A	Villages Electrified	Nos.	24011.0	5475.0	22.8	23860.0	8499.0	35.6	20084.0	14058.0	70.0
18.	19B	Pump Sets Energised	000 Nos.	217.07	231.08	106.8	212.2	287.9	135.7	386.6	311.0	80.4
19.	19C	Improved Chullahs @	000 Nos.	-	78.1	-	-	64.9	-	-	80.4	-
20.	19D	Bio-gas Plants	000 Nos.	133.0	117.3	88.2	80.1	88.4	110.4	20.2	52.3	259.0

@ The Schemes do not have any physical targets.
Source : C.S.O., M/o Statistics & P.I.

24 Rural Development

INTEGRATED development of rural areas is one of the abiding tasks before the Government of India. The National Common Minimum Programme (NCMP) of the Central government reiterates the cardinal importance of villages to the overall development of the country and commits to work towards development of rural areas, which for various reasons could not keep pace with urban areas in the past.

In conformity with this commitment of the Government, the Ministry of Rural Development accords foremost priority to development in rural areas and eradication of poverty and hunger from the face of rural India. A number of initiatives have been taken in the recent years for creation of social and economic infrastructure in rural areas to bridge the rural-urban divide as well as to provide food security and fulfil other basic needs of the rural populace.

The renewed emphasis on rural development is also visible in the commensurate progressive increase in the allocation of resources for implementation of poverty alleviation programmes. For the Tenth Five Year Plan, the allocation of funds for rural development programmes has been enhanced to Rs. 76,774 crore as against Rs. 42,874 crore in Ninth Plan.

Addressing the challenge of unemployment in the rural areas of the country is central to the development of rural sector for ameliorating the economic condition of the people. Wage employment is provided in rural areas under National Rural Employment Guarantee Act (NREGA) and Sampoorna Grameen Rozgar Yojana (SGRY) whereas self-employment is provided under Swarnajayanti Gram Swarozgar Yojana (SGSY). Besides generating employment these wage employment schemes also ensure creation of durable assets in rural areas. Initiatives are also taken by the Ministry to build and upgrade the basic rural infrastructure through various schemes. Under Pradhan Mantri Gram Sadak Yojana (PMGSY) construction and repairing of rural roads are taken up to ensure rural connectivity. It is expected under the scheme that an expanded and renovated rural road network will lead to an increase in rural employment opportunities, better access to regulated and fair market, better access to health, education and other public services so as to accelerate the pace of economic growth in rural areas. Similarly basic amenities for housing, drinking water and toilets, etc. are provided under Indira Awaas Yojana (IAY), Accelerated Rural Water Supply Programme (ARWSP) and Total Sanitation Campaign (TSC) to enhance the welfare and well-being of the vulnerable sections of rural population. Area Development is encouraged through Watershed Programmes to check the diminishing productivity of waste land and loss of natural resources.

NATIONAL RURAL EMPLOYMENT GUARANTEE ACT

Implemented by the Ministry of Rural Development, National Rural Employment Guarantee Act (NREGA) is the flagship programme of the Government that directly touches lives of the poor and promotes inclusive growth. The Act aims at enhancing livelihood security of households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

The Act came into force on February 2, 2006 and was implemented in a phased manner. In Phase one it was introduced in 200 of the most backward districts of the country. It was implemented in an additional 130 districts in Phase two 2007-2008. As per the initial target, NREGA was to be expanded countrywide in five years. However, in order to bring the whole nation under its safety net and keeping in view the demand, the Scheme was extended to the remaining 274 rural districts of India from April 1, 2008 in Phase III.

NREGA is the first ever law internationally, that guarantees wage employment at an unprecedented scale. The primary objective of the Act is augmenting wage employment. Its auxiliary objective is strengthening natural resource management through works that address causes of chronic poverty like drought, deforestation and soil erosion and so encourage sustainable development. The process outcomes include strengthening grassroot processes of democracy and infusing transparency and accountability in governance.

With its rights-based framework and demand driven approach, NREGA marks a paradigm shift from the previous wage programmes. The Act is also a significant vehicle for strengthening decentralization and deepening processes of democracy by giving a pivotal role to the Panchayati Raj Institutions in planning, monitoring and implementation. Unique features of the ACT include, time bound employment guarantee and wage payment within 15 days, incentive-disincentive structure to the State Governments for providing employment as 90 per cent of the cost for employment provided is borne by the Centre or payment of unemployment allowance at their own cost and emphasis on labour intensive works prohibiting the use of contractors and machinery. The Act also mandates a 33 percent participation for women.

Over the last two years, implementation trends vindicate the basic objective of the Act.

Increasing Employment Opportunities: In 2007-08, 3.39 crore households were provided employment and 143.5 crore persondays were generated in 330 districts. In 2008-2009, upto July, 253 crore households have been provided employment and 85.29 crore persondays have been generated.

Enhancing Wage Earning and Impact on Minimum Wage: The enhanced wage earnings have lead to strengthening of the livelihood resource base of the rural poor in India; in 2007-2008, more than 68% of funds utilised were in the form of wages paid to the labourers. In 2008-2009, 73% of the funds have been utilized in the form of wages.

Increasing Outreach to the poor: Self targeting in nature, the Programme has high works participation of marginalized groups like SC/ST (57%), women (43%) in 2007-2008, In 2008-2009, upto July, the participation is SC/ST (54%) and women (49%)

Strengthening Natural Resource Base of Rural India: In 2007-08, 17.88 lakh works have been undertaken, of which 49% were related to water conservation. In 2008-2009, upto July, 16.88 lakh works have been undertaken, of which 49% are related to water conservation.

Financial Inclusion of the poor: The Central government has been encouraging the state governments to make wage payment through bank and post office accounts of wage seekers. Thus far, 2.9 crore (upto July '08) NREGA bank and post office accounts have been opened to disburse wages. The Ministry is also encouraging the NREGA workers to obtain insurance under Jan Shri Bima Yojana.

Initial evidence through independent studies indicates enhancement of agricultural productivity (through water harvesting, check dams, ground water recharging, improve moisture content, check in soil erosion and micro-irrigation), stemming of distress migration, increased access to markets and services through rural connectivity works, supplementing household incomes, Increase in women workforce participation ratios and the regeneration of natural resources.

The vision of the Ministry is enabling NREGA become a transformative vehicle of empowering local communities to enhance their livelihood security. The Ministry has taken several steps to ensure the Scheme is implemented effectively like encouraging decentralized participatory management, improving delivery systems and public accountability.

The Rozgar Jagrookta Puruskar award has been introduced to recognize outstanding Contributions by Civil society Organizations at State, District, Block and Gram Panchayat levels to generate awareness about provisions and entitlements and ensuring compliance with implementing processes.

Building Capacity to implement a demand driven scheme

- (a) To strengthen the capacity and give priority to the competencies required for effective planning, work execution, public disclosure and social audits the Ministry has been conducting training for NREGA functionaries, Thus far, 6.2 lakh PRI functionaries and 4.82 lakh vigilance and monitoring committees have been trained (upto July'08). The Central Government is also providing technical support in key areas of communication, training, work planning, IT, social audits and fund management at all levels of implementation to the state governments.

Using IT for reaching out and inclusion:

Web enabled *Management Information System (MIS)* is one of the largest data base rural households through their engagement in NREGA. MIS places all critical parameters such as shelf of projects, sanctioned works, wage payments, number of days of employment provided and works under execution on line for easy public access. The data engineered software has been designed for cross verification of records and generation of alerts to support proactive response by management.

Evolving processes for transparency and public accountability:

Monitoring and Evaluation: The Ministry has set up a comprehensive monitoring system. This year, 260 National Level Monitors and Area Officers have undertaken field visits to each of the 330 Phase I and Phase II districts atleast once.

For effective monitoring of the projects 100% verification of the works at the Block level, 10% at the District level and 2% at the State level inspections need to be ensured.

Road Map for Further Strengthening of NREGA

Setting up of the Task force on Convergence: In order to optimize the multiplier effects of NREGA, the Ministry has set up a Task Force to look at the possibility of convergence of programmes like National Horticulture Mission, Rashtriya Krishi vikas Yojana, Bharat Nirman, Watershed Development with NREGA. These convergence efforts will add value to NREGA, works and aid in creating durable efforts and also enable planned and coordinated public investments in rural areas.

SAMPOORNA GRAMEEN ROZGAR YOJANA

The Sampoorna Grameen Rozgar Yojana (SGRY) was launched on 25 September, 2001 by merging the on-going schemes of EAS and the JGSY with the objective of providing additional wage employment and food security, alongside creation of durable community assets in rural areas. The programme is self-targeting in nature with provisions for special emphasis on women, scheduled castes, scheduled tribes and parents of children withdrawn from hazardous occupations. While preference is given to BPL families for providing wage employment under SGRY, poor families above the poverty line can also be offered employment under NREGA.

The annual outlay for the programme is Rs.10,000 crore which includes 50 lakh tonnes on food grains. The cash component is shared between the Centre and the States in the ratio of 75:25. Food grains are provided free of cost to the States/UTs. The payment of food grains is made directly to FCI at economic cost by the Centre. However, State Governments are responsible for the cost of transportation of food grains from FCI godown to work-site/PDS shops and its distribution. Minimum wages are paid to the workers through a mix of minimum five kg of food grains and at least 25 per cent of wages in cash.

The programme is implemented by all the three tiers of Panchayati Raj Institutions. Each level of Panchayat is an independent unit for formulation of Action Plan and executing the scheme. Resources are distributed among District Panchayats, Intermediate Panchayats and the Gram Panchayats in the ratio of 20:30:50.

The Gram Panchayats can take up any work with the approval of the gram sabha as per their felt need and within available funds. Fifty per cent of the funds earmarked for the gram panchayats are to be utilised for infrastructure development works in SC/ST localities. 22.5 per cent resources must be spent on individual beneficiary schemes meant for SCs/STs out of the resource share of District Panchayats and Intermediate Panchayats. Contractors are not permitted to be engaged for execution of any of the works and no middlemen/intermediate agencies can be engaged for executing works under the scheme. The programme is regularly monitored.

NATIONAL FOOD FOR WORK PROGRAMME

The National Food for Work Programme was launched in November 2004 in 150 most backward districts of the country, identified by the Planning Commission in consultation with the Ministry of Rural Development and the State governments.

The objective of the programme was to provide additional resources apart from the resources available under the Sampoorna Grameen Rozgar Yojana (SGRY) to 150 most backward districts of the country so that generation of supplementary wage employment and providing of food-security through creation of need based economic, social and community assets in these districts are further intensified. The scheme was 100 per cent Centrally sponsored. The programme has since been subsumed in National Rural Employment Guarantee Act which has come in force in 200 identified districts of the country including 150 NFFWP districts. The Act provides 100 days of work guarantee to every rural household whose members volunteer to do unskilled manual work.

PRADHAN MANTRI SADAK YOJANA

The Pradhan Mantri Gram Sadak Yojna (PMGSY) was launched on 25 December 2000 as a fully funded Centrally Sponsored Scheme. The primary objective of the PMGSY is to provide connectivity to all the eligible unconnected habitations of more than 500 persons in the rural areas (250 persons in the hilly and desert areas) by good quality all-weather roads.

Under Bharat Nirman, goal has been set to provide connectivity to all the habitations with population of more than 1000 in the plain areas and habitations with a population of 500 or more in hilly and tribal areas in a time-bound manner by 2009. The systematic upgradation of the existing rural road networks is also an integral component of the scheme. Accordingly, an Action Plan has been prepared for connecting 66,802 habitations with 1,46,185 km of all-weather roads. This Action Plan also envisages upgradation/renewal of 1,94,130 km of the existing rural road network. Subsequently, based on ground verification by States, 62,985 habitations were found eligible to be connected under the programme, out of which 3421 habitations have been connected under other schemes. Thus, the revised target is to connect 59,564 habitations. It is estimated that an investment of about Rs.48,000 crore would be required for achieving the targets under Bharat Nirman. The implementation strategy focuses on quality, cost management and 'on time' delivery.

Up to July, 2008, project proposals amounting to Rs. 81,717 crore have been approved against which a sum of Rs. 38,499 crore has been released for 86,146 roads covering a length of 3,31,736 km. Against these, 52,218 road works having road length of 1,75,629 km have been completed with a cumulative expenditure of Rs. 35,295 crore.

RURAL HOUSING

Housing is one of basic requirements for human survival. For a shelterless person, possession of a house brings about a profound social change in his existence, endowing him with an identity, thus integrating him with his immediate social milieu.

The Ministry of Rural Development is implementing Indira Awaas Yojana (IAY) with a view to providing financial assistance to the rural poor living below poverty line for construction of pucca house. The details of the scheme along with its performance are given below:

INDIRA AWAAS YOJANA (IAY)

The Government of India is implementing Indira Awaas Yojana (IAY) since the year 1985-86 to provide financial assistance for construction / upgradation of dwelling units to the below poverty line (BPL) rural households belonging to the scheduled castes, scheduled Tribes and freed bonded labourers categories. From the year 1993-94, the scope of the scheme was extended to cover non-Scheduled Castes and Scheduled Tribes rural BPL poor, subject to the condition that the benefits to non-SC/ST would not be more than 40% of the total IAY allocation. The benefits of the Scheme have also been extended to the families of ex-servicemen of the armed and paramilitary forces killed in action, 3% of the Houses are reserved for the rural Below Poverty Line physically and mentally challenged persons, From 2006-07 onward, funds and physical targets under IAY are also being earmarked for BPL minorities in each state.

Under the scheme, financial resources are shared between the centre and the states on a 75 : 25 basis. Since, reduction of shelterlessness is the primary objective, 75% weightage is given to housing shortage and 25% to the poverty ratios prescribed by Planning Commission for state level allocation. For district level allocation, 75% weightage is given again to housing shortage and 25% to SC/ST population of the concerned districts.

On the basis of allocations made and targets fixed, district Rural development Agency (DRDAs)/Zilla Parishada (ZPs) decide Panchayat-wise number of houses to be constructed under IAY and intimate the same to the concerned Gram Panchayat. Thereafter, the Gram Sabha selects the beneficiaries, restricting its number to the target allotted, from the list of eligible households from the Permanent IAY Waitlists. No further approval of the higher authority is required.

The ceiling on construction assistance under the IAY has been enhanced w.e.f. 1.4.2008, Rs. 25, 000/- to Rs. 35,000/- per unit in the plain areas and from Rs. 27,500/- to Rs. 38,500/- in hilly/difficult areas. For upgradation of kutch house, the financial assistance has also been enhanced from Rs. 12,500/- to Rs. 15,000/- per unit. In addition, the Reserve Bank of India has been requested by the Ministry of Finance to include IAY houses under the Differential Rate of Interest (DRI) scheme for lending upto Rs. 20,000 per unit at an interest rate of 4%.

Further, the dwelling units should invariably be allotted in the name of a female member of the beneficiary household. Alternatively, it can be allotted in the name of both husband and wife. Only in case there is no eligible female member in the family, the house can be allotted in the name of an eligible male member.

The Sanitary latrine and smokeless chullah and proper drainage are required for each IAY house. Latrine could be constructed separate for the IAY house on the site of beneficiary.

The construction of the houses is the sole responsibility of the beneficiary. Engagement of contractor is strictly prohibited.

No specific type design has been stipulated for an IAY house. Choice of design, technology and materials for construction of an IAY house is the sole discretion of the beneficiaries.

About 181.51 lakh houses have been constructed under IAY since inception of the Scheme with an expenditure of Rs. 36900.41 crores (upto 31/5/2008)

Performance during the year 2007-08

During 2007-08, the Central allocation for Rural Housing was Rs. 40322.70 crore. The target for construction/upgradation of IAY houses was 21.27 lakh. Against this target, 19.88 lakh houses were constructed/upgraded by incurring an amount of Rs. 5458.01 crores (including State share).

Performance during the year 2008-09

The Central allocation for 2008-09 under the IAY is Rs. 56.45.77 crore for the target of constructing/upgrading 21.27 lakh IAY houses. Out of this, an amount of Rs. 1694.48 crore has been released as part of first instalment and 85879 houses have been constructed so far, (upto 31/5/2008).

Bharat Nirman

Rural Housing is also a one of the six component of Bharat Nirman. Under Bharat Nirman, 60 lakh houses are to be constructed under the Scheme of Indira Awaas Yojana in four years w.e.f 2005-06 to 2008-09. 50.38 lakh houses have been constructed during first three years of the Bharat Nirman Programme period with an expenditure of Rs. 13365.52 crore. The year-wise construction of houses are given below:

Year	Target (in lakh)	Houses constructed (in lakh)	Expenditure (Rs. in crore)
2005-06	14.41	15.51	3654.09
2006-07	15.33	14.98	4253.42
2007-08	21.27	19.88	5458.01
Total	50.71	50.38	13365.52

SWARNAJAYANTI GRAM SWAROZGAR YOJANA

The Swarnjayanti Gram Swarozgar Yojana (SGSY) was launched as an integrated programme for self-employment of the rural poor with effect from 1 April 1999. The objective of the scheme is to bring the assisted poor families above the poverty line by organising them into Self Help Groups (SHGs) through the process of social mobilisation, their training and capacity building and provision of income generating assets through a mix of bank credit and government subsidy. The scheme emphasizes establishment of activity clusters through selection of key activities based on aptitude and skill of the people, availability of resources and market potentiality. The scheme adopts a process approach and attempts to build the capacities of the rural poor. It provides for involvement of NGOs/CBOs/Individuals/Banks and/Self Help Promoting Institutions in nurturing and development of SHGs, including skill development. The scheme provides for the cost of social intermediation and skill development training based on the local requirement. Flexibility has been given to the DRDAs/States in the utilisation of funds for training, sanction of Revolving Fund, subsidy for economic activity based on the stage of development of groups.

The focus of the programme is on establishing a large number of micro-enterprises in rural areas based on the ability of the poor and potential of each area, both land-based and otherwise, for sustainable income generation. Due emphasis is being laid on different components such as capacity building of the poor, skill development training, credit training, technology transfer, marketing and infrastructure. The subsidy allowed under the SGSY is 30 per cent of the total project cost, subject to a ceiling of Rs 7,500 (for SC/STs and disabled persons subsidy limit is 50 per cent of the project cost subject to a ceiling of Rs 10,000). For Self-Help Groups (SHGs), subsidy would be 50 per cent of the project cost subject to a ceiling of Rs. 1.25 lakh or per capita subsidy of Rs. 10,000, whichever is less. There is no monetary ceiling on subsidy for minor irrigation projects for SHGs as well as individual swarozgaris.

The SGSY has a special focus on the vulnerable groups among the rural poor. SC/STs account for at least 50 per cent, women 40 per cent and the persons with physical disability constitute 3 per cent of the Swarozgaris respectively. The SGSY seeks to promote multiple credits rather than a one-time credit injection.

The SHGs may consist of 10-20 members in case of minor irrigation, and in case of disabled persons and difficult areas, i.e. hilly, desert and sparsely populated areas, this number may be a minimum of five. Self Help Groups should also be drawn from the BPL list approved by the Gram Sabha. The SHGs broadly go through three stages of evolution such as group formation, capital formation through the revolving fund and skill development and taking up of economic activity for income generation.

Selection could be made up to 10 key activities per block based on local resources, occupational skills of the people and availability of market so that the Swarozgaris can draw suitable incomes from their investment. Under SGSY each block should concentrate on 4-5 selected key activities and attend to all aspects of these activities in a cluster approach, so that swarozgaris can draw sustainable income from their investments. The scheme lays special emphasis on development of swarozgaris through well designed training courses tailored to the activities selected and the requirement of each swarozgari. SGSY is being implemented through the District Rural Development Agencies (DRDAs), with active involvement of panchayati raj institutions, banks and NGOs. It is financed on 75:25 cost-sharing basis between the Centre and the states.

Since the inception of the programme 22.52 lakh Self-Help Groups (SHGs) have been formed covering 66.97 lakh swarozgaris. These include 35.54 lakh members of the SHGs and 31.43 lakh individual Swarozgaris who have been assisted with a total investment of Rs. 14403.73 crore. Out of total Swarozgaris assisted, SCs/STs were 45.54 per cent and women 47.85 per cent. During 2006-2007 the Central allocation for the scheme was Rs.1200 crore.

NATIONAL SOCIAL ASSISTANCE PROGRAMME

Article 41 of the Constitution of India directs the State to provide public assistance to its citizens in case of unemployment, old age, sickness and disablement and in other cases of undeserved want within the limit of its economic capacity and development. In accordance with the Directive Principles of State Policy, the Government of India introduced in 1995 the National Social Assistance Programme (NSAP) to lay foundation to a National Policy for Social Assistance for the poor. The NSAP aims at ensuring minimum national standard for social assistance in addition to the benefits that state are currently providing or might provide in future. At present NSAP comprises Indira Gandhi National Old Age Pension Scheme (IGNOAPS), National Family Benefit Scheme (NFBS) and Annapurna.

Under IGNOAPS which was launched on 19th November, 2007, Rs. 200 per month per beneficiary is provided by way of central assistance to all persons who are 65 years of higher and belonging to a family living below the poverty line. Earlier under National Old Age Pension Scheme (NOAPS), the pension was restricted to destitutes only. The number of beneficiaries under IGNOAPS is estimated to reach 160 lakh persons as compared to 87 lakh under NOAPS.

The amount of old age pension was increased from Rs. 75 to Rs. 200 per month with effect from 1st April 2006 and the States were urged to contribute at least another Rs. 200 so that an old age pension beneficiary could get at least Rs. 400 per

month. At present 25 States/UTs are providing pension which is more than Rs. 200 per month.

Annapurana Scheme was introduced on 1st April 2000 to provide 10 Kgs of food grains per month free of cost to eligible beneficiaries who could not be covered under NOAPS, Under NFBS, Rs. 10000 is provided to a BPL family in case of natural or accidental death of a primary bread winner in the family while in the age group of 18 to 64 years.

The annual requirement of funds under NSAP at present is Rs. 4200 crore per annum which includes Rs. 3800 crore for old age pension and Rs. 400 crore for National Family Benefit Scheme. After transfer of the Schemes under NSAP to State Plan in 2002-03, funds are released as Additional Central Assistance (ACA) by the Ministry of Finance. The implementation of Programme is monitored by the Ministry of Rural Development.

DRDA ADMINISTRATION

A Centrally-sponsored scheme, District Rural Development Agency (DRDA) administration was launched on 1 April 1999 with the objective of strengthening the DRDAs and making them more professional in their functioning. The funding pattern of the DRDA administration is in the ratio of 75:25 between the Centre and the States. During 2007-2008 the revised estimate for DRDA administration was Rs. 250 crore and the whole amount was also released. In 2008-09 a budget provision of Rs. 250 crore had been made for the scheme.

CAPART

The Council for Advancement of People's Action and Rural Technology (CAPART) is an autonomous organisation under the Ministry of Rural Development. It was set up in September 1986, as a supporting and funding agency for the voluntary organisations. Its primary objective is to promote voluntary action through community participation and to propagate appropriate rural technologies for the benefit of rural masses. It has a network of regional centres at Jaipur, Lucknow, Ahmedabad, Bhubaneswar, Patna, Chandigarh, Hyderabad, Guwahati and Dharwad. The regional committees are empowered to sanction projects up to an outlay of Rs. 25 lakh in their respective regions. The Budget allocation for CAPART during the year 2006-07 was Rs. 70 crore. Since inception and up to March 2007, CAPART has sanctioned 24,466 projects involving an amount of Rs. 909.34 crore and released an amount of Rs. 752.61 crore.

WATERSHED DEVELOPMENT PROGRAMMES

The Department of Land Resources in the Ministry of Rural Development is administering three area-based watershed programmes for development of wastelands/degraded lands namely Drought Prone Areas Programmes (DPAP), Desert Development Programme (DDP) and Integrated Wastelands Development Programme (IWDP) to check the diminishing productivity of wasteland and loss of natural resources.

The DPAP was launched in 1973-74 to tackle the special problems faced by those areas that are constantly afflicted by drought conditions. Presently, 972 blocks of 195 districts in 16 States are covered under the Programme. DDP was launched in 1977-78 to mitigate the adverse effects of desertification. Presently, 235 blocks of 40 districts in 7 States are covered under the Programme. IWDP has been under

implementation since 1989-90. The projects under the IWDP are generally sanctioned in areas that are not covered under DDP or DPAP.

Since 1 April 1995, these three programmes are being implemented on the basis of Common Guidelines for Watershed Development. Details of projects sanctioned and funds released from 1995-96 to 2007-2008 are as under:

Name of Scheme	No. of project sanctioned	Area covered (in lakh ha.)	Total funds released by Centre (Rs. in crores)
DPAP	27439	130.20	2837.81
DDP	15746	78.73	2103.23
IWDP	1877	107.0	2797.56
Grand Total	45062	322.93	7738.60

The projects under DPAP and DDP are sanctioned for 500 ha. each while the IWDP projects cover an area of 5000-6000 ha.

The cost norms for all the three schemes have been revised to Rs. 6000 per ha. Under DPAP and DDP, it is shared between the Centre and the States in ratio of 75:25. In case of IWDP, the cost sharing between the Centre and State Governments is in the ratio of 11:1.

Funds are released in seven instalments, six instalments at the rate of 15 per cent and the last instalment at the rate of 10 per cent. The first instalment is released along with the initial sanction-order and subsequent instalments on receipt of utilization for 50 per cent of the available funds as well as the following documents: (a) Quarterly Progress Reports; (b) Utilisation Certificates; (c) The Audited Statement of Accounts for the previous years; and (d) Evidence of satisfactory completion of institutional arrangements.

Projects are implemented by District Rural Development Agencies/Zilla Parishads (DRDAs/ZPs) through Project Implementing Agencies (PIAs). PIAs could be a Line Department (of the State Government), Panchayati Raj Institutions or a reputed NGO. One PIA normally handles 10-12 watershed projects covering an area of about 5000-6000 hectares. The PIA is required to maintain a technical team of 4 experts called Watershed Development Team (WDT) and individual projects (500 hectares) are planned and executed by the local people living in the watershed area called the Watershed Association (WA) through an elected body called Watershed Committee (WC).

The Department of Land Resources has brought out a new initiative called *Hariyali* with an objective of empowering PRIs both financially and administratively in implementation of Watershed Development Programmes. Under this initiative, all ongoing area development programmes namely, Integrated Wastelands Development Programme (IWDP), Drought Prone Areas Programme (DPAP) and Desert Development Programme (DDP) are to be implemented through the PRIs. New projects under the aforesaid area development programmes are being implemented in accordance with the guidelines for *Hariyali* from 1 April 2003. Projects sanctioned prior to this date shall continue to be implemented as per the Watershed Development Guidelines of 2001.

In the new arrangement, Gram Panchayats shall implement projects under overall supervision and guidance of Project Implementation Agencies (PIAs). An intermediate panchayat may be the PIA for all the projects sanctioned to a particular Block/Taluka. In case, these Panchayats are not adequately empowered, then the Zilla Panchayat can either act as PIA itself or may appoint a suitable Line Department like Agriculture, Forestry /Social Forestry, Soil Conservation, etc., or an Agency of the State Government/ University/Institute as PIA. Failing these options, the ZP/DRDA may consider appointing a reputed Non-Government Organization (NGO) in the district with adequate experience and expertise in the implementation of watershed projects or related area development works as the PIA after thoroughly examining their credentials.

The Project Implementing Agency (PIA) will provide necessary technical guidance to the Gram Panchayat for preparation of development plans for the watershed through Participatory Rural Appraisal (PRA) exercise, undertake community organisation and training for the village communities, supervise watershed development activities, inspect and authenticate project accounts.

LAND REFORMS

Two Centrally Sponsored Schemes viz; (i) Computerisation of Land Records (CLR) and (ii) Strengthening of Revenue Administration and Updating of Land Records (SRA & ULR) are administered by Land Reforms Division in the Department of Land Resources.

COMPUTERISATION OF LAND RECORDS

The Centrally Sponsored Scheme on Computerisation of Land Records (CLR) was started in 1988-89 with 100 per cent financial assistance on a pilot project basis in eight Districts viz. Rangareddy (A.P.), Sonitpur (Assam), Singhbhum (Jharkhand), Gandhinagar (Gujarat), Morena (M.P.), Wardha (Maharashtra), Mayurbhanj (Orissa) and Dungarpur (Rajasthan) to remove the problems inherent in the manual systems of maintenance and updating of land records and to meet the requirements of various groups of users. It was decided that efforts should be made to computerise CORE DATA contained in land records, so as to assist development planning and to make records accessible to peoples/planners and administrators.

During the 8th Five Year Plan, the scheme was approved as a separate centrally sponsored scheme on computerisation of land records. The total expenditure under the Scheme during 8th plan period was Rs. 64.43 crore. During 9th Five Year Plan, Ministry of Rural Development released a sum of Rs. 169.13 crore by covering 259 more districts under the Scheme. At present, the Scheme is being implemented in 582 Districts of the country leaving those Districts where there are no proper land records.

A decision has been taken during 1997-98 for operation of the Scheme at the tehsil/taluk level for facilitating delivery of computerised land records to users and public at large. Under this programme, funds are released to the State Governments for data entry work, setting up of computer centres at tehsil level, sub-division level, District Land Records Data Centre and Monitoring Cell at state headquarters and imparting training to revenue officials on application software and computer technology. So far 4434 tehsils/taluks, 392 District Land Records Data Centre, 1045 Sub-division and 17 monitoring cells have been covered under the programme of CLR. As on 31.08.08 funds at the tune of Rs. 586.00 crore has been released to the States/UTs.

STRENGTHENING OF REVENUE ADMINISTRATION AND UPDATING OF LAND RECORDS (SRA & ULR)

With a view to assisting States/UTs in the task of updating of land records, a Centrally Sponsored Scheme for Strengthening of Revenue Administration and Updating of Land Records (SRA & ULR) was started in 1987. Initially, the Scheme was approved for the States of Bihar and Orissa in 1987-88 and extended to other States/UTs, during 1989-90. The Scheme is being implemented by state governments through their revenue/land reforms departments. It is financed by the Centre and the state on 50:50 funds sharing basis. However, union territories are provided full Central assistance.

Under this Scheme, financial assistance is given for purchase of modern survey equipment like Global Positioning System (GPS), EDM, Total Stations, Theodolites, Work Stations, Aerial Survey, Office equipment like photocopiers, laminating machines, binding machines and basic facilities to improve work efficiency of subordinate level staff of the revenue departments, construction of office-cum-residence of patwaris, construction/repair/renovation of Training Institutes and equipment for training, etc. as on 31.03.08, financial assistance of Rs. 475.36 crore has been provided to state governments and UTs.

It has been proposed to integrate and enhance the two Centrally sponsored schemes, namely, Computerisation of Land Records (CLR), and Strengthening of Revenue Administration and Updating of Land Records (SRA & ULR), in the shape of the National Land Records Modernization Programme (NLRMP). The NLRMP is concerned not merely with computerization, updating and maintenance of land records and validation of titles, but also a programme that will add value and provide a comprehensive tool for development planning wherever location-specific information is required, Under the NLRMP, three layers of data: (a) Spatial data from satellite imagery/aerial photography. (b) topographic maps and other data from the Survey of India and Forest Survey of India, and (c) land records data - both records of rights (RoRs) and maps will be integrated and harmonized on a geographic information system (GIS) platform. The primary focus of the programme will be on (i) providing citizen services, such as providing records of rights (RoRs) with maps to scale; other land-based certificates such as caste certificates; information for eligibility for development programmes; land passbooks, etc, and (ii) developing a comprehensive tool for supporting and planning developmental, regulatory, and disaster management activities. Ushering in the system of conclusive titles in the country shall be the ultimate goal of the programme, for which all the required activities shall be undertaken in a systematic, ladder-like manner, and the primary activities shall converge in the district, and all districts in the country are proposed to be covered under the programme by the 12th plan period, beginning with 1-2 district per State/UT this year.

NATIONAL RURAL DRINKING WATER SUPPLY PROGRAMME (NRDWP)

Government of India's major intervention in water sector started in 1972-73 through Accelerated Rural Water Supply Programme (RWSP) for assistance States/UTs to accelerate the coverage of drinking water supply. While drafting the Eleventh Plan document, it was decided that the major issues which need tackling during this period are problem of sustainability, water availability and supply, poor water quality, centralized Vs. decentralized approaches and financing of O&M cost on equitable

basis with full consideration to ensuring equity in regard to gender, socially and economically weaker sections of the society, school children, socially vulnerable groups such as pregnant and lactating mothers, specially abled and senior citizens, etc.

CHANGES MADE IN APPROACH FOR RWS IN XI PLAN

The following paradigm shift is made in the recently approved rural water supply programme guidelines for ensuring sustainable and environmentally friendly drinking water supply projects.

- 1 Move away from over dependence on single source to multiple sources through conjunctive use of surface water, groundwater and rainwater harvesting;
 - 1 Focus on ensuring sustainability in drinking water schemes & prevent slip back;
 - 1 Encourage water conservation methods including revival of traditional water bodies;
 - 1 Move forward towards achieving household level drinking water security through proper water demand and budgeting;
 - 1 Convergence of all water conservation programme at the village level;
 - 1 Focus on ensuring household level drinking water security through preparation of village water security plans;
 - 1 Conscious move to get away from high cost treatment technologies for tackling arsenic & fluoride contamination to development of alternative sources in respect of arsenic and alternated sources/dilution of aquifers through rainwater harvesting in respect of tackling fluoride contamination;
 - 1 Convergence of all water conservation programme at the village level;
 - 1 In respect of nitrate contamination, treatment of catchment area through simple measures such as fencing and effective implementation of TSC programme, prevention of sewage/animal waste leaking into the surface/underground water sources, promoting ecological sanitation to reduce use of inorganic fertilizers should be our focus;
 - 1 For tackling salinity problem, solar desalination and dilution through rainwater harvesting to be adopted;
 - 1 Linkage of National Rural Drinking Water Quality Monitoring & Surveillance Programme with the recently approved Jalmani guidelines for implementation of Stand-alone drinking water purifications systems in rural schools;
 - 1 The five grass root level workers trained for NRDWQM&SP are the ambassadors for achieving the household level drinking water security in the rural India. ASHA worker is the linkage to NRHM;
 - 1 Apart from XII FC funds, GPs can utilize the untied funds available under NRIHM for meeting O&M expenses of drinking water supply schemes;
 - 1 Move away from off-line unconsolidated figures to on-line details of data entry and linkage with Census survey and NHFS survey;
- In order to ensure operationalization of the approaches mentioned above, the following main changes have been incorporated in the rural water supply guidelines;
- 1 Awarding performance rather than non-performance of States. This is done by removing extra weighted points in the allocation criteria for the central Govt.

assistance to the States in regard to number of uncovered/partially covered habitations and water quality affected habitations;

- 1 The allocation criteria depends on 2001 census population figure, number of DDP/DPAP/HADP blocks;
- 1 Certain percentage is allocated as incentive fund for the States as extra weightage points for those which transfer the assets created to the Panchayati Raj Institutions;
- 1 A certain percentage viz., 20% is reserved for implementing projects by the States for bringing in sustainability to drinking water schemes. This 20% is to be fully borne by the Government of India as opposed to 50% in regard to other components of the allocation;
- 1 In order to encourage the difficult States of North-East and J&K, the fund sharing pattern for the States has been liberalized from the existing 50:50 (Centre to State) to 90:10 (Centre to State).

COMPONENTS OF REVISED RURAL WATER SUPPLY PROGRAMME

To ensure that all aspects of rural water supply are adequately addressed, there are different components of RWSP. 10% of the overall amount allocated to the drinking water sector is earmarked for North-Eastern States. Recently, Cabinet has approved the change in funding pattern and the percentage of allocation under different components, and the funding pattern of these components are as under :

Component	Distribution of annual budgetary allocation	Centre : State Ratio
RWSP (Coverage)	38%	50:50* 90:10**
RWSP (Sustainability)- Swajaldhara***	20%	100:0
RWSP (Water Quality)	20%	50:50* 90:10**
RWSP (Natural Calamity)	5%	100:0
RWSP (DDP Areas)	5%	100:0
RWSP (Support)	2%	100:0
Operation & Maintenance (O&M)	10%	50:50* 90:10**

* For all States/Union Territories except North Eastern States (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) and Jammu & Kashmir.

** For North Eastern States (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) and Jammu & Kashmir.

*** Swajaldhara to be continued and subsumed under RWSP (Sustainability) component.

RWSP—CRITERIA FOR ALLOCATION OF FUNDS

NRDWP (Normal) : State-wise allocation and releases under NRDWP (Normal) is made by taking into account the rural population, number of NC/PC habitations, area under DDP, HADP, DPAP, special category Hill States, etc. and water quality problems. The components for weightage and percentage points are as under :

Criterion	Weightage
Rural Population 2001 Census	60
Rural Population managing rural drinking water supply schemes (From number of GPs managing drinking water assets/distribution)	10
States under DPAP, HADP and special category Hill States in terms of rural areas	30

NRDWP (DDP) : The interstate allocation of NRDWP (DDP) funds is determined in proportion to the number of no safe source habitations existing in the DDP areas of the State. The components for weightage and percentage points are as given below :

Weightage for	Percentage
Proportionate rural population in DDP blocks	40
NC/PC habitations (at 2:1 ratio)	35
Quality affected habitations	25

SPECIAL PROVISIONS FOR SCs/STs

The State/UTs are required to earmark and utilize at least 25% of the RWSP funds for drinking water supply to the SCs and another minimum 10% for the STs. Where the percentage of SC or ST population in a particular State is considerably high warranting earmarking/utilization of more than stipulated provisions, additional funds can be utilized. As a measure of flexibility, States may utilize at least 35% of the RWSP funds for the benefit of SCs/STs, particularly in those States where coverage of SC/ST population is less than the coverage of the general population. Under RWSP, a habitation consisting of 100 person or 20 households, is considered to be a habitation for the purpose of coverage of habitation with drinking water facilities utilizing fund released under the programme SC/ST habitations having less than 100 persons can however be covered under RWSP.

SPECIAL PROVISIONS TO NORTH EASTERN STATES AND J&K STATE

The Department of Drinking Water Supply has given flexibility in the guidelines for implementation of rural water supply programme in respect of North Eastern States as 10% of the total Central outlay for the programme is earmarked for the NE States. To ensure that the unutilized funds released to North Eastern States do not lapse, a Non-lapsable Central Pool of Resources has been created. Any unutilized funds of Government of India share are credited in to this Pool under which the State Governments can take up various projects. Keeping in view the problem faced by the NE States and Jammu & Kashmir in providing State share, recently Cabinet has approved the change in funding pattern for North East States and Jammu & Kashmir from 50:50 to 90:10, between Centre and the respective States.

SPECIAL FOCUS ON DDP AREAS

Keeping in view the special problems faced by people living in the DDP areas, under RWSP, 5% of the total fund is kept aside and allocated to States on 100% grant basis for rural water supply in the identified DDP blocks. There are 235 DDP blocks in 40 districts of 7 States. In DDP blocks, States are to provide additional 30 litre per person per day for livestock.

BHARAT NIRMAN—RURAL DRINKING WATER

To build rural infrastructure, Bharat Nirman has been launched by the Government of India in 2005 to be implemented in a period of four years from 2005-06 to 2008-09. Rural drinking water is one of the six components of Bharat Nirman. During Bharat Nirman period, 55,067 uncovered and about 3.31 lakh slipped-back habitations are to be covered with provisions of drinking water facilities and 2.17 lakh quality-affected habitations are to be addressed for water quality problem.

STRATEGY ADOPTED TO ACHIEVE BHARAT NIRMAN TARGETS

i) Uncovered habitations : Against 55,067 uncovered habitations to be covered during the Bharat Nirman period, 54,433 habitations have been covered by 29 June, 2009. The remaining 637 habitations, out of which some are in difficult areas lacking sustainable sources of drinking water, are proposed to be covered with provision of drinking water supply systems during 2009-10.

ii) Slipped-back habitations : In case of slipped-back habitations, out of 3,31,604 habitations to be covered during the Bharat Nirman period, 3,58,396 habitations have been covered by 29 June, 2009 and the remaining 25,482 habitations would be covered during this financial year. The entire strategy and focus of the Department and its current programme in the field is toward sustainability in all drinking water schemes, so that the phenomenon of recurring slippage does not occur.

iii) Quality-affected habitations :

Arsenic & Fluoride : Out of 2.17 lakh quality-affected habitations in the country, 5,029 habitations were reported to be affected with Arsenic contamination and 31,306 habitations with Fluoride contamination. During Bharat Nirman Period, addressing water quality problems in these habitations have been accorded high priority. All arsenic-affected habitations have been addressed with projects for water quality problem. In case of Fluoride-affected habitations, majority has been addressed with projects and the remaining ones are also being addressed during current year itself on priority.

Iron Affected : At the start of Bharat Nirman, 1,18,088 habitations were reported to have Iron contamination. These have been planned to be tackled by low-cost solutions since it is easy to address iron contamination by dilution and stand alone filter plants. Institute of Minerals & Materials Technology (IMMT), Bhubaneswar (a CSIR institution) has been identified as nodal institute/federal centre to address iron contamination through use of terracota filters (Terafil water filters systems) throughout the country. These filters can be locally made and have proven record of easy operation and maintenance.

Salinity : Similarly, 23,495 habitations have salinity problems which are mostly located in coastal areas. To tackle the salinity problem in these habitations, various technological solutions viz. technologies developed by Bhabha Atomic Research Centre (BARC), Defence Research & Development Organization (DRDO), Council of Scientific & Industrial Research (CSIR), Department of Science & Technology, etc. are being used and to coordinate all these efforts to tackle salinity problem in the drinking water, Central Salt & Marine Chemicals Research Institute (CSMCRRI), Bhavnagar—a CSIR laboratory has been identified as the nodal agency for the dissemination of simple/cost-effective technologies for tackling the salinity problem.

Nitrate : In the country, 13,958 habitations were reported to be affected with nitrate

contamination. This can be tackled by improving sanitation conditions and in some places by change in the use of fertilizers, etc.

NORMS FOR RURAL DRINKING WATER SUPPLY

Under the NRDWP guideline the norms that have been adopted since the inception of the programme (1972) for providing potable drinking water to the rural population based on basic minimum need is as follows :

40 litres per capita per day (lpcd) for humans to meet the following requirements based on basic minimum need :

Purpose	Quantity (LPCD)
Drinking	3
Cooking	5
Bathing	15
Washing utensils and house	7
Ablution	10

FUNDS ALLOCATED FOR RWS SCHEME

(Amount in Rs. crore)

Year	BE	RE
2005-06	4,050.00	4,060.00
2006-07	5,200.00	4,560.00
2007-08	6,500.00	6,400.00
2008-09*	7,300.00	7,300.00
2009-10	8,000.00	-

* Rs. 100 crore additional funds have been provided for Stand-alone water purification systems in rural schools.

For the 11th Five Year Plan, allocation for rural drinking water has been substantially enhanced to Rs. 39,490 crore.

TOTAL SANITATION CAMPAIGN (TSC)

Rural sanitation came into focus in the Government of India in the World Water Decade of 1980s. The Central Rural Sanitation Programme was started in 1986 to provide sanitation facilities in rural areas. It was a supply driven, high subsidy and infrastructure oriented programme. As a result of these deficiencies and low financial allocations, the CRSP had little impact on the gargantuan problem. The experience of community-driven, awareness-generating campaign based programmes in some states and the results of evaluation of CRSP, led to the formulation of the Total Sanitation Campaign (TSC) approach in 1999.

OBJECTIVES

The main objectives of the TSC are as under :

- 1 Bring about an improvement in the general quality of life in the rural areas;
- 1 Accelerate sanitation coverage in rural areas;

- 1 Generate felt demand for sanitation facilities through awareness creation and health education.
- 1 Cover schools/Anganwadis in rural areas with sanitation facilities and promote hygiene education and sanitary habits among students.
- 1 Encourage cost effective and appropriate technologies in sanitation.
- 1 Eliminate open defecation to minimize risk of contamination of drinking water sources and food.
- 1 Convert dry latrines to pour flush latrines, and eliminate manual scavenging practice, wherever in existence in rural areas.

STRATEGY

The strategy is to make the Programme 'community led' and 'people centered'. A "demand driven approach" is adopted with increased emphasis on awareness creation and demand generation for sanitary facilities in houses, schools and for cleaner environment. Alternate delivery mechanisms are adopted to meet the community needs. Subsidy for individual household latrine units has been replaced by incentive to the poorest of the poor households. Rural School Sanitation is a major component and an entry point for wider acceptance of sanitation by the rural people. Technology improvisations to meet the customer preferences and location specific intensive IEC Campaign involving Panchayati Raj Institutions, Cooperatives, Women Groups, Self Help Groups, NGOs etc. are also important components of the Strategy. The strategy addresses all sections of rural population to bring about the relevant behavioural changes for improved sanitation and hygiene practices and meet their sanitary hardware requirements in an affordable and accessible manner by offering a wide range of technological choices.

- 1 Rural sanitation coverage has more than doubled from 21.9% in 2001 to 58.42% of the projected population in June, 2009. This phenomenal progress is a result of the significant achievement under TSC of construction of 5.70 crore individual toilets, 8.9 lakh school toilets and 2.77 lakh Anganwadi toilets.
- 1 Sanitation coverage has spurred with the introduction of Nirmal Gram Puraskar in 2005 :
 - m Till 2001, the average annual increase in coverage was 1%.
 - m After TSC was launched in 1999, average annual increase in coverage between 2001 to 2004 rose to 3%.
 - m After NGP was launched in 2004, the average coverage is now increasing by about 7-8% annually.

FINANCIAL ALLOCATION

- 1 Budget allocation has been substantially increased during the 10th Five Year Plan period from Rs. 165 crore in 2002-03 to Rs. 1200 crore in 2009-10.
- 1 Total financial outlay approved under TSC for 593 district projects to be implemented over 4-5 years is Rs. 17885 crore of which central share is Rs. 11094 crore, State share Rs. 4776 crore and community share is Rs. 2015 crore.
 - m Released central share is Rs. 4172.09 crore and State share released is Rs. 2415.48 crore.
 - m The success of the TSC lies in the fact that the community has also contributed Rs. 1286.74 crore towards project implementation till now.

COMPONENTS

- (i) Provision of individual household latrines : Incentives of Rs. 1500/- and 700/- for each toilet is given by Central and State Government respectively to BPL households after they construct and use toilets. APL households are motivated to construct toilets with their own funds or by taking loans from SHGs, banks, cooperative institutions etc;
- (ii) Provision of Toilets in Schools and Anganwadis with the cost shared by Central and State Government in the ratio of 70:30;
- (iii) Construction of Community Sanitary Complexes;
- (iv) Assistance to Production Centres of sanitary materials and Rural Sanitary Marts;
- (v) Solid and Liquid Waste Management.

IMPLEMENTATION

Implementation of TSC is by a project mode. A project proposal emanates from a district, is scrutinized by the State Government and transmitted to the Government of India (Department of Drinking Water Supply, Ministry of Rural Development). The approved TSC project is implemented in phases with start-up activities. Funds are made available for preliminary IEC work. In the "campaign approach" a synergistic interaction between the Government agencies and other stakeholders, intensive IEC and advocacy with participation of NGOs/Panchayati Raj Institutions/resource organizations takes place to bring about the desired behavioural changes for relevant sanitation practices.

PHYSICAL ACHIEVEMENTS

- 1 Currently TSC is being implemented in 593 rural districts spread across 30 States and UTs.
- 1 There are about 15.02 crore rural households in India as per projected population in 2008 census, of which as per the latest data of June, 2009, 8.90 crore households have access to toilets leaving a balance of 6.12 crore household without access to toilets.
- 1 Coverage is 64.4% among 2001 census number of households and 58% of the projected number of households.

NIRMAL GRAM PURASKAR

The incentive award scheme of Nirmal Gram Puruskar (NGP) has been launched to encourage the Panchayati Raj Institutions to take up sanitation promotion. The award is given to those PRIs which attain 100% open defecation free environment. The concept of Nirmal Gram Puraskar has been acclaimed internationally as a unique tool of social engineering and community mobilization and has helped a difficult programme like rural sanitation to pick up. Each Gram Panchayat getting the NGP has a ripple effect in the surrounding villages. The Nirmal Gram Puraskar has ignited the imagination of Panchyat leaders throughout the country and made them champions of sanitation. IT has been the prime mover behind the amazing progress achieved in rural sanitation coverage since 2005. Under NGP, the following PRIs and other institutions have received the award in the last 4 years:

AWARDED PANCHAYATS

- 1 2005—38 Gram Panchayats and 2 Block Panchayats.
- 1 2006—760 Gram Panchayats and 9 Block Panchayats, 4 Institutions.
- 1 2007—4945 Gram Panchayats, 14 Block Panchayats, 9 Institutions.
- 1 2008—12276 Gram Panchayats, 105 Block Panchayats, 8 Zilla Panchayats, 10 Institutions.
- 1 Sikkim has become first Nirmal State of the country.

25 Scientific and Technological Developments

INDIA has a long and distinguished tradition in science and technology since the ancient times and great achievements during the twentieth century. At the time of independence, our scientific and technological infrastructure was neither strong nor organised as compared to the developed world. This had resulted in our being technologically dependent on the skills and expertise available in other countries. In the past four decades, an infrastructure and capability largely commensurate with meeting national needs has been created minimising our dependence on other countries. A range of industries from small to the most sophisticated has been established covering a wide range of utilities, services and goods. There is now a reservoir of expertise well acquainted with the most modern advances in basic and applied areas that is equipped to make choices between available technologies, to absorb readily new technologies and provide a framework for future national development.

Science and Technology Infrastructure : Scientific and technological activities in India are carried out under a wide set-up consisting of Central Government, State Governments, higher educational sector, public and private sector industry and non-profit institutions/associations. These institutional structures, with their research laboratories, are the main contributors to research and development being carried out in the country. Notable among these are: the Council of Scientific and Industrial Research (CSIR); Indian Council of Agricultural Research (ICAR); and Indian Council of Medical Research (ICMR). In addition, there are many laboratories of various departments/ministries, viz. Department of Atomic Energy, Department of Electronics, Department of Space, Department of Ocean Development, Defence Research and Development Organisation, Ministry of Environment and Forests, Ministry of Non-Conventional Energy Sources and the Ministry of Science and Technology. Further, there are over 1,200 in-house research and development units in industrial undertakings supporting research in their respective industries. Many Indian Universities and Deemed Universities such as IITs also undertake substantial research and development work.

New Science and Technology Policy 2003 : In order to build a blue print for future programmes of Science and Technology and to give a direction to the initiatives to be undertaken, the Government announced the Science & Technology Policy 2003. The policy outlines the approach to S & T governance, optimal utilisation of existing physical and knowledge resources, development of innovative technologies, systems and technologies for mitigation and management of natural hazards, generation and management of intellectual property and creation of awareness amongst general masses about the use and benefits of science and technology.

DEPARTMENT OF SCIENCE AND TECHNOLOGY

The Department of Science and Technology was set up in May 1971 with the objective of promoting research in new areas and to play the role of a nodal department for organising, co-ordinating and promoting science and technology activities in the country. Over the years, the Department has evolved policy statements and

guidelines, provided mechanisms for co-ordination in the areas of science and technology in which a number of institutions have interests and capabilities, supported grants-in-aid to scientific institutions and professional bodies. The Department has played a catalytic and co-ordinating role and in this process over the past few years, the efforts at promoting science and technology in the States and Union Territories have also gathered considerable momentum.

RESEARCH AND DEVELOPMENT PROGRAMMES

The Department of Science and Technology has been playing a crucial role in identifying and promoting front-line and priority areas on Research and Development (R&D) in various disciplines of science and engineering. This support is provided through Science and Engineering Research Council (SERC) - an advisory body consisting of eminent scientists and technologists drawn from academic institutions like IITs, universities, national laboratories and industry. The Council through its advisory committees, assists the Department not only in peer reviewing the proposals but also identifies newer and inter-disciplinary areas of R&D for concerted efforts. The Council, with the help of the advisory committees, also monitors progress of individual projects sponsored in various disciplines along with monitoring the progress of co-ordinated and concerted efforts. Every year around 1,000 project proposals are received for consideration in the Department, most of which fall in the category of basic sciences and engineering research.

Assessing the importance of the emerging, highly interdisciplinary field of Nanoscience and Technology, a national programme titled "Nanomaterials Science and Technology Initiative (NSTI)" has been started. The programme focuses at overall research and development in nanoscience and technology with vigour so that India can become a significant player in the area and contribute to the development of new technologies.

On the occasion of the 50th anniversary of India's Independence, the Government launched Swarnajayanti Fellowships for enabling outstanding young scientists to attain world class levels in science. The Fellowships are open to Indian scientists in the age group of 30-40 years, with proven capability for outstanding research work exploring new frontiers in their field of specialisation.

Infrastructure Development : The Department through its various programmes has been playing a catalytic role in supporting the setting up of new R&D facilities along with the modernisation of the existing ones. 'Intensification of Research in High Priority Areas'- IRHPA has helped in strengthening the infrastructure and research capabilities in selected areas of science and engineering. Under this programme, units/core groups and National Research Facilities are established around an outstanding scientist to act as a focal point to nucleate research activity in these areas.

Universities are cradles of innovation and research. In order to provide and improve basic infrastructure in academic sector for research and teaching a scheme viz. Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST) was initiated during the 9th Five Year Plan. Under this programme support is provided for up-gradation of laboratories by providing equipment, computer networking, library facilities, etc. The programme identifies active university/academic departments for support through a peer review mechanism including on-site visits.

Human Resource Development : The Department also supports different programmes aimed at identifying new talent and providing them with financial assistance in the form of fellowships for pursuing research in front-line areas of science and technology. Also, for the researchers the Department supports training programmes, summer schools and contact programmes. The programmes supported are: BOYSCAST fellowships, SERC student fellowships, etc. Fellowships are also awarded to undergraduate students to get first hand exposure to research in leading research laboratories. To involve young scientists (below 35 years) in national S&T development process and to provide opportunities to them for pursuing exciting and innovative research ideas an exclusive scheme for Young Scientists is being implemented by the Department.

In order to motivate bright young minds at their secondary school/college levels, and to encourage them to stick on to a career in science, a new scheme called Kishore Vaigyanik Protsahan Yojana has been initiated. Talent would be scouted through a competitive mechanism at school level and scholars would be selected for an attractive fellowship/scholarship until they pass their Masters Degree in Science. Further, in order to generate trained manpower in selected areas of science and technology, training courses, summer/winter schools were organised in theoretical chemistry, earth sciences, astronomy and astrophysics, lasers, optics, atomic and molecular physics.

Women Scientists Scheme was launched during the year 2002 by the Department of Science and Technology. The scheme provides support to women scientists, with or without a break in career, to pursue science in all its aspects and encourage them to continue in the scientific profession and also to contribute towards application of science and technology to societal development.

TECHNOLOGY DEVELOPMENT AND RELATED PROGRAMMES

The Department of Science and Technology under its scheme on "Drugs and Pharmaceuticals Research" supports collaborative Research and Development projects jointly submitted by drug companies and the academic national R&D institutes. The programme aims towards the development of new drugs and cleaner process technologies for known drugs/key intermediates for drugs. The programme covers all systems of medicine - Allopathic, Ayurvedic, Homeopathic, Siddha and Unani. In addition, National Facilities essential to undertake R&D have also been set up under this programme. Specific mention may be made of the Medium Throughput Facility, Pharmacological Testing Facility and Centre for Pharmacokinetic and Metabolic Studies at CDRI, Lucknow, Immunomodulatory Potential Testing Facility at IICB, Kolkata; National Facility on Transgenic and Gene Knockout Mice at CCMB, Hyderabad; and National Centre for Bioavailability at National Institute of Pharmaceutical Education & Research, Mohali. So far 45 projects including 7 national facilities have been funded by creating industry-institutional alliances among 20 institutions (national labs. and universities) and 19 drug industries. The programme has resulted in the filing of 12 patents in India and abroad.

The Department has guided 24 socio-economic ministries in the setting up of Science and Technology Advisory Committees (STACS) for formulation of long/short-term joint technology development programmes. For coordinating the efforts of STACs and to take stock of activities of various ministries, the Department has also set up an Inter-Sectoral S&T Advisory Committee under the Chairmanship of Secretary, DST. A quarterly newsletter *STAC SCAN* is being brought out by IS-STAC to disseminate information.

The Department has been catalytic in identifying, formulating and implementing a number of technology development programmes with the help of industries and socio-economic ministries. Efforts of the Department in this direction have helped in initiation of multi-institutional programmes in the emerging areas of technology. As a part of this programme, projects were continued to be supported in the areas such as instrument development, advanced materials, critical technology, sugar technology, fly ash utilisation, advanced composites and in higher technical education.

The Department has set up an autonomous body – Technology Information, Forecasting and Assessment Council (TIFAC). The main objectives of TIFAC include generation of Technology Forecasting, Technology Assessment and Techno Market Survey (TMS) documents and enabling a Technology Information System. TIFAC has brought out more than 280 specialised reports covering most of the sectors of economic relevance, ranging from Agriculture to Advanced Sensors and from materials to biotechnology. These reports have also focused on the upcoming and frontier technologies like transgenic seeds, biochips, R-DNA products, transgenic animal models, surface engineering, etc. The reports provide a vision and options for technology trajectories for industries, institutions, entrepreneurs and experts. TIFAC has also brought out a series of reports giving a comprehensive picture of 16 areas of scientific research carried out in our country in the last 50 years.

TIFAC carried out a long-term Technology Vision (Forecasting) exercise known as “Technology Vision for India up to 2020” covering 17 sectors important to Indian economy. The reports include realistic technology road maps for achieving desired goals as well as intermediate milestones. A few of the recommendations of these reports are being implemented through projects in different sectors. This has resulted in follow-up actions on a limited scale towards demonstration projects of technology for wider replication in six identified sectors namely: Agriculture and Agro Food Sector, Road Construction and Transportation Equipment, Upgradation of Textile Machinery/Textile Industry, Health Care Services and Herbal/Natural Products, Upgradation of Science, Engineering and Professional Institutions relevant to Industry (Mission REACH), and Targeted Programmes in other important areas like Hydrogen Energy, Waste to Energy, Emerging Energy Sectors, Electric Power, Rural Connectivity, SMEs, etc.

Mission REACH has been launched by TIFAC with the objective of upgrading select science and engineering colleges so as to create Centres of Relevance and Excellence (COREs) in achieving new heights in selected institutions at par with the world’s best. 26 such centres have been set up across the country on a wide range of emerging areas of relevance to industry and society. A unique feature and of these TIFAC-COREs is the very active participation of Industry in the form of training programmes, research projects and consultancy. Details of Institutions/ Areas, etc. could be seen on www.missionreach.org .

A Patent Facilitating Centre (PFC) has been set up in TIFAC with the objectives of introducing patent information as a vital input in the process of promotion of R&D programmes, provide patenting facilities for scientists/technologists of the country on a sustained basis, keep a watch on developments in the areas of intellectual property rights, create awareness and understanding relating to patents and undertake studies and analysis of policy related to TRIPS Agreement and other agreements under World Trade Organisation, etc. The Centre has been organising awareness workshops to sensitise scientists/technologists from various universities, government, R&D institutions and industries. The PFC has also brought out two CD

ROM databases containing data from 1995. The website www.indianpatents.org.in provides comprehensive details of the service and facilities provided by the PFC. The PFC has also brought out a report on patenting of micro-organisms and has developed a video programme on patent awareness titled "Patents Made Easy".

To promote innovation among entrepreneurs, a new golden jubilee initiative called "Technopreneur Promotion Programme (TePP)" has been initiated and implemented jointly by TIFAC with DSIR. The main thrust of TePP is to tap the vast untapped innovative potential of the Indian entrepreneurs. The support is provided to projects of individual innovators towards scaling up the idea/invention/know-how/designs to working models/prototypes/pilot plants. Besides financial support, the endeavour is to link and couple them to the most appropriate existing R&D facilities and expertise; assist them in patent search/filing of patents; interface for tying-up with financial institutions for commercial exploitation, etc.

To encourage grassroot level innovators, National Innovation Foundation (NIF) of India has been established with the main goal of providing institutional support in scouting, spawning, sustaining and scaling up grassroots level green innovators and helping their transition to self-supporting activities.

TECHNOLOGY DEVELOPMENT BOARD

The Technology Development Board was constituted in September 1996. The Board provides financial assistance to industrial concerns and other agencies for attempting development and commercial application of indigenous technology or adapting imported technology for wider domestic application. The areas that got financial assistance from the Board were health and medicine, engineering and electronics, chemicals and lubricants, agriculture and biotechnology, information technology, road/air transport, energy and waste utilisation, and telecommunication. The technology providers include national laboratories, academic institutions and recognised in-house R&D units in the industry. Some of the products successfully produced and marketed include first genetically engineered hepatitis B vaccine; bio-fertiliser from maize waist, gluten with the brand name Suryamin; DL2 Amino Butanol, an important substitute drug intermediate in the manufacture of anti-tuberculosis drug; Cefixime - an orally active fourth generation Cephalosporin anti-biotic; recombinant hepatitis B vaccine; CAL reagent for detection of bacterial endotoxin; carding machines for textile mills; Nicotinamide; Undecenoic Acid from castor oil; and fuel pellets from municipal garbage, etc.

The TDB instituted a 'National Award for successful commercialisation of indigenous technology' by an industrial concern to be given away on the Technology Day, i.e. 11 May every year commencing from 1999. The National Award consists of two components: (i) to the industrial concern which has successfully commercialised the indigenous technology and (ii) to the developer/provider of such technology. Each component carries a cash award of Rs. 2 lakh to be given to an SSI unit which has successfully commercialised a technology-based product.

NATIONAL ACCREDITATION BOARD FOR TESTING AND CALIBRATION LABORATORIES

The National Accreditation Board for Testing and Calibration Laboratories (NABL) provides formal recognition for technical competence of testing, calibration and medical laboratories. NABL accreditation is primarily based on ISO/IEC 17025:2005 for testing and calibration laboratories and ISO 15189:2003 for medical laboratories.

As on 31 May 2006 NABL had granted accreditation to 428 testing, 220 calibration and 68 medical testing laboratories.

The NABL accreditation system complies with ISO/IEC 17011:2004 and Asia Pacific Laboratory Accreditation Cooperation (APLAC) MR001. Based on evaluation of NABL operations by APLAC in 2000, NABL has been granted signatory member status by APLAC and International Laboratory Accreditation Cooperation (ILAC) under their Mutual Recognition Arrangements (MRAs). This status has been renewed up to 2008 based on re-evaluation of NABL in 2004. Under these MRAs, the reports issued by NABL-accredited laboratories are considered to be equivalent to reports issued by laboratories accredited by 54 accreditation bodies in 46 economies.

To complement its laboratory accreditation services, NABL plans to initiate accreditation programmes for Proficiency Testing Providers and Certified Reference Material Producers in the near future.

S & T PROGRAMMES FOR SOCIO-ECONOMIC DEVELOPMENT

The Department of Science and Technology is also devoted to evolving and implementing specific programmes to promote applications of S & T to improve the quality of life especially for the disadvantaged sections of the society. The areas in which significant achievements have been made are: setting-up of Technology Parks for women; low-cost housing and sanitation; integrated land water and cover management; eco-restoration and sustainable use of biomass in the hilly region; artisanal pottery; artisanal blacksmithy; artisanal leather tanning; training of agricultural labour (SC youth) in the use of modern agricultural appliances for improved agricultural productivity; farm-oriented low-cost technology for utilisation of *Azolla* as biofertilizer; developing livelihood base for tribals in Melghat region through watershed development, etc. Some of the tangible benefits of such programmes have been the generation of appropriate rural technologies, reducing drudgery, generating employment, improving health, and conserving environment. For socio-economic development of the north-eastern states including Sikkim, steps have been initiated to involve State S&T councils, NGOs and S&T personnel. A number of projects are being supported both in farming and non-farming sectors after identifying specific areas.

The National Science and Technology Entrepreneurship Development Board (NSTEDB) established in January 1982 has been implementing several schemes and programmes on promotion of entrepreneurship and creation of sustainable employment through the application of S&T. S&T persons are being trained under Entrepreneurship Development Programmes (EDPs) and Technology-based EDPs to equip them to set up their own ventures. The Board has also been organising skill development training programmes in various skill areas for providing sustainable jobs/self-employment opportunities to unemployed youth.

Science and Technology Entrepreneurship Parks (STEPs) have been set up in and around different S&T institutions in the country in order to provide facilities to existing as well as start-up entrepreneurs on technology development, testing and calibration, documentation and computation, training, etc. A scheme for establishment of Technology Business Incubators (TBIs) was launched in 2000-2001 to promote the growth of technology-based enterprises and to foster faster

commercialisation of R&D results. TBIs are being established in and around academic and R&D institutions in the country. Entrepreneurship Development Cells (EDCs) have been established in academic institutions for creating facilities for the promotion of entrepreneurship and other avenues of self/wage employment among qualified S&T personnel. Science and Technology Entrepreneurship Development (STED) projects are in operation in backward districts. STED projects aim at establishment of micro-enterprises in the district of its operation. For those unable to join regular Entrepreneurship Development Programmes (EDPs), Open Learning Programmes in Entrepreneurship (OLPE) was initiated in 1994-95 in collaboration with Entrepreneurship Development Institute of India (EDII), Ahmedabad. The Board has launched a comprehensive website www.techno-preneur.net which gives detailed information on several aspects of entrepreneurship development. A monthly e-zine entitled "Science-Tech Entrepreneur" is being brought out by the Board for dissemination of useful information among upcoming and existing entrepreneurs.

NATURAL RESOURCES DATA MANAGEMENT SYSTEMS

The Natural Resources Data Management programme is being implemented to upgrade the existing data management methodologies at the district level to facilitate decision making process with regard to local area management and development. Launched in 1982-83, the programme involves several R&D institutes of national repute, universities and non-governmental agencies in a consortium mode. As a part of this programme, spatial and non-spatial databases are being generated and updated at the state and district GIS centres. Different modules of Geo-Referenced Area Management (GRAM) software package are being developed to assist the information processing needs of the district and sub-district level planning. The programme also envisages developing and demonstrating the use of GIS technology through specific decision support systems for the identified sectors, viz. water conservation, land use planning, energy management and infrastructure development. Several R&D projects in the areas of land and water management, study of landslides and hydrology of small watersheds were also supported.

NATIONAL SPATIAL DATA INFRASTRUCTURE (NSDI)

NSDI was initiated in the year 2000 in R&D mode to provide collated Geo-Spatial data to user community. Over the period, NSDI policy framework was formulated and organisational structure was provided. The Government approved creation of NSDI in June 2006.

The NSDI is an infrastructure for the availability of and access to organised spatial data. Use of the infrastructure is at local, community, city, regional and national levels for sustainable developments. India, has over the past years, produced a rich "base" of map information through systematic topographic, geological, soil and cadastral surveys, various natural resources inventory programmes and the use of the remote sensing images. Further, with the availability of precision, high resolution satellite images, data enabling the organisation of Geographical Information System (GIS), combined with the Global Positioning System (GPS), the accuracy and information content of these spatial datasets or maps is extremely high.

The NSDI has an overarching frame work for the existing data generating agencies with the authority to mandate their constituent agencies to commit their data resources and generate new data/ products/ services on the basis of user needs.

NSDI will create a reliable and supportive environment to access geographically related information using a minimum set of standard practices, protocols and specifications. It will facilitate stakeholders: Government, Corporate Sector, NGOs, Community Organisations, Academia, Research Community and Citizens in accessing the collated datasets.

STATE S&T PROGRAMME

The Department of Science and Technology has been operating a scheme entitled 'Assistance for Development of State Councils on Science and Technology' since 1980. The main objective of the scheme is to assist States and Union Territories in setting up State Councils on Science and Technology which in turn could help the states in formulation, planning, co-ordination and promotion of S&T activities within their areas. The State Councils on Science and Technology have been set-up in all States and UTs. The State Councils have now reached a phase of programme-based S&T cooperation to address location-specific and region specific problems. Steps were initiated to formulate studies on health care, traditional artisanship, agricultural practices, etc. to identify and plan S&T intervention. Steps were also initiated to help the State Councils to encourage replication of successful technologies developed by them.

SCIENCE COMMUNICATION AND POPULARISATION

The National Council for Science and Technology Communication (NCSTC), ever since its inception some 18 years ago, has been engaged in science and technology communication/popularisation and inculcation of scientific temper among the people. The emphasis has been on the development, adaptation, promotion and use of different communication technologies and techniques utilising various media - traditional and non-traditional. The activities undertaken centred around a few natural phenomena and specific events utilising these for S & T communication.

The National Children's Science Congress is an important activity involving children in the age group of 10-17 years from all over the country. The programme is envisaged to encourage the students to relate the learning of science to the environment around, to their immediate social and physical environment and provide them a forum to interact with scientists to quench their curiosity and thirst for creativity. In this programme, children in teams of five each on an average take up scientific projects related to the local issues, work under the guidance of teachers/science activists, and report their findings at school/block, district, state and national level congress.

A programme has been developed for promoting voluntary blood donation in the country with the objective of meeting the near total requirement of blood from healthy voluntary donors. Bibliographies of popular science books in different Indian languages published during the last 150 years have been compiled. To create awareness on issues of environment and sustainable development several resource persons have been trained to organise activities for co-ordinators of school science clubs and activities of S&T based voluntary organisations.

Year 2004 was declared as the year of Scientific Awareness by the Government. Vigyan Rail, Scientific Jathas, interaction of scientists with common man were some of the activities taken up to celebrate the year of scientific awareness. An extended

run of Vigyan Rail and Vigyan Mail (Science and Technology Exhibition on wheels) was done in 2005 to cover a few selected smaller towns throughout the country.

Vigyan Prasar : Vigyan Prasar was established in 1989 to take up large scale science popularisation programmes. It has been striving hard to reach out to masses through the mass media. Besides, efforts are underway to put together a network of Science Clubs for spreading scientific awareness and promoting use of scientific methodology in our lives.

S&T RESOURCES INFORMATION

The Department of Science and Technology makes available on a continuous basis information on both manpower and financial resources devoted to science and technology activities. The directory of R&D institutions in India being brought out regularly covers names and addresses of R&D institutions under Central government, State governments, in-house R&D units of public sector and private sector industries, universities including deemed universities and institutes of national importance, and scientific and industrial organisations in the private sector.

The database on extramural research and development projects funded by different Central government agencies is being maintained and updated regularly. The data is being utilised to compile the Directory of Extramural Research Projects.

INTERNATIONAL CO-OPERATION

International Science and Technology co-operation is realised at three levels, viz. bilateral co-operation with developed and developing countries, regional co-operation such as with SAARC, ASEAN and BIMST countries; and multilateral co-operation through NAM Science and Technology Centre, COSTED, UNESCO, etc. India has got bilateral science and technology co-operation with 56 countries. Suitable mechanisms have been established with conclusion and implementation of programmes of co-operation with Bangladesh, Belarus, Brazil, Bulgaria, China, Cuba, Egypt, France, Germany, Hungary, Indonesia, Iran, Israel, Italy, Japan, Kazakhstan, Malaysia, Mexico, Myanmar, Poland, Republic of Korea, Romania, Russian Federation, Singapore, Sri Lanka, South Africa, Tunisia, Ukraine, UK, USA, Uzbekistan and Vietnam.

An Integrated Long Term Programme of Co-operation in Science and Technology between India and Russia is the major interaction instrument between the two countries. Indo-French Centre for Promotion of Advanced Research (IFCPAR) is one more initiative between India and France for promotion of collaborative research in advanced areas of fundamental and applied science and technology. A major bilateral programme in the form of Indo-US Science and Technology Forum has been launched. A new project-based personnel exchange programme with German Academic Exchange Service (DAAD) is being implemented.

Indian scientists have conducted experiments in the fields of crystallography, condensed matter physics, high energy scattering, solid x-ray spectroscopy, nuclear resonant scattering, magnetic compton studies, etc., and received advanced training and international research facilities under various international Science and Technology co-operation programmes.

Under international science and technology co-operation programme the following Joint R&D Centres have been established: Indo-Russian Research Centre in Advanced Computing at Moscow; International Advanced Research Centre for

Powder Metallurgy (ARC-I) at Hyderabad; and Indo-Uzbek Centre for Medical Applications of Low Level Lasers for treatment of Tuberculosis and allied diseases at New Delhi.

A number of collaborative national programmes, viz. design and development of INDUS-I and INDUS-II synchrotron radiation sources at Indore with Russian collaboration; characterisation of Ladakh (Hanle) site for installation of the 2-m telescope and setting up of 14 GFLOP computer at Indian Institute of Astrophysics, Bangalore for N-Body simulations with Japanese experts; Development of gamma ray telescope at Mount Abu with Russian collaboration; a plant for production of 100 million doses of oral polio vaccine (OPV) at Bulandshahar with Russian collaboration; and superconducting cyclotron and cryogenics at VECC, Kolkata have been established.

Initiatives have been taken with Indian diaspora to mobilise the skills and expertise of Indian scientists and technologists working abroad. A dedicated website (<http://stio.nic.in>) for registration of Scientists and Technologists of Indian Origin Abroad (STIO) as well as to receive their offers to share their expertise and/or to join Indian S&T initiatives has been put up.

METEOROLOGICAL SERVICES

The India Meteorological Department (IMD) was established in 1875. It is the National Meteorological Service and the principal Government agency in all matters relating to meteorology, seismology and allied subjects. The Department has units all over the country engaged in collecting meteorological and seismological data besides providing various meteorological services. Its main objective is to provide meteorological information for weather sensitive activities like aviation, shipping, agriculture, irrigation, off-shore oil exploration and industries. The Department also issues warning against severe weather phenomena like cyclones, dust storms, heavy rains, cold and heat waves that cause destruction of life and property. Besides, it also provides climatological information, records earthquakes and promotes research in meteorology. The Department maintains an extensive network of modern observatories and communication links all over the country. Observations received through high power radars and weather satellites are extensively used these days for analysis and prediction of weather.

India launched a geostationary meteorological satellite METSAT in September 2002, and re-named it KALPANA-1. Another geostationary (multipurpose) satellite INSAT-3A was launched in April 2003. Meteorological Data is being received from Kalpana INSAT -3A and NOAA Series of Satellites for Meteorological Analysis and Weather forecasting apart from generating hourly cloud imagery, INSAT Meteorological Data Processing System (IMDPS), producing the following products from the data received:

- Cloud Motion Vector (CMVs).
- Sea Surface Temperatures (SSTs).
- Outgoing longwave Radiation (OLR).
- Quantitative Precipitation Estimates (QPE).

A National Satellite Data Centre (NSDC) was commissioned w.e.f. October 2005 for the archival and supply of INSAT imageries and desired products to the users and research community through a Web portal.

For dissemination of Cyclone Warning to various State Governments, Port Officials, etc. 252 analogue and 100 digital Cyclone Warning Dissemination System Receivers have been installed in the Cyclone prone areas of east and west coasts.

The IMD has a network of 40 RADARS installed throughout the country. Under modernisation scheme of RADAR network, one S-Band Doppler Weather Radar Meteo 1500S imported from Germany was installed at Visakhapatnam. Three Doppler Radars are already functioning round-the-clock at Chennai, Kolkata and Machilipatnam. Proposals for replacing four old and obsolete radars by new Doppler Weather Radars at Bhuj, Kochi, Mumbai and Paradeep have been approved by Council of Meteorological and Atmospheric Sciences.

The India Meteorological Department is maintaining 51 seismological observatories under the national network to monitor the seismic activity in and around the country. Of these, twenty-four seismological observatories were upgraded with state-of-the-art digital broadband seismograph systems and modern communication facilities. A Central Receiving Station (CRS) and a National Seismological Data Base Centre (NSDC) have been established at New Delhi to receive, analyse and systematically archive the seismic data. In operational mode, the Centre is responsible for quick determination of earthquake parameters and dissemination to various user agencies. Recently, a 16 element VSAT-based digital telemetry seismograph station network with a central receiving station at New Delhi was established for close monitoring of seismicity of the region.

The IMD continues to participate in multi-disciplinary scientific cruises of Ocean Research Vessels in the Arabian Sea, Bay of Bengal and Indian Ocean, etc. during pre-monsoon, monsoon and post-monsoon periods. These cruises are planned to collect meteorological data over the adjoining sea areas for the study of various aspects of monsoon circulation and other important weather systems affecting the country and also to validate satellite data of meteorological parameters on board the Indian Remote Sensing Satellite (IRS P3) as and when required.

The first operational Long Range forecast of seasonal southwest monsoon rainfall (June-September) of India was issued by IMD in 1986. IMD has developed new long range forecast models which were introduced in 2003.

The Crop Yield Formulation Unit of the Department has developed statistical models using correlation and regression techniques to forecast crop yield on operational basis for 26 sub-divisions growing kharif rice and for 16 sub-divisions growing wheat. Based on these models, pre-harvest monthly crop yield forecast for kharif rice are being prepared for every year from August to December and for wheat from January to May.

IMD has also installed 250 Cyclone Warning Dissemination Systems (CWDS). This is unique in the world and helps in direct broadcast of Cyclone warning to the public in general and coastal authorities in particular. Currently 100 more Digital Cyclone Warning Dissemination Systems (DCWDS) are being installed along Andhra Coast.

IMD publishes its quarterly journal MAUSAM, annual publications of Indian Astronomical Ephemeris, Rashtriya Panchang in 13 languages and Sunrise, Sunset, Moonrise and Moonset tables are brought out by the Positional Astronomy Centre, Kolkata.

The National Centre for Medium Range Weather Forecasting (NCMRWF) has been a leading centre in India for all weather and climate model-related research and operation. This is the only organisation in India where real-time global and regional data assimilation works are being carried out for providing operational medium-range weather forecasting. NCMRWF also renders Agro Advisory Services (AAS) to the farming community of India. International standard research on all aspects of data assimilation, global/regional modelling, extended-range/seasonal prediction, climate variability and Crop Weather Modelling are carried out by the scientists of the Centre.

Utilisation of satellite data is crucial to improve the quality of weather forecasts. Scientists at NCMRWF develop new and innovative methods to utilise data from every satellite that provides weather information. The Centre also provides input to space agencies on the weather sensors of satellites. Improving the global model physics and global model resolution are the areas in which NCMRWF has the strongest competence. High-resolution regional models are run every day at NCMRWF to supplement the operational high-resolution global model (T170/L28) outputs. For this purpose, the Centre has the most powerful super-computing facility in India. NCMRWF provides information on impending weather four to seven days in advance to ensure optimum effectiveness of modern farming practices. Weather forecast bulletins are disseminated biweekly to AAS units via fax or internet/e-mail. Currently 71 units are linked with the Centre through this facility. Weekly forecast bulletins are issued to 107 AAS units. District level forecasts have also started recently.

NCMRWF gives special focus for weather and climate prediction for mountainous regions. For this purpose, high-resolution mesoscale model (MM5) is run operationally specific to the Himalayan region. The Centre runs a global ocean wave model to predict wave heights, peak wave direction and period. The Centre provides its routine and special products to other organisations such as the India Meteorological Department, Indian Military, Indian Navy, Snow and Avalanche Study Establishment, Indian Space Research organisation, Bhaba Atomic Research Centre etc. on a regular basis and on their special request. In addition, the user community also includes power sectors, water resources, shipping and fisheries, transportation, etc., where customised forecasts are given.

NCMRWF has many National and International collaborations with various Institutes and Organisations. NCMRWF also hosts the BIMSTEC (Bay of Bengal Initiative for multi-sectoral technical and economic co-operation) Centre for Weather and Climate. This Centre aims at addressing and coordinating weather and climate-related issues of the member countries. NCMRWF imparts training to young researchers as well as the user community from time to time. NCMRWF has also been a partner on every observational campaigns (INDOEX, BOBMEX, LASPEX, ARMEX, etc) undertaken in India to better understand and model the atmospheric processes.

SURVEY OF INDIA

Survey of India (SOI), the national survey and mapping organisation under the

Ministry of Science & Technology was set up in 1767. In its assigned role as the National Principal Mapping Agency, Survey of India bears a special responsibility to ensure that the country's domain is explored and mapped suitably to provide base maps for expeditious and integrated development and ensure that all resources contribute their full measure to the progress, prosperity and security of India. The primary responsibility of SOI is to maintain topographical map coverage on 1:250 K, 1:50K and 1:25 K scales. The topographical map coverage on 1:250 K and 1:50 K scales covering the entire country have been completed and the map sheets are being updated at regular intervals to depict latest spatial information. Surveys on 1:25 K scale are being taken up as a national requirement keeping in view the priorities indicated by the Central/State governments and other user agencies.

Besides, being grouped under "Scientific Surveys" in Government of India Business Rule 1971, it has also been called upon extensively to deploy its expertise in the field of geodetic and geophysical surveys, study of seismicity and seismotectonics, glaciology, participation in Indian Scientific Expedition to Antarctica and projects related to digital cartography and digital photogrammetry, etc. to provide basic data to keep pace with Science and Technology Development. SOI has undertaken creation of Digital Cartographic Data Base of Topographical maps on various scales. The digital data is being used by various agencies for planning and GIS applications. It also undertakes large scale surveys for various developmental projects including hydro-electric, irrigation, command area, canal area, cantt. area schemes, etc. The Department is responsible to fix the external boundary of India, their depiction on maps published in the country and also advise on the demarcation of inter-State boundaries.

The Survey of India also provides support to neighbouring countries, e.g. Nigeria, Afghanistan, Kenya, Iraq, Nepal, Sri Lanka, Zimbabwe, Indonesia, Bhutan, Mauritius, etc., in the field of survey education, transfer of technology and various other surveying technologies under bilateral arrangements.

In the recent time, a Task Force chaired by the Surveyor General of India has prepared a 'Discussion Document' on the establishment of a National Geospatial Data Infrastructure which had been endorsed by the workshop on NGDI held at New Delhi during February 2001. Survey of India with its vast storehouse of Geospatial data, will serve as the engine for the NGDI. The creation of NGDI framework will provide the necessary facilities and structure of relationships among the data producers and users that will facilitate data sharing. The enlightened policy to share data on common standards and networks will, in turn, serve as a stimulus for growth. Survey of India in collaboration with sister data producing agencies plans to assume the leadership role in meeting social needs through the NGDI.

Survey Training Institute, Hyderabad established under UNDP assistance is a premier institution for training in various disciplines of surveying and mapping to the trainees sponsored by the department, other State/Central Government Organisations and neighbouring countries. It is proposed to modernise the institute by entering into collaboration agreements with institutions of repute abroad like ITC Netherlands.

The Great Trigonometrical Survey Triangulation Network of India and adjacent countries was started in the year 1802. Survey of India celebrated 200 Years of the

'Great Arc' – the greatest measurement of the earth ever undertaken, initiated 200 years ago, is considered to be one of the most stupendous works in the history of science. The 'Great Arc' exhibition was organised in U.K. in 2003 and pictorial publication and films specially made on Great Arc and the Surveying Traditions of Survey of India were released on this occasion.

A new Map Policy has been approved for dissemination of digitised maps to various users.

National Atlas and Thematic Mapping Organisation : While Survey of India meets the national needs in cartography, some specialised thematic maps required to meet the needs of the specific users are taken care of by the National Atlas and Thematic Mapping Organisation (NATMO), operating under the Department. It also concentrates its attention in a number of areas to integrate resource maps with other relevant socio- economic data and represent them in spatial forms, useful for developmental planning. NATMO is trying to develop the new technology of reverse printing for NATMO maps on experimental basis. It is also trying to introduce the technique of using metallic colours in map printing. These facilities are also being modernised.

AUTONOMOUS SCIENTIFIC INSTITUTIONS

The Department of Science and Technology provides grants-in-aid to the following 18 autonomous scientific research institutions engaged in frontier areas of research in basic and applied sciences: (i) Bose Institute, Kolkata is devoted to fundamental and applied research in physical and life sciences; (ii) Agharkar Research Institute, Pune - research in basic and applied aspects in the fields of biological sciences; (iii) Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram - developing biomedical engineering and technology; providing and demonstrating high standards of patient care in advanced medical specialities and developing post- graduate training programme of the highest quality in these fields; (iv) Indian Association for the Cultivation of Sciences, Kolkata - studies on solid state physics, material sciences, theoretical physics, spectroscopy, energy research, chemistry including biological chemistry, polymer science, etc.; (v) Indian Institute of Tropical Meteorology, Pune - functions as a national centre for basic and applied research in tropical meteorology; (vi) Indian Institute of Astrophysics, Bangalore - research in emerging as well as interdisciplinary areas of astrophysics and heavenly bodies, and development of instruments used in astrophysical studies; (vii) Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore - research in frontier areas of chemistry, physics of materials, computational fluid dynamics, geodynamics, condensed matter theory, animal behaviour, genetics, etc : (viii) Raman Research Institute, Bangalore - research in basic sciences such as astronomy, astrophysics, liquid crystals, etc; (ix) S.N. Bose National Centre for Basic Sciences, Kolkata- promoting advanced studies in selected branches of basic sciences; (x) Birbal Sahni Institute of Palaeobotany, Lucknow -research in the area of palaeobotany, its relevance in modern context, (xi) Indian Institute of Geomagnetism, Mumbai - observing and understanding some of the physical processes taking place in the innermost crusts of the earth as well as phenomena occurring on the sun and in near earth and interplanetary space; (xii) Wadia Institute of Himalayan Geology, Dehradun - basic research in areas of biostratigraphy, petrology and geochemistry, sedimentology, tectonics and environmental geology to understand the geodynamics

of the Himalayan region; (xiii) International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad - the development of high performance materials, and processes; (xiv) Technology Information Forecasting and Assessment Council, New Delhi; (xv) Vigyan Prasar, New Delhi; (xvi) National Accreditation Board for Testing and Calibration Laboratories, New Delhi; (xvii) Centre for Liquid Crystal Research, Bangalore and (xviii) Aryabhata Research Institute of Observational Sciences (ARIES), Nainital.

The DST also extends financial and administrative support to the following academies and professional bodies which are engaged in the promotion of S&T in the country through the involvement of scientists and engineers; (i) Indian Academy of Sciences, Bangalore; (ii) Indian National Science Academy, New Delhi; (iii) Indian National Academy of Engineering, New Delhi; (iv) National Academy of Sciences, Allahabad and (v) Indian Science Congress Association, Kolkata.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

The Department of Scientific and Industrial Research (DSIR), is a part of the Ministry of Science and Technology with the mandate for indigenous technology promotion, development, utilization and transfer. The primary endeavour of DSIR is to encourage industry to increase their share in country's R&D expenditure, support small and medium industrial units to develop state-of-the art globally competitive technologies of high commercial potential, catalyze faster commercialization of lab-scale R&D, enhance the share of technology intensive export, strengthen industrial consultancy & technology management capabilities and establish user friendly information network to facilitate scientific & industrial research in the country.

DSIR implements the Plan scheme "Technology Promotion, Development and Utilization (TPDU) Programme" apart from coordinating the activities of two autonomous bodies, namely Council of Scientific and Industrial Research (CSIR) and Consultancy Development Centre (CDC) and two public sector undertakings, National Research Development Corporation (NRDC) and Central Electronics Limited (CEL).

TECHNOLOGY PROMOTION, DEVELOPMENT AND UTILIZATION (TPDU) PROGRAMME

Programmes and activities under the scheme and centered around promoting industrial R&D; development and commercialization of technologies; acquisition, management and export of technologies; promotion of consultancy capabilities; facilitation of technology information to support R&D etc. The specific components of the scheme are:

- Industrial R&D Promotion Programme
- Technology Development and Demonstration Programme
- Technopreneur Promotion Programme (TePP)
- Technology Management Programme
- International Technology Transfer Programme
- Consultancy Promotion Programme
- Technology Information Facilitation Programme

INDUSTRIAL R&D PROMOTION PROGRAMME

DSIR is the nodal department for granting recognition to in-house research and development centres. The programme deals with all activities relating to recognition of in-house R&D units in industry and non-commercial scientific and industrial research organisations, fiscal incentives and other mechanisms and initiatives towards supporting and encouraging R&D efforts of industry. Incentives and support measures provided under the scheme contributed a great deal in enhancing the R&D expenditure by recognized in-house R&D units of industry. The fiscal incentives for promotion of industrial R&D were continued during the year.

TECHNOLOGY DEVELOPMENT AND DEMONSTRATION PROGRAMME (TDDP)

The Programme aims at catalyzing and supporting activities relating to technology absorption, adaptation and demonstration including capital goods development, involving industry and R&D organizations. Under the scheme, projects for absorption and upgradation of imported technology as well as development and demonstration of new and improved technologies are supported. While DSIR support has been catalytic and partial, bulk of the financial contribution in such projects have been from the industry. These projects cover products and processes in various important industries such as metallurgy, electrical, electronics, instrumentation, mechanical engineering, earth moving and industrial machinery, chemicals and explosives. TDDP projects have encouraged participation of public and private sectors in technology development efforts. The projects have significantly contributed to building of technological self-reliance in the country. The projects completed have resulted not only in significant technological and commercial returns such as cost reduction, higher quality, improved products and processes as well as foreign exchange savings to the concerned companies, but also helped in building up the R&D capabilities of the industrial units involved. Specific area viz. 'Waste to Wealth' has been identified for concentrated action.

THE TECHNOPRENEUR PROMOTION PROGRAMME (TePP)

The programme aims to tap the vast innovative potential of the citizens of India. The activities under TePP include providing financial support to individual innovators having original ideas and convert them into working models, prototypes, etc. The TePP network has been strengthened with establishment of 28 TePP Out-reach Centers (TOC). It is anticipated that around 100 new projects of independent innovators would be supported under TePP during the year 2009-10 and work on establishing an Institute of Creativity may begin.

TECHNOLOGY MANAGEMENT PROGRAMME

The programme aims to enhance knowledge and skills in the efficient management and transfer of technology. Its activities effectively supplement other programmes/activities of the Department in the attainment of technological excellence. Specific programmes have been targeted towards enhancing technology management capability in industry, R&D institutions, academic institutes and other establishments. This is helping the promotion and effective utilization of emerging technology management methodologies, and in bringing about better industry-institute inter-linkages through networking of industrial units with different academic institutions and State bodies in various States.

INTERNATIONAL TECHNOLOGY TRANSFER PROGRAMME

The Programme aims to promote international technology transfer and trade including exports of technologies, projects, services and hi-tech products. A variety of activities have been undertaken under the Programme to catalyze technology transfer and trade, involving Indian industries, R&D establishments, institutions and consultancy organisations. These have ranged from reports, compendiums and newsletters on technology export potential, workshops and awareness-cum-training programmes, technology exhibitions, etc. Besides sensitizing the concerned agencies about the significance of technology intensive exports, these initiatives have catalyzed the growth of technology intensive exports from the country.

CONSULTANCY PROMOTION PROGRAMME

The main objective of Consultancy Promotion Programme is to promote and strengthen consultancy capabilities for domestic use and export requirements. It also aims to develop sector specific consultancy capabilities and provide door step consultancy services to SMEs by setting up consultancy clinics in various SME clusters.

TECHNOLOGY INFORMATION FACILITATION PROGRAMME

The TPDU Programmes need a strong back up support of information services. Recognizing this, a component on "Technology Information Facilitation Programme (TIFP)" has been included in the TPDU Programmes. The projects under TIFP aim at developing appropriate endogenous information capacities to support R&D activities, production of local content and capture of indigenous knowledge base, promotion of information and knowledge networking thus facilitating flow and sharing of information resources. Lately, the focus has been on content development for traditional knowledge and folk wisdom, clearing house for S&T information, virtual information system and incubation centres for promoting content development.

E-GOVERNANCE IN DSIR

Under the e-Governance initiative of Government of India, a cell has been created in the Department to implement a comprehensive programme to accelerate e-Governance through information technology at all levels of Government to improve efficiency, transparency and accountability. Under the programme, computers with online connectivity are provided to all the officers for automating various activities. Department's website : www.dsir.gov.in is continuously updated.

NATIONAL RESEARCH DEVELOPMENT CORPORATION (NRDC)

The Corporation was established in December 1953 as a company, under Section 25 of the Companies Act to commercialise the research and development outputs of publicly funded R&D institutions as well as to promote the growth of indigenous technology. Its main objectives are: commercialisation of laboratory know-how, protecting inventions/technologies through IPR, financing technology development, promotion and commercialisation of inventions, development and commercialisation of rural technology, promotion of export of technology, dissemination of information on technology transfer, etc.

NRDC has signed more than 350 technology transfer license agreements in the last 10 years, resulting in premia and royalty earnings of Rs 30 crore. It has a database of

over 2,000 technologies and it is in contact with more than 1,000 active licensees. It provides value addition to technologies through angel funding/consultancy/market survey/filing patents/basic engineering design package/feasibility reports. It has signed a number of MoUs with African and South East Asian countries for technology co-operation and transfer of technology. It has recently set up a Centre for Demonstration and Promotion of Technologies in Cote d'Ivoire.

CENTRAL ELECTRONICS LIMITED (CEL)

CEL's operations can be broadly grouped into three areas, viz, solar photovoltaics (SPV), strategic electronics and railway electronics. CEL is the pioneer and a leading manufacturer of SPV cells, modules and systems and railway safety signaling equipment. In the field of strategic electronics, CEL is the only indigenous manufacturer of phase control modules, which is a key element of phased array radars.

CEL has signed agreements with Mali for supply of solar equipment and with Sudan for solar cell manufacturing line. It has commissioned a facility for manufacture of SPV modules up to 250 Wp. It has developed 40 deflection point multi-section digital axle counter. It obtained type approval of piezo generator for heat fuse 551 from Sweden and subsequently executed an order from Ordnance Factory. Activities proposed by CEL during 2009-10 include: development of solid state block equipment; development of automatic equipment identification system; creation of infrastructure for technology absorption and commercialization of security system; and expansion of manufacturing capacity to produce 30,000 to 40,000 Phase Control Modules (PCMs) per year.

CONSULTANCY DEVELOPMENT CENTRE (CDC)

The Consultancy Development Centre (CDC) came into being as a registered society in January 1986, and is functioning from its office at India Habitat Centre Complex since May 1994. The CDC was approved as Autonomous institution of Department of Scientific & Industrial Research (DSIR) in December 2004. Over the years, CDC has concentrated mainly on development of human resources, providing computerized data/information services, and strengthening of technological and managerial consultancy capabilities including promoting consultancy exports. CDC maintains a computerized database of consultants and consultancy agencies. To develop human resource capabilities in the area of consultancy, the Centre runs a 2-year Masters Degree Programme in consultancy Management in collaboration with BITS Pilani, CDC is also Secretariat of the Technical Consultancy Development Programme of Asia and the Pacific, (TCDPAP), a programme supported by DSIR for promoting consulting capabilities including consultancy and service exports in the Asia Pacific.

Recently, CDC launched e-coaching mode for MS programme. It held discussions on model accreditation grading and ranking system for consultants in India and took new initiatives in the area of safe drinking water. Activities proposed by CDC during 2009-10 include: Establishment of CDC-TCO consortium; Technology Consultancy Centers for CSIR rural technologies; Education/training/capacity building of consultancy capabilities; and course development for Institute of Consultancy Management.

COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

CSIR an ensemble of 37 national laboratories and 39 outreach centers, spread across

the length and breadth of India, plays a very active role in majority of the R&D and technology initiatives taken in India during the last six decades. Its achievements cover a wide science spectrum from aerospace to healthcare to sustainable energy to environment to advanced materials to complex engineering design and the like. It also continues to make impact in global S&T arena through its cutting edge fundamental research covering both high science and innovation. Since its inception, CSIR has been a source of indigenous technologies for industrial competitiveness, S&T base for strategic sector, technology for common mass and science for advancement of knowledge. Its recent programme namely '**CSIR-800**' presents a socialistic, yet commercially viable business model linked to the economic prosperity of a large section of the Indian Population. Another programme, initiated by CSIR, the '**Open Source Drug Discovery**' (OSDD), has a vision to develop low cost health solutions for the masses by involving volunteer researchers through a global platform. In this forum the best minds can collaborate and collectively endeavor to solve the complex problems associated with discovering novel therapies for neglected tropical diseases like Malaria, Tuberculosis, Leshmaniasis, etc.

Contribution to 'Chandrayaan': In October 2008 India launched Chandrayaan-I, India's first scientific mission to the Moon. As many seven CSIR laboratories have contributed in significant way to this prestigious mission. It includes space weather information/alerts, zinc oxide-based microelectromechanical systems acoustic sensor, acoustic testing, wind tunnel tests, designing of various civil structures etc.

In the area of Healthcare: One of the major initiatives is launching of OSDD. Modeled on development of 'www' and 'Linux', this programme was launched on September 15, 2008 and so far more than 1300 registered participants are on the portal. To begin with, OSDD seeks to develop low cost molecules for the treatment of tuberculosis, an infectious disease widely prevalent in India. Another significant achievement is the development of Indian Genome Variation Database (IGVDB), which houses Single Nucleotide Polymorphism (SNP) frequency data in over 1000 genes from disease and drug response candidates in population representing the entire genetic diversity of India. CSIR has also developed hydroxyapatite-based artificial hip joint implants, a boon for patients, particularly of old age, suffering from broken hips. Even both the hip joints can be replaced simultaneously. Yet another significant achievement in this sector is the commercialization of nano-size synthetic hydroxyapatite bone graft for dental surgery. It has also developed an ayurvedic formulation namely 'Prostalyn' for treatment of prostate cancer.

CSIR-800: The programme has a mission, that is to increase per capita income by Rs 15.00 per day of the target group which 800 million people of India living in the bottom half of the developmental pyramid. The focus areas are 'affordable health', 'sustainable energy', 'waste to wealth', 'potable water', low-cost housing' and 'empowering masses'. In first of its new endeavours, CSIR has launched '**Soleckshaw**', an optimally designed, pedal operated-motor-assisted, zero carbon emission urban transport vehicle. It is expected to have four major societal effects viz. conservation of natural petroleum resources; zero pollution (no exhaust fumes); increased self-employment for the urban and rural poor at grassroots level; enhanced dignity of human labour and cut down on the drudgery and exhaustion of pulling/peddling traditional rickshaws. To mitigate the housing problems, particularly for disaster

prone areas, CSIR has developed low-cost instant houses made up of natural fibres and industrial waste.

In the area of Sustainable Energy: CSIR has developed India's first push-button type 300 W self-supported Polymer Electrolyte Membrane Fuel Cell System. Apart from that it has developed solid oxide fuel system also towards its commitment to sustainable energy. Taking forward the concept of 'waste to wealth', CSIR has developed a technology for conversion of bagasse to biofuel which has already been transferred to sugar industry. Augmenting its technology for conversion of jatropha to biodiesel, CSIR has installed ITPD plant in collaboration with Defense Research and Development Organization(DRDO). CSIR has significant contribution in the area of solar energy research also. Technology for production of solar water heater 'Nalsun' has been developed and commercialized. In the area of solar photovoltaics, CSIR has developed materials for dye-sensitized solar cells. Further, CSIR has developed and installed small turbine to produce 5kW power utilizing geothermal energy from a natural geyser in Himachal Pradesh. In addition, CSIR has developed and installed 300 kW and 500 kW wind mills. CSIR has joined hands with Research Institute for Sustainable Energy, a section 25 company, registered under the Companies Act to carry out collaborative research in the area of sustainable energy.

In the area of Ecology & Environment: CSIR has developed an eco-friendly and energy-efficient bioleaching process for low-grade uranium ores and installed 2 tonne plant at one of the sites of Uranium Corporation of India Ltd. CSIR has developed bioceramic based composite adsorbent media for defluoridation of wastewater, which shows excellent defluoridation properties as compared to activated alumina. This adsorbent media shows high fluoride uptake capacity and selectivity under the wide range of pH, which is of immense practical importance. CSIR has also set up a bench scale Upflow Anaerobic Sludge Blanket Reactor for the biological treatment of wastes containing Hexachlorocyclohexane. Based on a two-dimensional hydrodynamic model, CSIR has proposed a storm surge disaster mitigation plan for the group of Andaman Islands. CSIR has come up with a first-ever long climate simulation with a global general circulation model with a spatial resolution of 20-km. Another significant contribution of CSIR in this area is patenting a decentralized Secure Landfill System for sludge generated from tannery sector alone with Reinforced Cement Concrete (RCC) structure which has a provision to collect leachate and treat in CETPs and also to accommodate more quantity of sludge with less area.

In the area of Biology & Biotechnology: A traditionally strong area of research for CSIR, the laboratories working in this domain contribute through high quality of research output, including basic studies, industrial processes & products. CSIR has made a comparative biochemical analysis of purified protein which suggests that *Leishmania* actin is an unconventional form of actin that could serve as an alternative target for designing novel anti-leishmanial drugs. CSIR has recently reported discovery of two spermicidal compounds (DSE-36 and DSE-37, disulphide esters of carbothioic acid) with extremely potent spermicidal action that killed 100% human sperm at just 4% of EC₁₀₀ of N-9 while remaining practically inert to human cervical cells and *Lactobacillus* at spermicidal concentration. Another significant contribution is the development of 'FishMap', a unified and centralized resource for storage, retrieval, and display of genomic information of zebrafish. Yet another achievement is construction of Helical nanofibers by CSIR from suitable self-assembling

pseudopeptide-based molecular building blocks which are suitable templates for fabricating dipeptide-capped gold nanoparticles, indicating a possible use of these nanofibers in the construction of arrays of gold nanoparticles. Recently CSIR has developed a non-recombinant membrane antigen and diagnostic kit thereof for detection of Visceral Leishmaniasis and post Kala-azar dermal leishmaniasis (PKDL).

In the area of Chemical Technology: CSIR has a direct impact in the industrial development in the area of chemical technology. It has established 20,000 tpa plant at Digboi Refinery Plant, the oldest refinery of the country, for recovery of value added products from 'tank bottoms'. It has also developed a catalytic process for manufacturing epichlorohydrin from Allyl Chloride and commissioned a 3000 tpa plant for Aditya Birla Group at Rayong, Thailand. Based on CSIR technology, a plant has been established in Chennai for the production of Sulfur of Potash using green method. Continuing its endeavour in transferring technology, CSIR has transferred an eco-friendly technology for manufacturing synthetic rutile, titanium feedstock for titanium-di-oxide, from ilmenite.

In the area of Earth System Science: In a collaborative effort with Geological Survey of India and Oil and Natural Gas Commission, CSIR has prepared and released Gravity Map series of India-2006. Acquisition and analysis of the data by CSIR led to gain of ~6,40,000 sq km in the eastern segment covering the Bay of Bengal and Andaman regions in Legal Continental Shelf. CSIR also studied lower crustal and mantle xenoliths from the kimberlite clusters combining geothermobarometry, age and petrophysical properties and subsequently mapped 4-D lithospheric of the eastern Dharwar craton. Another significant achievement is delineation of a major conductive zone buried at a depth of 2.0/2.5 km in Puga region related to geothermal reservoir. This has opened up a new front in energy sector in Jammu and Kashmir. Newer techniques have been developed for accurate prediction, undertake surveys and exploration to delineate promising reserves of hydrocarbons covering approx. 40,000 sq km.

In the area of Engineering Design and Structure: CSIR has re-engineered the navigational span of Pamban railway bridge from metre gauge to broad gauge. Another achievement is setting up of an excellent tower testing facility at Chennai which ranks among the best in the world for testing towers upto a height of 65 m and a base dimension of 22.5m x 22.5m and cross-arm width up to 36m using electro-hydraulic servo system. For carrying out advanced R&D in the area of earthquake engineering CSIR has set up an advanced seismic test facility comprising of a triaxial shake table of capacity 30 tonne, a biaxial shake table of capacity 5 tonne and multi axis pseudo dynamic testing system. Towards its commitment for Society, CSIR has developed low-cost instant house utilizing industrial waste, sisal fibre and natural fibre. These can be assembled and deployed in about half-an-hour should there be an urgent need in times of disaster.

In the area of Information: CSIR continued its efforts towards dissemination of science & technology information in the form of three well-circulated popular science magazines, *Science Reporter* (English monthly), *Vigyan Pragati* (Hindi monthly) and *Science ki Duniya* (Urdu quarterly), number of popular science books, and 16 scholarly science journals.

In the area of Materials and Engineering: CSIR has developed a special variety of photonic crystal fiber having very high nonlinearity and demonstrated its operation in generating wide band supercontinuum source required for various applications,

e.g. optical coherence tomography, spectroscopy, metrology etc. CSIR has also made an innovative use of globular/fibrous proteins to treat the implant surfaces at room temperature. The proteinaceous content of mineral coating plays a major role in determining its biocompatibility and bio-resorption. Another significant development is the fabrication of carbon fibre reinforced silicon carbide advanced composite ceramic friction plate for automotive brake and clutch applications.

New Millennium Indian Technology Leadership Initiative (NMITLI): NMITLI enjoys an unprecedented brand image and is looked upon as a role model in the domain of public-private-partnership initiatives. Under the scheme two categories of projects viz. (i) Nationally Evolved Projects (NEP), and (ii) Industry Originated Projects (IOP) are developed and supported. Besides, few projects are evolved based on the 'proof of concept' obtained from the earlier/ongoing NMITLI projects. NMITLI has made some significant progress which include developing components of Fuel Cell based on Hydrogen, Aluminum alloy matrix hybrid composite containing silicon and graphite particles, Triple play broadband technology, 500Kw low cast horizontal-axis Wind Turbine, Production of docosahexanoic acid (DHA) from thraustochytrids-technology transferred to industry, Oral herbal formulation for treatment of psoriasis entering phase-III Clinical trials Lysostaphin disorders viz. diabetes, arthritis and hepatic disorders, Five chemotypes and a phytochemical hybrid developed for Withania and Fungal and Yeast promoters developed under Novel Expression System Project. Fractionation of sugarcane bagasse to cellulose, hemi-cellulose and lignin operationalized at pilot scale and technology transferred to Godavari Sugars.

Human Resource Development: CSIR is committed to develop and nurture S&T manpower at the national level. It also promotes guides and co-ordinates scientific & industrial research through scientific projects at the national level. Some of the activities are: award of Shanti Swarup Bhatnagar Prizes (SSB) and CSIR Young scientist Awards. (YSA); selection of Junior Research Fellows (JRF) through National Eligibility Test (NET); selection of Senior Research Fellows (SRF), SRF Extended Research Associates (RA), Senior Research Associates (SRA) and Shyama Prasad Mukherjee Fellows (SPMF); funding of Extra Mural Research (EMR) schemes at Universities/R&D organizations; visiting Associateship scheme; travel/conference/symposium grants; CSIR Programme on Youth for Leadership in Science (CPYLS). In this particular year CSIR has provided support to approximately 8000 Research Fellows/Associates in different branches of Science & Technology, 122 Emeritus Scientists, 135 Pool Scientists etc.

CSIR's Human Resource Development Centre, a central training establishment, has been set-up to focus on the need for human resource development of CSIR system. The Centre continues to offer value added skill enhancement programmes. The training & development activities focus on development of skills required for the organization to remain competitive.

Intellectual Property Management: CSIR is spearheading IP movement in the country and is eyeing for top slot in elite group of patent filer worldwide. CSIR has positioned itself from being reactive to proactive IP protection by random patenting to planned patenting and designing patenting portfolios based on business plan with commercial and strategic considerations. It has filed 262 patents abroad and 699 patents in India during 2008-09. Besides, it has portfolio of 2251 patents in India and 2727 patents abroad. CSIR has published 3883 research papers in SCI journals with Average Impact Factor per paper (AVIF) as 2.17.

ATOMIC ENERGY

The Department of Atomic Energy (DAE), established on 3 August 1954 is engaged in the development of nuclear power technology, applications of radiation technologies in the fields of agriculture, medicine, industry, and basic research.

- Increasing the share of nuclear power through deployment of indigenous and other proven technologies and also developing fast breeder reactors and thorium reactors with associated fuel cycle facilities;
- Building and operation of research reactors for production of radioisotopes and carrying out radiation technology applications in the field of medicine, agriculture and industry;
- Developing advanced technologies such as accelerators, lasers etc. and encouraging transfer of technology to industry;
- Support to basic research in nuclear energy and related frontier areas of science, interaction with universities and academic institutions, support to R&D projects having a bearing on DAE's programmes and international co-operation in related areas of research; and
- Contribution to national security.

An integrated group of organizations, the Department comprises five research centres, three Industrial Organisations, five Public Sector Undertakings and three Service Organisations. It has two Boards for promoting and funding extramural research in nuclear and allied fields, and mathematics.

It also supports seven institutes of international repute, engaged in research in basic sciences, astronomy, astrophysics, cancer research, education etc. and a society that provides educational facilities to the children of DAE employees.

Following is the profile of DAE's achievements and activities under its major programmes.

NUCLEAR POWER PROGRAMME

DAE has been pursuing the following 3-stage Nuclear Power Programme :

- The first stage comprises setting up of Pressurised Heavy Water Reactors (PHWRs) and associated fuel cycle facilities. PHWRs use natural uranium as fuel and heavy water as moderator and coolant.
- The second stage envisages setting up of Fast Breeder Reactors (FBRs) backed by reprocessing plants and plutonium-based fuel fabrication plants. Plutonium is produced by irradiation of uranium-238.
- The third stage is based on the thorium-uranium-233 cycle. Uranium-233 is obtained by irradiation of thorium.

The first stage of Nuclear Power Programme is already in commercial domain. The Nuclear Power Corporation of India Ltd. (NPCIL), a public sector undertaking of DAE, is responsible for the design, construction and operation of nuclear power reactors. The company operates 17 reactors. (2 Boiling Water Reactors and 15 Pressurised Heavy Water Reactors) with a total capacity of 4120 MWe. NPCIL is also constructing 3 PHWRs and 2 light water reactors that will increase the installed nuclear capacity to 6780 MWe by the year 2008.

The Fast Breeder Programme is in the technology demonstration stage. To gain experience in the second stage, the Indira Gandhi Centre for Atomic Research (IGCAR) has been engaged in the design and development of liquid sodium cooled fast breeder reactors. IGCAR has successfully developed the Fast Breeder Reactor (FBR) technology. The operational experience of FBTR of more than two decades and further technology developments have facilitated the design of a 500 MWe Prototype Fast Breeder Reactor (currently under construction of Kalpakkam). A new public sector undertaking Bharatiya Nabhikiya Vidyut Nigam (BHAVINI) of DAE is implementing this project which is expected to add 500 MWe to the Southern grid by the year 2010-11.

The third stage of the Nuclear Power Programme is in technology development stage. The ongoing development of 300 MWe Advanced Heavy Water Reactor (AHWR) at BARC aims at developing expertise for thorium utilization and demonstrating advanced safety concepts. Thorium-based systems such as AHWR can be set up on commercial scale only after a large capacity based on fast breeder reactors, is built up.

NUCLEAR POWER PROGRAMME : STAGE-I

PRESSURISED HEAVY WATER REACTORS

For the Indian Nuclear Power Programme, that took off in the sixties, PHWR was the reactor of choice for the first stage of the programme. However, to gain operational experience, initially an atomic power station comprising two boiling water reactors (BWR) was set up at Tarapur, Maharashtra. This was a turnkey project of the General Electric of USA. Commissioned in 1969, the station is still in operation.

The first two PHWRs, at Rawatbhata, Rajasthan, started commercial production in 1973 and 1981. The first unit (RAPS-1) was built with the help of the Atomic Energy of Canada Ltd. (AECL). However, the second unit was completed with the indigenous research and development endeavour and the support of the Indian industry. This success followed commissioning of the two 220 MWe reactors at Kalpakkam near Chennai, Tamil Nadu, in the years 1984 and 1986. Later, the design of the 220 MWe PHWR was standardized and two reactors of this design were commissioned at Narora, Uttar Pradesh, in 1991 and 1992.

The design standardisation has markedly reduced gestation period of new reactors. This technology of PHWR reached commercial maturity with the commissioning of two 220 MWe PHWRs at Kakrapar (Gujarat) in 1993 and 1995. In the year 2000, four state-of-the-art 220 MWe PHWRs, two each at Kaiga (Karnataka) and Rawatbhata (Rajasthan) came online. One more 220 MWe PHWR was commissioned at Kaiga in May 2007.

The reactor design of 220 MWe PHWR was successfully scaled up to 540 MWe. Two reactors of this scaled-up design have been successfully commissioned at Tarapur, in the years 2005 and 2006. The gestation period of the reactors has also been reduced drastically.

The growing experience of NPCIL in nuclear technology has resulted in improving performance of its nuclear power plants. It has embarked on the design of 700 MWe PHWRs with the same fissile inventory as the 540 MWe reactors.

The nuclear power generation has risen from 3000 million units in the year 1981-82 to 17794 million units for the calendar year 2006.

Ongoing Projects

A total capacity of 3160 megawatt is under construction. It comprises three 220 MWe Pressurised Heavy Water Reactors, two at Rawatbhata (RAPP-5&6) and one at Kaiga (Kaiga-2&3), two Pressurised Water Reactors of 1000 MWe each at Kudankulam and one 500 MWe prototype fast breeder reactor (PFBR) at Kalpakkam.

New Projects

The Government of India has also given, in principle, site approvals for setting up 8 additional nuclear power reactors aggregating 6800 MWe. These will consist of 700 MWe. PHWRs and 1000 MWe Light Water Reactors to be located at Kudankulam (Tamil Nadu), Kakrapar (Gujarat), Rawatbhata (Rajasthan) and Jaitapur (Maharashtra).

DAE has an ambitious nuclear power programme that aims at achieving an installed nuclear power capacity of 20,000 MWe by the year 2020, through internal resources and external collaborations.

THE NUCLEAR FUEL CYCLE

The Nuclear Power Programme has a number of ancillary operations which form the Nuclear Fuel Cycle. The Front-End of this Cycle includes mineral exploration, mining and processing of ore, and fuel fabrication. Reprocessing of spent uranium fuel and management of nuclear waste form part of the Back-End of the Cycle.

India has acquired comprehensive capability in PHWR design, construction and operation of associated plants/facilities covering the entire nuclear fuel cycle of the nuclear power programme based on pressurized heavy water reactors. This includes production of heavy water that is used as moderator and coolant in PHWR.

The DAE organizations contributing to the Front-End of the Nuclear Fuel Cycle Programme are the Atomic Minerals Directorate for Research and Exploration (AMD), Hyderabad; Uranium Corporation of India Ltd. (UCIL), Jaduguda (Jharkhand); Nuclear Fuel Complex (NFC), Hyderabad; and Heavy Water Board (HWB), Mumbai. BARC and IGCAR administer the Back End of the Cycle.

Front End Fuel Cycle

The operations under the Front-End Fuel Cycle range from mining, milling and processing of ore, and fabrication of fuel. In addition, heavy water production is also an ancillary programme to the DAE's PHWR programme.

Survey and Exploration

The Atomic Minerals Directorate for Exploration and Research (AMD) is engaged in survey, exploration and evaluation of resources of uranium, thorium, niobium, tantalum, beryllium, zirconium, lithium, yttrium and rare earth elements required for the indigenous atomic energy programme of the country. The geological studies related to the selection of nuclear power plant sites and repositories for the disposal of nuclear wastes are carried out by AMD in collaboration with the Nuclear Power Corporation of India Ltd. (NPCIL)

Survey and exploration for atomic minerals had commenced in 1949. Over the years, uranium deposits have been located at Jaduguda, Bhatin, Narwapahar, Turamdih (East and South), Banduhuran (Turamdih West), Central Keruadungri, Bagjata, Kanyaluka, Mohuldih and Nandup in Jharkhand; Domiasiat and Wahkyn in Meghalaya; Lambapur - Peddagattu, Koppunuru and Tummalapalle in Andhra

Pradesh; Gogi in Karnataka and Rohil in Rajasthan. So far, AMD has established 61,000 tonnes of uranium metal.

Certain Proterozoic basins, which are the prime targets for unconformity-related high-grade uranium deposits are Andhra Pradesh; Delhi basin (fold belt) in Rajasthan; Bhima and Kaladgi-Badami basins in Karnataka, Chhattisgarh; Indravati and Abujhmar basins in Chhattisgarh; and Gwalior basin in Madhya Pradesh.

The Mesozoic and Tertiary basins, which are the targets for large tonnage sandstone type of uranium deposits under exploration, are the Mesozoic Mahadek basin in Meghalaya and Gondwana basin in Madhya Pradesh as well as the Upper Tertiary Siwalik basin in Himachal Pradesh. AMD has also stockpiled adequate resources of columbite-tantalite (niobium & tantalum mineral).

A number of beach sand deposits, containing ilmenite, rutile and leucoxene (titanium), zircon (zirconium), monazite (thorium and LREE), sillimanite and garnet have also been established in the East and West coasts in parts of Orissa, Andhra Pradesh, Tamil Nadu, Kerala, and Maharashtra, as well as in the inland Teri sand of Tamil Nadu and riverine places of Bihar and West Bengal. At Brahmagiri, Puri district, Orissa, a deposit containing 120 million tonnes of heavy mineral resources has been established. This is the largest single deposit of heavy mineral resources in the country. Besides, heavy mineral resources have also been identified at Narsapur, West Godavari district, Amlapuram, East Godavari district, Andhra Pradesh; Vayakallur-Tutto, Kanyakumari district; Tamil Nadu; and Thotatapalli - Alappuzha, Kollam and Alappuzha districts, Kerala.

So far, AMD has identified about 700 million tonnes of beach sand heavy mineral resources.

Mining and Ore Processing

The exploratory efforts of AMD, made earlier, had led to the opening of four underground uranium mines at Jaduguda, Bhatin, Narwapahar and Turamdih all in Singbhum (East), Jharkhand state. A new open cast mine was also commissioned at Banduhurang in Singbhum in 2007. These mines, being operated by the Uranium Corporation of India Ltd. (UCIL), a public sector undertaking of DAE, have been meeting the needs of the Indian Nuclear Power Programme.

To meet the projected demand of the nuclear power programme, UCIL has taken up the work to develop mines at Bagjata (in Jharkhand), Lambapur (Andhra Pradesh) and Domiasiat (Meghalaya). Efforts are being made for exploiting other secondary resources.

UCIL also operates a uranium mill for processing of the uranium ores to produce yellow cake which is further sent to NFC for fuel fabrication. In addition, magnetite present in the uranium ore is recovered as a by-product in the uranium process plant.

The research and development in the field of ore processing and uranium metal production is done at Trombay. An uranium metal production facility for production of uranium ingot operates at Trombay.

Nuclear Fuel Fabrication

Nuclear fuel fabrication for power reactors and research reactors is done respectively at the Nuclear Fuel Complex, Hyderabad, and BARC. In the development of new fuels, BARC and IGCAR are engaged.

The Indian PHWR uses natural uranium-based fuel. A major milestone was achieved with the fabrication of the first fuel element at Trombay in 1959.

For industrial scale manufacture of nuclear fuel assemblies and zircaloy structural components for power reactors, the Nuclear Fuel Complex (NFC) was set up in Hyderabad in 1971. NFC, now an ISO 9001 organisation, manufactures zircaloy-4 clad natural and depleted uranium oxide and thoria bundles for pressurised heavy water reactors, zircaloy-2 clad enriched uranium oxide fuels for boiling water reactors and stainless steel clad thoria and depleted uranium oxide blanket sub-assemblies for liquid metal-cooled fast breeder reactor. NFC also manufactures zirconium alloy structural components for the above reactors. In addition, NFC produces seamless stainless tubes, hexcans and other structurals for fast reactor core assemblies and special alloy tubes. It also caters to the demand of high quality stainless steel tubes and pipes for critical and strategic applications in nuclear power plants and re-processing plants in atomic energy.

The plants of NFC have been performing very well meeting their annual production targets consecutively for the last six years and some of the plants have even crossed their plant capacities.

At BARC a wide variety of fuels have been developed and fabricated on industrial scale for fabrication of indigenous mixed oxide (MOX) fuel assemblies for boiling water reactors at TAPS.

BARC has set-up the Advanced Fuel Fabrication Facility (AFFF) at Tarapur. The MOX fuel produced here has given satisfactory performance.

Construction of a Zirconium Oxide Plant for enhancing the production capacity of zirconium oxide powder is underway.

Titanium half alloy hydraulic tubes are critical components in Light Combat Aircraft. The first batch of these tubes has been produced by NFC for the Aeronautical Development Authority. This development is considered to have a huge economic potential.

Heavy Water Production and Upgrading

The Heavy Water Board (HWB) of DAE is responsible for building and operating heavy water plants in the country. The Board has seven heavy water plants in the country. Besides meeting domestic needs of heavy water, the board has also exported heavy water. In November 2006, the Board executed the seventh export order of 13 MT of heavy water to South Korea besides entering into a contract with US for the supply of 4400 kg of nuclear grade heavy water.

Recognizing the efforts put in by the Board in the field of energy conservation and energy management, the Bureau of Energy Efficiency of the Ministry of Power, assigned to the Board a lead role to carry out energy management and conservation for fertilizer, petroleum and chlor alkali sector industries to achieve the national goal of energy conservation.

Through continuing research, BARC had developed heavy water upgrading technology for use on commercial scale. Based on this technology, at present 23 upgrading final enrichment towers are in operation at various sites and some are under construction.

Back-End of Nuclear Fuel Cycle

The Back-End of the Nuclear Fuel Cycle comprises fuel reprocessing and nuclear waste management.

Fuel Reprocessing

The Indian nuclear power generation programme is based on closed-cycle approach that involves reprocessing of spent fuel and recycle of Plutonium and Uranium-233 for power generation.

From the inception of its nuclear power programme, DAE had commenced development of fuel reprocessing technology. It has a Pilot Plant for fuel reprocessing at Trombay and industrial scale plants at Tarapur and Kalpakkam. The plant at Trombay processes spent fuel from research reactors while the other two plants process spent fuel from power reactors.

Nuclear Waste Management

The radioactive wastes generated at various stages of nuclear fuel cycle are categorised as low, intermediate and high level wastes. The plants for management of all types of radioactive wastes have been in operation at many nuclear facilities.

The high level wastes, generated in very small quantities, are fixed in a glass matrix. Vitrification, a complex technology possessed by a few nations only, has been successfully developed at Trombay. Based on this technology, two Waste Immobilisation Plants (WIPs) have been operating at Tarapur and Trombay. A facility for the immobilisation of waste in a cement matrix has been commissioned at Kalpakkam. BARC has constructed an Advanced Vitrification System at Tarapur for high level waste immobilisation based on Joule Melter Technology. India has become one of the six countries who have developed the Joule Heated Ceramic Mixer (JHCM) and set up such facilities for vitrification of high level waste.

Vitrified waste is stored in a specially designed Solid Storage Surveillance Facility (SSSF) for about 30 years prior to its disposal in deep geological formation. The first such facility has been in operation at Tarapur since 1999.

R&D Support to Nuclear Power

The programmes relating to nuclear power and the nuclear fuel cycle have been built on the multidisciplinary R&D infrastructure of the Department. The research and development relating to PHWR programme encompasses practically all the aspects of design, manufacture, construction, commissioning, operation and maintenance of power plants. Thrust on indigenisation of equipment and components has led to the development of technologies for operation and maintenance of power reactors. The technologies that emerged from the research and development include automation, monitoring, inspection, and repair systems, equipment and gadgets. Special Purpose Machines have been designed, developed and successfully used for carrying out in-situ precision machining and cutting operations for the upgradation/maintenance of reactors. A number of state-of-the-art instrumentation and control systems for reactors and heavy water plants have been developed at BARC and IGCAR.

The R&D efforts are focused on reducing the unit energy cost through improving plant efficiency as well as plant availability factors, decreasing the project gestation period and improving plant safety. R&D has contributed immensely to plant life management. The strong R&D base has led to a number of successes notably repair of over pressure relief device of RAPS-1, en-masse removal and replacement of coolant channels of RAPS-2; Management of Calandria inlet manifold, End-shield repair; Steam generator hair-pin removal, Development of BARCIS system for in-

service inspection of coolant channels, and System to relocate garter springs in coolant channels. A number of new technologies, such as servo-manipulators, image processing based alignment system, and others have been developed. From KAPS-2 onwards, improved coolant channel material and modified channel design have been adopted for longer life of coolant channels.

At BARC, Liquid Zone Control System (LZCS) in the 540 MWe PhWR consisting of six Liquid Zone Control Assemblies containing fourteen Zone Control Compartments (ZCCs), associated equipment for circulation of liquid absorber and inert cover gas in the ZCC's and measuring and control devices were designed and installed. Micro computer based Fault tolerant real time Process Control System has been designed and delivered for 540 MWe TAPP-3&4.

Robotics is one of the major thrust areas of the R&D programmes at BARC and IGCAR. A five-degree-of-freedom Robot, for deployment in radioactive chemical laboratories, a six-degree-of-freedom Robot and a mobile Robot have been developed at Trombay. At IGCAR, for automation of non destructive evaluation, various devices have been developed. These include a Mobile Scanner (MOBSCAN), a Remotely Operated Power Manipulator (ROPMAN), and a Robot for capping and decapping bottles.

Various pieces of equipment developed by BARC helped in improving the safe operating life of coolant channels from seven to more than nine effective full power years.

The 2 MW in-pile loop in Dhruva Reactor installed for nuclear fuel studies is a major achievement. A Remotely Operated Hydraulic Trolley & Manipulator (ROHYTAM) developed for handling of nuclear power plant emergencies, successfully completed its test run. To meet the quality needs of the nuclear programme, several non destructive testing techniques and equipment have been developed by BARC and IGCAR.

DAE has been promoting technology relating to quality assurance. Over a period, this approach has paid dividends to the nation by upgrading the quality levels of the Indian industry.

Electronics & Instrumentation

To meet the hi-tech instrumentation needs of the nuclear technology, a strong R&D base was created in electronics and instrumentation, first at TIFR and later at BARC. The knowhow and the products developed at Trombay in the area of electronics have led to the setting up of the Electronics Corporation of India Ltd. (ECIL) at Hyderabad in 1967. The company pioneered the electronics and computer revolution in India. During seventies and eighties, ECIL led the television revolution in the country by bringing out indigenous black & white and colour television sets and also rural rebroadcast systems.

ECIL, is now a multi-product and multi-disciplinary organisation providing key technology inputs, system integration and system solutions in the areas of information technology, strategic electronics, communications, control and automation, instrumentation and components.

ECIL, through its software expertise, has contributed to automation in the banking sector, control room and dial-100 automation for the police, message switching systems for defence and telecom sectors, management information systems

for the ports, municipal corporations and market yards and others. The company has provided countrywide SPC telex networks, message switching network and maintenance systems for telephone exchanges, and contributed to the technology solutions, in the areas of command, control, communications, computers & information/intelligence systems. Nuclear and thermal power plants, steel plants and process industries are equipped with ECIL's control systems developed through in-house R&D.

The DAE research centres are also engaged in the development of sophisticated electronic systems, instruments and components for the nuclear power programme and various other applications.

NUCLEAR POWER PROGRAMME - STAGE : II

FAST REACTOR PROGRAMME

The second stage of nuclear power generation envisages setting up of fast breeder reactors (FBRs) backed by reprocessing plants and plutonium-based fuel fabrication plants. These fast breeder systems produce more fuel than what they consume. FBRs can increase fuel utilisation by about sixty times of what is possible with PHWRs.

IGCAR started the breeder programme with the setting up of a Fast Breeder Test Reactor (FBTR) at Kalpakkam, Tamil Nadu in October 1985. This reactor, operating with indigenously developed mixed uranium-plutonium carbide fuel has achieved its technology objectives.

The reactor operated at a power level of 17.4 MWt and the turbo-generator was connected to the grid, feeding 1.8 million units of electricity. The fuel has reached a burn up of 1,55,000 megawatt day per tonne (MWd/t), that is more than four times the originally designed value.

Based on the experience gained with the FBTR, the Bharatiya Nabhikiya Vidyut Nigam Ltd. (BHAVINI-formed in October 2003) is constructing a 500 megawatt (e) Prototype Fast Breeder Reactor (PFBR) at Kalpakkam, Tamil Nadu. It is a pool type reactor using a mixed oxide of uranium and plutonium as fuel, the design and technology of which were developed at IGCAR. The PFBR is expected to go critical in September 2010. The FBR programme is poised to enhance the electricity potential in India through available uranium-metal resources by a factor of about 100.

The thrust of the R&D programme at IGCAR is oriented towards the design validation of PFBR in the first instance, and subsequently, the design optimisation for future FBRs, to reduce the cost.

Fast Reactor Fuel Fabrication

The Mark-I mixed carbide fuel core, with high plutonium content, has been developed for the first time in the world.

Fabrication of Mark-II core is progressing at Trombay. A number of PFBR MOX fuel elements for making experimental PFBR subassembly, for irradiation in FBTR, have been fabricated by BARC.

Fast Reactor Fuel Reprocessing

For reprocessing of FBTR fuel, the lead Mini Cell, henceforth known as Compact Reprocessing facility for Advanced fuels in Lead cells (CORAL) has been

commissioned at Kalpakkam. It is aimed at establishing the fast reactor reprocessing process flow sheet. For reprocessing of fuel from fast breeders, IGCAR is setting up the Fast Reactor Fuel Reprocessing Plant (FRFRP). A comprehensive procedure has also been evolved at the Centre for the recovery of uranium and plutonium and separation of the radioactive fission products from the spent fuel solutions.

Fast Reactor Technology Development

Under the technology development programme, IGCAR is pursuing engineering-related research & development such as thermal hydraulic and structural mechanics studies, development of components such as control and safety rod drive mechanism and various test facilities such as Sodium Water Reaction Test Facility and Steam Generator Test Facility.

NUCLEAR POWER PROGRAMME-STAGE-III

THORIUM BASED REACTORS

Thorium utilisation is the long term core objective of the Indian Nuclear Power Programme for providing energy security for the country on a sustainable basis. The third stage of the Indian Nuclear Power Programme is based on the thorium-uranium-233 cycle.

A beginning has already been made by introducing thorium, in a limited way, in research reactors and in pressurised heavy water reactors.

The research reactor KAMINI operating up to a nominal power of 30kW for neutron radiography of various materials, at Kalpakkam, uses uranium-233 fuel derived from thorium. This fuel is bred, reprocessed and fabricated indigenously.

BARC is engaged in developing 300MWe advanced Heavy Water Reactor (AHWR). This endeavour aims at developing expertise for thorium utilization and demonstrating advanced safety concepts. Its reactor physics design is tuned to generate about 75% power from thorium. Being a first of its kind in the world, the AHWR design is being subjected to a rigorous peer review so as to optimize and validate it.

Mixed Thoria-Urania and Thoria-Plutonia are the candidate fuels for the AHWR. The fuel pellets have been successfully fabricated by the conventional power metallurgy route. The design of this reactor incorporates several advanced safety features. The overall physics design including core configuration has been completed. A critical facility for validation of physics calculation pertaining to AHWR core design is being set up at BARC.

Design and development of a high temperature reactor system including Compact High Temperature Reactor, Nuclear Power Pack and High Temperature Reactor for Hydrogen Generation, mainly for process heat and non-grid based electricity generation applications, are also continuing at Trombay. A Compact High Temperature Reactor (CHTR), with 100kW thermal power rating, being developed here, will be used for electricity generation in remote places, production of alternative transportation fuel such as hydrogen, and refinement of low-grade coal etc.

For breeding fissile uranium-233 from thorium, development of Accelerator Driven Sub-Critical Systems (ADS) for nuclear reactor is the latest addition to the Indian nuclear programme. ADS can provide a strong technology base for large-

scale thorium utilization. This endeavour offers promise of incineration of long-lived actinides and fission products, thereby reducing the technical complexities of storage of long-life high-level radioactive wastes. As a first step towards realization of ADS, DAE has launched development of proton injector. To carry out experimental studies on sub-critical assemblies, a 14 MeV neutron generator has also been upgraded with a higher current ion source.

For the separation of uranium-233 from irradiated thorium fuel on a plant scale, a uranium-thorium Separation Facility is in operation at Trombay.

SAFETY & ENVIRONMENT

The safety operations through the entire nuclear fuel cycle, from prospecting and mining of ores to management of waste, encompass all the aspects of safety, viz. radiological safety, industrial safety, occupational health, fire safety and environmental protection.

In all the nuclear installations, care is taken to protect operating personnel, public and the environment. An independent body, the Atomic Energy Regulatory Board (AFRB) monitors safety. The safety standards formulated by AREB are on par with those recommended by the international organisations such as the International Atomic Energy Agency (IAEA) and the International Commission on Radiological Protection (ICRP).

NPCIL is a member of the World Association of Nuclear Operators (WANO). The Association has conducted peer reviews of the atomic power stations at Kakrapar and Narora. Also, from time to time, Indian experts have participated in peer reviews in a number of countries including USA, Japan and South Korea. As a result of consistent efforts, the nuclear power plants have achieved about 260 reactor years of safe operation.

Safety surveillance inspections are regularly carried out and comprehensive Emergency Preparedness and Response Plans to handle postulated emergency scenarios are in action at the DAE facilities.

BARC and the laboratories accredited by it conduct countrywide personnel monitoring in about 3000 industrial, medical, research and DAE organisations which benefit over 30,000 radiation workers annually.

Environmental radiation monitoring and environmental surveillance are the regular features of the environmental protection programme of DAE.

At different sites, the Environment Survey Labs (ESLs) of BARC continuously monitor environment, and collect site-related meteorological data. Sophisticated weather monitoring SODAR systems are operational at Kaiga, Kalpakkam, Tarapur and Trombay.

IREMON, a nationwide network of environmental radiation monitoring stations detects radiation releases. Interfaced with global positioning system, a Compact Aerial Radiation Monitoring System. (CARMS) for estimation of large area contamination using unmanned aerial vehicle, is also in operation at Trombay.

DAE is committed to not only preserving the environment but also to its further enrichment. All the operating nuclear power plants and heavy water plants now have the ISO environment certificate.

To educate the public living around nuclear power plants, public awareness programmes by DAE organisations are organised on a regular basis.

Environment Friendly Technologies

DAE is a pioneer in conducting comprehensive thermal ecology studies in India. The flue gas conditioning technology developed by Heavy Water Board is now helping to reduce fly ash emission from thermal boilers.

The Nisarga-Runa technology developed at BARC converts biodegradable solid waste into useful manure and methane. A number of such plants have been set up at various places.

The Sewage Sludge Hygienisation plant (SHRI) at Vadodara continues to provide dried hygienised sludge for use by farmers.

The hygienised sludge being pathogen free can be beneficially used as manure in the agricultural fields as it is rich in nutrients required for the soil. Further, it can also be used as a medium for growing soil-useful bacteria like-rhizobium and azetobactor to produce enriched manure that can be used to enhance the crop yields. Large scale field trials of utilizing radiation processed municipal sewage sludge in the agricultural fields have been conducted under the supervision of Krishi Vigyan Kendra (KVK, Vadodara). The trials conducted showed increase in the yields of many agricultural crops.

RADIATION TECHNOLOGIES & APPLICATIONS

DAE's programme relating to radiation technologies and application covers building and operation of research reactors for production of radioisotopes, and other sources of radiation such as accelerators and lasers, and developing and deploying radiation technology applications in the field of medicine, agriculture and industry.

Research Reactors

The research reactor programme of DAE provided research and development support to the nuclear power programme, produces radioisotopes for use in health care, agriculture, industry and research, and provides manpower training.

The research reactors set up by DAE so far, have been Apsara (1mW, Fuel: Enriched Uranium-Aluminium alloy), CIRUS (40MW, Fuel: Natural uranium), Zerlina (zero energy, Natural Uranium), Purnima I-III (Fuel: Plutonium/Uranium-233), Dhruva (100 MW, Fuel: Natural Uranium) at Trombay (Maharashtra), and Kamini (30kW, Fuel : Uranium-233-A1 alloy) and Fast Breeder Test Reactor (40MW, Fuel : Uranium-Plutonium carbide) at Kalpakkam (Tamil Nadu). Of the research reactors, Zerlina was decommissioned in 1984, and Purnima series made way for Kamini.

Dhruva, CIRUS and Apsara are used for producing radioisotopes besides their use in research and development relating to nuclear technologies and materials, applied and basic research, and training. KAMINI is used mainly for radiography of various materials, and FBTR is the test bed for the development of fuel, blanket and structural materials for fast breeder reactor programme.

The new ventures include the development of a Critical Facility at Trombay for reactor physics experiments relating to AHWR and 540 MWe PHWR, and a pool type 200MWt Multi Purpose Research Reactor.

Radioisotope Production & Processing

India is a leading producer of radioisotopes in the world. Radioisotopes are produced in the research reactors at Trombay, atomic power reactors at various places in the country, and cyclotron at Kolkata.

The radioisotopes produced at Trombay and at the nuclear power stations, are processed by BRIT. These products include radiopharmaceuticals, labelled compounds, radiochemicals, radiobiomolecules, radiosources and a number of devices using radioisotopes.

The radioisotope-based products and services are now commercially available through BRIT.

Applications of Radioisotopes

The radioisotopes produced at Trombay find wide applications in the fields of agriculture and food, medicine and health care, industry, and research. Based on these applications, the following programmes have been established.

Nuclear Agriculture

The Nuclear Agriculture Programme of DAE focuses on the use of radiation technology for the development of high yielding crop seeds, radiation processing of food items, fertilizer and pesticide-related studies, and other areas. These technologies are benefiting Indian farmers and traders.

Crop Improvement

BARC, in collaboration with agricultural universities, has been engaged in research and development in the field of crop improvement. The Centre has successfully developed several high yielding crop varieties. Of these 29 varieties have been notified and released for commercial cultivation by the Ministry of Agriculture, Government of India. These include 12 groundnut, 11 pulses, 2 mustard varieties, 2 soybean varieties and one each variety of jute and rice.

BARC has successfully developed green manure crop - *Sesbania rostrata* that is proving highly cost-effective for small farmers. A tissue culture-based protocol for rapid multiplication of some commercial cultivars of banana has been developed here. This technology has been transferred to the Maharashtra State Seeds Corporation.

Using micro-propagation technology, BARC has standardised large-scale multiplication of pineapple. Micro propagation protocol has also been standardized in three varieties of sugarcane. The Centre has made good progress in developing hardened plants for *Acacia Victoriae* - a plant suitable for desert area. Here, several insect pheromones have also been synthesized and techniques for determination of nutrients in soils have been developed.

For wider deployment of the technologies developed by its organisations, DAE has set-up an interface with Ministry of Agriculture.

Food processing

The Department has set-up plants for demonstration of high and low dose applications of radiation. These are Radiation Processing Plant set up by BRIT at Navi Mumbai for high dose radiation processing of spices, and KRUSHAK (Krusha Utpadan Sanrakshan Kendra), set up by BARC at Lasalgaon near Nashik, for low dose applications of radiation for food preservation. This plant processes onion, pulses, rawa and turmeric.

The Government of India has approved radiation processing of certain food items both for export and domestic consumption.

The Radiation Processing Plant at Vashi processed more than 1500 MT of spices and other allied products.

The major thrust given to the area of setting up of new radiation processing plants for medical, food-related and allied products, has shown very encouraging results. Considerable progress has been achieved in the setting up of radiation processing plants in private sector. The first radiation processing plant in private sector by M/s. Organic Green Foods Ltd. is operating in Kolkata. Three Gamma Processing Plants have been completed in Sonapat (Harayana), Ambernath (Maharashtra) and Vadodara (Gujarat). Apart from supplying the Cobalt-60 sources for the new plants, BRIT provides requisite technical guidance and facilitation services (from conception to commissioning stage) to enable the entrepreneurs to commission the plants in a time-bound manner. Recently, four more private agencies have signed MOU with BRIT for setting up gamma irradiation plants in different parts of the country.

Nearly 300 tonnes of onion from a private entrepreneur were irradiated at BARC's Krushak plant at Lasalgaon, district Nashik, Maharashtra.

In April, 2007, the KRUSHAK Radiation Processing Facility became the first cobalt-60 gamma irradiation facility in the world to be certified by the United States Department of Agriculture-Animal & Plant Health Inspection Service (USDA-APHIS) for phytosanitary treatment of mangoes, enabling export of mangoes from India to USA. India exported the first consignment of 720 kg Alfonso and Kesar mangoes to the US.

All exporters interested in processing mango for exports to the US need to approach the Agricultural Product Export Development Authority (APEDA) and bring mangoes to the facility only through APEDA-approved orchards and packing houses.

Recently, an MoU has been signed between BARC and the National Centre for Electron Beam Food Research, Texas, USA for co-operation in the advancement of electron and X-ray irradiation technologies to promote food preservation, food safety and phytosanitary applications.

A 10 MeV/10 kW LINAC for food irradiation has been commissioned at RRCAT.

BRIT has also developed an install-and-operate type Irradiator for radiation processing for approval of additional items and other related issues.

Research at BARC is focused on radiation processing for preservation of cereals and pulses, fruits and vegetables, meat and meat products and seafood. In meat preservation, a process for preparation of shelf-stable intermediate moisture meat products using gamma radiation has been standardized. The effect of the combinations of radiation, packaging, and low temperatures, extension of shelf-life of a number of fruits and vegetables and coffee beans, are under extensive study.

Nuclear Medicine and Health care

Radioisotopes and their formulations find wide applications in diagnosis, therapy and health care. BARC and BRIT are the main centres of this activity.

At BARC, Cesium-137 based brachy therapy sources are routinely produced. For treatment of cancer of eye, radiation sources of the size of rice grain, containing

2-3 milli curie of Iodine-125, have been produced here. This miniature source was tried for the first time for treatment of eye cancer at Sankara Netralaya, Chennai. Another salient development here is the digital medical imaging system based on a Charge Coupled Device (CCD).

BARC has successfully developed radiation-processed hydrogel for treating burns, wounds and leprosy; Holmium-166-Hydroxy Apatite (HoHa) and Samarium-153-Hydroxy Apatite (SmHa) radiopharmaceuticals for treatment of arthritis, and radiolabelling of phosphonates with Luthinium-177 for internalised radiotherapy.

Tuberculosis is a major health problem in India. For detection of the disease infection, BARC developed a sero-diagnostic test-kit with X-ray imaging using a three dimensional cone-beam tomography which is another important development.

BARC's Radiation Medicine Centre (RMC) in Mumbai is involved in research and development in nuclear medicine and allied sciences. The centre offers diagnostic and therapeutic services using radioisotopes, and promotes human resource development in nuclear medicine. It is a regional referral centre of the World Health Organisation, and the International Atomic Energy Agency (IAEA).

Radioimmunoassays (RIA) and related procedures are used for the measurements of hormones, enzymes, certain serum proteins, and others. RMC is a major provider of RIA services in the country, to thyroid patients. This centre annually dispenses of 90,000mCi of Technetium based radiopharmaceuticals, and annually carries out 8000 radiodiagnostic investigations and 9000 radioimmunoassays.

For the radiodiagnosis needs in the eastern part of the country, the Regional Radiation Medicine Centre (RRMC) of VECC is operating at Kolkata. The Centre carries out nuclear imaging and hormone estimations.

BRIT processes and formulates radiosotopes produced in the research reactors Dhruva and Apsara at Trombay and also in the power reactors of NPCIL. These products are supplied to nearly 2000 institutions in the country for applications in agriculture, health care, and supporting research in life sciences and bio sciences. BRIT also manufactures radiation technology based equipment, and provides radiation processing services to medical sector.

Annually, BRIT supplies over 43,000 consignments of radioisotopes and allied products, and over 45,000 cold kits for formulation of ^{99m}Tc (Technetium) radiopharmaceuticals, and ^{99}Mo and ^{131}I to nuclear medicine centres and cancer hospitals all over the country. With the help of these radiopharmaceutical products and cold kits, over 3 lakh diagnostic imaging studies are performed annually, and a number of patients are treated for thyroid disorders and thyroid cancer. BRIT is working on the development of Samarium ^{32}P Phosphate colloid injection for the treatment of the disease of joints. With this development, a long-felt need of the medical community for an inexpensive alternative to bone palliation agents will be fulfilled. A new automated remote liquid dispensing system for dispensing radioactive consignments into vials has been developed and deployed in the ^{99}Mo production plant. Supply of Cs-137 Manual After-Loading Applicators was resumed for the benefit of cancer patients in the country, particularly, those suffering from the cancer of the cervix. Technology for the production of Hydrogel Burn & Injury dressings was transferred to a private sector firm in Hyderabad which is going to launch the product in a big way.

Radioimmunoassay (RIA) is a versatile *in vitro* technique for the measurement of hormones, vitamins, drugs and other substances present in biological fluids.

Another technique known as immuno-radiometric assay (IRMA) is also used for such estimations.

Nearly 10,000 RIA/IRMA kits of different hormones are supplied to about 650 RIA centres in the country. The newly developed T3/T4 magnetic particle based RIA kits have been introduced in the market for thyroid hormone investigations. About 5 lakh patient sample analysis are carried out every year using these radioimmunoassay kits.

The RIA Centres of BRIT at Bangalore and Dibrugarh conduct 6000 and 5000 radioimmunoassays annually. BRIT's regional centres at Bangalore and Delhi process ready-to-use Technetium-99m radiopharmaceuticals for use in hospitals in their regions.

Labelled compounds are versatile tools for research and tracers. Important labelled compounds supplied by BRIT include phosphorus-32 and Phosphorus-33 labelled nucleotides, Sulphur-35 labelled amino acids, Carbon-14 labelled compounds, Tritium labelled compounds, and others, and cold kits for biological research/non-radioactive labelling.

BRIT's biomolecule producing laboratory Jonaki at Hyderabad supplies over a dozen labelled nucleotides and molecular biology kits to user institutions across the country on a regular basis.

BRIT produces and supplies sealed radiation sources of Cobalt-60 and Iridium-192 to a number of radiotherapy centres in the country, for cancer treatment.

To provide a low cost alternative teletherapy unit for the expensive imported teletherapy unit, a Cobalt-50 Teletherapy Machine has been developed at BARC. The first unit of Bhabhatron installed at Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Navi Mumbai is used regularly for treating cancer patients. An improved model of the Bhabhatron has been installed in a Red Cross Hospital in Nellore, Andhra Pradesh.

Radiation Sterilization of Medical Products

BRIT has been operating radiation sterilization plant ISOMED, now ISO-9002 accredited, at Trombay. The plant provides radiation sterilization services to several users. This plant processes more than 14000 cubic metres of medical products annually.

Over two million Dai (midwifery) kits and delivery packs were radiation sterilized at ISOMED, and distributed for use in rural areas for preventing infection of mothers and helping to minimize infant mortality rate, through rural health programmes funded by WHO. The International Institute of Population Studies, Mumbai, in its study has found that the infant mortality rate has fallen by 25-30% in Rajasthan, Madhya Pradesh, Maharashtra and Uttar Pradesh, as a result of distribution of the kits in these areas.

Similar to ISOMED, plants are also in operation at the Shriram Centre for Industrial Research, Delhi and Kidwai Memorial Institute of Oncology, Bangalore. A plant for R&D purposes has been in operation at the Defence Research and Development Organisation, Jodhpur, Rajasthan.

Radiation Processing Plants in the Private Sector

With a new gamma irradiation plant in the private sector having been commissioned in Bangalore under the technical guidance facilitation services provided by BRIT

there are now five such plants operating. Seven MoUs have been entered into with private agencies for setting up such plants.

Industrial applications of Radioisotopes

The studies conducted by BARC have immensely contributed to the detection and recharge conditions of ground water bodies. Some of these include evaluation of the groundwater recharge conditions in the Delang-Puri sector of coastal Orissa, determination of the origin of thermal waters in the geothermal areas in Madhya Pradesh, Uttar Pradesh and Himalayas, and establishment of the ancient course of the legendary 'Saraswati' river in Western Rajasthan.

Major activities relating to hydrology cover evaluation of recharge measures at coastal fresh groundwater system of Thiruvadanai, Tamil Nadu, sustainability of deep groundwaters at Kuttanad, Kerala, detection of fluoride contamination in groundwaters of Karnataka, solution of leakage/seepage problems of a few dams in Kerala and Rajasthan; origin of groundwater along paleo channels in Jaisalmer district, Western Rajasthan, and seepage and source of salinity in the Indira Gandhi Nahar Pariyojana Command Area, Hanumangarh, Rajasthan.

The studies conducted by BARC on sediment transport at almost all the major ports have resulted in increasing the intervals between desilting campaigns, which saved huge cost of desilting operations. Studies on bed load transport at Kolkata and Karwar ports have helped in port-expansion programmes. A nucleonic suspended sediment concentration gauge developed at Trombay, has proved to be a useful tool of the dredging operation in ports.

Using radioisotope tracer techniques, a major study on the dilution and dispersion of the sewage disposed of into sea at the Colaba outfall in Mumbai, was conducted by BARC.

BARC's expertise in gamma scanning is being used by the major petrochemical industries for troubleshooting in process equipment, detecting leaks in buried pipelines, industrial process controls etc. Other noteworthy studies carried out by BARC include detection of leakage points in 350 km long natural gas pipeline of the Gas Authority of India, and gamma scanning of distillation and degasser columns for Mumbai and Baroda based companies.

Using radiotracing techniques, leaks in the heat exchangers of the Indian Oil Corporation's Panipat Refinery, Haryana and Tamil Nadu Petroproducts Ltd. Chennai, Tamil Nadu were detected. These techniques were also used in the effective management of the oil fields of the Oil and Natural Gas Commission.

BARC's radiotracing expertise is being used by the industrial units in many diverse ways. Gamma scanning is an indispensable non-destructive technique for solving online problems in industrial process columns. Using this technique, BARC has successfully conducted investigations on a depropaniser column of the Reliance Industries Ltd., Hazira, Gujarat, and carried out shielding integrity tests for different DAE facilities.

Gamma scanning technology developed at Trombay is used for trouble shooting and process optimization in a number of process industries in the country. This has resulted in minimizing production losses, which could be of the order of several crores of rupees per day for such big units.

Automated Gamma scanning system is developed for on-line inspection, troubleshooting and process optimization of industrial process plants, Petrochemical/

Oil refineries, Heavy Water plants etc. The technique utilizes scanning of process columns up to 70-metres height.

Radiochemicals are used as tracers for studying mechanisms of chemical reactions, leakage and flow rate measurements in pipelines and sediment studies. BRIT produces a number of radiochemicals to facilitate such studies.

The radiation technology equipment manufactured by BRIT for use in industry include radiography camera for ascertaining internal defects of welding, casting etc., Gamma chamber, a compact self shielded Cobalt-60 research irradiator for irradiating samples, and Blood Irradiator for radiation processing of blood and blood products by gamma rays to eliminate the risk of post transfusion graft versus host disease.

BRIT has helped ONGC in its soil exploration efforts by supplying ^{14}C -ammonium thiocyanate (500 mCi) and Tritiated Water (75 Ci).

NDT centres in the country are the major beneficiaries of BRIT which is the sole supplier of Ir-192 radiography sources in the country. Sealed sources are fabricated, processed and supplied for various industrial applications. BRIT also exported ^{60}Co source pencils to Vietnam.

A large number of Radiography Cameras and Gamma Chambers manufactured by BRIT are already in the use of Indian Industry. Blood irradiator developed at BRIT is used in hospitals and blood banks. Such units have also been installed at the regional centres of BRIT in Bangalore and Delhi.

BRIT processes Cobalt-60 at RAPP COF, Kota, Rajasthan, and manufactures radioisotope based equipment for industrial and other applications. For radiography examination of industrial products, it supplies Iridium-192 sealed sources and remotely operated radiography cameras (ROLI-1)

The Board also exports radioisotopes and related equipment to countries such as United Kingdom, Germany, Bangladesh, Egypt, Myanmar, Nepal, Sri Lanka, Syria and Tanzania.

Beam Technologies

Laser systems and Electron Beam Accelerators are the areas where India is one of the front runners. The DAE's research organisations viz. Raja Ramanna Centre for Advanced Technology (RRCAT) in Indore, Madhya Pradesh and Bhabha Atomic Research Centre (BARC) in Mumbai, are engaged in the development of applications in the areas of Laser systems, Electron Beam processes and devices, and Plasma devices.

Currently a number of equipment based on electron beam technologies are being developed. BARC is working with major cable manufactures to indigenously develop electron beam cross linked cables. In collaboration with Sriram Institute of Chemical Research, New Delhi, BARC developed a special formulation of PVC based material which on radiation cross-linking, leads to a product that can withstand temperature upto 105 deg. Celsius. To induce uniform crosslinking, a rotating multispindle conveyor system was designed at Trombay. The process has been commercialised.

BARC has successfully developed a 500 keV, DC Accelerator, housed at BRIT Complex, Vashi, Navi Mumbai. The accelerator has been in regular operation for surface modification studies as well as applications. M/s Reliance India Ltd. is

using it for crosslinking of plastic sheets and granules. BARC and IIT-Madras, Chennai are pursuing radiation damage studies of materials by using 500keV accelerator beams.

To meet the diverse demands of radiation processing of materials, BARC is designing and developing a 3 MeV, 30 kW DC accelerator and a 10 MeV, 10kW RF electron Linac. They are going to be housed at Electron Beam Centre (EBC), Kharghar, Navi Mumbai. A 10 MeV, 10 kW RF electron Linac has been installed and the components of a 3 MeV accelerator are in the advanced stage of fabrication. EBC is planned to serve as a unique and dedicated centre for carrying out research and development in the areas of industrial accelerators and material processing.

High Power Pulsed Electron Accelerators

High Power pulsed electronic accelerators are used for producing Flash X Rays (FXR) and High Power Microwaves (HPM). These accelerators have many applications in the industry, nuclear power sector and the strategic areas. BARC has been developing two types of accelerator in this category, namely single and repetitive shot types. Kali 200, Kali 1000 and Kali 5000 belong to the single shot and the Linear Induction Accelerator (LIA) to the repetitive type. Kali 200 has been handed over to DRDO, MTRDC Bangalore. Kali 5000 has been commissioned recently and is in use at a microwaves power level of about 2 gigawatt. The Kali-5000 is used for High Power Microwave (HPM) generation and Flash X-Ray experiments.

High Power Electron Beam Units for Thermal Processing

BARC has developed a number of High Power Electron Beam (EB) machines for evaporation, melting and welding of reactive and refractory metals and their compounds. One 150 kV, 6 kW welder has been supplied to Machine Tool Prototype Factory of Ministry of Defence, Ambarnath. This is being used for welding of maraging steel components. At present it is developing one 80 kV, 24 kW welder for welding thick section materials. The centre has recently developed one 30 kV, 80 kW melting unit for melting of reactive and refractory metals. Coating units have been developed for production of hard and corrosion resistant coatings as well as optical coatings on various surfaces.

Laser Systems and Applications

BARC and RRCAT have developed a variety of lasers that include gas lasers, solid state lasers and semiconductor lasers which find wide applications. The laser based devices that have been developed include a projectile speed-measuring instrument commissioned at the Defence Metallurgical Research Laboratory, Hyderabad, and Surface Profilo-meter for measuring roughness. For measurement of the equation-of-state-of-materials, various shock diagnostics systems are being set up at Trombay.

Plasma Devices and Systems

BARC has developed a large number of atmospheric plasma torches and processing systems. The high power plasma torches (40 - 300 kW) operating in transferred and non-transferred arc mode have been used for cutting, melting, spraying and other high enthalpy applications. A few notable examples are the joint work with Department of Space culminating in establishment of a plasma jet assisted thermal protection materials testing system at Tiruvananthapuram, underwater plasma cutting systems and plasma assisted aerosol generator for BARC. On surface engineering,

plasma spray systems have been extensively used to develop special purpose thermal barrier, chemical barrier and bioceramic coatings that have drastically improved system performance. Low pressure surface coatings of 1-2 micron have also been developed using microwave plasma.

Water Management

BARC has developed a number of desalination technologies. These are based on multi-stage flash (MSF) evaporation, reverse osmosis (RO) and low temperature evaporation (LTE). Using these technologies, desalination plants have been developed for providing potable water in rural areas and on ships, and water for industrial uses.

To utilize low pressure steam and waste heat from nuclear reactors, BARC is setting up a 6300 cubic metre/day combined MSF-RO Nuclear Desalination Demonstration Plant (NDDP) at Kalpakkam, Tamil Nadu. The plant will utilize seawater, steam and power from Madras Atomic Power Station (MAPS) for achieving cost effective desalination of seawater.

The 1800 cubic metre/day desalination unit, based on reverse osmosis (RO) process, has been commissioned. It is now producing potable water from seawater.

A small (30 cubic metre/day desalination unit, based on low temperature evaporation technology, and using waste heat of CIRUS, has been set up and commissioned at Trombay.

A 30 cubic metre/day brackish water RO plant operates at Satlana village, Jodhpur District, Rajasthan for providing drinking water to the villagers.

BARC has recently developed the Vapour Compression (VC) technology for seawater desalination and a 50,000 litres/day VC desalination plant has been installed and commissioned successfully.

BARC has also introduced an on-line Domestic Water Purifier that has been brought to the commercial market by several BARC licensees.

BASIC RESEARCH

The research centres of DAE are engaged in basic research in the areas relevant to their programmes. In addition, the autonomous research institutes, supported by grant-in-aid by DAE, are the centres of excellence in basic research that ranges from mathematics to computers, physics to astronomy, and biology to cancers.

Mathematics & Computation

In the field of mathematics and computation science, TIFR pursues academic programmes in algebra, algebraic geometry, Lie group, ergodic theory, number theory, combinatorics and topology at Mumbai and applications of mathematics at its Bangalore Centre, the *Harish Chandra Research Institute*, Allahabad, carries out research in advanced fields of mathematics and theoretical physics including astrophysics, high-energy physics, condensed matter physics and mathematical physics, and the *Institute of Mathematical Sciences* at Chennai, Tamil Nadu is engaged in research in the fields of Theoretical Physics, Mathematics & Computer Science.

In its effort to develop teraflop parallel super-computers with more than 1000 processors, BARC has developed over 15 different models of Anupam series of supercomputers since 1991. So far, 37 supercomputers have been commissioned at leading R&D and educational institutes in the country.

The Anupam-Ameya supercomputer developed by BARC is a 512 CPU cluster and is the largest and fastest in the ANUPAM series. The machine consists of 256 Dual processor Xeon based IU servers interconnected to gigabit Ethernet network.

Physics

The School of Physics of TIFR is engaged in basic research in various fields of physics.

The national Facility for High-Field NMR at TIFR provides state-of-the-art services to researchers.

The Institute of Physics, Bhubaneswar conducts research in condensed matter and high energy, nuclear, atomic and accelerator based physics and other related subjects. One of the main experimental facilities at the Institute is the Ion Beam Accelerator. The research facilities set up here are used by the researchers from within the Institute as well as from other research institutes and universities in India.

At the *Harish-Chandra Research Institute*, the research in physics covers the work on understanding the ground state of open string theories, which possess tachyons. Supergravity solutions with a positive cosmological constant are the other major areas of studies.

Seismic Studies

BARC monitors seismic activities at Garibidanur in Karnataka, Delhi and Trombay seismic stations. In addition to routine seismic analysis, research is also carried out in surface wave studies, development of analysis software and in other front line areas.

Superconductivity

The field of superconductivity holds big promise for the future. BARC has completed a test facility to characterize samples of superconducting cables at liquid helium temperature. At VECC, test facility has already been created and successfully used to characterize superconducting cable and their joints. IGCAR is also working towards the development of SQUID based systems for material technology including non-destructive testing.

Astronomy

In the field of radioastronomy, a *Radiotelescope Array*, set up in the Nilgiri Hills near Ootacamund, Tamil Nadu, has been in use for decades. It is used in the studies of distant extragalactic radio-sources and interplanetary objects.

At Narayangaon, near Pune, Maharashtra, the *Giant Metre Wave Radio-Telescope* (GMRT) with 30 gigantic parabolic dishes, has been in operation. Set up by TIFR, the telescope is a frontline research facility in radioastronomy and is the world's most powerful radiotelescope in its range. GMRT is now a full fledged international observational facility for radioastronomy. A number of national and international users have carried out research in astronomy, on this telescope.

Another international class astronomy-research facility *GRACE* has been set up by BARC at Mount Abu, Rajasthan. It includes TACTIC. (Tera-electron-Volt Atmospheric Cerenkov Telescope with Imaging Camera). This is the first-ever Indian imaging gamma-ray telescope, and is being used for high-sensitivity observations of cosmic gamma ray sources above 1 TeV energy.

Chemistry

BARC provides state-of-the-art services to nuclear power plants, research reactors and heavy water plants, and carries out research in the frontier areas of chemistry.

The Centre also offers specialised analytical chemistry services to various user organizations within DAE and outside. The type of samples analysed cover a wide spectrum of materials such as metals and alloys, organic and organometallic compounds, inorganic compounds, rocks and minerals, nuclear and strategic materials, highpurity materials, environmental and biological materials and others.

BARC's Centre for Compositional Characterization of Materials (CCCM) in Hyderabad provides high quality analytical services to various departmental, governmental and private institutions.

Biology

At Trombay, the research in bio-sciences is directed towards evolving high yielding food crops, delaying or preventing post-harvest losses by increasing shelf life, developing modalities for low dose cancer radiotherapy and employing molecular and isotope techniques in basic biology for disease diagnosis and finger printing of individuals and population.

The *National Centre for Biological Sciences* of TIFR at Bangalore has been working on research initiatives in the frontline areas of biology.

The *Saha Institute of Nuclear Physics*, Kolkata is engaged in research elucidating the structure function correlation of biomolecules at the cellular and molecular level.

RESEARCH EDUCATION LINKAGE

DAE supports synergistic interaction amongst the national laboratories and the university systems through a number of mechanisms such as utilisation of DAE's research facilities through Inter-University Consortium, funding of extra-mural research, grant-in-aid to institutes of national eminence, and others.

UGC-DAE Consortium for Scientific Research

DAE and the University Grants Commission (UGC) had signed an MoU (Memorandum of understanding) in 1989 for setting up Inter-University Consortium of DAE Facilities (IUC-DAEF) at Indore. The Consortium, now known as UGC-DAE Consortium for Scientific Research, functions under the control of UGC. The scope of co-operation between UGC and DAE has been broadened to include all programmes pursued by DAE in the area of physical, chemical, life and engineering sciences.

Academic Programmes

The research centres of DAE are recognized by universities as the centres for research leading to postgraduate degrees. A number of scientists and engineers are recognized as post-graduate teachers by the respective universities. The employees are encouraged to register and obtain research degrees based on the work done in these research centres.

Homi Bhabha National Institute having the status of deemed University, has been instituted in the year 2005 for nurturing the young talents to pursue research activities in nuclear science and technology and allied subjects to meet the future human resource needs of the DAE.

Funding of Extra-mural Research

DAE encourages and promotes scientific research in universities, institutes and laboratories in the areas of relevance to the Department. This is done through the **Board of Research in Nuclear Sciences (BRNS)** and the **National Board for Higher Mathematics (NBHM)**, both in Mumbai.

BRNS is an advisory body of the DAE to recommend financial assistance to universities, academic institutions and national laboratories. It supports high quality R&D projects and lays emphasis on collaborative programmes amongst DAE organisations and the organisations outside the Department. It also provides financial assistance to organize symposia/conferences/workshops on topics of relevance to DAE programmes.

To motivate young scientists to adopt a career of research, BRNS awards projects to them. It has initiated DAE Graduate Fellowship Scheme also. The Board awards Dr. K.S. Krishnan Research Associateships to attract highly talented young scientists and technologists. Its DAE-BRNS Senior Scientist Scheme aims at utilizing the expertise of active retired scientists/engineers who were involved in high quality research in the units of DAE or any National Laboratory or Universities/ Institute, and who, after retirement, are keen to carry out R&D in the field of their choice and of interest to DAE. It offers Homi Bhabha Chair to honour distinguished scientists. BRNS also encourages visiting scientist programmes for promoting active interaction with senior level scientists.

BRNS has also introduced "DAE Science Research Council (DAE-SRC) Award" that aims to set up frontier area research units around individuals. During the year 2006-07, the Board approved 90 new research projects.

DAE, through the National Board for Higher Mathematics (NBHM) is engaged in promoting excellence in higher mathematics, education and research in the country.

NBHM operates schemes such as helping the development of mathematical centres, giving scholarships to research fellows at doctoral and post-doctoral levels, travel assistance to young mathematicians for attending conferences/seminars etc., visiting professorship, assistance for research project/schemes, support to libraries, assistance to conferences, monitoring Mathematics Olympiads, and others. In collaboration with the International Mathematical Union, NBHM initiated schemes for making mathematical literature accessible through electronic-communication. During the year 2006-07, an annual budget of Rs. 12 crore was allocated to the Board. One third of the budget of NBHM is released to the mathematics departments of about 80 universities/institutions towards library support for purchase of books of mathematics.

NBHM will be hosting the next International Congress (ICM 2010) in India.

Grant-in-Aid to institutions and cancer hospitals

DAE provides grant-in-aid to seven national research institutes engaged in basic and applied research work ranging from natural sciences, mathematics and astronomy to cancer and fusion research. The Department also supports a society which manages education for the children of DAE employees.

Growing synergy between these research institutions and the research and development units of DAE has led to several joint projects between the DAE units and the aided Institutions.

During the financial year 2006-2007, the grant-in-aid of about Rs. 532 crore was provided by DAE to these institutions.

DAE extends financial assistance to cancer hospitals located in various parts of the country. The financial support provided in this regard during the year 2006-2007 was about Rs. 6 crore. The Department, under a Tripartite Agreement with the North-Eastern Council and the Government of Assam, is further strengthening Dr. B. Barooah Cancer Institute, Guwahati, Assam. The hospital is the regional centre for cancer treatment and control in the North-Eastern Region.

DAE has also initiated Out-Reach efforts in cancer care programme that include creation of better network between cancer institutions in the country focusing on research and development, training and preparation of protocols for treatment, as well as incentive for indigenisation of radiation-related equipment for cancer treatment.

International Research Collaboration

Under a co-operation agreement, signed in March 1996, DAE, through its units, is engaged in development and supply of sophisticated components for Large Hadron Collider (LHC), a particle accelerator under construction by European Organisation for Nuclear Research (CERN) at Geneva, Switzerland.

Under this collaboration, through development done at RRCAT, delivery of over 7000 precision magnet positioning system (PMPS) jacks and about 2000 superconducting corrector magnets, over 1400 Local Protection Units for the LHC was completed by January 2006. Photo-multiplicity detector arrays have been manufactured at VECC, installed, and commissioned at LHC, CERN, Geneva and Relativistic Heavy Ion Collider (RHIC) in the Brookhaven National Laboratory of United States. VECC scientists have also participated in experiments, and joined in collaborative data analysis.

RRCAT has also collaborated with CERN on Novel Accelerator Technologies in the upcoming Compact Linear Collider Test Facility (CTF-3) and super conducting proton LINAC 4 projects at CERN.

CERN and BARC have strong collaborative activities which include supply of 1000 numbers of large area silicon strip detectors for use in Compact Muon Solenoid (CMS) at CERN. About 800 detectors have already been delivered.

At SINP, 80,000 MANAS chips were fabricated and delivered to CERN.

Contributions of DAE and other organisations in India to such activities have earned the "Observer" status for India at CERN.

BARC has supplied and successfully commissioned RF Resonator Control Electronics for Super-conducting Linac at the Australian National University, Canberra, Australia.

In the past, BARC had participated in an IAEA sponsored international effort for searching of Sr-90 "orphan sources" at Georgia. The Aerial Gamma Spectrometry System (AGSS), developed by BARC, was deployed in the search operations. The technical superiority of this system in detecting the orphan sources and the expertise of BARC staff in locating the same, and training of the staff of Nuclear Radiation and Safety Services (NRSS), Ministry of Environment, Georgia in the operation of the AGSS system, were highly appreciated by both the Government of Georgia and IAEA.

National Security

On May 18, 1974, India had conducted a peaceful underground nuclear experiment at Pokhran in Rajasthan desert. Here after twenty four years, on May 11 and 13, 1998, India successfully conducted five nuclear tests that included a thermonuclear device, a fission device and three sub-kiloton nuclear devices.

Material Sciences

In the area of material science, the efforts of BARC and IGCAR are directed towards the development of materials for pressure vessels, clad and control elements, multiphase alloys and structural intermetallics, refractory metals and alloys, preparation of radiation sources, ultra high purity metals, and other special applications.

Accelerators

DAE has established capability in design, construction and operation of accelerators used in nuclear research, isotope production and radiation processing. The Variable Energy Cyclotron (VEC) at Kolkata, 14MV Pelletron Accelerator in Mumbai, and Synchrotron Radiation Sources (SRS) Indus I&II at the Raja Ramanna Centre for Advanced Technology (RRCAT) Indore, and Folded Tandem Ion Accelerator (FOTIA) at Trombay, are the major accelerator facilities in the country.

Cyclotrons & Other Accelerators

The **Variable Energy Cyclotron Centre** (VECC) at Kolkata is a national centre for accelerator-based research. The Variable Energy Cyclotron set up here by BARC in 1977, is used for basic research. It also produces radioisotopes for various applications. The Cyclotron is utilized by over 35 national laboratories and universities.

The Electron Cyclotron Resonance (ECR) ion source at VECC is a unique facility for research with heavy ions. An ECR-2 Ion Source is also connected to cyclotron. The heavy ion accelerator programme has succeeded in providing the heavy ion beams beyond 6 MeV/nucleon. So far oxygen, nitrogen, argon, neon, sulphur ion beams have been accelerated successfully. For the study of exotic nuclei, an indigenously designed and fabricated Isotope Separator-on-Line (SOL) system is also in operation here.

Currently, VECC is constructing a K500 Superconducting Cyclotron and a Radioactive Ion Beam (RIB) facility for accelerating radioactive ions.

The installation, commissioning, cool down, liquid helium filling, progressive increase of current in the superconducting magnets etc have been accomplished. The maximum current achieved in small coils is 600 amperes and in large coils is 675 amperes. The peak magnetic field achieved is 5.0 Tesla. The magnetic field mapping of particle acceleration zone and analyses of data have been completed.

The Cyclotron was planned for re-commissioning from February 2007.

An ISOL (Isotope Separator On-Line) post-accelerator type Radioactive Ion Beam facility project is also under development at this centre. The facility will utilize proton and alpha beams from the existing cyclotron accelerator and thick targets to produce short lived radioactive species. These will be ionized in an on-line ion source, mass separated for purity and accelerated to higher energies for accelerator-based physics research. The most important landmark of this project so far is the successful development of heavy ion REQ (Radiofrequency Quadrupole) accelerator. This is-the

first of its kind in India and only a few countries in the world today have this technology. An on-line ECR ion source and on-line isotope separator have been developed, that is working nicely. Significant progress has been made in the research and development of thick target, two-ion-source for the production of high charge state ions, helium jet coupled two stage skimmer system. A special type Linac cavity for acceleration of low energy heavy ions is in the advanced stage of fabrication now. The facility is expected to deliver a few radioactive ion beams from early 2008.

Synchrotron and its Utilization

In the late 80s, accelerator-related research and development in India got a boost with the setting up of the Raja Ramanna Centre for Advanced Technology (RRCAT). It took up the task of setting up two Synchrotron Radiation Sources (SRS). In the first few years, the injector system in the form of a 20MeV microtron and a booster synchrotron (450-700 MeV) were set up. Then the first ring Indus-1, a 450MeV SRS was put together as a national research facility, in 1998. Current was stored in Indus-I, for the first time, in April 1999. This SRS has since been operating routinely.

The work on construction of Indus-2, a 2.5 GeV SRS commenced in the late 90s and the assembly of ring was completed in 2005. The commissioning of this ring, and experiments to store the beam started towards the end of 2005. Indus-2 has now commenced operation and starting with injection of electrons at 550 MeV, a stored current of up to 38 mA was achieved. The beam energy was ramped up to 2.4 GeV.

Only about a dozen countries in the world have the capability in designing and construction of complex accelerators like Indus-2.

FOTIA

For providing light and heavy ion beams for use in basic and applied research in nuclear, atomic and material sciences, BARC had commissioned a Folded Tandem Ion Accelerator (FOTIA) in April 2000 at Trombay. The accelerator is being used for various research and development work.

Pelletron

The BARC-TIFR *Pelletron Accelerator Facility* at Mumbai, operating for over a decade, has made an impact internationally, in the field of nuclear research. To further increase the beam energy of Pelletron, a superconducting linear accelerator (LINAC) is being set up. The Phase-I of LINAC is operational now.

Other Accelerators

Recently, IGCAR has successfully commissioned at Kalpakkam, a 1.7 million-volt Tandem accelerator, with high current and heavy ion capability.

The design of a 30 mA, 10 MeV Proton LINAC has been initiated at BARC.

Fusion & Other Plasma Technologies

The Institute for Plasma Research (IPR), Ahmedabad operated ADITYA Tokamak for the studies on high temperature magnetically confined plasmas. These studies have important implications on the nature of particle transport in the edge of tokamaks.

To address physics and technology issues related to advanced Tokamak configurations, SST-1, one of the world's first Superconducting Steady State Tokamaks with elongated diverter plasmas and 1000 second operation capability, is being set up at IPR. Most of the sub systems of SST-1 have been fabricated, assembled and

individually tested before final assembly. The basic machine itself is now fully assembled and is going through the process of commissioning.

Experts from International Thermonuclear Experimental Reactor (ITER) central team and member countries assessed India's technical capability and preparedness to participate in the ITER project as full member. At the end of successful negotiations India's accession to ITER took place on the December 6, 2005 during Negotiator's meeting at Jeju in South Korea. Also an acceptable package has been allotted to India that includes sub-systems requiring contribution from the Indian heavy industry such as the large cryostat of ITER including erection and commissioning, components for the cooling system, cryolines and components for cryo-distribution system, vacuum vessel shields etc. The Indian package also includes components for high technology systems like Ion Cyclotron heating and Current drive, Electron Cyclotron Start up system, Diagnostic Neutral Beam and some diagnostic systems. It is a matter of pride that the international fusion community has accepted Indian expertise in fusion science and technology at the international standard and shown confidence by accepting India as a member and allocating a demanding package to be delivered.

ITER

Fusion is the energy source of sun and stars. In fusion, two light nuclei (e.g. deuterium and tritium) combine to form a heavier nucleus, and a large amount of energy is released. For the past 50 years, scientists have been working on the development of fusion technologies to generate energy on earth. Fusion has several attractions as a large-scale energy source. Its basic fuels are abundant and available everywhere and the technology is environment-friendly.

Considering the complexity of this technology, Japan, European Union, the then Soviet Union and the United States had established a collaborative project International Thermonuclear Experimental Reactor (ITER) in 1985 to harness fusion energy. China and South Korea also joined the consortium of parties to the ITER venture.

India has had a fusion research programme of its own, since the early eighties. Two tokamaks have been indigenously built at the Institute for Plasma Research (IPR) near Ahmedabad, and a small tokamak has been imported from Toshiba, Japan for the Saha Institute for Nuclear Physics, Kolkata (SINP).

Two years ago, the European Union (EU) encouraged India to join ITER and a team from EU visited India for initial discussions in October 2004. This was followed by further interactions at the international level and approvals at home. Finally India was admitted to the ITER negotiations on December 5, 2005 at a meeting held at Jeju, South Korea.

The ITER project is an international collaborative research project on an unprecedented scale, which will reproduce the fusion reaction on the earth. ITER is the Latin for "the way".

India will contribute equipment worth nearly 500 million US dollars to the experiment and will also participate in its subsequent operation and experiments. India's contributions to ITER are largely based on the indigenous experience and the expertise available in Indian industry.

India will be fabricating the 28 m dia, 26 m tall stainless steel cryostat, which forms the outer vacuum envelope for ITER. The vacuum vessel shields made of 2%

boron steel and occupying space between the two walls will also be designed and fabricated by India. It will also take up the design and fabrication of eight 2.5 mega watt ion cyclotron heating sources, complete with power systems and controls. It will also take up the fabrication of a diagnostic neutral beam system which will give crucial information about the physics of burning plasmas in ITER. India will also be responsible for a number of other diagnostic subsystems. Finally, India will contribute to cryo-distribution and water cooling subsystems. All this equipment will have to be built with ITER quality standards and in a time frame (approximately ten years) determined by the International Team at the host site in Cadarache, France.

TECHNOLOGY TRANSFER

The research carried out in DAE research centres is generating several spin-off technologies that are transferred to industry for commercial production. These centres also provide various technical services that are benefiting industry. The recent ones transferred from BARC to industry are on-line domestic water purifier, electrolyzing of reactor channel sealing plug jaws, and improved laser dia gauge, Medical Analyser Software Technology, Digital Medical Imaging System etc. The technology of nisarg-runa, a biogas plant based on biodegradable waste, has been transferred to about 30 parties. The instrumented pipe inspection gauge is now commercially available to inspect 12-inch oil pipe lines.

BARC has also transferred the technology of the indigenously developed Cobalt-60 teletherapy unit to private entrepreneurs for commercial production.

The Technical Services offered by DAE research centres to industry are related to non-destructive testing, stress measurements, acoustic topography, material characterisation and others.

BARC offers complete range of conventional fabrication and machining, specialized design and development expertise, and coordinate machining facilities, for developing sophisticated equipment for various applications. The Centre also provides analytical services for determining radioactivity content, in packed drinking water samples and samples for pharmaceutical companies.

Human Resource Development

In 1957, BARC had started a Training School at Trombay to prepare a select group of young scientists and engineers every year for responsible positions in various institutions and projects of DAE. Since its establishment, over 7000 young men and women from varied disciplines have passed through the portals of the School. They are contributing to all the segments of the nuclear programme.

The School admits about 100 Engineering graduates and Science post-graduates annually, mainly in the disciplines of Physics, Chemistry, Biology & Radiobiology and Engineering (Chemical, Mechanical, Electrical, Computer, Electronics and Metallurgy). They go through an integrated course for one year, which exposes them to the multi-disciplinary culture of the Department. There is also an additional entry channel via the DAE Graduate Fellowship Scheme (DGFS), which operates in collaboration with six IITs. About 40 graduates are sponsored for MTech in these IITs who join the department after obtaining the qualification. This group also goes through a 4-month induction course at the Training School.

The endeavour of the School is to produce an individual in whom there is an integration of a large number of sciences and technologies, that are demanded by any work in atomic energy today.

Some other courses conducted by various divisions of BARC are :

- Radiation Medicine
- Medical Radioisotope Techniques
- Health Physics
- Radiological Physics
- Radiation Protection and Safety of Radiation Sources
- Radiation Safety in Industrial applications of Radioisotopes and X-rays
- Radiography Testing Techniques
- Radioactive Waste management
- Safety Assessment of Waste Disposal
- Radioimmunoassay and its Clinical Application
- Chemical Analysis and NDT Techniques
- Operation/maintenance and Inspection of Research Reactors
- Mutation Breeding of Tropical Crop Plants
- Pesticide Residue Analysis

To cater to the growing demands of DAE, BARC Training School now has affiliates for various specializations. The BARC Training School thus has associated with it the Training Schools at the Centre for Advanced Technology (CAT), Indore, the Nuclear Fuel Complex-Heavy Water Board (NFC-HWB), Hyderabad and the Nuclear Power Corporation of India Ltd. (NPCIL) Training School with centres at Tarapur, Rawathaba, Kaiga and Kalpakkam. Each of these training schools prepare the scientists and engineers for specific tasks as follows.

- CAT Training School is for research and development in lasers, accelerators, cryogenics, superconductors, material science, power electronics and microwaves.

- NPCIL Training School is for training in operation and maintenance of nuclear power plants.

INTELLECTUAL PROPERTY PROTECTION

To protect the intellectual property created during the process of research and development in the R&D organisations of DAE, an Intellectual Property Rights (IPR) Cell of DAE works as a nodal agency for all the IPR related matters including filing of patents within India and abroad.

Cumulatively till date DAE has filed 168 patent applications out of which about 89 patents have been granted and 59 are in force.

International Relations

India is a designated member of the Board of Governors of the International Atomic Energy Agency (IAEA) since its inception. Besides taking active part in policy management and programme of the Agency, India offers training facilities, fellowships, scientific visits, etc. to foreign scientists and provides the services of its scientists for expert assignments to other countries, both through IAEA and to the countries with which we have entered into bilateral agreements for co-operation in the field of peaceful uses of atomic energy.

INDIAN SPACE PROGRAMME

Despite being a developing economy with its attendant problems, India has effectively developed space technology and has applied it successfully for its rapid development and today is offering a variety of space services globally. During the formative decade of 1960s, space research was conducted by India mainly with the help of sounding rockets. The Indian Space Research Organisation (ISRO) was formed in 1969. Space research activities were provided additional fillip with the formation of the Space Commission and the Department of Space by the government of India in 1972. And, ISRO was brought under the Department of Space in the same year. In the history of the Indian space programme, 70s were the era of Experimentation during which experimental satellite programmes like Aryabhata, Bhaskara, Rohini and Apple were conducted. The success of those programme, led to era of operationalisation in 80s during which operational satellite programmes like INSAT and IRS came into being. Today, INSAT and IRS are the major programmes of ISRO.

For launching its spacecraft indigenously, India is having a robust launch vehicle programme, which has matured to the state of offering launch services to the outside world. Antrix, the commercial arm of the Department of Space, is marketing India's space services globally. Fruitful co-operation with other space faring nations, international bodies and the developing world is one of the main characteristics of India's space programme.

The most significant milestone of the Indian Space Programme during the year 2005-2006 was the successful launch of PSLV-C6. On 5 May 2005, the ninth flight of Polar Satellite Launch Vehicle (PSLV-C6) from Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota successfully placed two satellites - the 1560 kg CARTOSTAR-1 and 42 kg HAMSAT - into a predetermined polar Sun Synchronous Orbit (SSO). Coming after seven launch successes in a row, the success of PSLV-C6 further demonstrated the reliability of PSLV and its capability to place payloads weighing up to 1600 kg satellites into a 600 km high polar SSO.

The successful launch of INSAT-4A, the heaviest and most powerful satellite built by India so far, on 22 December 2005 was the other major event of the year 2005-06. INSAT-4A is capable of providing Direct-To-Home (DTM) television broadcasting services.

Besides, the setting up of the second cluster of nine Village Resource Centres (VRCs) was an important ongoing initiative of the Department of Space during the year. VRC concept integrates the capabilities of communications and earth observation satellites to provide a variety of information emanating from space systems and other IT tools to address the changing and critical needs of rural communities.

INDIAN NATIONAL SATELLITE SYSTEM

The Indian National Satellite (INSAT) system is one of the largest domestic communication satellite systems in the Asia-Pacific region. In the 1980s, it initiated a major revolution in India's communications sector and sustained the same later. The satellites of INSAT system, which are in service today, are INSAT-2E, INSAT-3A, INSAT-3B, INSAT-3C, INSAT-3E, KALPANA-1, GSAT-2, EDUSAT and INSAT-4A, that was launched recently. The system provides a total of about 175 transponders in the C, Extended C and Ku-bands. Being a multipurpose satellite system, INSAT provides services to telecommunications, television broadcasting, weather forecasting, disaster warning and Search and Rescue fields.

The INSAT system serves many important sectors of the Indian economy. Foremost amongst them is Telecommunications sector wherein INSAT is providing Mobile Satellite Service besides providing VSAT services. Today, more than 25,000 Very Small Aperture Terminals (VSATs) are in operation.

Similarly, Television broadcasting and redistribution have been immensely benefited by INSAT. Thanks to INSAT, more than 900 million people in India have access to TV through about 1400 terrestrial rebroadcast transmitters. In addition to this, social development through exclusive channels for training and developmental education has become possible through INSAT. And, a Telemedicine network to take super specially medical services to the remote and rural population has become a reality. The network now covers 152 hospitals—120 remote rural hospitals and 32 super specialty hospitals in major cities. The launch of EDUSAT, India's first thematic satellite dedicated exclusively for educational services, has provided further fillip to the educational services offered by the INSAT system.

INSAT system is also providing meteorological services through Very High Resolution Radiometer and CCD cameras on some of its spacecraft. This apart, cyclone monitoring through meteorological imaging and issue of warnings on impending cyclones through disaster warning receivers have been operationalised. For this, 350 receivers have been installed along the east and west coasts of India.

INDIAN REMOTE SENSING SATELLITE SYSTEM

India has the largest constellation of Remote Sensing Satellites, which are providing services both at the national and global levels. From the Indian Remote Sensing (IRS) Satellites, data is available in a variety of spatial resolutions starting from 360 metres and highest resolution being 2.5 metres. Besides, the state-of-the-art cameras of IRS spacecraft take the pictures of the Earth in several spectral bands. In future, ISRO intends to launch IRS spacecraft with better spatial resolution and capable of imaging day and night. The satellites of IRS system which are in service today are IRS-1C, IRS-ID, IRS-P3, OCEANSAT-1, Technology Experimental Satellite (TES), RESOURCESAT-1, and the recently launched CARTOSAT-1 capable of taking stereo pictures. The upcoming Remote Sensing Satellite are *Cartosat-2*, *RISAT* (Radar Imaging Satellite) and *Oceansat-2*.

Imagery sent by IRS spacecraft is being put to a variety of uses in India with agricultural crop acreage and yield estimation being one of the most important uses. Besides, such imagery is being used for ground and surface water harvesting, monitoring of reservoirs and irrigation command areas to optimise water use. Forest survey and management and wasteland identification and recovery are other allied uses. This apart, IRS imagery is also used for mineral prospecting and forecasting of potential fishing zones.

With regard to applications in planning and management, IRS data is being used for urban planning, flood prone area identification and the consequent suggestions for mitigation measures. Based on this experience, the concept of Integrated Mission for Sustainable Development has been evolved wherein the spacecraft image data is integrated with the socio-economic data obtained from conventional sources to achieve sustainable development.

LAUNCH VEHICLES

After successfully testing the first indigenous launch vehicle SLV-3 in 1980, ISRO built the next generation Augmented Satellite Launch Vehicle (ASLV). ISRO's Launch

Vehicle Programme had a giant leap with the successful launch of IRS-P2 spacecraft onboard the Polar Satellite Launch Vehicle (PSLV) in October 1994. On 18 April 2001, India successfully launched its Geosynchronous Satellite Launch Vehicle (GSLV). Technology development for advanced launch vehicles made good progress with the breakthrough achieved during the year in Supersonic Combustion Ramjet (SCRAMJET) to be employed in Air-Breathing engine. This is an important element in the launch vehicle technology development. Concepts for reusable launch vehicle are also being studied.

POLAR SATELLITE LAUNCH VEHICLE

The four stage PSLV is capable of launching upto 1,600 kg satellites into a 620 km polar orbit. It has provision to launch payloads from 100 kg micro-satellites or mini or small satellites in different combinations. It can also launch one-ton class payloads into Geosynchronous Transfer Orbit (GTO). So far, it has performed nine missions with eight consecutive successes. The latest launch of PSLV (PSLV-C6) was on 5 May 2005 during which the vehicle precisely placed the 1560 kg CARTOSAT-1 and the 42 kg HAMSAT into a 620 km high polar SSO.

GEOSYNCHRONOUS SATELLITE LAUNCH VEHICLE

The GSLV was successful on its very first test flight. After its successful second flight on 8 May 2003, it was commissioned. This was followed by the success of its third flight on 20 September 2004. The GSLV is capable of launching 2,000 kg class satellites into Geosynchronous Transfer Orbit (GTO). The development of Indigenous cryogenic stage to be used as the third stage of GSLV made further progress during the year. The cryogenic engine which forms part of this stage, has already been successfully qualified. GSLV-Mk III, a new version of GSLV and capable of launching spacecraft weighing upto 4 tonnes to GTO is under development.

LAUNCH INFRASTRUCTURE

An elaborate launch infrastructure exists at the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota Island on the East Coast of India which is about 100 km from Chennai. Sriharikota is located at 13° North latitude. From here, satellites can be launched into a variety of orbital inclinations starting from 18° and extending upto 99°. Full-fledged facilities for satellite integration, assembly and launch exist there. Sriharikota also houses a Telemetry, Tracking and Command network for tracking satellites and monitoring them. The newly built Second Launch Pad at SDSC SHAR as a redundancy to the existing launch pad, and to cater to the requirement of GSLV-Mk III as well as other future launch vehicles, was commissioned on 5 May 2005 with the successful launch of PSLV-C6.

SPACE SCIENCE

India has a vibrant space science programme covering astronomy, astrophysics, planetary and space science, earth science and theoretical physics. As part of that programme, ground facilities like astronomical observatories, Giant Meter Wave Telescope, Mesosphere-Stratosphere-Troposphere Radar facility, etc., have been built. And, Balloons, sounding rockets and satellite platforms are used for flying scientific instruments. India has participated in many international scientific campaigns like MONEX, INDOEX, GBP, etc. ASTROSAT, a multispectral high-energy astronomical space observation satellite is scheduled to be launched by 2008-09. *Chandrayaan-1*, the unmanned lunar exploration spacecraft was launched on 22nd October 2008

from HSAR, Sriharikota. Later the Moon Impact Probe separated from the spacecraft and descended towards the lunar south pole. The estimated cost for the project is Rs. 386 crore. The mission is intended to produce a map of lunar chemical characteristics and three dimensional topography. It carries five ISRO payloads and six payloads from other international agencies including NASA, ESA and the Bulgarian Aerospace Agency, carried free of cost.

SPACE-INDUSTRY CO-OPERATION

One of the important features of the Indian Space Programme since its inception has been the co-operative approach with the Indian industries. The Department of Space (DOS) has established linkages with about 500 industries in small, medium and large-scale sectors, either through procurement contracts, know-how transfers or provision of technical consultancy. Because of its association with the space programme, the space industry is now capable of meeting the challenges in terms of adopting advanced technologies or handling complex manufacturing jobs.

INTERFACE WITH ACADEMIC AND R&D INSTITUTIONS

The ISRO has an active programme to interact with academic and research institutions all over the country for the benefit of our space programme. In this regard, the Sponsored Research Programme (RESPOND) is an important component of DOS. Under RESPOND, DOS support research and educational activities at universities, individual colleges, and at the Indian Institutes of Technology as well as other research institutions. During the year 2005-2006, 13 projects were successfully completed and 62 new projects were initiated at 42 academic institutions comprising universities, colleges and research institutions. In addition to research projects, DOS supported 73 conferences, symposia, educational and promotional activities in the areas of importance to ISRO, besides providing support to ISRO-institutional chairs at reputed institutions.

INTERNATIONAL CO-OPERATION

From the days of its inception, ISRO has had a very good record of international co-operation. It has Memoranda of Understanding/Agreements with 26 countries/space agencies. A UN sponsored Centre for Space Science and Technology Education in Asia and the Pacific (CSSTE-AP) set up in India has trained more than 400 personnel of the Asia-pacific region. During the year, CSSTE-AP completed 10 years. In addition, ISRO provides training in space applications to personnel of developing countries through its *Sharing of Experience in Space (SHARES)* programme.

ISRO has launched scientific payloads of other space agencies like Modular Opto-electronic Scanner of DLR, Germany that was flown on IRS-P3 spacecraft and the data is being shared by scientists of DLR, India and the US. It has a co-operative agreement with NASA/NOAA for the reception of meteorological data from INSAT spacecraft by those agencies.

Megha-Tropiques is a joint satellite mission of ISRO and French Space Agency CNES for atmospheric studies. The satellite will be built and launched by ISRO and CNES will develop two of the payloads and the third payload jointly with ISRO. At the same time, scientific instruments developed in the United States, Germany, Sweden, UK and Bulgaria will be launched on board India's Chandrayaan-1 spacecraft. This apart, an Italian scientific instrument will be included onboard India's OCEANSAT-2 satellite. Instruments for astronomical observation jointly developed with Israel and Canada will be flown onboard India's GSAT-4 and RISAT satellites respectively.

And, an Indian scientific instrument to study solar physics and solar-terrestrial sciences will be flown onboard Russia's CORONAS-PHOTON satellite.

India has also set up three local User Terminals and a Mission Control Centre for the international COSPAS/SARSAT programme for providing distress alert and position location service. A search and Rescue Transponder is included in INSAT-3A spacecraft. India is a signatory to the International Charter on Disaster Management and is providing remote sensing data for the same.

ANTRIX

Antrix, the commercial front of the Department of Space, is a single window agency for marketing Indian space capabilities. It is playing a key role in the worldwide availability of IRS data through Geoeye, USA. Antrix also provides IRS data processing equipment.

Antrix offers launch services using India's PSLV. Two German, one Korean and one Belgian satellites have already been successfully launched by PSLV. Through Antrix, Telemetry, Tracking and Command support from the Indian ground stations are offered. Similarly, lease of transponders from INSAT system is possible. In this regard, 11 transponders have already been leased to INTELSAT. Customers for the spacecraft components offered by Antrix include world's leading spacecraft manufacturers.

During the year, an agreement was entered into with EADS Astrium, Paris for the joint manufacture of 2000 kg and 3000 kg class satellite platforms for the telecommunications market. Besides, Antrix won contracts from Europe and Asia for launch services in the highly competitive international markets. After the successful development of a low cost, compact, modular and rugged Automatic Weather Station (AWS) in co-ordination with industry, the technology has been licensed to industry for regular production.

Thus, in addition to successfully developing spacecraft and launch vehicle technologies indigenously, India has also been successful in the application of satellite technology to benefit its national economy. At the same time, India has also been sharing space-based information with the international community and providing commercial space services globally.

INDIAN IT-ITeS INDUSTRY

The year 2008-09 was marked by unprecedented global economic crisis. In spite of this uncertain global outlook, the Indian Information Technology-Business Process Outsourcing (IT-BPO) industry was able to achieve sustainable growth in the fiscal year 2008-09. The revenue aggregate of IT-BPO industry is expected to grow by over 12 per cent and reach US \$ 71.7 billion in 2008-09 as compared to US \$ 64 billion in 2007-08. Industry performance was marked by sustained double-digit revenue growth, steady expansion into newer service-lines and increased geographic penetration.

The Indian software and services exports including ITES-BPO exports is estimated at US \$ 47 billion in 2008-09, as compared to US \$ 40.4 billion in 2007-08, an increase of 16.3 per cent. The IT services exports is estimated to be US \$ 26.9 billion on 2008-09 as compared to US \$ 23.1 billion in 2007-08, showing a growth of 16.5 percent in 2008-09, a year -on-year (Y-o-Y) growth of over 17.4 percent.

While US & UK remained the largest export markets (accounting for about 60 per cent and 19 percent respectively, in 2007-08), the industry is steadily increasing its exposure to other geographies. Exports to Continental Europe in particular have witnessed steady growth. Over 600 multinational companies are known to be sourcing product development and engineering services from their centres in India. The growing nature of responsibilities and ownership assumed by these India-based resources are helping India evolve into a strategic hub for R&D.

The industry has enhanced India's credibility as a business destination by creating a fundamentally new model of global 24X7 service delivery, forging relationship with 75 per cent of the Fortune 500 companies, generating immense savings for customers (savings from global sourcing for customers amounted to an estimated US \$ 20 billion to US \$ 25 billion in 2008) and promoting a focus on quality (65 per cent of all Capability Maturity Model Level 5 firms are based in India) in addition, the industry has fostered the emergence of a large number of first generation entrepreneurs.

With the BPO going strong for the past few years, the Knowledge Process Outsourcing (KPO) - which may be called the highest level of the BPO - is still at a nascent stage of development in the country. This evolution of the market to the KPO will drive trends that will ensure very high-value service. in off shoring. These opportunities in the KPO will help the Indian market climb the global value and knowledge chain.

Though the IT-BPO sector is export-driven, the domestic market is also significant. The revenue from the domestic market (IT Services and ITES-BPO) is also expected to grow to about US \$ 12.5 billion in the year 2008-09 as compared to US \$ 11.7 billion in 2007-08 an anticipated growth of about 6.8 per cent. BPO demand in the domestic market has witnessed noticeable growth over the past few years.

The phenomenal growth of the Indian IT Software & Services and ITES-BPO sector has had a perceptible multiplier effect on the Indian economy as a whole. It has created immense opportunities for employment and has contributed to the growth of national income. It has also spawned the mushrooming of several ancillary industries such as transportation, real estate, catering and has created a rising class of young consumers with high disposable incomes, triggered a rise in direct-tax collections and propelled an increase in consumer spending.

The total IT Software and Services employment is expected to reach 2.23 million in 2008-09 (excluding employment in hardware sector), as against 2.01 million in 2007-08, a growth of 10.9 per cent YoY. This represents a net addition of 226,000 professionals to the industry employee base in 2008-09. The indirect employment attributed to the sector is estimated to be about 8.0 million.

The industry has also set a precedent for talent practices in India. It has created career opportunities for the youth, provided global exposure and offered extensive training and development. Furthermore, the industry has been a front runner in diversity at the workplace (over 30 per cent of employees are women, over 60 per cent of industry players employ differently abled people).

The IT-ITeS industry's contribution to the national GDP is estimated to increase from 5.5. percent in 2007-08 to 5.8 per cent in 2008-09.

MAJOR INITIATIVES IN INFORMATION TECHNOLOGY

National e Governance Plan (NeGP)

The National e-Governance Plan (NeGP) was formulated by the Department of Information Technology (DIT) and Department of Administrative Reforms & Public Grievances (DAR&PG) keeping in view the priorities of Government's National Common Minimum Programme (NCMP). The NeGP aims to promote e-Governance on a massive scale in areas of concern to the common man. The National e-Governance Plan was approved by the Government on 18th May, 2006.

The NeGP has been formulated by taking a holistic view towards the entire e-Governance initiative across the country and for giving a thrust to e-Governance activities across various arms of government at the national, state and local government level. The NeGP uses a programme approach, which is guided by a common vision, strategy and approach to objectives. This approach has the added advantage of enabling huge savings in cost, in terms of sharing the core and support infrastructure; it enables interoperability through standards, which would result in the citizen having a seamless view of Government. The programme is overseen at the highest level by the Apex Committee headed by the Union Cabinet Secretary.

The NeGP consists of 27 Mission Mode Projects (MMPs), which are currently at different phases like conceptualization, design, implementation and post-implementation.

Central MMPs (9)	Integrated MMPs (7)	State MMPs (11)
MCA 21	CSC	Land Records (Pre NeGP)
Pensions	e-Courts	Land Records (NLRMP)
Income Tax	EDI	Road Transport
Passport and Visa/ Immigration	India Portal NSDG	Agriculture Police (CCTNS)
Central Excise	e-Biz	Treasuries
Banking*	e-Procurement	Municipalities
MNIC / UID		Commercial Taxes
e-Office		Gram Panchayat
Insurance*		Employment Exchange

* These MMPs are private sector initiatives

For the implementation of NeGP, DIT is creating a Common and Support Infrastructure (National/State Wide Area Networks, National/State Data Centres, CSCs and Electronic Service Delivery Gateways) and has made suitable arrangements for monitoring and coordinating the implementation of NeGP under the directions of the relevant competent authorities in this regard. The Department has also evolved/laid down standards and policy guidelines. It is providing technical and handholding support, undertaking capacity building, R&D, etc., as required for successful implementation of various e-Governance MMPs.

State Wide Area Networks (SWAN)

The Government has approved the scheme for establishing State Wide Area Networks (SWANs) across the country in 29 States/UTs at a total outlay of Rs. 3,334 crore with Department's GIA component of Rs. 2,005 crore over a period of five years. Under the scheme, it is envisaged to provide technical and financial assistance to States for establishing SWANs from State Headquarters up to the Block level with a minimum

bandwidth capacity of 2 Mbps. SWAN proposals from 33 States/ UTs have been approved so far, with a sanctioned total outlay of Rs. 1964.97 crore from the Department. The SWANs in Haryana, Himachal Pradesh, Tamilnadu, Tripura, Delhi, Punjab and Chandigarh have been rolled out. While other States/UTs are in the various stages of implementation.

Haryana, Himachal Pradesh, Punjab and Tripura have empanelled the Third Party Auditor (TPA) agencies for the monitoring of the performance of the SWAN in their respective States.

Common Services Centres (CSCs)

The Government has approved a scheme in September 2006 for facilitating establishment of more than 100,000 broadband Internet-enabled Common Services Centres (CSCs) in rural areas of the country, over a period of 4 years. This Scheme has been approved at a total cost of Rs. 5742 crore, and is being implemented as a Public Private Partnership. The CSCs are one of the three infrastructure pillars of the National e-Governance Plan and would serve as the physical front-end for delivering government and private services at the doorstep of the citizen.

RFP has been issued by 27 States for setting-up of 1,14,548 CSCs. Of the 27 States, Master Service Agreements (MSAs) have already been signed and work has been awarded for 1,06,126 CSCs by 23 States. Around 43,464 CSCs have been rolled-out in 21 States by end of June 2009. Three states (Jharkhand, Haryana and Sikkim) have completed 100% roll-out of the CSCs. The services which would be assessed through these centres include issuance of various certificates relating to birth, death etc., issuance of record of rights as well as private services relating to micro credit, agri-insurance, computer education etc.

The issue of connectivity to the CSCs has also been addressed. BSNL will provide connectivity to 41500 CSCs. This initiative is being partly funded by DIT at a cost of Rs. 550 crore. The first installment of R. 150 crore of DIT share has been released and it is expected that these 41500 CSCs would be connected by December 2009.

Further connectivity of 2500 CSCs situated in remote areas of NE States and other areas is also being addressed by using VSAT at cost of Rs. 49.88 Cr. The first installment of Rs. 12.50 crore of DIT share has already been released to NIC (the implementing agency). These CSCs are expected to be connected by December 2009.

The issue of enabling Service Delivery is being addressed by earmarking funds to the tune of Rs. 400 crore saved out of the funds of the sanctioned plan for CSC Scheme, for establishing State Portals, State Services Gateway and bridging of gaps in Infrastructure.

State Data Centres

State Data Centre is one of the three core infrastructure components of the National e-Governance Plan (NeGP) of Govt. of India. Under the SDC Scheme, it is proposed to established Data Centres across the 28 States and 7 Union Territories so that a common secure IT infrastructure is created to host state level e-Governance applications/data to enable seamless delivery of Government to Government (G2G), Government to Citizen (G2C) and Government to Business (G2B) services duly supported by State Wide Area Network and Common Service Centres establish at the village level.

The scheme for establishing Data Centres across all States/UTs in the country was approved by the Government on 24th January 2008 with a total outlay of Rs. 1623.20 crore towards the capital and operational expenses over a period of 5 years. To facilitate smooth and time-bound implementation, the Department of Information

Technology, has formulated the policy guidelines including various issues/concerns to be addressed while planning and implementing the Data Centres including roles and responsibilities of different agencies/stakeholders involved.

Since the approval of the SDC Scheme by the Government, Department of Information Technology has approved the proposals received from 31 States/UTs at a total outlay of Rs. 1378.00 crore.

Capacity Building Scheme

The Capacity Building (CB) Scheme, approved by Government in January, 2008 with an outlay of Rs. 313 crore over a period of 3 years envisions establishment of institutional frame work for State Level Strategic decision-making including setting-up of State e-Governance Mission Team (SeMTs). SeMT will be a group of people in each State mainly for providing technical and professional support to State level policy and decision-making bodies and to develop specialized skills for e-governance at the State level. CB scheme also involves imparting of specialized training, orientation programme for SeMTs and decision makers (State Legislature and senior bureaucrats), knowledge sharing and bringing in international best practices and strengthening of training institutions in States.

All 35 States/UTs have agreed to the terms and conditions of the Scheme. An amount of Rs. 62.90 crore has been released so far to 35 States/UTs by DIT. An amount of Rs. 46.62 crore has been released as ACA component to 28 States. A Capacity Building Management Cell (CBMC) has been set-up in DIT for overall coordination and implementation of Capacity Building Scheme.

e-District

e-District is a State Mission Mode Project under the National e-Governance Plan. The Project aims to target certain high volume services currently not covered by any MMP under the NeGP and undertake back-end computerization to enable the delivery of these services through Common Service Centres. The implementation strategy of e-District would suitably take into account the infrastructure currently being created under NeGP such as the CSCs, SWANs and SDCs

The Department has approved 14 Pilot e-District projects covering 35 districts. Significant ground has been covered in Uttar Pradesh, Assam and Bihar. In Uttar Pradesh, pilot project has gone live in 6 districts with 3 services. In Assam and Bihar application development is under progress.

National Service Delivery Gateway (NSDG)

Centre for Development of Advanced Computing (C-DAC) has built and deployed NSDG (National e-governance Services Delivery Gateway) and NSD (National Services Directory) which is the second Mission Mode Project to have gone live since 14th August 2008. NSDG is the first Gateway built for deployment at Central level. It is a messaging middleware conforming to various e-Governance standards managed by DIT, such as Interoperability Interface Protocol and Specifications (IIP/IIS) that enable consistent communication and conformance to international standards such as the XML specifications and SOAP. Gateway brings in SA (Service Oriented Architecture) framework for the new as well as existing e-Governance Services. DIT envisages levels, thereby establishing a Gateway Constellation which is an innovation in itself. NSD is the Central Service Directory for coordination of message exchange among these Gateways constituting the Gateway Constellation. NSDG Go Live was inaugurated on August 14, 2008.

Other Initiatives

With a view to study the best practices in the areas of Land Records, Property Registration and Transport for replication across the country, and initiative for Horizontal Transfer of Best Practices in -e-Government has been taken up.

In order to provide all government services through a single window access and comprehensive, accurate and reliable content with multilingual interface, India portal is functional and updating/enhancements are being done regularly. Portal is accessible at <http://india.gov.in>

Various innovative steps like National e-Service Delivery Gateway (NSDG) for providing interoperability framework, Open Technology Centre (OTC) to provide the requisite support to the standardization activity for e-Governance which are currently not covered by any MMP have been taken up and are in the process of implementation.

The Department has initiated a comprehensive Awareness campaign using multimodal approach for creating awareness amongst stakeholders for better uptake of e-governance and ensuring wider participation of citizens in the process of governance. Under this initiative, workshops, seminars and publicity campaigns will be held across various States and /UTs.

ELECTRONICS HARDWARE MANUFACTURING

Electronics Hardware Manufacturing continues to be a thrust area for the Government. The Special Incentive Package Scheme (SIPS) to encourage investments for setting up Semiconductor Fabrication and other micro and nano-technology manufacture industries in India was announced by the Government on 21.3.2007. A set of Guidelines was issued on 14.09.2007. The SIPS Notification as well as Guidelines are available on DIT's website (<http://www.mit.gov.in>).

The Scheme has received a very encouraging response. Eighteen (18) proposals in all, amounting to a total investment of the order of Rs. 1,60,000 crore over a period of 10 years in the area of Semiconductor fab, TFT-LCD panel and solar photovoltaic have been received under the scheme. In-principle letters have been issued to 12 applicants corresponding to a total investment of Rs. 76,600 crore on 1.6.2009, who have met the basic technical qualification criteria laid down in the Notification for SIPS and taken specified preliminary steps towards project implementation.

Information Technology Investment Regions

There is felt need to develop infrastructure facilities in tier 2 and tier 3 cities, as there is little scope of building additional commercial space in the five tier 1 cities-New Delhi, Bangalore, Hyderabad, Mumbai and Chennai. In order to address this need, a policy resolution for setting up of Information Technology Investment Regions was notified by the Central Government on 29 May 2008. This transparent and investment friendly policy will help promote investment in IT-ITeS / Electronic Hardware Manufacturing units.

The Information Technology (Amendment) Act 2008

The Information Technology Act 2000, a legal framework for transactions carried out electronically was enacted to facilitate e-Commerce, e-Governance and to take care of computer related offences. Over the years, with several new forms of computer crime, misuse and fraud taking place, a need was felt to strengthen legislation pertaining to information security. The Information Technology (Amendment) Act,

2008 has been published in the Gazette. The Act upgrades the existing legal framework to instil confidence in the users and investors in the area of Information Technology in the country. This Act inter-alia adds provisions to the existing Information Technology Act, 2000 to deal with new forms of cyber terrorism, breach of confidentiality and leakage of data by intermediary and e-commerce frauds. The formulation of Rules under the Act is in the process.

Cyber Security

Government of India has setup the Indian Computer Emergency Response Team (CERT-In) for providing early security warning and effective incident response. It operates on 24 x 7 basis and is actively engaging its users with early warning alerts and advisories.

Nationwide efforts are being made to increase cyber security education, awareness and skills in the country. It is aimed at catering to the needs of critical sectors, law enforcement and judiciary and e-governance project owners. Special training programs are being conducted for judicial officers and law enforcement agencies. About a hundred personnel from various Government agencies have been trained at the Carnegie Mellon University, USA as Master trainers that can train many more in the country.

National Knowledge Network

Government has decided to establish a National Knowledge Network (NKN) with scalable multi gigabit capabilities which will connect 1000 nodes covering the universities, research institutions, libraries, laboratories, hospitals and agricultural institutions across the country. This will also act as a backbone for the e-governance. By facilitating the flow of information and knowledge, the network will address the critical issue of access, create a new paradigm of collaboration and enrich the research efforts in the country. The initial phase of the establishment of NKN has been started by upgrading 15 PoPs of NICNET at 2.5 gbps capacity. Six virtual classrooms over NKV have been established at six IITs.

Technology development for Indian languages

To enable wide proliferation of ICT in Indian Languages, Technology Development for Indian Languages (TDIL) programme under DIT has taken a major initiative to make available software tools and fonts in 22 constitutionally recognized Indian languages freely to the general public.

DIT has released the CDs for sixteen Indian languages viz. Tamil, Hindi, Telugu, Marathi, Urdu, Punjabi, Oriya, Kannada, Assamese, Malayalam, Gujarati, Sanskrit, Bodo, Dogri, Maithili and Nepali for free mass usage. The process of consolidation for remaining six languages is currently underway. Apart from online registration and shipment of CDs, approximately 40 lakh downloads have happened from the website (<http://www.ildc.in>)

NANOTECHNOLOGY

The Nanotechnology Initiative Programme of Department of Information Technology was started in 2004 with focus on nano-electronics. The programme has been concentrating on institutional capacity building and infrastructure for Research & Development and human resource development in the area of nano-electronics towards making India a front runner in this revolutionary area. Under this Programme two Centres of Excellence in Nanoelectronics are being setup at IIT Bombay and

Indian Institute of Science Bangalore at a cost of about Rs. 100 crore. These Centres are concentrating on development of nano-systems for healthcare and environmental monitoring, development of organic and biopolymer devices, GaN devices, acoustic sensors, magnetic materials for LC resonators, ferroelectrics for FRAMs and phase shifters etc. A major project entitled Indian Nanoelectronics Users Programme (INUP) with an outlay of about Rs.25 crore has also been initiated at IIT Bombay and IISc Bangalore too facilitate and support generation of expertise and knowledge in nanoelectronics through participation and utilization by external users of the facilities established at the Nanoelectronics Centres at IISc Bangalore and IIT-Bombay.

Centre for Development of Advanced Computing

Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Department for carrying out R&D in IT, Electronics and associated areas. It continues to enhance the competencies built towards R&D in technology drivers of Petaflop computing, shared High Performance Computing (HPC) facilities, grid computing and grand challenge and research applications. For all these, it works in close conjunction with associated communities in academia, research laboratories, and industries.

C-DAC commissioned a supercomputing system called PARAM "Yuva" in November 2008. Its *R_{max}* (sustained performance) is 37.80 Teraflops and *R_{peak}* (peak performance) is 54.01 TFs. It ranked 68th in the list of TOP500 supercomputers announced in November 2008 at Supercomputing Conference 'SCO8' held at Austin, Texas, USA. The system is an intermediate milestone of C-DAC's HPC roadmap towards Petaflop computing.

PARAM Yuva (with 37.8 TFs Linpack performance) and PAARAM Synergy (with 2.01 TFs Linpack performance) ranked at No. 2 and No. 9 positions respectively among India's Top. Supercomputers' list announced by Indian Institute of Science (IISc), Bangalore in HiPC'08 Conference on 18 December, 2008

Proof of Concept (PoC) phase of Garuda, a National Grid Computing Initiative was completed successfully and its foundation phase was started. The Foundation phase is an interim step to maintain continuity and consolidation. As part of this phase, a test bed consisting of four HPC clusters has been setup and put in operation. The next phase of Garuda will leverage upon the NKN (National Knowledge Network) connectivity.

Indian Grid Certification Authority (IGCA) was inaugurated on January 14, 2009 by Dr. R. Chidambaram, Principal Scientific Advisor to Government of India. IGCA will enable all Indian Grids to be securely interconnected to each other and with grids globally.

National Resource Centre for Free and Open Source Software (NRCFOSS) at C-DAC has released BOSS GNU/Linux CD, which is a localized Indian distribution of GNU/Linux. BOSS GNU/Linux advanced server has unique features such as Web server, Proxy server, Data base server, Mail Server, Network server, File and Print server, SMS server, LDAP server. BOSS GNU/Linux advanced server is comprised with administration tool such as webmin which is a web based interface, Gadmin, PHP myadmin, PHP LDAP admin, PG admin. Support to BOSS GNU/Linux is available through a network C-DAC centres spread across the country.

InDG is another initiative of C-DAC targeting specific needs, of the country in the domain of rural and social development. The www.indg.in portal has been developed as a single-window access to information and services, with specific objective of reaching the 'unreached' rural communities of India, especially women and poor. Portal focuses on five key areas, namely Agriculture, Health, e-Governance, Primary Education, and Rural Energy. The portal was formally launched by the Honorable President of India on July 4, 2008.

National Informatics Centre

The National Informatics Centre (NIC) is the nodal S&T organization of the Department of Information Technology, Ministry of Communications and Information Technology for facilitating the process of e-Governance in the country. NIC has scored many firsts in the field of informatics development & networking for decision support in the Central Government Departments, 28 State Governments, one National Capital Territory of Delhi and 6 Union Territories, and about 611 District administrations at sub-state level. It is the only organization in India to provide total informatics support to the Ministries and Departments of the Central, State Governments, District Administrations and other Government bodies. NIC has been instrumental in adopting Information Technology and Communication Technology 'to reach out into India' i.e. by implementing IT applications in social and public administrations.

Wide range of services are provided through the NIC's e-governance Network (NICNET) and these include e-mail websites, video-conferencing, geospatial services, e-learning Intra-Gov, etc. NIC has successfully implemented many national level e-governance programmes in various sectors such as Web-enabled systems, Judiciary (e-courts), Accounts Computerization, Rural Information, Panchayati Raj Computerization, Agriculture e-Procurement, Unity Mapping, Geographic information, etc. ICT support all Central Government Ministries, Departments, State Governments and District Administrations. ICT support at block level has been set up through community Information Centre (CICs) in a few states. ICT support and consultancy has also been extended to a few neighboring countries.

National Informatics Centre Certifying Authority (NICCA) has been established at NIC HQ under section 21 of the IT Act 2000 for issuance of Digital Signature Certificates (DSC) for e-governance applications. A state-of-the-art Symmetric Key infrastructure for issuance of DL & RC Authority Cards for State Transport Authorities has been Co-hosted and established in the common NICCA infrastructure. Over 1400 DSCs (individual & device) were issued. Registration Authorities (RA) were set up at ECIL & NIC, Orissa and a Sub-CA at NICCA for e-Passport application of Ministry of External Affairs.

E-Learning

E-Learning is an effective tool for imparting quality and life long education to learners. Department of Information Technology has taken initiatives to promote e-Learning in the country. These initiatives have resulted in development, of inexpensive tools and technologies for management and delivery of digital content. A number of academic institutions/ R&D Labs have been financially supported by DIT to carry out pilot R&D projects in the field of e-Learning. DIT has been providing grant-in-aid for R&D projects in the area of content development, R&D/Technology development projects, Human Resource Development project & Faculty Training to improve literacy

through distance education using Information and Communication Technology (ICT) Tools (Computers, Multimedia and the Web).

DOEACC Society

DOEACC Society is an apex body of Department of Information Technology, to carry out human resource development and related activities in the area of Information, Electronics and communication Technology (IECT). The Society has Centres at Agartala, Aizawl, Aurangabad, Calicut, Chandigarh (with 3 branches at Shimla, Lucknow and New Delhi) Gorakhpur, Imphal, Srinagar/Jammu, Kohima/Chuchuyimlang, Kolkata, Shillong and Tezpur/Guwahati with its Headquarters at New Delhi. It also has two regional centres at Pudukkottai (Tamilnadu) and Patna (Bihar). Two more Centres at Chennai and Gangtok are being set up. DOEACC society is implementing the joint Scheme of DIT & AICTE i.e. DOEACC Scheme for Computer Courses at 'O', 'A', 'B' and 'C' levels. DOEACC Centres are also conducting M.Tech., Diploma Level, MCA, BCA etc. affiliated to State University / Technical Boards. The Certificate course in Computer Concepts (CCC) of DOEACC has got recognition from the State Governments of Gujarat and Maharashtra for entering into Govt. services. Approximately 2.75 lakh candidates have appeared for the CCC examination and more than 1.5 lakh have been certified. Every year approximately 60000 students are getting registered for DOEACC 'O', 'A' and 'B' level courses.

National Internet Exchange of India (NIXI)

The National Internet Exchange of India (NIXI) has been established as a not-for-profit Organization under section 25 of the Companies Act 1956 and was registered in July 2003. The National Internet Exchange of India is the neutral meeting point of the Internet Service Providers (ISPs) in the country. Its main purpose is to facilitate exchange of domestic internet traffic between the peering ISP members. This enables more efficient use of international bandwidth, saving foreign exchange. It also improves the Quality of Services for the customers of member ISPs by avoiding multiple international hops and thus reducing latency. The exchange points are presently operational at Mumbai, Delhi (Noida), Chennai, Kolkata, Hyderabad and Ahmedabad. As many as 30 ISPs connected to these nodes exchange an internet traffic of 6.4 gigabyte per second.

It manages the IN Registry for the Country Code Top Level Domain Name in the country. Presently, more than 53 Registrars have been accredited to offer IN domain name registration world wide to customers. The registration of IN domain names has crossed half a million during June 2009.

EARTH SCIENCES

Recognizing the increasing sensitivities of matters relating to the Earth Science System, Government of India established the Ministry of Earth Sciences (MoES) on 12th July, 2006. The mandate and competence of MoES includes matters relating to Ocean Sciences and Technology, Meteorology, Seismology, Climate Change science and the entire gamut of the earth science system.

The structure of the Ministry, besides the central secretariat which is charged with the mandate of policy formation and programme implementation oversight, has an Earth Commission (EC) which comprises of leading scientists, administrators and policy makers who advise the Ministry on overall earth science policy and strategy;

an Earth Science Organization (ESO) consisting of scientists, administrators, financial advisors and heads of research institutes under MoES, which lay down and steer the annual action plans of the Ministry. Both the EC and ESO are chaired by Secretary, MoES.

At the field level the work of the Ministry is supported by the following organizations:-

- Indian Meteorological Department (IMD);
- National Institute of Ocean Technology (NIOT);
- National Centre for Antarctic & Ocean Research (NCAOR);
- Indian National Centre for Ocean Information Services (INCOIS);
- Indian Institute of Tropical Meteorology (IITM);
- Integrated Coastal Marine Area Management (ICMAM);
- Centre for Marine Living Resources & Ecology (CMLRE);
- National Centre for Seismology, IMD and
- National Centre for Medium Weather Range Forecasting.

The details about the Ministry's programme as well as the work of the research centres are given in the following paragraphs.

ATMOSPHERIC SCIENCE INFORMATION & SERVICES

Cyclone Warnings

The extensive coastal belts of India have always been vulnerable to deadly storms that strike in the form of tropical cyclones. To give people of these areas a timely warning of an impending cyclone is of paramount importance and the Indian Meteorological Department (IMD) does exactly that. The aim is to minimise the losses of life and property due to tropical cyclones by providing early warnings.

About four to six tropical cyclones, all characterized by torrential rain, gales and storm surges and cause heavy loss of human lives and destruction of property, originate in the Bay of Bengal and the Arabian Sea every year. The IMD, besides monitoring and forecasting cyclones, provides relevant data and advice to members of the World Meteorological Organisation (WMO) so that economic and social cooperation can be built upon by exchanging ideas between the Pacific Panel (ESCAP) countries like Pakistan, Bangladesh, Sri Lanka and others.

The agency acts as a Tropical Cyclone Advisory Centre (TCAC) for international civil aviation as well. At the national level, IMD interacts continuously with the National Disaster Management authority and Ministry of Home Affairs to provide timely information and warnings for emergency support services. As a result, continuous efforts are being made for expanding and strengthening IMD's activities in relation to observing strategies, forecasting techniques, disseminating methods and conducting research related to different aspects of tropical cyclones. All this will ensure and most critical meteorological support through observations, analysis, predictions and warnings to disaster managers and decision makers.

Cyclone monitoring

With the help of satellite imageries, particularly those from the Indian geostationary satellite, INSAT, IMD keeps a constant watch on the Arabian Sea and the Bay of Bengal for the likely genesis of tropical cyclones. Data from ships and ocean buoys,

too, make for valuable contribution. As the systems come nearer to the Indian coastline, their subsequent development and movement is thoroughly monitored by a chain of Cyclone Detection Radars set up at various centres to cover the entire coastal belt.

The likely movement of the storms is predicted with the help of tracking models and reference to past climatology, which has been built using 125 years of cyclone data. The observational network for cyclone monitoring consists of land-based surface and upper-air stations, observations from Doppler Weather Radars/Cyclone Detection Radars and data from geo-stationary satellites. By virtue of installation of these radars, the loss of lives had been considerably dropped from 20,000 during 1977 to about 1000 in 1996 and further to about 27 in 2005, when the cyclones of similar intensity hit the Indian coast.

The forecast delivers information on

(i) current location and intensity of the cyclone; (ii) forecasting the intensity, direction and speed of the cyclone; (iii) time and location of landfall and warning to coastal areas likely to be affected by the gale force wind; (iv) estimated height of tidal waves/storm surge and the part of the coast likely to be affected by tidal waves/storm surge; and (v) likely area to be affected by heavy/very heavy/extremely heavy rainfall. Apart from the synoptic analysis, various climatological, statistical and numerical weather prediction models are used for the above purpose.

Warning responsibility centres

The Cyclone Forecasting Wing in IMD has a three-tier structure to cater to the needs of the maritime states and other users. There are Cyclone Warning Centres (CWCs) at Visakhapatnam, Ahmedabad and Bhubaneswar that provide cyclone warnings for coastal regions of the maritime states in which they are located.

In addition, there are area-based Cyclone Warning Centres (ACWC) at Kolkata, Chennai and Mumbai that not only provide warnings to their respective maritime states but also supervise the advisories of these centres under their jurisdiction. The national and international coordination as well as liaison with the Central Government and other organisations is done by the Cyclone Warning Division located at the IMD Headquarters at New Delhi. The ACWCs / CWCs issue warnings at three hourly intervals to ships in the high seas, and in coastal waters, ports, fishermen, government officials and the general public regarding adverse weather likely to be experienced in their respective areas. During a cyclone warning, bulletins are broadcast through All India Radio (AIR) and electronic and print media. When a radar station tracks the cyclone with confidence, which happens usually about 24 hours before landfall, hourly broadcasts are also made.

Warning dissemination channel

Cyclone warnings are disseminated through radio, television, print media, telephones, fax, telex, telegrams, police wireless network et all. A specially designed cyclone Warning Dissemination system, which works via the INSAT satellite, provides area specific service even when there is a failure of conventional communication channels.

These warnings are issued for general public, officials of Central and State governments responsible for disaster mitigation and relief, industrial and other establishments, railways, aviation, communications and power authorities. These warnings are disseminated in two stages. The first stage is called "Cyclone Alert" that is issued 48 hours in advance of the expected commencement of adverse weather

over the coastal areas. The second stage is known as "Cyclone Warning" and a warning for this is issued 24 hours in advance. A pre-cyclone warning is instituted prior to cyclone alert and a post-landfall outlook is issued for areas in the interior, which may be affected by the cyclone.

The office in New Delhi has been designated as the Regional Specialised Meteorological Centre for Tropical Cyclones. It is one of the five such centres recognised by the WMO under a global system for monitoring tropical cyclones.

Skills and capabilities

The average operational forecast error of IMD for 24 hours track forecast is about 140 km. Considering the landfall forecast of cyclones, based on the last five years' data, the 12 hour and 24 hour landfall forecast errors are comparable with those of other ocean basins.

However, continuous efforts are being made to improve effective dissemination of efficient forecasts. This can be achieved through improved scientific understanding, enhanced observation network and improved modeling technique through collaborative research. Improved telecommunication mechanism, along with coordination with media and disaster management personnel, are given prime importance in this effort.

Besides, timely projects are undertaken for improved understanding and prediction through special observations in and around the tropical cyclones and utilising improved modelling techniques.

Monsoon Predication

Large-scale droughts and floods pose a grave concern for human existence all across the world. In India, few climatic rampages in recent times have adversely affected the country's agricultural production and economy, resulting in immense loss to life and property. But this year was different. The weathermen predicted that monsoon onset over Kerala would take place on May 29 with a model error of 4 days. The monsoon hit Kerala on May 31, just a day earlier than its normal date and hence within the forecast range. Our weathermen had trusted homegrown logic and used an indigenously developed statistical model.

Our forewarning capability has, therefore, become an important aspect in gauging our country's progressive stance. Finally, the efforts of over a century to predict the total summer monsoon rainfall have borne fruit, using empirical techniques involving local and global antecedent parameters that correlate with the monsoon. The revamped models permit a forecast in mid-April itself as against the fourth week of May in the case of the earlier model. Besides, the new scheme enables a mid-course correction in July, which could help minimise the impact of a deficient monsoon on agriculture. The linear and nonlinear regression models as well as the neural network-based models perform reasonably well when the monsoon is close to normal but fail to predict the extremes with useful skill. A case in point is the failure of almost all empirical models in predicting the drought of 2002. Dynamical prediction of the seasonal moods like monsoon, using state-of-the-art facilities based on climate models are currently being tried as a logical alternative to empirical forecasting. Unfortunately, the skill of prediction of the summer precipitation over the Asian monsoon region is currently rather poor for almost all state-of-the-art climate models. This is in part due to inadequate observations over the oceanic regions and largely due to inadequacy of the climate models to represent the complex monsoon climate.

Agro-meteorological Advisory Services

In spite of considerable technological advancement and improved irrigation facilities in recent times, Indian farmers seemed left out by a coordinated mechanism and continued to depend on fluctuating weather conditions for their yields. The Ministry of Earth Sciences has stepped in to fill the vacuum by creating a system that can help farmers take the best advantage of favourable weather conditions and minimise the adverse impact of unfavourable ones. Now the Agromet Advisory Service (AAS), that was earlier operating at the level of 127 agro-climatic zones, has micro-scaled its work by providing district-wise advisories. The change over is significant considering that even within the individual zones, there are considerable variations in weather conditions as well as difference in terms of cropping system, farm operations and soil conditions. The AAS was upgraded in June this year. And thus, an improved service was developed and rendered by the National Centre for Medium Range Weather Forecasting (NCMRWF). Headquartered in New Delhi, the Indian Meteorological Department (IMD) generates the necessary weather forecast up to five days using weather agriculture universities, institutes of the Indian Council of Agriculture Research and other such centres. The advisories then get disseminated to the farmers through various media, including private television channels, FM radios and NGOs at the grassroots level, the All India Radio, Doordarshan, newspapers, district agriculture office and the web-sites of IMD and universities.

Weather observing system

the Ministry has to set up 550 additional automatic weather stations (AWS) and 1,350 automatic rain gauge (ARG) stations in the first phase of its modernisation plan to complement the existing 125 AWS. With this, every district in the country will have at least one AWS and two ARG stations. In addition to this, a network of 55 Doppler Weather Radars has been planned of which 12 are to be commissioned in the first phase. Techniques have been developed to assimilate a large volume of satellite-derived information, including that which will be available from the INSAT-3D to be launched next year. Through improvement in observation systems, it will be easier to define the initial conditions to run the numerical weather prediction models, which may lead to further improvement in weather forecast.

Weather forecasting system

Operational since June 1, 2008, the weather forecasting system has already started issuing quantitative district level forecasts up to five days covering all the 613 districts. The products comprise quantitative forecasts for seven weather parameters like rainfall, maximum and minimum temperatures, wind speed and direction, relative humidity and the amount of clouds. Since no single numerical model at present is reliable enough over the Indian region, IMD is also generating these products using a multi-model ensemble technique whereby forecast outputs from the best set of numerical models available all over the world are assessed with appropriate weightage based on their individual performances. These include: T-254 model of NCMRWF, T-799 model of European Centre for Medium Range Weather Forecasting (ECMWF); United Kingdom Met Office (UKMO), National Centre for Environmental Prediction (NCEP), USA and Japan Meteorological Agency (JMA). The products thus generated get subsequently disseminated to regional meteorological centres and IMD's own centres located in different states of the country. Upon value addition to these

products, these offices communicate the same to 130 AgroMet Field Units (AMFUs) located within State Agriculture Universities (SAUs) and institutes of the Indian Council of Agriculture Research (ICAR).

Advisory service network

Based on the above forecast products and the crop information available from districts, the AMFUs prepare district-wise agro-advisories. It involves all stake holders such as State agricultural Universities (SAUs), Indian Council for Agriculture Research (ICAR), Krishi Vigyan Kendras (KVK), Department of Agriculture & Cooperation, State Departments of Agriculture/Horticulture/Animal Husbandry/Forestry (up to district level of offices), NGOs and media agencies. This project involves a five-tier structure which includes all the components of service spectrum like meteorological (weather observing and forecasting), agricultural (identifying weather sensitive stress and preparing suitable advisory using weather forecast), extension (two way communication with the user) and information dissemination (media, information technology, telecom) agencies.

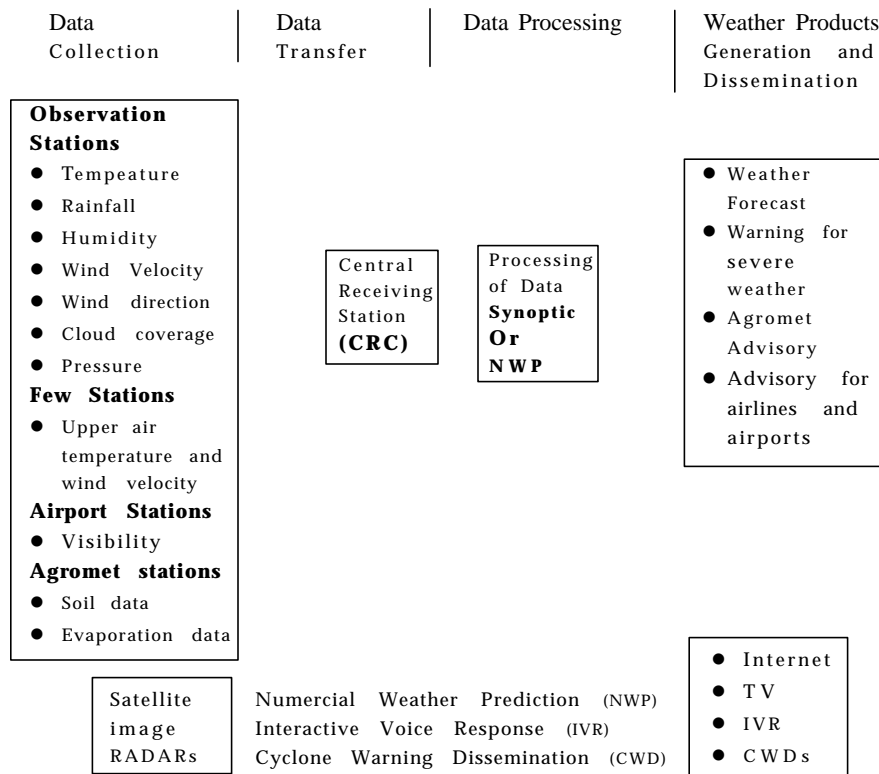
Advisory dissemination mechanism

These weather-based advisories are being disseminated to farmers through the mass media as well as through district level intermediaries. The advisories are communicated through multi-channel dissemination system including All India Radio (AIR), Doordarshan, private television channels, FM radios, print media (newspapers), Internet (web pages of IMD, SAUs), community service centres of Ministry of Information Technology, Cell Phone-SMS, KVKs/ District Agricultural Offices (DAO), Kisan Call Centres and NGOs. A mechanism has also been developed to obtain feedback from the farmers on quality of weather forecast, relevance and content of Agromet advisories and effectiveness of the information dissemination system. The scope, accuracy and outreach of DAAS will continuously be enhanced with time, as and when newer products, technologies and scientific inputs are available in future.

Modernization of India Metrological Department: With the rains becoming more and more erratic in India, the India Metrological Department (IMD) is set to modernize its meteorological services through commissioning of various observation systems, their interconnectivity, and processing and efficient real time dissemination system. The entire modernization plan proposed in three phases consists of upgradation and/or procurement of various instruments in the field of communication, observation, forecasting system, cyclone warning, aviation etc. The primary purpose is to ensure that every district has a weather monitoring equipment directly linked to the satellite, for monitoring weather data in real time. Thus this would provide real time data on air temperature, wind speed and direction, atmospheric pressure, relative humidity, rainfall, solar radiation and soil temperature and moisture. During the last south west monsoon, these systems were of great use. For instance, the forecasters could study the movement of depression belts minutely and therefore more accurately weather events were predicted. Since, the system is automated; the recorded data have much higher level of accuracy. They are free from human errors such as inconsistent recordings from remote weather stations with no trained personnel. The world over studies using network of AWS stations have shown marked improvement in local weather forecasts as required for cities, airports and ports. In order to

implement the project in an expeditious manner, the modernization project has been split into 10 subprojects each having project director and team members. To ensure smooth functioning of the same, well defined enabling as well as overseeing mechanism has also been put in place. A multilingual Web portal for disseminating Agrometeorological advisories for different parts of the country has been created and is being routinely updated from the Agrimet centre of IMD at Pune.

The entire operation of IMD is based on collection of data from large number of observatories and processing of collected information to produce deliverables for different segments of society. Schematic diagram given below brings out the relationship:



The accuracy of forecast/advisory depends on following factors

- Number of observation stations and how densely located they are.
- Quality of instruments being used for collection of data over ground as well as from upper air.
- How quickly the data reaches CRC from all without any distortion
- Whether data transmission is manual or automated
- The methodology of processing data, i.e., whether Numerical Weather Prediction (NWP) Models are being used and the quality of NWP models.
- The methodology adopted for dissemination of forecast or advisory
- Methodology of getting feedback from users to improve the models

How quickly new technology is adopted.

National Centre for Medium Range Weather Forecasting: Cray X1e and PARAM Padma computer systems were installed and acceptance tests were carried out. Real-time prediction of monsoon rainfall was made in the month of May for 2006 monsoon season. In 2005, an ensemble prediction systems with the T80/L18 model was implemented. The latest version of NCEP Regional Spectral Model (RSM97) was installed and experimentally run nesting with T80 global spectral model. Extended Range Monsoon Predictions were provided to IMD jointly with SAC, Ahmedabad using 10 ensemble members. The Weather Research Forecast (WRF) model with 30 km horizontal resolution and 31 levels in the vertical was installed. A set of Twenty-four (24) new Agromet Advisory Units was opened enhancing the all India network of AAS units to 107. In 2004, the centre started functioning from the new campus located in Noida and necessary computing facilities were established without affecting the operations. A Meso-scale Eta model at 10 km resolution was installed and tested in Linux environment to facilitate input with better lead time to Wave Watch Model to forecast ocean state wind. The 3 DVAR assimilation system was successfully installed and tested to enable provision of better initial conditions for operational MM5/WRF model. Daily forecasts with a temporal range of 4 days were issued to 82 Agromet Advisory Units twice a week. All India weekly weather forecasts were supplied to crop weather watch group of the Ministry of Agriculture on every Monday. Medium range customized forecast were provided to many user sectors; ISRO for space vehicle launch, defense for Everest and other expeditions, to agencies involved in water resources management, to power generation and transport sectors. Experimental seasonal forecast during monsoon 2006 and 2007 were generated and provided to IMD, DST and MoES. NCMRWE contributed towards capability building in generation, use and interpretation of NWP products.

Dedicated Weather Channel: Recognizing the importance of day-to-day weather information for the development of the country in various centres namely Aviation, Tourism, Defence, Transport, Power, Sports and other socio-economic events, the Ministry has decided to launch a state-of-the-art weather channel for providing the information on 24x7 basis. The various expertise available in the research, observations, modeling and communication would form an integral part of the endeavour.

Ocean Science and Services

This mission primarily comprises of conducting basic research, Operational generation and dissemination products/services, deployment of observational network, Development of Ocean models etc., The Ministry has a comprehensive ocean observation programme for acquiring, in-situ data from the seas around India through surface drifting buoys, current meter arrays, expendable bathythermographs, and tide gauges. The International ARGO Project envisaged deployment of 3000 ARGO Floats in the global ocean at a spacing of 300 sq. km. India has so far deployed 168 floats in the Indian Ocean. Out of there, about 71 floats are active as on date. Besides, over 618 active floats deployed by other countries including India in the Indian Ocean are active. All the data acquired by the floats are available at INCOIS, by virtue of India's active participation. A wide range of user oriented data products being generated from the argo data are made available through INCOIS Ocean portal for effective utilization.

The Indian National Centre for Ocean Information Services (INCOIS), established at Hyderabad in February 1999, is a knowledge and information technology enterprise for the oceanic realm. INCOIS has been responsible for providing a wide range of coastal and ocean information advisory services. The Ministry of Earth Sciences had formulated a programme to provide the fishing community with credible advisories on Potential Fishing Zones (PFZ). The concerted efforts of scientists from ocean, space and fishery sciences in collaboration with the maritime states have resulted in the timely and reliable service of Potential Fishing Zone (PFZ) advisories. The integrated PFZ advisories generated using both the Sea Surface Temperature (SST) and Chlorophyll based on the features such as oceanic fronts, meandering patterns, eddies, rings, up-welling areas that are proven to be prospective sites for fish accumulation. The integrated PFZ advisories prepared in local languages and local measurement units were disseminated to over 225 nodes, thrice a week (i.e. Tuesday, Thursday and Saturday) during non-ban and cloud free days, through innovative and novel initiatives such as Electronic Display Boards (20 operational currently) and Information Kiosks at the fishing harbors, radio, print media, emails and web sites supplementing fax and telephone. This is the only short-term forecast available to the fishing community of the country. Besides, frequent and intense interactions at the fishing harbors between scientists and fishing community ensured better awareness and effective use of these advisories. Parallel affirmation and feedback are integral to this mission for which necessary institutional mechanism is in place. It has been observed, from the data collected from 295 Gill netters and 400 Ring Seiners off the Kerala coast, that the search time has been reduced by 30 to 70 per cent for pelagic fish due to the usage of these advisories and resulted in a saving of Rs. 1,50-6.00 Lakh per vessel per year. This is an excellent example of providing the benefits of science to society.

INCOIS is providing Ocean State forecast to over sixty registered users besides sending the information through its website for coastal and offshore developmental activities. INCOIS has also established ARGO data centre for archival and dissemination of all the data collected from the Argo floats deployed in the Indian Ocean. A set of 12 Argo data products is also being made available in near real time through INCOIS website.

IOGOOS was formally established on November 5, 2002. 19 organisations from 10 countries have become Members of IOGOOS and agreed to collaborate and work together for the implementation of GOOS in the Indian Ocean and for promoting activities of common interest for the development of operational oceanography in the Indian Ocean region.

Ocean Technology

National Institute of Ocean Technology (NIOT), Chennai, an autonomous body of this Ministry of Earth Sciences (MOES) was established to serve as the technical arm of DOD, through a pool of highly trained manpower by taking up technology development and demonstration projects in major areas viz., Ocean Energy, Deep Sea Technology and Ocean Mining, Coastal and Environmental Engineering, and Marine Instrumentation. NIOT has been working towards development of a wide range of technology for harnessing the vast ocean resources in sustainable way and to develop instruments for exploring the ocean science. One of the activities is

development of technology for producing fresh water out of seawater using the concept of low temperature thermal desalination (LTTD). The LTTD is a process by which fresh water is produced by flashing warm surface seawater under low vacuum conditions and condensing this vapour using deep-sea cold water. Though the process of LTTD is fairly well understood, the challenge lies in drawing the cold seawater using long pipes.

Fresh water is an essential requirement of mankind for drinking, agriculture and Industrial purpose and is amongst one of the most important input for man's survival. The rapid increase of world's population and nonuniform distribution of potable water has forced mankind to develop new techniques to generate potable water. Fresh water rivers, lakes and other natural sources are not able to meet the over growing demand of potable water forcing the scientists to look towards the sea to fulfill the need.

Sea water is available in abundance; however, its conversion to fresh water is limited and restricted due to high cost of conversion. The salt content in the sea water is very high making it unfit for human consumption and industrial use. Various processes are being developed to reduce the salinity of sea water so as to make it fit for human consumption and use. The most popular processes presently being used are distillation, reverse osmosis and electro dialysis. The selection of the right process depends upon the initial capital investment, plant capital, operation and maintenance cost etc. Scientists all over the world are constantly working on developing economical process so as to generate fresh water.

Current endeavours

Considering the requirement of fresh water for both island territories and coastal mainland of India, two types of desalination plants have been developed - land Based Plant and Offshore plant. The land based plant is suitable for Lakshadweep islands while the offshore plants suitable for mainland India. The islands of the Lakshadweep are very small with no fresh water bodies such as ponds, lakes and rivers. The major source is mainly rainfall that occurs during the monsoon. The borewells are often contaminated with sea water. Thus an efficient desalination technique such as LTTD is one of the potential alternatives to the islanders.

Land based Plants: A land based plant of one lakh liter per day capacity was installed in Kavaratti in May 2005. This LTTD desalination plant was developed indigenously by National Institute of Ocean Technology (NIOT), which was commissioned at Kavaratti in May 2005. Since then, the plant has been working continuously without any interruption and contributing significantly to the needs of the Kavartti population. This has improved the quality of life of the population in Kavaratti. To date, this plant has produced over nine crore litres of water and the production often exceeds the designed capacity. On March 3, 2006, the Low Temperature Thermal desalination Plant (LTTD) at Kavaratti was successfully handed over to the administration of Lakshadweep for operation, maintenance and supply of drinking water to the people of the island. Now, due to the safe and unpolluted drinking water which is being supplied by the Desalination Plant in Kavaratti, the waterborne diseases, especially in children, have come down to less than 10 per cent. Besides, the cold water being brought from a depth of 350m to the surface is nutrient-rich, and Kavaratti Island is evolving into a new marine ecosystem with the coastal line bursting with ornamental

fish. This would be a big boon for tourism industry of the island. Based on all these benefits to the society, the Lakshadweep administration plans to have more desalination plants in each of the islands. Currently three more plants are being setup at Minicoy, Agatti and Androth which are expected to be completed by December 2009. A land based plant was set-up at North Chennai Thermal Power Station in Chennai in May 2009. Apart from producing distilled mineral quality water or potable water, such use of LTTD provides an environmentally clean way to dissipate waste heat from the power plant.

Off shore Plant: In April 2007, a 10 lakh liter per day capacity plant indigenously designed and developed was commissioned on a barge, about 40 kms off Chennai. This Offshore demonstration plant was successfully run continuously for a period of several weeks. This was the first ever offshore LTTD plant with a single point mooring in 1000 meter water depth and lay cold water pipe vertically suspended below the vessel. Currently an offshore plant of 10 million liter capacity per day is being designed.

Implementation Status

Currently the detailed design of the plant is being carried out for further analysis. The Ministry is also exploring the possible public private partnership for operation and maintenance of the Plant after the commissioning. A project proposal is being prepared for seeking the approval of the Government for implementation along with industry participation. NIOT is in the process of finalising a Detailed Project Report. In the case of Renewable energy sector like solar and wind energy generation, there are good incentives from the Government for promoting and nurturing new technologies. Such incentives could be considered for Low Temperature Thermal Desalination (LTTD) based desalination projects, since they are environment friendly and consume less power (less carbon emission) compared to alternate desalination technologies.

Mining the Ocean: India is the first country to be accorded status of a Pioneer Investor in 1987 and was allocated an exclusive area in the Central Indian Ocean by UN for exploration and utilization of resources. India is seeking to mine polymetallic nodules from the Indian Ocean bed found at a depth of about 6000 metre. Indian scientists in collaboration with Russian scientists have developed and tested an instrument to measure sea bed soil properties in-situ, at a depth of 5200 metre. Also, a project for the development of a Remotely Operable Vehicle (ROV) to operate at a depth of 6000 metre has been taken up in collaboration with Russia. A prototype system has been developed and tested successfully at a depth of over 200 metre. The complete hardware and software for the instrumentation and control system was developed by Indian scientists. This places India among the handful of nations that have capacity for deep sea mining.

Technology for deep sea mining: NIOT, the technical arm of the Ministry of Earth Sciences has taken up this challenging area of developing technologies for harnessing ocean resources.

In-situ soil property measurement system: As part of the Manganese Nodule mining programme, the next phase is to design a crawler for 6000 m operation. The challenges at 6000 m are high pressure of 600 bar, extremely soft sea bed and the varied topography of the ocean floor. In order to design a crawler capable of locomotion in the soft sea bed, it is essential that the sea bed property is to be measured in-situ which will provide undisturbed ground truth. This prompted the scientists to develop

an instrument to measure the soil property in-situ. An instrument has been developed jointly with Sevmorgeo, Russia to measure the soil property in-situ, at a depth of 6000m. This is the first time an instrument for in-situ soil property measurement has been developed and tested at a depth of 5200m successfully by Indian Scientists.

India got elected as Member of the Legal and Technical Commission of the International Seabed Authority (ISA) for a period of 5 years beginning from 2007.

Geosphere and Seismological Disaster:

Early Tsunami Warning System: On October 15, 2007, the Minister for Science, Technology and Earth Sciences, Shri. Kapil Sibal inaugurated the National Tsunami Early Warning System that has been set up at the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad.

In the aftermath of the Great Sumatra earthquake of 26th December, 2004, Government of India has set up an Early Warning System for Tsunamis in the Indian Ocean region at Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, which is operating on a 24x7 basis. The system provides advance warnings of Tsunamis likely to affect the coastal areas of the Country. As part of the Early Warning System for Tsunamis, a Real Time Seismic Monitoring Network (RTSMN) is set up by India Meteorological Department (IMD). The network is designed to monitor and report, in least possible time, the occurrence of earthquakes capable of generating Tsunamis in Indian Ocean region. The data from the seismic field stations is transmitted simultaneously in real time through V-SAT communication facilities to the Central Receiving Stations (CRSs) located at IMD at New Delhi and INCOIS, Hyderabad for processing and interpretation. The CRSs are equipped with state-of-the art computing hardware, communication, data processing, visualization and dissemination facilities. The earthquake information shall be disseminated through various communication channels to all concerned user agencies in a fully automated mode. The Warning System has been established by MoES as the nodal ministry in collaboration with Department of Science and Technology (DST), Department of Space (DOS) and the Council of Scientific and Industrial Research (CSIR).

Tsunamigenic zones that threaten the Indian Coast have been identified by considering the historical Tsunamis, earthquakes, their magnitudes, location of the area relative to a fault, and also by tsunami modelling. The Indian Tsunami Early Warning System comprises a real-time network of seismic stations, Bottom Pressure Recorders (BPR) and tide gauges to detect tsunamigenic earthquakes and to monitor tsunamis.

The Early Warning Centre receives real-time Seismic data from the national seismic network of the Indian Meteorological Department (IMD) and other International seismic networks. The system detects all earthquake events of more than 6 Magnitude occurring in the Indian Ocean in the less than 20 minutes of occurrence. BPRs installed in the Deep Ocean are the key sensors to confirm the triggering of a Tsunami. The National Institute of Ocean Technology (NIOT) has installed 4 BPRs in the Bay of Bengal and the 2 BPRs in Arabian Sea. In addition, NIOT and survey of India (SOI) have installed 30 Tide Gauges to monitor the progress of Tsunami waves. Integrated Coastal and Marine Area Management (ICMAM) had customised and ran the Tsunami Model for 5 historical earthquakes and the predicted

inundation areas. The inundated areas are being overlaid on cadastral level maps of 1:5000 scale. These community-level inundation maps are extremely useful for assessing the population and infrastructure at risk. High-resolution Coastal Topography data required for modelling is generated by the National Remote Sensing Agency (NRSA) using ALTM and Cartosat Data. INCOIS has also generated a large database of model scenarios for different earthquakes that are being used for operational tsunami early warning.

Communication of real-time data from seismic stations, tide gauges and BPR's to the early warning centre is very critical for generating timely tsunami warnings. A host of communication methods are employed for timely reception of data from the sensors as well as for dissemination of alerts. Indian Space Research Organisation (ISRO) has made an end-to-end communication plan using INSAT. A high level of redundancy is being built into the communication system to avoid single point failures.

A state-of-the-art early warning centre is established at INCOIS with all the necessary computational and communication infrastructure that enables reception of real-time data from all the sensors, analysis of the data, generation and dissemination of tsunami advisories following a Standard Operating Procedure.

The National Early Warning Centre generates and disseminates timely advisories to the Control Room of the Ministry of Home Affairs for further dissemination to the Public. For the dissemination of alerts to MHA a satellite-based virtual private network for disaster management support (VPN DMS) has been established. This network enables early warning centre to disseminate warnings to the MHA, as well as to the State Emergency Operations Centres. In addition, Messages would be sent to authorised officials. In case of confirmed warnings, the National Early Warning Centre is being equipped with necessary facilities to disseminate the advisories directly to the administrators, media and public.

A Standard Operating Procedure (SOP) was developed for generation and dissemination of tsunami advisories on 24X7 basis. The efficiency of the end-to-end system was proved during the large under-sea earthquake of 8.4 that occurred on September 12, 2007 in the Indian Ocean.

During April, 2008 the 5th IOC Coordination Group on Indian Ocean Tsunami Warning system (IOTWS) set up by UNESCO has endorsed the responsibility as Regional Tsunami Warning System for the Indian Ocean.

Seismology Centre: The Seismic network needs to be increased in density to be able to capture earthquakes of lower magnitude, which are required for precursor studies, and more detailed zoning of vulnerability. In addition it must be connected by telemetry to reduce the time lag of occurrence and detection. Such a system will be especially required for Tsunamgenic earthquake detection. A set of broadband Service Observational Network in the peninsular India were upgraded. Towards this, an Earthquake Risk Evaluation Centre was created in New Delhi to evaluate seismic hazards at a very high resolution so that its engineering applications were possible.

Microzonation Studies of Selected Urban Centres: Microzonation is a multi-disciplinary and multi-institutional effort, which has direct application in Disaster Mitigation & Management, Urban Development, Planning, Design & Construction, and Risk Assessment to existing life & property, Defense Installations, Heavy Industry and Public Utilities & Services etc. During the last few years efforts have been made to

take up microzonation studies for Delhi, Guwahati, Sikkim and Bangalore. While the microzonation of Guwahati and Sikkim has already been completed on 1:25000 scale, the work related to Delhi on 1:50,000 scale has been completed and the maps are being further refined on 1:10000 scale. Bangalore microzonation is also progressing well. All these studies are now being coordinated by Ministry of Earth Sciences.

CRYOSPHERE AND POLAR SCIENCE

Antarctic Treaty-India's 3rd Research Base at Antarctica

India was privileged to host the 30th Antarctic Treaty Consultative Meeting (ATCM) in May 2007 for the first time ever since India joined the Antarctic Treaty in 1983 and was granted the consultative status.

Amongst other significant outcomes of this meeting, was the ATCM's acceptance of the Indian proposal for a new Indian Research Base at the Larsemann Hills, East Antarctica, which paved way for India to proceed with final design of the 3rd station and its construction at the larsemann Hills, Antarctica.

The ATCM has adopted two important Resolutions regarding tourism - one concerning ship-based tourism in Antarctic Treaty Area, and the second associated with the issue related to permanent land based infrastructures for tourism in Antarctica with a condition that Parties should discourage or decline to authorize tour operators that use vessels carrying more than 500 passengers from making any landings in Antarctica in addition to regulating the numbers of vessels and visitors landings at any one time at a site, to one and hundred respectively.

Ice-core laboratory: The establishment of National Centre for Antarctic and Ocean Research (NCAOR) at Goa as an exclusive polar research laboratory by the Ministry is a reflection of India's sustained and far-fetched interests in Antarctic science and protection of its environment. The Centre has been designated as the focal coordinating agency for the Indian Antarctic program and is responsible for maintaining the Indian permanent station, 'Maitri' in Antarctica. The Centre has helped to consolidate and focus our scientific activities in the domain of polar sciences and also aims to conduct in-house R&D activities in exclusive areas of ice-ocean - atmosphere interaction & climate modeling, global change & Antarctica, Palaeo-climate & palaeo-environment and southern ocean oceanography. The ice-core laboratory complex is now operational at the Centre. It will serve as repository of cores both from the Antarctica and the Himalayas. This is being used to infer past climate and environmental changes and will help the scientists to refine the climate models. An Earth Station has been set up at Maitri with a connectivity of 2mbps line for communication with mainland, India.

Expedition to Arctic: India already has a strong presence in the Antarctica for the past 27 years. However, despite the scientific and logistics expertise gained by the country over the years in Antarctica, a wide gap exists in our knowledge of the Arctic, hindering a much-needed bi-hemispherical approach to polar sciences. The Arctic Ocean and the surrounding regions are one of the most important areas that not only govern the earth's climate but have also faithfully recorded its past climatic history. The region is also an excellent harbinger of future change, because the signals or clues that signify climate change are much stronger in the Arctic than elsewhere

on the planet. This region has always been significant to the Indian subcontinent due to probable tele-connection between the northern polar region and Indian monsoon intensity, which is critical for our agriculture output and economy. However, the exact mechanism by which this tele-connection exists is still open to debate and is a topic of the ongoing research. In quest for knowledge and pursuit of science, India has recently embarked upon Arctic research by launching first ever scientific expedition to this region under the leadership of Shri Rasik Ravindra, Director, NCAOR, Goa in the first week of August 2007 using the international research facility at Ny-Alesund in Spitsbergen island of Norway. The five member interdisciplinary and inter-institutional team of scientists of the first Arctic Expedition drawn from NCAOR, Goa; CCMB, Hyderabad; IITM, Pune and Lucknow University; has initiated three projects on Atmospheric Studies, Arctic Microbes and Earth Sciences. In the second phase four more projects have been initiated in the early spring this year with the launch of winter expedition on 29th February, 2008. The name of the Indian Arctic Station is Himadri set up at the base camp in Norway.

ORV Sagar Kanya: The Vessel underwent a major dry-docking now equipped with a new DP System and up-gradation of generators, bow thruster power management system, and a state-of-the-art Multibeam Swath Bathymetric System. Besides, undertaking over 10 cruises for over a period of 140 days at sea, an "Integrated Campaign for Aerosol, Gases & Radiation Budget (ICARB)" under ISRO-GBP for observations over Bay of Bengal and Arabian Sea was successfully completed through a cruise of more than 50 days with the participation of 29 Scientists/Technical personnel carried out various sample/data collections. For the first time, ORV Sagar Kanya undertook a survey over approximately 600 lines kms. covering 92. sq. kms. for recovery of failed GSLV engine. Three step-on engines S3, S2 and S1 were recovered and many parts of the S4 stage engine/core vehicle were collected from sea bottom. Around 550 diving operations were done along 94 target points. The recovery of GSLV Subsystems from sea is second such attempt in Space history after recovery of Ariane by Europeans Space Agency in 1996.

NON-LIVING RESOURCES

Polymetallic Nodule Programme: India is the first country to have received the status of Pioneer Investor in 1987 and was allocated an exclusive area in Central Indian Ocean Basin by UN for exploration and utilization of nodules. India is presently having an area of 75,000 square km, located about 1600 Nm away from her southern tip. India is one among the top 8-countries/ contractors and is implementing a long-term programme on exploration and utilization of Polymetallic Nodules. As part of the Manganese Nodule mining programme, a crawler, in-situ tester and remotely operable Vehicle were designed, developed and tested at depths of 410m, 520m and 205m respectively. For extraction of metals, 3 primary process routes were tested on the semi-continuous demonstration pilot plant set up at Hindustan Zinc Limited with successful extraction of Copper, Nickel and Cobalt from Polymetallic Nodules.

Indian Continental Shelf Program: This is a major multi-institutional national endeavor that seeks to establish the outer limits of the country's continental shelf. Following India's ratification of the convention in June 1995, it was mandatory for

the country to lodge her claims for an extended shelf latest by May 2009. The Indian endeavors towards this national goal were being spearheaded by the National Centre for Antarctic and Ocean Research (NCAOR). Underpinning our endeavours has been a comprehensive multi institutional marine geophysical data acquisition programme which commenced on the 17th July 2002. Spread over 385 days of fair-weather period, over 31, 000 km of seismic reflection gravity and magnetic data were collected from the project area. In addition, for the first time in the country, 90 state-of-the-art Ocean Bottom Seismometers (OBS) were successfully deployed along several seismic transects to constrain the velocities from the reflection data as well as to develop a crustal model of the area. The post-processing and interpretation of the data has been undertaken by three of the leading National Institutes, viz, NCAOR, NGRI and NIO. The documentation as per the provisions of UNCLOS is currently in progress. In June 2007, India got elected as a member on the commission.

During the year the Ministry had undertaken a bilateral programme to conduct geophysical survey as required by the CLCS for the Myanmar. A workshop has already been organized at NCAOR, Goa to the Scientists of Myanmar for providing hand on training on the analysis of geophysical data. A total of 2759 kms has been surveyed for collection of geophysical data in the EEZ of Myanmar.

Gas Hydrates: Considering the vast potential of various resources including the gas hydrates in the EEZ of India, a comprehensive bathymetric survey of EEZ was also taken up during the period. Towards exploration of gas hydrates, some of the scientific aspects of Gas hydrates have been address and an Indo-Russian Gas hydrate centre was established to address the technological aspects.

COASTAL AND MARINE ECOSYSTEM

Marine Living Resources: A dedicated programme was launched for systematic scientific assessment of living resources in the seas around India through a network of Fishery Research and other Organizations. This programme is being coordinated by Centre for Marine Living Resources and Ecology (CMLRE), Kochi. Towards development of drugs from the marine organisms, a considerable progress has been made over a couple of decades. Clinical test of two compounds (antidiabetic, antidyslipidemic) derived from marine organisms are in the advanced stage of drug development. Besides, some lead compounds found to be having potential activities such as antibiotic, antiviral, antileukemic have also been taken for toxicity and clinical trials. The Ministry has a well defined Ocean Awareness programme for promotion of Ocean Science and to reach out the society.

Lobster Fattening Technology: National Institute of Ocean Technology, Chennai, successfully developed and disseminated the viable technology for fattening lobsters and mud crabs in cages to select beneficiaries in Gulf of Mannar in Tamil Nadu and Andaman Islands, on an experimental basis. There has been a substantial improvement in earnings of coastal fishermen due to implementation of this scheme. The technology for seaweed culture will be extended to 100 women beneficiaries in Gulf of Mannar region, 25 women beneficiaries each for lobster fattening in Gulf of Mannar and crab fattening in Andaman & Nicobar Islands. Besides, NIOT has also deployed a set of 28 Fish Aggregating Devices in the Arabian Sea for the benefit of fishing community in the Lakshadweep islands.

Integrated Coastal and Marine Area Management (ICMAM)

The Integrated Coastal and Marine Area Management (ICMAM) programme initiated in 1998 aims to facilitate use of scientific tools and techniques in addressing the coastal problems like erosion, pollution and habitat degradation. It has demonstrated application of remote sensing and GIS in the assessment of status of health of mangroves, coral reefs and other biologically important areas and also their integrated management. Use of mathematical modeling in assessing the coastal erosion and development of remedial solutions has been demonstrated at Ennore (TN), Panathura and Kayamkulam (Kerala) and Mangalore (Karnataka). Projects of similar nature are being undertaken at Gopalpur (Orissa), North Kanara coast and at selected locations in Kerala. A major initiative of ecosystem modeling of coastal ecosystems especially at Kochi backwaters, Chika lake and Sundarbans has been taken up. As an aid to the pollution control activities, mathematical modeling techniques have been used to estimate waste assimilation capacity of sewage at Ennore Tamilnadu, Tapi (Gujarat) and Hooghly (W.Bengal). Further, seawater quality criteria have been developed for mercury, copper and cadmium using modern ecotoxicological experiments and determination of such values is in progress for other major pollutants.

Coastal Ocean Monitoring and Prediction System

A major long-term programme to assess the health of marine environment has been operational since 1990. Levels of chemical elements indicting the contamination of seawater due to disposal of untreated sewage and industrial wastes both from point and non-point sources are being determined at 76 locations along the coastline of the country. It has been found that the sea beyond 5 km is clean. Thee major pollutant along the coastal water is the untreated sewage as indicated by moderate to high numbers of pathogenic bacteria at all the 76 locations in the sea. The coastal waters of Mumbai, fishing harbour at Veraval, nearshore water of Veli in Kerala are severely polluted. Moderate levels of pollution also notice at Hazira, Kochi, Cuddalore, Tuticorin, Ennore, Vishakapatnam, Puri and Sandheads (W.Bengal). The seawater is free from contamination of pesticide residues such as DDT and HCH.

Ocean Research Vessels

Recognizing the necessity of research vessels for conducting Marine Scientific Research, the Department acquired two state-of-the-art Research Vessels viz., (ORV) Sagar Kanya and FORV Sagar Sampada in 1983 and 1984 respectively. These Research Vessels are equipped with advanced scientific instruments to conduct multi-disciplinary research and contributed in a major manner to the advancement of oceanographic and atmospheric research in India, for nearly two decades. So far Sagar Kanya and Sagar Sampada conducted over 230 and 247 cruises respectively in the Indian Ocean including the Southern ocean for the exploration and exploitation of living and non-living resources including Antarctic Krill resources. During 1998, two Coastal Research Vessels viz., Sagar Poorvi, and Sagar Pachimi were acquired to specifically monitor coastal pollution aspects. In 2006, a Buoy Tender Vessel "Sagar Manjusha" was commissioned to cater to the needs of ocean observation systems.

To harness various non-living resources in a sustainable way, a suitable platform like Technology Demonstration Vessel (TDV) is essential. In 2005, a new programme on acquisition of new multipurpose vessel for Technology was taken

up. The detailed design of a new Technology Demonstration vessel with the following features was completed by the end of 2006. In a record time, the construction of vessel Sagar Nidhi had been completed which was launched in June 2007 by Minister for Science and Technology. The vessel equipped with the state-of-the art facility, was delivered on 10th December 2007. This new facility will also cater to shallow water survey, and act as a supply and support platform for the various coastal and deep ocean activities planned by the Ministry. This vessel will serve as a platform for the programmes envisaged in the XI Plan and also serve as a utility science vessel which will augment the capacity needs of the marine living and non-living resources programme of the Department. The NIOT would be the nodal agency to implement this programme and to operate and maintain the vessel. This vessel was dedicated to the nation in the presence of Minister for Earth Sciences and the Minister for Shipping on 3.3.2008. This vessel is capable of conducting multi-disciplinary studies in the sea continuously for 45 days with 30 Scientists onboard. This is an ice class vessel of 5050 tones, equipped with state-of-the art facilities for launching and testing various Marine equipment including ROV, AUV and Manned Submersible.

Climate Change Studies

The Ministry has taken up a programme to set up a dedicated centre at Pune to address various scientific issues relating to climate change including impacts on sectors like health, agriculture and water. With the mandate to explore and assess targeted science-facets of climate change that are of high relevance for the Indian region, along with their global linkages through the creation of a research infrastructure to be coordinated by an exclusive program on climate change science, integrate existing research groups and develop new groups through the development of institutional research network, developing collaborative linkages with international institutions and research groups to enhance research capabilities, coordinate systematic observation program for climate change related parameters including fluxes, over Indian region and ocean in the neighbourhood.

In tune with the mandate of basic research for advancing the prediction of tropical weather and monsoon climate, the Indian Institute of Tropical Meteorology (IITM) has made fundamental and noteworthy contributions during the past three years in areas of monsoon prediction, monsoon variability, climate change and climate variability, atmospheric chemistry modelling and air quality measurements. Some of the most important contributions are noted here. (a) IITM has been playing a leading role in the development of empirical models for long-range prediction of seasonal mean monsoon rainfall and has taken major initiative in prediction of seasonal mean Indian summer monsoon rainfall and its variability by using atmospheric model as well as by developing an Intermediate atmosphere-ocean coupled model. (b) Also, for the first time in the country, projections of Indian summer monsoon under different climate change scenarios have been made through downscaling with the latest version of Hadley Centre Regional Climate Model. The scenario data products have been distributed to several impact assessment groups in the country. (c) The first evidence of a significant rising trend in the frequency and intensity of heavy rain events; and decreasing trend in the frequency of light to moderate rain events over central India in the monsoon season during 1951-2000 has been produced and its connection with global warming has been projected. (d)

Discovered a coupled feedback between the tropical Indian Ocean circulation and the southwest monsoon winds, on sub-seasonal / intra-seasonal time-scales, which is pivotal in forcing long-lasting breaks in the monsoon rainfall over India and occurrence of droughts over the subcontinent. (e) Lidar Group Scientists at IITM developed an Excimer laser based DIAL (Differential Absorption Lidar) technique for Vertical Profiling of Ozone up to stratospheric altitudes at the Institute and measurements of Vertical profile of Ozone were made at Pune for the first time in the Country. (f) A new insight on why all EI Ninos are not associated with monsoon droughts has been unraveled. The EI Nino events with the warmest sea surface temperature (SST) anomalies in the central equatorial Pacific are more effective in focusing drought producing subsidence over India than events with the warmest SST in the eastern equatorial Pacific.

BIOTECHNOLOGY

Biotechnology is a set of rapidly emerging and far-reaching new technologies with great promise in areas of sustainable food production, nutrition security, health care and environmental sustainability. Biotechnology is globally recognized as a rapidly emerging, complex and far reaching new technology. Biotechnology can, over the next two decades, deliver the next wave of technological change that can be as radical and pervasive as that brought about by IT. During the last five years, biotechnology industry has been growing at a rate of 40% and in 2005-06 exceeded US\$ 1.5 billion in turnover. Though the growth was achieved mainly through leadership in biogenerics and contract manufacturing, research leading to innovative product development did not lag behind. The social impact of such growth is evident from India assuming a dominant place in vaccine exports, diagnostics, transgenics (BtCotton) and a number of biotherapeutics. There is a projection of an annual turnover of US \$ 10 billion for India by 2010 and a speculated about 25% annual growth rate between 2010 and 2015. During the year 2006-07, the impetus had been on programmes of national relevance with special emphasis on strengthening of infrastructure, creation of centres of excellence, capacity building and developing mission mode programmes and public-private partnerships. Over 450 R&D projects have been supported during the year with approximately 200 universities and research laboratories being provided the necessary support in terms of both capacity building and infrastructure strengthening. In the area of health care, new vaccines and diagnostics have been indigenously developed and are under clinical trials. A major initiative has been taken to develop stem cell research in the country and 6 centres have received programme support. A road map has been formulated and city clusters established to forge interdisciplinary collaboration, crucial to this sector. Cutting edge research in areas of tissue engineering, bio-medical devices, biomaterials, nano-biotechnology and RNAi is being supported. A special initiative for devices and formulation required for a national programme on maternal, neonatal and child health has been initiated. In the area of agriculture biotechnology the focus is on nutritional enhancement, increased productivity and development of crops resistant to biotic and abiotic stresses. Establishing Centres of Excellence has received special attention during the current year to achieve re-engineering of certain institutes for greater innovation and focus. The societal development programme has received special attention and benefited more than 20,000 SC/ST people, women and rural population during the year. The efforts were focused to create circumstances for

increasing access of common people to new technologies and products and promoting the mass use of these technologies for health care, nutritional security, employment generation and environmental well being. Rapid responses are required to meet these challenges. A major success during the current year has been the launch of public/private partnership scheme-Small Business Innovation Research Initiative (SBIRI), which promotes highly innovative early stage, pre proof-of-concept and late stage development research emphasizing important national needs. During the year, the Autonomous Institutes have concentrated on technology and product development besides basic science. New International Collaborations have been forged with Denmark, Netherlands, US, Finland, UK, etc. Several of these are dedicated to tailored agricultural and vaccine and diagnostics technologies for regional/local needs.

HUMAN RESOURCE DEVELOPMENT

Presently, 63 Post Graduate teaching programmes in various areas of biotechnology namely General Biotechnology, Agricultural Biotechnology, Animal Sciences, Medical Sciences, Marine Sciences, Neurosciences, Industrial Biotechnology, Molecular and Human Genetics, Environmental Biotechnology and Pharmaceutical Biotechnology. M. Tech Biochemical Engineering and Biotechnology, in addition to seven Post Graduate diploma in bio-safety & regulations, animal cell culture etc. are being supported all over the country. Around 1000 students are admitted for these courses through an All India Common Entrance Examination. There is a provision to give industrial exposure to PG students for six months with an aim to bridge gap between skilled set of students produced by universities and requirements of the industry, under Biotech Industrial Training Programme (BITP).

The Department started JRF programme from 2004. 100 JRFs are selected through Biotechnology Eligibility Test (BET) conducted by University of Pune and fellowships are provided initially for a period of 3 years which may be extended up to five years. The programme is also being extended to students with Medical and Engineering background. Post Doctoral Fellowship (PDFs) are given to 100 fellows each year and selection is done by IISc. Bangalore.

There is provision for upgrading skills of mid-career scientists, faculty involved in undergraduate and post graduate teaching by participation in short term training courses in leading institutions in the country and specialized training in overseas laboratories.

BIOTECH FACILITIES AND PROGRAMME SUPPORT

Six Centres of Excellence have been supported so far in the areas of genetics and genomics of silkworms; co-ordinated research on tuberculosis, design of novel inhibitors against infectious disease agents, high-throughput allele determination for molecular breeding of crops and for developing high throughput molecular approaches for rice breeding. In addition, eleven proposals have been supported so far in Programme Support mode in the areas of therapeutic proteins, novel yeasts, abiotic and biotic stress tolerance in crop plants; cancer biology and therapeutics, nutrition genomics, human genetic disorders, micronutrient deficiencies, immunotherapy of cancer and leishmaniasis, translational research on transgenic rice and diagnostics for neglected infectious diseases.

AGRICULTURAL BIOTECHNOLOGY-CROPS

In a project to identify, map and transfer desirable alleles at QTLs for yield and yield components and stability and also to generate QTL bear isogenic lines of rice, and agronomic evaluation of BC2F4 Near Isogenic Introgressions lines (NILs) as many as 200 BC2F5 progenies were evaluated for the second consecutive year during summer 2006 in multi-location trials. A new triticate line involving Himalayan rye and indigenous wheat genotypes has been synthesized to be further utilized as a diverse source for obtaining certain important wheat-rye translocations. In project on functional genomics of rice aiming at discovery and functional validation of genes, novel genes conferring bacterial blight (BLB) resistance have been discovered in accessions of wild species like *O. longistaminata*, *O. nivara*, *O. glaberrima* and *O. barthii*; land race accession Ac32753 and a few mutant lines of IR64. Gall midge resistance genes Gm 1 and Gm4 are being fine mapped to within 10cM of 2 MB region of the genome. In the network project on programme on development of Salinity and dehydration stress tolerance in rice, a gene encoding fructose 1, 6 bisphosphate was cloned to full length from *Portresia* (PCFR) and this enzyme was found to be active in the presence of NaCl. In the project on multi-site Evaluation of Transgenic Mustard (DMH-11) based on barnase-barstar system, the National Research Centre of Rapeseed-Mustard, Bharatpur conducted these trials along with four checks, viz. CMS based hybrid (DMH-1), National Checks (Varuna and Kranti) and a zonal check, at 10 locations during the year 2006. It was observed that higher yield of DMH-11 over the best check variety was recorded in 6 out of 9 locations. In the project on development of Transgenics Cotton for Resistance to Insect Pests, around 300 independent transgenics lines in cotton (Coker 310-FR) carrying the cry 1Ac gene for attaining resistance to *Helicoverpa armigera* developed. In most of the transgenics the cry1Ac gene is under the control of the double enhancer CaMV 35S promoter. Improvements have also been made in the transformation protocol of cotton which allows the use of Imidazolinone as a selection agent instead of kanamycin by using a double mutant acetolactate synthase gene as marker.

BIOFERTILISERS

With growing environmental concerns, the sole dependence on chemical inputs-based agriculture is being replaced by integrated approach involving conjunctive use of both organic and inorganic sources. In this context, biofertilizers have been well accepted as an economical, cost effective, renewable and safe organic source of plant nutrients to sustain crop productivity. Moreover, with recent focus on organic/bio-dynamic farming, the demand of biofertilizers is likely to grow at a much faster rate than before. At this juncture, we must realize that microbial inoculants are 'ecological inputs', whose effects are 'subtle and not dramatic' like chemical inputs. Hence, inoculation with good quality inoculants is a must and should be treated as an insurance against failure of nodulation. The shelf life both in the store and transit needs to be improved with due consideration to various 'abiotic' stresses. The quality-oriented production and marketing network will certainly make biofertilizers a viable enterprise for ultimate customer satisfaction. Keeping these in view, programmes on development of liquid biofertilizers and biofertilizers-based Integrated Nutrient management packages for plantation crops and medicinal plants have been generated.

BIOPESTICIDES AND CROP MANAGEMENT

The programme is directed towards the management of pests, diseases and weeds of economically important crops as well as development of commercially viable mass production technologies. A number of potent and cost effective methods of biological pest control were successfully developed. Formulations were prepared and tested successfully against viral and fungal infections of various crops. Genetic improvement of various species of entomopathogenic nematodes for enhanced efficacy and tolerance to environment, e.g. temperature etc. was achieved and found to be effective against insect pest of pigeon pea, rice stem borer, gram pod borer, cardamom root grub, sucking pests of cotton etc. Conservation and augmentation of two predators, viz. *Dipha aphidivora* and *Microuns igorotus* was achieved, which suppressed sugarcane wooly aphid populations. Pheromones were found to be quite effective against various species of bollworm, viz. pomegranate fruit borer and sucking moths of sweet orange. Pheromones dispensers, suitable for Indian conditions were also developed. Insecticidal toxin genes of various plant species and various novel bacterial strains is being done to develop a potent biopesticides formulation. The multicentric programme on the management of *Parthenium* launch to control the weed and for its possible economic potential is progressing well. At the initiative of DBT, guidelines for registration of biopesticides have been simplified and streamlined. In order to promote and facilitate the commercialization of biopesticides, 10 biopesticides have been taken up for generation of toxicological data, both for primary cultures as well as for their formulations. A comprehensive website on "Bio-pesticides" has been developed which highlights the achievements made in major programmes supported by the Department on biological control of pests, disease and weeds.

NATIONAL BIORESOURCE DEVELOPMENT BOARD

Programmes under the Board continued in the area of Biodiversity Characterization and Inventorization, Bioprospecting, improvement and utilization of resources and Capacity Building. A web portal Indian Bioresource Information Network (IBIN) has been launched as a single window access to spatial and non-spatial data. This unique effort is the first of its kind which overlays all spatial information with ground level species information, the address to providing details of the genetic level studies being conducted. IBIN site was also launched by the Hon'ble Minister. Study on Mapping and Quantitative Assessment of Plant Resources continued for Eastern Himalayan Region, Western Ghats and Eastern Ghats. The country's first Butterfly Park at Bannerghatta Biological Park, Bangalore was inaugurated on 25th November 2006 by the these Hon'ble Minister Science & Technology and Earth Sciences, Shri Kapil Sibal. The Park houses more than 2000 butterflies at any given time representing 42 species. The uniqueness lies in the research activities continuing specially for rearing technologies, DNA Barcoding etc.

A major initiative during the year has been the launch of a Network programme on "Zingibers" and "Honey bee resources". Under the Zingiber network, programmes have been supported on biochemical and molecular characterization in relation to commercially useful traits, prospecting for selected secondary metabolites and domestication of some underutilized species of ornamental value. Under the Tea Research Network, a major new initiative has been taken on generation and analysis of Expressed Sequence Tag (EST) and also integrated genetic linkage map and marker assisted selection. A network programme has been launched for the Indian Coffee Genome Research under which CDNA libraries and ESTs are being developed. Under

the Sugarcane Genomics a major achievement has been the development of PCR based diagnostic kits for red rot and smut diseases which is presently undergoing validation. Under the Bamboo Demonstration programme nearly 380-ha has been planted with tissue culture material. In addition R&D programmes have also been supported for developing and standardizing tissue culture protocols for other priority bamboo species.

Under the Capacity Building Programmes, during this year 21 Vacation training programmes were organized in different parts of the country benefiting about 600 children on sustainable utilization of bioresources. A Bioresources Nature's trail has been established at Kerala Forest Research Institute (KFRI) sub-centre at Nilambur in an area of 5ha.

MEDICINAL AND AROMATIC PLANTS

Four gene banks have been further strengthened with respect to collection, conservation and characterization of more number of germplasm accessions. A rapid and highly reproducible protocol for *in vitro* propagation of *Picrorhiza scrophulariflora* has been developed. High yielding lines of *Nothapodytes nimmoniana* with more than 1% camptothecin were identified from Western Ghats. Evaluation of the performance of elite tissue culture plantlets vis-a-vis stem cuttings of vanilla (*Vanilla planifolia*) in farmers' field over an area of 20 ha. in Tripura state has been initiated. Cell-cultures of *Commiphora wightii* were grown in 2 litre stirred tank and 6-litre airlift bioreactor for guggulsterone production. A network project on development of standardized herbal product for bovine mastitis has been initiated. Purified pectic polysaccharide from *Aegle marmelos* have shown significant *in vivo* anti-leishmanial activity. Root extract of *Clitorea ternatea* and taraxerol showed significant inhibition of acetyl cholinesterase activity and cognitive enhancing property. RAPD and minisatellite profiles of the sandalwood (*Santalum album*) populations of the southern regions of India have been generated. Work on cloning and characterization of regulatory elements of genes involved in picrosides biosynthesis in *Picrorhiza kurroa* has been initiated. The full length 4, 11-diene synthase gene involved in sesquiterpene biosynthesis regulation in *Artemisia annua* has been cloned. Four genes of isoquinoline alkaloid biosynthetic pathway in *Papaver somniferum* have also been cloned.

PLANT BIOTECHNOLOGY

Support continued during the year for research and development projects on forestry, horticulture and plantation crops. The thrust of the activities was on plant tissue culture for mass multiplication of desired planting material, use of molecular markers for characterization of genetic diversity and superior accessions with reference to identified desirable traits, molecular biology tools for production of improved varieties through transgenic and molecular breeding approaches. Projects in the area of horticulture crops focused mainly on production of disease free quality planting material, improvement of crops, with specific reference to extended shelf-life and genetic characterization studies. Potato, onion, brinjal and okra have been identified and programmes have been supported. Under the National Mission on bamboo, demonstration programmes have been supported in different states with a target to complete 1000 ha by next year. Project to study the signal transduction cascade events for both biotic and abiotic stress, hormones, light, etc. were supported. An International Solanaceae Genome initiative was launched. Both structural and functional genomics studies are being supported. Public Private model has been worked out and projects in the area of Biofuels are being supported to the industry.

ANIMAL BIOTECHNOLOGY

New programmes were initiated in the area of animal nutrition and development of newer animal vaccines. Standards were developed for estimation of mycotoxins in animal feed and distributed to various laboratories for routine analysis. A novel and potent anthrax vaccine which includes mutants of lethal factor and edema factor was developed which provides better efficacy *in vivo*. An attenuated buffalo pox virus vaccine was developed and its field trial is underway. Vaccines for Rabies, *Clostridium*, Hemorrhagic septicaemia, Foot and Mouth disease, Bovine brucellosis, Bovine tuberculosis etc. are in various stages of development. Phage display technique was used as an alternative to hybridoma to produce mono specific antibodies against recombinant gag antigen of Bovine Immunodeficiency Virus. Diagnostics for paste des petits virus and buffalopox virus were developed and validated successfully. A RT-PCR assay was standardized for specific detection of Border disease virus and a nested PCR was also developed for differentiation of Border disease virus. Bovine viral diarrhoea virus 1 and 2. Multicentric programme on Buffalo Genomics was implemented with focus on identification of genes of economic importance. Structural and functional aspects of 3D scaffold of bovine origin for cardio myocyte culture are being studied. Effects are also on to develop biomaterial of bovine origin for reconstruction surgery in animals.

AQUACULTURE & MARINE BIOTECHNOLOGY

Programme on biosurfactants, exploration of marine enzymes, bioactive molecules, reproductive biology and cell cycling, plasmid immune response, neuro-peptide synthesis, bioreactors, vaccine development for fish, bacteriophage therapy in improvement of shrimp larvae, oligonucleotide probe for monitoring vibrio counts in hatcheries, genetic characterization of marine organisms, organ development, cell lines from seabass, shrimp genomics and fish nutrition are being implemented. Biosurfactants were screened using marine *Acinetobacter genospecies*. A prototype for raceway based shrimp production technology was utilized for nursery rearing of shrimp. Studies on occurrence of human pathogenic viruses in coastal marine waters were carried out. Marine cyanobacteria and chlorella species were studied for over expression of superoxide dismutase enzyme useful for bioremediation and salt tolerance. Bioactive molecules were explored for antibacterial, antiviral and anticancer agents. Role of bacterial plasmid gene was studied in pathogenesis of Epizootic Ulcerative Syndrome and its virulence. Applications with the use of phytase were explored from yeast as an alternate fish feed supplement. Neuro-peptides synthesis was explored from Indian cone snails and conus peptide sequence was worked out. A bioreactor was under development for microbial based treatment system for seafood industrial discharge. Vaccine development for fish for *Aeromonas* showed promising leads. Bacteriophage therapy in improvement of shrimp larvae was pursued as an alternative to antibiotics in aquaculture. Oligonucleotide probe for monitoring vibrio counts in hatcheries were designed. Organ development and differentiation were studied using perivitelline fluid of Indian Horse Shoe Crab.

SERIBIOTECHNOLOGY

Screening of silkworm germplasm for baculovirus resistance in silkworm (*Bombyx mori*) has resulted in identification of three each of bivoltine and multivoltine strains under a network project. Microsatellite analysis carried out in muga silkworm (*Antheraea assama*) populations indicate genetic variability in hill populations as compared to plain area populations. A *Bombyx mori* gene that code for antiviral

protein has been partially characterized. A collaborative project has been initiated on epidemiology, spatial and temporal dynamics of diseases of muga silkworm. Under the Indian initiative on International Consortium on Lepidopteran Genome Project, functional annotation of unique putative genes of muga silkworm has been carried out. A total of 67 mulberry accessions have been conserved *in vitro* and 238 accessions have been successfully cryopreserved. Field evaluation of mulberry transgenics (with HVA-1 gene) for abiotic stress tolerance has been initiated. A few epicuticular wax related gene fragments having homology with *Arabidopsis* have been cloned from mulberry. Under a network project, screening of mulberry germplasm for disease response to powder mildew, tukra and nematode has been completed. A new programme on biotechnology in tasar sericulture has been recently initiated in collaboration with Central Silk Board.

BASIC RESEARCH IN MODERN BIOLOGY

Fifty-Two R&D projects having fundamental questions were supported to provide new vistas to the knowledge required for understanding the intricacies involved in applied research. Research highlights include: promising results for improvement of the oral bio-availability of cyclosporine and reduction of nephrotoxicity associated with the commercial formulation at NIPER, Mohali; Studies carried out at Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, using an *in vitro* cell culture model to evaluate the response of adult rat cardiac fibroblasts to hypoxia; IISc Bangaluru revealed that UdgB plays a significant role in mycobacteria; Scientists at IMTech., Chandigarh showed that *phoP* Promoter activity is negatively auto-regulated by PhoP through sequence-specific interaction(s) involving 3 direct repeat subunits with a 9-bp consensus binding sequence. Studies carried out at IISc, Bangaluru indicated that both MBP and Pre MBP are more prone to aggregation under crowded conditions with preMBP showing a greater extent of aggregation; Scientists at School of Life Sciences, JNU studied delineation methods to explore the physiological role of SMARCAL 1; Scientist at IISc., Bangalore revealed that the stabilizing contacts in the folded conformations of glycodeilins are different; Scientists at CDRI, Lucknow used NMR spectroscopy to solve structure of *Mycobacterium tuberculosis*, *Escherichia coli*, and *Homo sapiens* peptidyl-TRNA hydrolase. A structural model based on *E. coli* Pth crystal structure, was generated; Crystallographic analysis of PFBZ of *Plasmodium falciparum* carried out at IISc., Bangalore revealed new strategies in the design of novel antimalarials; Studies done at JNU, New Delhi suggested that *D. discoideum* under oxidative stress exhibits PARP mediated casepase independent paraptotic cell death; Oxidative stress induced DNA damage in ICSI being investigated at IIT Kharagpur revealed a positive correlation between ROS and sperm morphology and its DNA damage; Scientists at ICgeb, New Delhi characterized CIPK protein and showed that the protein contains autophosphorylation activity; Scientists at IIT, Kharagpur attempted to make folate-nanoparticle conjugate by grafting folic acid through some biocompatible nonpolymeric coupling agent and Scientists at University of Madras, Chennai are using biophysical techniques, chiefly X-ray crystallography, but also computer modelling, UV spectroscopy and gel mobility, to study the structures of DNA junctions, such as three way and four-way junctions, as well as unusual DNA packing modes that lead to novel microstructures.

MEDICAL BIOTECHNOLOGY

Concerted efforts have been made towards development of vaccines and diagnostics for the major infectious and non-infectious diseases specially in the areas of

tuberculosis, avian influenza, Chikungunya, rotavirus, typhoid, malaria and HPV. New DBT-ICMR collaborative efforts has been initiated on HIV/AIDs and Microbicides research. About 20 projects have been implemented under this joint effort. Brain storming sessions were organized on future R&D efforts on avian influenza, Chikungunya and other infectious diseases. Emphasis was also laid on setting up virus research network projects. Typhoid vaccine development technology was transferred to an industry for further cGMP grade production, pre-clinical and clinical studies. A rapid diagnostics test system for filariasis (Signal MF) developed by Anna University, Chennai has been commercially launched. Efforts have been initiated to study molecular evolution and for the development of cost effective and easily upscalable multivalent vaccine for avian influenza (H5N1). Studies on development of a lentivirus based high efficiency gene transfer vector has culminated towards development of indigenous gene transfer vector with novel features of versatile multiple cloning site with expended cloning capabilities. An agreement has been signed between DBT and IAVI to pursue the biomedical research programme towards vaccine development of HIV/AIDS, and collaborative programme Neutralizing Antibody Consortium is going to be initiated soon. Follow up actions have been initiated on the leads available towards development of newer diagnostic systems, better therapeutics, RNAI and newer vaccines.

STEM CELL

Stem cell biology is a promising and emerging field of the life sciences. The potential of stem cell technology to develop therapy for many untreatable diseases through cellular replacement or tissue engineering is widely recognized. Keeping in view its potential therapeutic applications, both basic and translational research are being promoted by the Department in various institutions, hospitals and the industry. Till date, more than 55 programmes have been identified and supported on various aspects of stem cell research. These include generation of human embryonic stem cell lines, differentiation of pancreatic progenitor cells to insulin secreting cells, isolation of multipotential adult progenitor cells from bone marrow and their clonal expansion, use of banana lectins for stem cell preservation, hematopoietic stem cells (HSC) for haplo-identical HSC transplantation, use of limbal stem cells for ocular surface disorders, isolation and characterization of mesenchymal and liver stem cells, *in vitro* differentiation of human embryonic stem cells to neural and non-neural lineages, cardiac stem cells, embryonic stem cells etc.

Disease specific brainstorming sessions have been organized in the area of cardiac, stroke, limb ischemia and orthopaedic to explore the potential applications of stem cells in these areas. "CMC-DBT Centre for Stem Cell Research" has been established at CMC, Vellore to carry out basic and translational research. Multi-centric clinical study has been implemented on acute myocardial infarction and pilot study has been initiated on acute ischaemic stroke to determine safety and efficacy of bone marrow mononuclear cells. Stem cell research facilities including clean rooms to handle stem cells have been created at PGIMER, Chandigarh, SGPGIMS, Lucknow, KEM Mumbai and LVPEI, Hyderabad. A training centre to provide training for embryonic and adult stem cells has been supported jointly at NCBS & JNCBSAR, Bangalore. Current Good Manufacturing Practices (cGMP) workshop/training course was also organized. A number of scientists and clinicians were invited to participate in the training course.

In order to formulate road map in the area of stem cell research, a series of disease specific meetings were organized. Based on the consensus, road map for stem cell research has been categorized into basic research, translational research; human resource development; creation of infrastructure facilities; establishment of Centre of Excellence, institutions, creation of basic research units in medical institutions, good animal models for the diseases, etc.

The Department of Biotechnology under Ministry of Science and Technology and Indian Council of Medical Research have jointly formulated draft guidelines for stem cell research.

BIOENGINEERING

Bioengineering has been identified as a potential area of research by the Department. In order to identify priority areas, create road map, strengthen R&D activities and infrastructure for bioengineering research in the country, the Department organized a number of brainstorming meetings. The key areas identified are: tissue engineering, biomaterials for therapeutics, medical devices, bioinstrumentation and biosensors. A number of workshops were organized in the identified areas. Brainstorming meetings were also organized on "Devices and equipment for maternal, new born and child health care" and "Indigenous production of surfactants for the treatment of premature babies". It was felt that there is a need to initiate mission mode programmes at institutions having adequate facilities in collaboration with the industry; to strengthen R&D activities for the development of biomaterials especially for drug delivery, cellular/molecular imaging technology; disposable biosensors at low cost for rapid diagnosis of diseases, MEMS biosensor using multi-parameter approach; fabrication of medical devices and bio-instruments, development of implants, etc. As an outcome, several network groups of clinicians and basic researchers have been formed. Multicentric projects have been generated and implemented in the key areas of bioengineering. A separate task force has been constituted to consider projects in this area.

HUMAN GENETICS AND GENOME ANALYSIS

The Human Genetics & Genome Analysis programme which is under implementation since 1990-91 has established major infrastructure to pursue post genomic research activities in the country and also to keep pace with international efforts to exploit the available human, animal and microbial genomics available in public domain. A total of 21 genetic diagnosis-cum-counselling units established since 1991-92 provide continuous patients services in the country to affected families to reduce common genetic disorder/disease burden. So far more than one lakh families got benefited from these units and saved foreign exchange by providing diagnostic services in the country. In order to develop trained manpower in the area, the Government established four training centres (CMC, Vellore, AIIMS, New Delhi, IIH, Mumbai, and SGPGIMS, Lucknow) to train clinician scientists and technicians working at various medical colleges/institutions.

Several projects in the area of human genetics, human genome diversity, functional, structural, microbial, biocomputing, pharmacogenomics, and clinical proteomics were implemented involving a large number of clinicians, molecular geneticists and anthropologists. A strategy plan/roadmap document for the 11th Plan was prepared to initiate major programmes in human genetics and genomic network projects including genetic education in the country.

ENVIRONMENTAL BIOTECHNOLOGY

Environmental Biotechnology Division, Department of Biotechnology has organized four Brainstorming Sessions on Environmental Metagenomics at New Delhi, Environmental Biotechnology at Nagpur, Biodiversity Conservation at Shillong and Thiruvananthapuram for identification of the thrust areas to be considered for research in the XIth Five Year Plan as well as for generation of focused, multi institutional network projects wherever it is required. Efforts are being made to provide the biotechnological solutions to the industries for abatement of pollutions with value added products from waste and conservation of endangered, threatened plant/animal species. A joint programme with NTPC is planned to formulate programme on carbon sequestration using biotechnological tools. R&D leads in some of the projects like Hydrogen (bio energy) from waste, industrial waste water treatment of highly polluting industries like Petroleum installations/refineries, pulp and paper industries, textile/dye industries and poultry waste are being taken up for joint ventures with user industries for demonstration of the technologies developed at laboratory scale.

MISSION MODE PROGRAMME ON BIOFUELS AND BIOENERGY

The Department of Biotechnology has launched a mission programme on biofuel from biomass. The thrust is on developing ethanol using lignocellulosic waste as a raw material, identifying recombinant microbial strains for enhanced ethanol recovery, producing high quality raw material for biodiesel production and developing enzymatic transesterification process for conversion of oil to Biodiesel. Under a micro mission on production of quality planting material of *Jatropha curcas*, for the first time a systematic scientific survey, characterization and collection of superior accessions from across the country has been taken up. More than 100 accessions have been collected and characterized. Nurseries have been established at 12 locations to provide quality planting material.

Programme has also been initiated on using Lignocellulosic materials as they are cheap renewable resources, available in large quantities in our country and would sustain the supply of raw material for ethanol production. The economic viability of the process depends on efficient conversion of cellulose and hemicellulose to soluble sugars, which can be achieved by bringing down the cost of existing enzyme production by 2.0 fold. Under the Bioethanol programme, recombinant microorganisms have been identified, which are thermo tolerant and help in enhanced ethanol recovery, enzymatic pretreatment processes for lignocellulosic degradation are also going on. Efforts are continuing for scale-up of these technologies to make them commercially viable.

Under micro mission programme more than 1000 superior accessions of *Jatropha* have been identified and 820 samples have been analysed for oil content and free fatty acids. Besides, germplasm characterization has also been taken up and 48 accessions have been analysed so far.

BIOTECHNOLOGY FOR SOCIETAL DEVELOPMENT

Demonstration and training programmes on proven and field-tested technologies were continued. The projects implemented could help in increasing the skills and income of SC/ST people, rural folk and women through product and process development and employment generation and improvement of their health status. More than 1,16,000 people have been benefited through around 135 ongoing projects

on cultivation of aromatic and medicinal plants, mushroom, biological control of plant pests and diseases, solid waste management, vermiculture and vermicomposting, biofertilizers, aquaculture, guail farming and human health care etc. This year 20 new proposals were funded.

FOOD AND NUTRITION BIOTECHNOLOGY

During the year, the main emphasis was on development and use of nutraceuticals and probiotics for holistic health. The Department after indepth consultation with national and Canadian experts has worked out the logistics to establish a *National Agri-Food Biotechnology Institute* (NABI), and the *Bioprocessing Unit* (BPU) as autonomous institutions under the Department of Biotechnology (DBT), Ministry of Science & Technology. Both NABI and BPU are planned to come up along with an Agri-food Park designed to house start-up companies. All these three - NABI, BPU, and the Park - will form the *Agri-food Cluster* at Mohali, Punjab. Further, taking into account the demand of trained manpower in the area of food and nutritional sciences, the Department took the initiative for seeking letters of intent for creation and/or remodelling of Departments for an integrated Master's and Doctorate programme in Nutritional Science or Food Science & Technology.

LARGE CARDAMOM PRODUCT PLAN

Field evaluation of the performance of tissue culture-raised large cardamom vis-a-vis open pollinated seedlings continued on farmers' field in Uttarakhand state. About 34.45 ha area has been field planted during 2006 season using open-pollinated seedlings and tissue culture plantlets. Four training programmes for project personnel and farmers on cultivation and management of large cardamom have been organized.

MICROBIAL AND INDUSTRIAL BIOTECHNOLOGY

The technologies for production and application of various enzymes having industrial importance such as keratinase, pullulanases, cellulase, lactase, protease etc. have been developed. Emphasis has also been given on production of enzymes like hydrolase, L-asparaginase, phytase, chitinase etc. and medicinally important fungal products such as fumagillin, lovosatin and ezetimibe. The new projects relevant to health sector are focused on development of a novel vesicular drug delivery system for psoriasis and biochip based diagnostics for detection of genetic diseases. Projects on hyper production of dyes/pigments from selected lower fungi for application in textile dyeing industry, development of membrane bioreactor for the synthesis of structured lipids, preparation of an amperometric biosensor for determination of triglycerides, development of immunodiagnostic kit for the detection of Karnal bunt in wheat lots, production of wine from mango, and design and optimization of a circulating fluidized bed biomass gasifier have been implemented. Thrust areas have been identified for implementation as net work programmes/mission mode projects for implementation during the 11th Plan. Besides the identified thrust areas, proposals with novel/innovative ideas for product related discovery science and product development were invited from prospective investigators through a Call for Proposals.

SMALL BUSINESS INNOVATION RESEARCH INITIATIVE (SBIRI) FOR PUBLIC PRIVATE PARTNERSHIP

The department initiated the scheme "Small Business Innovation Research Initiative (SBIRI)" in September, 2005 to bring biotech industry at the forefront of technological

revolution. The programme aims to build and capture a leadership position for India among the topmost countries of the world in biotech sector. The SBIRI scheme operates in two phases. Under Phase-I highly innovative, early stage, pre-proof-of-concept research is supported, while under Phase-II, the funding is provided for late development and commercialization of innovative research leads. The proposals that address important national needs are given preference. This scheme marks a new phase in public-private-partnerships in a way that combines the strengths of the public sector with creativity and efficiency of the private sector. Effective linkages between the industry and academia are forged for up-scaling and validation of laboratory research to facilitate commercialization. The SBIRI scheme reaches out to entrepreneurs at the grass-root level and supports pre-proof-of-concept & innovative research leading to commercialization.

The scheme has been advertised five times since September, 2005. The department has received good response from the private industry. The proposals received are in the broad areas of health care; agriculture & allied areas; industrial product & process development; and environmental biotechnology. Under the health sector, the major thrust is on the development of therapeutics and drug designing while other areas like diagnostics, development of bioinstrumentation have utility in the medical sector. The R&D in other health related areas and clinical research are also covered by the private sector. In the agri-sector, the focus is on development of transgenics.

For close monitoring and review of the projects a two-tier mechanism is envisaged. At the first level, a Project Monitoring Committee (PMC) comprising of 2-3 experts would review the progress on a periodical basis.

The SBIRI initiative marks an important milestone and augurs well for the development of the Biotech Sector in India. The scheme has been well received and appreciated at different fora.

BIOSAFETY ISSUES

Under Biosafety programme main emphasis has been given to facilitate and implement biosafety procedures and guidelines for ensuring safety from the use of Genetically Modified Organisms (GMOs) and products thereof in research and application to the users as well as to the environment. The institutions and industries involved in recombinant DNA work are carrying out their activities with the approval from Institutional Biosafety Committees (IBSCs), Monitoring-cum-Evaluation Committee (MEC) and Review Committee on Genetic Manipulation (RCGM) and other institutional structures. The Department had reconstituted the Review Committee on Genetic Manipulation (RCGM) to monitor the safety related aspects in respect of ongoing r-DNA projects & activities involving Genetically Engineered Organisms/ Hazardous organisms and controlled field experiments of transgenic crops, in compliance with the Rules-1989 of Environment (Protection) Act, 1986 (EPA-1986). The RCGM was actively involved in clearing and guiding public and private institutions in the development of transgenic crops and rDNA therapeutics.

Apart from considering the applications submitted by various organizations involved in the rDNA technology, RCGM has taken several policy decisions such as standardization of protocol for conduct of multi-location field trials, data collection parameters, nomenclature of transgenic crop/gene/event, and new monitoring mechanism for Bt. cotton. In the area of recombinant pharma sector, the Department actively participated in finalization of report for the Task Force on "Recombinant

Pharma Sector" constituted by the Ministry of Environment & Forests. The recommendations of the Department on protocols for different kind of r-DNA pharma products based on indigenous development and marketing, import and marketing, purified materials from Genetically Modified Organisms (GMOs) as products for commercialization and GMOs as products were included in the final report. The Department had actively provided inputs on rationalization of biosafety regulatory procedures on transgenic crops and recombinant DNA therapeutics to several committees set up by Government of India M/s Biotech Consortium India Ltd. New Delhi has been supported by the Department to organize workshops on National Consultation on Biosafety aspects related to Genetically Modified Organisms' to apprise the members of the IBSCs on biosafety Rules, Regulations & Procedures.

For making available transgenic crops and recombinant DNA therapeutics to the society at the earliest and at the same time not compromising on the safety of the products, the rationalized Biosafety guidelines and procedures were followed. A dedicated dynamic & interactive website on Biosafety reflecting National and International Guidelines, National Rules & Procedures with dynamic interaction with Institutional Biosafety Committees (IBSC) has been developed and launched. Another website on "Indian GMO Research Information System (IGMORIS)" aimed to provide information on research work going on in Indian laboratories, has also been launched. A handbook for members of IBSCs was prepared by the Department and distributed to all IBSCs. The Department had played an active role for the environmental release of four Bt. Cotton events expressing *cry1Ac* (*Mon 531 event*); *cry1Ac* & *cry2Ab* (*Mon 15985 event*) and *GFM cry1A and cry1Ac* (*event No. 1*) genes by different seed companies/industries based on the recommendations of Review Committee on Genetic Manipulation (RCGM) and Monitoring-cum-Evaluation Committee (MEC). About 320 IBSCs have been constituted so far at various public funded institutions, universities, private R&D institutions and industries. Keeping in view the recent Orders of the Hon. Supreme Court, the Department has been making efforts to ensure that the conditions laid out in the Orders are adhered to, while taking any decision on the applications for various research field trials.

BIOINFORMATICS

The BTIS net programme of this Department has today developed into an extensive nationwide Network covering over 120 institutions, spread geographically all over the country. The Network is engaged in providing support to Biotechnology research, creating human resources in Bioinformatics and carrying out research in different areas of Bioinformatics. Scientists of this network have published more than 1000 bioinformatics research papers in peer reviewed journals in last five years and helped in publishing more than 3000 research papers in biology and biotechnology. Fifty-two Bioinformatics facilities (BIF) were established towards introducing innovation in Biology Teaching through Bioinformatics (BTBI). These facilities will be a centralized resource of individual institutions to support bioinformatics tools and resources for the enhancement of learning capabilities in Biology and Biotechnology.

Initiated focused multi-institutional consortium projects in Bioinformatics to address specific problems through bioinformatics approach. Bioinformatics and experimental biology collaborative projects are being considered so as to improve the contribution of bioinformatics in wet lab biotechnology research. The Centres of Excellence in Bioinformatics such as JNU and University of Pune have upgraded their Diploma courses in bioinformatics to M. Tech in Computational and Systems

Biology and M.Sc. in Bioinformatics, respectively. A national level Bioinformatics Certification (BINC) Examination was initiated this year to recognize the quality of human resources available in the country in Bioinformatics.

An unprecedented success made in organising the 5th International Conference on Bioinformatics (InCoB2006) in India. Over 1,000 registrants for this conference with 400 posters, 20 papers were published in BMC Bioinformatics with Impact Factor 4.96 and others in J BioScience. The 2nd ASIAN-INDIA workshop on Bioinformatics was also conducted in this year for the benefit of 30 ASEAN country scientists including scientists from India.

BIOTECHNOLOGY PARKS AND INCUBATORS

The Biotech Parks and Biotech Incubation Centres provide an excellent template for the promotion of Biotech start-up companies and the promotion of Public Private Partnership. The Biotechnology Park at Lucknow set up on 8 acres land provided by the Department of Science and Technology, Government of Uttar Pradesh is now operational and is emerging as a good model. A Bio-Business Block set up at the Biotech Park would be housing Business Support facilities, Bioinformatics Unit, Conference/Training Room and Cafeteria. The Tissue Culture Unit has the capacity to produce 10000 to 100000 plants/batch. The Biofertilizer unit has facilities for production of bacterial fertilizers. The central support facility will have the facilities for analysis and quality testing of the products. An ancillary service block has been built for air conditioning system, high and low-tension panel, diesel set generator and a boiler room. The extraction block will have system for extraction of phytochemical/lead molecules from high value medicinal plants. The diagnostic facility established by the Industry will manufacture and market the diagnostics kits. Distillation and vermicomposting units have been completed. One TPD oil expeller has been installed for extraction of oil from *Jatropha* seeds at the site of distillation unit.

The Biotech Park and incubator facility at Shapoorji Pallonji Biotech Park, Genome Valley, Hyderabad has been mainly designed for development and scale-up of bio-processes and technologies. Current Good Manufacturing Practices (cGMP) compliance for Pilot plant facilities, required for quality manufacturing and for minimizing or eliminating contamination will be available. A Pre-Biotechnology Incubator (BTIC) Process Generator (PBPG), component of the BTIC was set up at IICT, Hyderabad to act as an intermediate and front-end facility to provide lab and bench scale process technologies for biotech processes. A Biotechnology Incubation Centre (BTIC) in Kerala is being established at Kalamassery, Ernakulum Dist., Kochi to promote small entrepreneurs and units for knowledge of traditional medicine, herbs and plant varieties, spices etc. This would help in modernizing production technologies, quality assurance or raw materials and products. The incubator facility would accelerate commercialization of new technologies, support new ventures in biotechnology and provide appropriate linkages to entrepreneurs. Initiatives are underway in Himachal Pradesh to set up a Biotech Park. The Biotech Park initiative at Bangalore, Karnataka is being pursued for the promotion of Public Private Partnership. The Biotech Park at Karnataka will be structured into three components viz. Institutional & Research & Development Block, Biotech Incubation Centre and Common Instrumentation Facility; and Biotechnology Industries Cluster comprising independent private industry units. The Karnataka Biotechnology and Information Technology Services (KBITS) is the implementing agency and they have identified a few Public Private Partners for the Biotech Park.

INTERNATIONAL COLLABORATION

International collaborations in biotechnology are an important vehicle for expanding the knowledge base and developing of expertise which would leverage the growth of research and development in the country. There is a renewed interest in collaboration with India amongst the developed countries. Good progress has been made following the MoU which were signed with Denmark and Finland and joint projects have been funded. Joint projects have also been funded with The Biotechnology and Biological Sciences Research Council BBSRC, UK. In new collaborations the Department signed two memoranda with Agriculture and Agri-Food, Canada and the National Research Centre Canada respectively. The ongoing bilateral agreements and collaborations have also been significant, with joint projects being funded with Germany, Norway and USA. Bilateral interactions have been initiated with Sweden, Ukraine and EU. The multilateral collaboration including co-operation amongst SAARC countries were pursued.

AUTONOMOUS INSTITUTIONS AND PUBLIC SECTOR UNDERTAKINGS

National Institute of Immunology, New Delhi

The Institute continues to make inroads into basic research related to the immune system with a commitment that the knowledge gained would contribute to newer and more effective ways of addressing the health needs of the country. During the year more than 50 peer reviewed manuscripts and 5 reviews have been published. There is about 25% increase in the number of original peer-reviewed publications over the last year especially in high impact journals that include: Nature Immunology, Immunity, EMBO Journal, Journal of Clinical Cancer, Cell Death and Differentiation, Journal of Biological Chemistry and European Journal of Immunology etc. The Institute continued with the concept of 'end-to-end' research in the biosciences and have signed MoU with Astra Zeneca India, Bangalore, and Cadila Pharmaceuticals, Ahmedabad on a technology related to novel molecules that inhibit Mycobacterial Fad D proteins and can have the potential as anti-mycobacterial drugs.

NATIONAL CENTRE FOR CELL SCIENCE, PUNE

The Centre has emphasis on R&D activities in the areas of cell biology including stem cell biology, signal transduction, cancer biology, diabetes, infection and immunity and chromatin architecture and gene regulation. The national cell repository supplied 1154 cell lines to 128 scientific institutions in India. Training and teaching programmes were also conducted. In the cell biology research, for the first time a nuclear pore protein has been found to be associated with interphase microtubules. A protein molecule from perivitelline fluid of India horse shoe crab has shown cardiac promoting activity. In stem cell research, arachidonic acid omega 6) and its metabolites found to reduce apoptosis in CD34+ cells. The differentiation of mouse embryonic stem cells into dopaminergic neurons has been achieved. In diabetes research, chick pancreatic B islets have been found to be an excellent screening model for physiological and pharmacological studies. In cancer biology area, a distinctive nuclear-mitochondrial mutational profile and varying stem cell dynamics have been identified which seem to be associated with tumorigenesis. As a potential therapeutic anti-cholesterol agent, methyl- β -cyclodextrin in combination with other cytotoxic drugs towards reduction of drug dosage is being evaluated. Studies on signal transduction revealed that cox-2 is a potential agent for prostate tumor suppression. In infection and immunity studies, selenophosphate synthetase gene has been cloned and

characterized. Successfully isolated and characterized dendritic cell types 1&2 Genome sequencing of poxviruses and herpesvirus showed that members of these families encode structural homologs of human regulators of the complement activation to mask themselves against the hosts complement attack. Studies on HIV biology indicate that Hsp40 as a crucial player in Nef mediated enhancement of HIV gene expression and replication. Leads from chromatin architecture and gene regulation studies on HIV have advanced the knowledge on mechanism of global gene regulation. During the reporting period, 46 scientific papers were published in high impact factor journals and 7 patent applications have been filed.

CENTRE FOR DNA FINGERPRINTING AND DIAGNOSTICS (CDFD), HYDERABAD

The Centre for DNA Fingerprinting and Diagnostics (CDFD) is an autonomous organization funded by the Department of biotechnology, Ministry of Science and Technology, Government of India. CDFD has been providing services for DNA fingerprinting, diagnostics, new born screening and bioinformatics based modern high-technology DNA-based methods, of direct benefit to the public, as well as in performing fundamental research of international standards in frontier areas of biological science. CDFD is providing DNA fingerprinting services to various Government & Law Enforcement Agencies and signed MoUs with State/Central Forensic Science laboratories to popularize this technology for the benefit of the society. There are presently fifteen groups working on diverse research areas related to genetics, molecular and cell biology, cancer biology, pathogen biology, HIV biology, Immunology, etc. CDFD also has a Sun Microsystem's Centre of Excellence in Medical Bioinformatics. Based on novel technology developed by the Centre, a new joint activity has been initiated this year at the CDFD as "APEDA-CDFD Centre for Basmati DNA Analysis" with funding through APEDA (Agricultural and Processed Food products Export Development Authority). The Centre will test and certify export consignments of basmati rice for their purity, and is expected to contribute in increasing the value and quality of such exports from the country. The major thrust areas of research in the Centre continue to be studies on infectious disease pathogens including *M. tuberculosis*, *H. pylori*, HIV, and HPV, silkworm genetics and genomics, computational biology and bioinformatics; and fundamental studies on transcription and signal transduction. Transgenic silkworms have been created that are resistant to baculovirus, causative agent for destroying the worms, by using RNAi technology. Important results in K-Ras signaling pathways in cancer epithelial cells have been obtained and a novel and convenient tool for Human Papilloma Virus detection has also been developed.

NATIONAL BRAIN RESEARCH CENTRE (NBRC), MANESAR, HARYANA

The National Brain Research Centre was established to create a Centre of Excellence in Brain Research with state of art facility in the country to consolidate, network and undertake basic research of high caliber in neuroscience and also to generate highly trained human resources. The mandate of the centre is also to have established linkages with national and international organizations involved in neuroscience research. So far the centre through its networking centres established 47 neuroscience groups/institutions in the country to promote multi-disciplinary research and providing the facilities of a digital library. The Functional Magnetic Resonance Imaging (fMRI) facility of the centre was made operational on 29th September, 2006.

As a deemed university, NBRC is continuing its M.Sc. Ph.D. programmes for research fellows.

NATIONAL INSTITUTE FOR PLANT GENOME RESEARCH (NCPGR), NEW DELHI

The National Institute for Plant Genome Research (NIPGR), New Delhi (previously a National Centre) is engaged in plant genomic research with focus on structural genomics and functional with application genomics. It is working on Genomics of certain crops and manipulation of genes/genomes to breed improved varieties of food and industrial crops such as Chickpea, Catharanthus, Potato, Tomato, Lathyrus, Rice, Sweet Potato and Cassava. Besides working on nutritional aspects, improvement in self-life of vegetables and fruits, development of resistance/tolerance against diseases and abiotic stresses, the Centre is actively engaged on programmes related to enhanced production of medicinal alkaloids from Catharanthus plant. The Institute is also making a significant contribution towards scientific manpower development in advanced areas of plant molecular biology, genomics and genetic transformation.

INSTITUTE OF BIORESOURCES AND SUSTAINABLE DEVELOPMENT, IMPHAL

The research programmes of the institute have continued towards bioresource development and their sustainable use through biotechnological interventions for the socio-economic growth of the North-East region. A digitized database of bioresources of North-East region has been further updated with an addition of 1,619 records from primary and secondary sources amounting to a total of 4085 records. Work on the database on micro-organisms with special reference to cyanobacteria available in Manipur has been initiated. A Distributed Information Sub-Centre (Sub-DIC) under the Bioinformatics Network has been set up at the institute. *In vitro* multiplication and hardening of tissue culture plantlets of *Kaemferia galanga* is in progress. Hybridization of two rare vandaceous orchids-*Aerides vandarium* and *Vanda coerulea* achieved. Genetic differentiation of tree bean (*Parkia timoriana*) cultivars grown in Manipur were analyzed. About 10 lakhs of spawn and 20,000 fingerlings of *Osteobrama belangeri* (Pengba)-an endemic high value fish were supplied to the farmers. Three training programmes on the use of tools and techniques for bioresource development and utilization were organized. Culturable seeds of *Osteobrama belangeri* (Pengba) were produced in a Training-cum-demonstration programme of the institute and about 10 lakh spawns and 20,000 fingerlings were distributed free of cost to selected fish farmers and entrepreneurs of Manipur as starting material for popularization of this fish in the region.

INSTITUTE OF LIFE SCIENCES, BHUBANESHWAR

A septuplet PCR assay was developed for rapid identification of species-specific virulent and e-positive strains of *V. cholera* and one hundred strains of *V. cholerae* O1 were tested to document the validity of assay. A multiplex PCR assay to detect a *fluviatilis* sibling species developed during the course of the year will be used to understand feeding habits (Anthropophilic index) and sporozoite carrying capacity of these vectors. Studies on bio-prospecting were continued with a view to tapping the vast potential of thermopiles. A diverse group of bacteria belonging to the genera *Thiomonas*, *Comamonas* and *Chromobacterium* were isolated from previously unexplored hot springs. A chemolithoheterotrophic, thiosulfate oxidizing, gram negative bacterium (designated strain S10) was isolated and identified. 16S DNA

sequence data and the total fatty acid analysis suggested it to be a new species of genus *Thiomonas* for which the name *Thiomonas bhubaneswarensis* has been proposed.

During the year, three workshops on training was organized on DNA technologies, functional genomics and proteomics research and studies of abiotic stress responses and stress inducible genes. Ten publications have been brought out in November 2006 with an average impact factor of 3.02. Six additional non technical posts were also sanctioned during the year. The construction activities for the new research building, animal house and research scholar's hostel have been initiated and the contract awarded to M/s RITES Ltd.

PUBLIC SECTOR UNDERTAKINGS

There are two public sector undertakings i.e. Bharat Immunologicals & Biologicals Corporation Limited, (BIBCOL) and Indian Vaccines Corporation Limited (IVCOL). The BIBCOL located at Bulandshahar manufactures Oral Polio Vaccine being used in the National Immunization Programme. The IVCOL was established as a joint venture company. Efforts are being made to revive it with new products mix and financial pattern.

INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY (ICGEB), NEW DELHI

ICGEB continued its research efforts in identified areas of human health, agriculture and product development. A high through-put microtiter assay based on the heme detoxification pathway of Plasmodium has been developed for screening chemical combinatorial libraries and crude extracts of marine organisms. Several bioactive proteins from the secretome of insect pathogenic bacterium, *Xanthomonas nematophila* have been identified. A HCV test based on designer diagnostic HCV multi-epitope protein developed by the centre has been marketed in India. Three workshops were organized in the field of malaria, virology and plant transformation. An International symposium on tuberculosis research was also organized. Two patents have been filed.

26 Transport

A well-knit and co-ordinated system of transport plays an important role in the sustained economic growth of a country. The present transport system of the country comprises several modes of transport including rail, road, coastal shipping, air transport, etc. Transport has recorded a substantial growth over the years both in spread of network and in output of the system. The Ministry of Shipping, Ministry of Road Transport and Highways is responsible for the formation and implementation of policies and programmes for the development of various modes of transport save the railways and the civil aviation.

RAILWAYS

The Railways in India provide the principal mode of transportation for freight and passengers. It brings together people from the farthest corners of the country and makes possible the conduct of business, sightseeing, pilgrimage and education. The Indian Railways have been a great integrating force during the last more than 155 years. It has bound the economic life of the country and helped in accelerating the development of industry and agriculture. From a very modest beginning in 1853, when the first train steamed off from Mumbai to Thane, a distance of 34 kilometres Indian Railways have grown into a vast network of 7,025 stations spread over a route length of 63,273 kilometres with a fleet of 8,330 locomotives, 47,375 passenger service vehicles, 6,180 other coaching vehicles and 2,04,034 wagons as on 31st March, 2008. The growth of Indian Railways in the 155 years of its existence is thus phenomenal. It has played a vital role in the economic, industrial and social development of the country. The network runs multigauge operations extending over 63,273 route kilometres. The gauge-wise route and track lengths of the system as on 31st March, 2008 are as under:

Gauge	Route Km	Running Track Km	Total Track Km
Broad Gauge			
(1.676 mm)	51,082	72,538	96,851
Metre Gauge			
(1.000 mm)	9,442	9,869	11,676
Narrow Gauge			
(762 mm and 610mm)	2,749	2,751	3,072
Total:	63,273	85,158	1,11,599

About 28 per cent of the route kilometre, 41 per cent of running track kilometre and 42 per cent of total track kilometre is electrified. The network is divided into 16 Zones. Divisions are the basic operating units. The 16 zones and their respective headquarters are given below:

Zonal Railways	Headquarters
Central	Mumbai CST
Eastern	Kolkata
Northern	New Delhi
North-Eastern	Gorakhpur
North-East Frontier	Maligaon (Guwahati)
Southern	Chennai
South Central	Secunderabad
South-Eastern	Kolkata
Western	Church Gate, Mumbai
East Central Railway	Hajipur
East Coast Railway	Bhubaneshwar
North Central Railway	Allahabad
North-Western Railway	Jaipur
South-East Central Railway	Bilaspur
South-Western Railway	Hubli
West Central Railway	Jabalpur

Co-operation between public and Railway administration is secured through various committees including Zonal Railway Users' Consultative Committees and Divisional Railway Users' Consultative Committees. The rolling stock fleet of Indian Railways in services as on 31st March 2008 comprised 44 Steam, 4,843 diesel and 3,443 electric locomotives. Currently, the Railways are in the process of inducting new designs of fuel-efficient locomotives of higher horse power, high-speed coaches and modern bogies for freight traffic. Modern signalling like panel inter-locking, route relay inter-locking, centralized traffic control, automatic signalling and multi-aspect colour light signalling are being progressively introduced. The Indian Railways have made impressive progress regarding indigenous production of rolling stock and variety of other equipment over the years and is now self-sufficient in most of the items.

The main objectives of railways planning have been to develop the transport infrastructure to carry the projected quantum of traffic and meet the developmental needs of the economy. Since the inception of the planned era in 1950-51, Indian Railways have implemented nine five-year plans, apart from annual plans in some years. During the Plans, emphasis was laid on a comprehensive programme of system modernization. With capacity being stretched to the full, investment of cost-effective technological changes become inescapable in order to meet the ever-increasing demand for rail transport. Along with the major thrust directed towards rehabilitation of assets, technological changes and upgradation of standards were initiated in important areas of tracks, locomotives, passenger coaches, wagon bogie designs, signaling and telecommunication.

PUBLIC UNDERTAKINGS

There are eleven public undertakings under the administrative control of the Ministry of Railways, viz. (i) Rail India Technical & Economic Services Limited (RITES);

(ii) Indian Railway Construction (IRCON) International Limited; (iii) Indian Railway Finance Corporation Limited (IRFC); (iv) Container Corporation of India Limited (CONCOR); (v) Konkan Railway Corporation Limited (KRCL). (vi) Indian Railway Catering & Tourism Corporation Ltd. (IRCTC); (vii) Railtel Corporation of India Ltd. (Rail Tel); (viii) Mumbai Rail Vikas Nigam Ltd. (MRVNL); (ix) Rail Vikas Nigam Ltd. (RVNL); and (x) Dedicated Freight Corridor Corporation of India Limited (DFCCIL) & Bharat Wagon and Engineering Co. Ltd. (BWFL).

The Centre for Railway Information System (CRIS) was set up as a registered society to design and implement various railway computerization projects.

ROLLING STOCK

Over the years, Indian Railways has not only achieved self-sufficiency in production of rolling stock in the country but also supplied rolling stock to other countries and non-railway customers. In order to keep pace with the technology change, Indian Railways has entered into an agreement with M/s. General Motors, USA for transfer of technology for manufacture of 4000 HP, state-of-the-art AC-DC microprocessor controlled, fuel efficient locomotives at Diesel Locomotives Works (DLW), Varanasi and with M/s. ABB for manufacture of 6000 HP, 3 phase electric locomotives at Chittaranjan Locomotive Works (CLW), Chittaranjan. In 2008-2009, DLW achieved an all time high outrun of 257 locomotives including export of one locomotives to Mozambique, 17 locomotives to Non-Railway customers. CLW manufactured 220 electric locomotives during the year.

Indian Railways has started manufacturing of LHB designed high-speed light weight coaches at Rail Coach Factory (RCF), Kapurthala. During 2007-2008, RCF manufactured 1,480 coaches including 46 coaches for Non-Railway customers/exports. Integral Coach Factory, (ICF), Perumbur, Chennai manufactured 1,291 coaches during 2007-2008 including 40 coaches for Non-Railway customers/exports.

Rail Wheel Factory (RWF), Bangalore manufactured 14,7007 wheels, 52,870 axles and 40,509 wheel sets during 2007-2008.

RESEARCH & DEVELOPMENT

The Research, Design and Standards Organization (RDSO) at Lucknow is the R&D wing of Indian Railways. It functions as a consultant to the Indian Railways in technical matters. It also provides consultancy to other organizations connected with railway manufacture and design.

RAILWAY FINANCE

Since 1924-25, railway finances remain separated from general revenues. They have their own funds and accounts and the Railway Budget is presented separately to Parliament. However, the Railways contribute to the general revenue a dividend on the capital invested. Quantum of contribution is reviewed periodically by a Parliamentary Convention Committee.

PASSENGER TRAFFIC

Passengers originating had risen from 1,284 million in 1950-51 to 6,524 million in 2007-2008 and passenger kilometre from 66.52 billion in 1950-51 to 770 billion in 2007-2008. Despite constraint of resources, the Railways have been able to cope with increasing demand of passenger traffic. Railways are the premier mode of passenger transport both for long distance and suburban traffic.

FREIGHT TRAFFIC

Rapid progress in industrial and agricultural sectors has generated a higher level of demand for rail transport, particularly in core sectors like coal, iron and steel, ores, petroleum products and essential commodities such as food grains, fertilizers, cement, sugar, salt, edible oils etc. Revenue freight traffic increased from 73.2 million tonnes in 1950-51 to 793.89 million tonnes in 2007-08. Transport effort measured in terms of net tonne kilometres (NTkm) increased from 38 billion in 1950-51 to 581 billion in 2007-2008. Some of the measures taken for improvement are: (i) line capacity augmentation on certain critical sectors and modernization of signalling system; (ii) measures such as unit train operation for bulk commodities like coal; (iii) increase in roller-bearing equipped wagons; (iv) increase in trailing loads to 4,500 tonnes; (v) operation 'UNI-GAUGE' on Indian Railways; (vi) strengthening the track structure by providing heavier and stronger rails and concrete sleepers; and (vii) production of prototype electric locomotive of 5000 HP for freight operation by Chittaranjan Locomotive Works.

ROADS

India has one of the largest road networks in the world, aggregating to about 33 lakh kilometres at present. The country's road network consists of National Highways, State Highways, major / other district roads and village/rural roads. Though the National Highways, which is the responsibility of the Central Government, has about 70,548 km length and comprises only 2 per cent of the total length of roads, carries over 40 per cent of the total traffic across the length and breadth of the country.

National	Highways/Expressways	70,548 km
State	Highways	128000 km
Major and Other	District Roads	470000 km
Rural	Roads	2650000 km

The National Highways have further been classified depending upon the carriageway width of the Highway. Generally, a lane has a width of 3.75 m in case of single lane and 3.5 m per lane in case of multilane National Highways. The break-up of National Highways in terms of width is as under:

Single Lane	30 %
Double/Intermediate Lane	53 %
Four Lane/Six lane/Eight Lane	17 %

Freight movement by Road Transport has been increased from 6 BTK (Billion Tonne km) in 1951 to 658.9 BTK in 2005-06 and passenger movement by road has risen from 23 BPK (Billion Passenger km) to 4251.7 BPK during the same period. The vehicle population has grown from 0.3 million in 1951 to 89.6 million in year 2005-06, marking about 300-fold increase. During the same period, the road network has expanded from 0.4 million km to 3.3 million km, i.e. an eight fold increase.

The Eleventh Plan budgetary support for Central sector roads is Rs. 72,530 crore at 2006-07 prices (Rs 82,032.97 crore at current price). In addition, the sector is expected to generate IEBR amounting to Rs. 34,829 crore and private sector investment of Rs. 86,792 crore during this period. The amount provided during the 11th Plan at

the BE stage is in the year 2007-08 was Rs. 14,530 crore including Rs. 2090 crore IEER, in year 2008-09 Rs. 17,370 crore including Rs. 4100 crore in IEER and for the year 2009-10 is Rs. 19,698 crore including Rs 5,000 crore IEER. The expenditure for the period 2007-08 and in 2008-09 was Rs. 14,429.92 crore and Rs 16,821.23 crore respectively.

NATIONAL HIGHWAYS

The Central Government is responsible for development and maintenance of the National Highways system. The total length of the network, as of today, is 70,548 km. The Ministry is carrying out development and maintenance work of National Highways through three agencies, viz. National Highways Authority of India (NHAI), State Public Works Departments (PWDs) and Border Road Organisation (BRO).

In order to give boost to the economic development of the country, the Government has embarked upon a massive National Highways Development Project (NHDP) in the country. The NHDP is the largest highway project ever undertaken in the country. The NHDP is being implemented by National Highways Authority of India (NHAI).

NHDP Phase I & II: The Phase I & Phase II of NHDP comprises (i) Golden Quadrilateral (GQ), i.e. National Highways connecting four metropolitan cities – Delhi, Mumbai, Chennai & Kolkata having an aggregate length of 5,846 km., (ii) North-South & East-West Corridor (NS-EW) which comprises 4-laning of 7,142 km of National Highways connecting North-South corridor from Srinagar to Kanyakumari with Cochin-Salem spur and East-West corridor from Silchar to Porbandar, (iii) 380 Km length of National Highways are proposed to be upgraded to 4-lane standards for providing connectivity to 12 major ports of the country to NHDP, and (iv) Upgradation of 962 km of other important National Highways. The total estimated cost of the NHDP Phase I & II having a total length of 14,145 km is about Rs.80,626 crore.

NHDP Phase-III: NHDP Phase-III involves 4/6 laning of 12,109 km of NH having high-density corridor connecting State capitals, important tourist places, economically important areas etc. on PPP basis at an estimated cost of Rs. 80,626 crore.

NHDP Phase-IV: Phase IV of NHDP comprising 2-laning with paved shoulders of 20,000 kms of National Highway. The Government has approved the upgradation/strengthening of 5,000 KM of single/intermediate/two lane National Highways to two lane with paved shoulders under NHDP Phase-IV A on BOT (Toll) and BOT (Annuity) basis at an estimated cost of Rs. 6950.00 crore.

NHDP Phase-V: Phase V of NHDP comprising six laning of 6,500 km of existing 4 lane highways on Design Build Finance & Operate (DBFO) basis at estimated cost of Rs. 41,210 crore. This includes 5,700 km of GQ and 1800 kms at other selected stretches.

NHDP Phase-VI: Phase VI envisages development of 1,000 km fully access controlled expressways under Public Private Partnership (PPP) model following Design-Build-Finance-Operate (DBFO) approach at an estimated cost of Rs. 16,680 crore.

NHDP Phase-VII: Phase VII envisages construction of stand alone Ring Roads, Bypasses, Grade Separators, Flyovers, elevated roads, tunnels, road over bridges, underpasses, service road etc on BOT (Toll) mode at an estimated cost of Rs. 16,680 Crores.

National Highways Development Projects - Achievements

The overall progress of NHDP as on June 30, 2009 is as under :

NHDP Component	Total	Completed	Under implementation		Balance for award of civil works
	Length (km)	Four Lane (km)	Length (km)	No. of contracts	
G Q	5846	5729	117	15	-
NS-EW	7142	3762	2648	125	732
Port connectivity	380	235	139	7	6
Other NHs	962	821	121	13	20
NHDP -III	12109	890	2037	34	9181
NHDP -V	6500	130	904	8	5466
NHDP-VII	700	-	19	1	681
Total	33,639	11,567	5,985	203	16,086

Special Accelerated Road Development Programme for North-East Region (SARDP-NE)

This programme has been framed with the objective to upgrade NHs connecting State Capitals to 2/4 lane, to provide connectivity of 58 District Headquarter towns of NER by at least 2 lane road, improving road connectivity to remote places and places of strategic importance in NE region. The programme envisages improvement of about 9,760 km (5,104 km of NHs and about 4,656 km of State roads and roads of Strategic Importance). The programme has been divided into 3 parts, Phase 'A' covering 2616 km length of road, Phase 'B' covering 4825 km and Arunachal Pradesh Package of Roads and Highways covering 2319 kms. Phase 'A' of SARDP-NE and Arunachal Pradesh Package of Roads and Highways has been approved by the Cabinet for implementation and Phase 'B' has been approved for DPR preparation only. This will also ensure the connectivity of all District Headquarters, which are still not connected to the NHs in the eighth NE States. Up till June 30th 2009, estimates amounting to Rs 3406 crore have been approved for improvement of 1058 km length of roads under SARDP-NE. Out of 1058 km length approved by the Ministry, 450 km has been completed at an expenditure of Rs. 1,796 crore.

SARDP-NE includes the projects on the PPP mode and the projects with 1315 km length has been identified on the BOT (Annuity) mode, under Phase 'A' and Arunachal Pradesh Package of Roads and Highways at a tentative cost of about Rs 11,550 crore. Against 1315 km length identified under BOT (annuity), feasibility report for 2 road projects aggregating to 718 km length has been finalized and RFP issued to the prequalified bidders. The note for CCI for these projects is being submitted to Cabinet Secretariat.

Public-Private Partnership

Traditionally, the road projects were financed only out of the budgetary grants and were controlled/supervised by the Government. The road sector has attracted very limited private sector participation in the past. While the traffic has been constantly increasing at a rapid pace, the traditional system of financing road projects through budgetary allocation has proved to be inadequate. It was in this context that the necessity for exploring the innovative means of financing the highly capital intensive road projects was felt.

The beginning of a significant private sector participation in road projects was made with the launching of India's largest road project - National Highways Development Project (NHDP). To encourage private sector participation, several initiatives have been taken by the government; which include-

- ❖ Declaration of the road sector as an industry.
- ❖ Provision of capital subsidy up to 40% of the project cost to make projects commercially viable.
- ❖ 100% tax exemption in any consecutive 10 years out of the first 20 years of a project.
- ❖ Provision of encumbrance free site for work, i.e. the Government shall meet all expenses relating to land and other pre-construction activities.
- ❖ Foreign Direct Investment up to 100% in road sector.
- ❖ Easier external commercial borrowing norms.
- ❖ Higher concession period, (up to 30 years).
- ❖ Right to collect and retain toll.

Projects undertaken by the Ministry under Public/Private Partnership

BOT (Toll) Scheme

- In a BOT project, the concessionaire (private sector) is required to meet the upfront cost and the expenditure on annual maintenance. The concessionaire recovers the entire upfront cost along with the interest and a return on investment out of the future toll collection.
- BOT (Toll) Scheme : As on April 2009 ; 94 projects have been taken up valued about Rs. 38168.04 crore Build Operate and Transfer (BOT) basis (Toll based projects). Out of this, 43 projects have been completed and 51 projects are under progress.

BOT (Annuity) Scheme

- In an Annuity project, the concessionaire (private sector) is required to meet the entire upfront cost (no grant is paid by the client) and the expenditure on annual maintenance. The concessionaire recovers the entire investment and a pre-determined cost of return, out of the annuities payable by the client. The tolling is done by the client.
- BOT (Annuity) Scheme: As on April 2009 ; 25 projects valued about Rs. 9411.88 crore with a length of about 1376 km have been taken on Annuity basis and out of this 9 projects have been completed.

Central Road Fund

The Central Government has created a dedicated fund, called Central Road Fund from collection of cess from petrol & diesel. Presently, Rs. 2/- per litre is collected as cess on petrol and High Speed Diesel (HSD) Oil. The fund is distributed for development and maintenance of National Highways, State Roads, Rural Roads and for provision of road overbridges/under bridges and other safety features at unmanned Railway Crossings as provided in Central Road Fund Act, 2000. Present Loss of Rs. 2.00 is being distributed in the following manner Rs. 1.50 is being allocated in the following manner.

- (I) 50% of the cess on high speed diesel (HSD) oil for development of rural roads.
- (II) 50% of cess on HSD and the entire cess collected on petrol are allocated thereafter as follows:
- a) An amount equal to 57.5% of such sum for the development and maintenance of National Highways;
 - b) An amount equal to 12.5% for construction of road under or over bridges and safety works at unmanned railway crossing; and
 - c) An amount equal to 30% on development and maintenance of State Roads. Out of this amount, 10% shall be kept as reserved by the Central Govt. for allocation to States for implementation of State Road Schemes of Inter-State Connectivity and Economic Importance to be approved by the Central Government.
- (III) Balance cess of Rs. 0.5 per litre is entirely allocated for development and maintenance of National Highways.

An allocation of Rs.16,680 Crore has been made under the CRF for 2009-10 with the following break-up:

1	National Highways	Rs. 8578.45 Cr.
2	Rural Roads	Rs. 4843.13 Cr.
3	Railways	Rs. 958.36 Cr.
4	Grant to State Governments and UTs for State roads	Rs. 2070.06 Cr.
5	Grant to States & UTs for Roads of Inter-State Connectivity and Economic Importance	Rs. 230.00 Cr.
TOTAL		Rs. 16,680 Cr.

State Sector Roads

Since the State Highways and Major District and Rural Roads are under the responsibility of respective State Governments, these are developed & maintained by various agencies in State and Union Territories. However, the funds are also being provided from the Central Road Fund (CRF) by the Union Government for the development of State Roads under the following schemes:

Improvement of State Roads from the CRF

The funds from the CRF are provided for improvement of State Roads other than rural roads. During the year 2008-09, 1313 proposals amounting to Rs.5126 crore have been sanctioned for improvement of State Roads under CRF. An amount of Rs. 2070.06 crore has been allocated for the year 2009-10 for improvement of State Roads under CRF.

Economic Importance & Inter State Connectivity Scheme

To promote inter-state facilities and also to assist the State Governments in their economic development through construction of road bridges of Inter-state and Economic Importance, Central Government provides 100% grant for inter-state connectivity projects and 50% grant for projects of economic importance. This fund is also provided from the CRF.

During the year 2008-09, 20 proposals amounting to Rs.162.37 crore with central share of Rs. 81.19 crore under EI scheme and 27 proposals amounting to Rs. 303.20 crore under ISC scheme have been accorded in-principle approval by the Ministry. An amount of Rs. 230.00 crore (Rs. 213.97 crore for the States and Rs 16.03 crore for UTs) is earmarked under this scheme for the year 2009-10.

Research and Development in Road Development

The main thrust of research and development (R&D) in the roads sector is to build a sustainable road infrastructure comparable to the best roads in the world. The various components of this strategy are improvement in design, modernization of construction techniques, introduction of improved material conforming to latest trends, evolving better and appropriate specifications, encouraging development and use of new technologies etc. The dissemination of these matters is done through the publication of new guidelines, code of practices, instructions/circulars, compilation of state-of-the-art reports and seminars/presentations etc. The research schemes sponsored by the Department are generally 'applied' in nature, which, once completed, would enable them to be adopted by user agencies/departments in their work in the field. The areas covered are roads, road transport, bridges, traffic and transportation techniques etc. The Department takes the help of various research institutions, academic institutions and universities to implement the schemes. An outlay of Rs 850.00 lakhs has been provided for R&D in 2008-09. Some of the ongoing major schemes are as follows:

Roads

- R&D Studies on performance evaluation of rigid pavements on high density traffic corridors using instrumentation supported by laboratory tests.
- Investigation on field performance of bituminous mixes with modified binders;
- Testing of Pavement using seismic waves.
- Preparation of manual on the construction of the composite pavement.
- Guidelines for Soil Nailing Technique on Highway Engineering.

Bridges

- Creation of Complete range of independent testing facilities for Expansion joints at CRRRI.
- Development of an expert system for distress diagnostic of concrete bridge (Fuzzy based).
- Development of standard drawings for composite bridge (with steel girders).
- Development of Explanatory commentary on standard specifications and code of practice for Road Bridges section VI composite constructions limit state Design (First Revision).

Traffic & Transportation

- Development of GIS based National Highways information system.

BORDER ROADS ORGANISATION

Introduction

The Border Roads Organization (BRO) was conceived and raised in the year 1960 by Pandit Jawaharlal Nehru, the great visionary and the first Prime Ministry of India. This was done with the aim of coordinating the speedy development of network of

roads in the North and the North Eastern border regions of the country. BRO is regarded as a symbol of nation-building, national integration and an inseparable component in maintaining the security and integrity of the country. The executive arm of the BRO, the General Reserve Engineer Force, popularly known by its acronym GREF, is a combined force that is a blend of members of the Army and GREF. The Organization, conceived as a road building agency for the Himalayan region in the early sixties, has, over the years, spread its wings and diversified into a large spectrum of construction and development works comprising airfields, building projects, defence works and tunneling and has endeared itself to the people. With the humble beginning of two projects in 1960, one in east (Vartak) and the other in north named Beacon, today, there are 15 Chief Engineer Projects spread in the length and breadth of the country.

Achievements since inception

- BRO has earned the reputation of the only road construction agency in the country to construct and maintain roads in difficult and inhospitable terrain and climate. The people of the border areas have immense faith in BRO towards maintenance of lifelines of Sikkim, Bhutan, Arunachal Pradesh, Mizoram, Manipur, Nagaland, Tripura, Meghalaya, Jammu & Kashmir, Uttarakhand, Himachal Pradesh and Andaman & Nicobar Islands.
- BRO has constructed 46780 km of roads in difficult and remote areas of the country. This includes new construction, improvement from single lane to double lane and roads for coal fields of Bihar, Jharkhand and Orissa. BRO, had over the years, bridged river gaps of the hilly regions of North & North East with equipment bridges (Bailey, Bailey Suspension, Hamilton and Inglis bridges). These are being replaced with major/minor permanent bridges. BRO has replaced 29302 m of temporary bridges with permanent bridges.

Achievements in the year 2008-09

- The BRO was entrusted with the prestigious work of construction of the 215 km long road Delaram-Zaranj in Afghanistan by Government of India. Incidentally, this is the first tarmac road in Nimroz Province of Afghanistan. The execution team of the BRO, comprising of approximately 700 personnel (300 BRO & 400 ITBP) was deployed in Afghanistan for this work and the task has been successfully completed on 17th July, 2008. It was inaugurated and dedicated to the people of Afghanistan by Hon'ble External Minister Mr Pranab Mukherjee.
- BRO has constructed RCC cut and cover tunnel (120m) and allied works for Rs 1172.25 lakh, for Sonapur landslide located at km 141.74 on road Shillong-Jowai-Badarpur-Churaibari (NH-44), the only line of communication for the States of Tripura, Mizoram, part of Manipur, Assam and Meghalaya. Works on the tunnel have been completed and it has been dedicated to nation by Hon'ble Raksha Rajya Mantri Dr MM Pallam Raju on 29th September, 2008.
- The work on construction of a 8.8 km long Rohtang tunnel is in an advanced stage of tendering action. Tenders have been received which are in the final stage of acceptance. The total cost of the project is likely to be approximately Rs 2000 crore with proposed date of completion as 2014.
- Four laning of NH-1A from Vijaypur to Kunjwani (17.2 km) under PM's National Highway Development Programme of 'North-South Corridor' has been completed except two bridges and one underpass.

- Completion of the 637.60 m long Noadhing bridge on NH-52 in Arunachal Pradesh, the longest bridge constructed so far by the BRO.
- Construction of a 480 m long 8 spans PSC box girder bridge (Siku bridge) on road Ranaghat-Mabo-Dambuk on NH-52 at km 561.03 by using departmental resources without involvement of contractors.
- Rehabilitation of the runway along with other auxiliary works like construction of aprons, ATC buildings and other facilities in Tajikistan in a record time of 10 months at a cost of Rs. 50 crore.
- Construction and maintenance of 160km long Tamu - Kalemmyo - Kalewa road in Myanmar.
- Construction and maintenance of roads in Bhutan apart from construction of an International Airport at Paro in Bhutan at an altitude of 2300 m in 1968 and subsequent strengthening and extension of the same in 2007-08.
- Planning Commission has entrusted eight roads in Nagaland, one road in Manipur, one road in Tripura and improvement of roads and bridges on 18 roads in backward districts of Bodoland Autonomous Council (BAC) area of Assam, having a length of 703 km with approximate cost of Rs. 460 crore. Subsequently, these roads have been funded by Ministry of Development of North Eastern Region under NLCPR programme. BRO has completed most of these roads and handed them over to respective State PWDs. Presently, only three roads in Nagaland, one road each in Manipur and Tripura and nine bridges in BAC area of Assam are in progress. Work on two additional roads in Manipur is under progress through NEC funding.

SHIPPING

Shipping plays an important role in the transport sector of India's economy. Approximately, 90 per cent of the country's trade by volume (70 per cent in terms of value) is moved by sea. India has the largest merchant shipping fleet among the developing countries and ranks 20th amongst the countries with the largest cargo carrying fleet with 8.83 million GT as on 01.06.2008 and the average of the fleet being 18 years. Indian maritime sector facilitates not only transportation of national and international cargo but also provides a variety of other services such as cargo handling services, shipbuilding and ship repairing, freight forwarding, lighthouse facilities and training of marine personnel, etc.

The salient features of India's shipping policy are the promotion of national shipping to increase self-reliance in the carriage of the country's overseas trade and protection of stakeholders' interest in EXIM trade. India's national flag-ships provide an essential means of transport for crude oil and petroleum product imports. National shipping makes significant contribution to the foreign exchange earnings of the country.

INDIAN FLEET

Indian shipping tonnage, which was only 1.92 lakh GT on the eve of independence, now stands at 8.83 million GT and 14.85 million DWI consisting of 872 vessels (282 overseas vessels with 7.89 million Gt and 13.55 million DWT and 590 coastal vessels with 0.5 million GT and 0.99 million DWT). There has been an increase of 1.89 per cent million GT in the tonnage during the last four years due to various facilitative

measures adopted by the Govt. especially introduction of tonnage for Shipping Industry from the year 2004-05.

The total quantity of cargo handled at various Indian ports during the year 2006-07 was to the tune 464 M.T. as against 424 MT in 2005-06. It is reported that the share of overseas cargo carried by Indian Flag vessels varied in respect of different categories of cargo. The diversion Cargo carried by Indian flag during the year 2006-07 was around 12.2% comprising mainly of coal, crude oil and petroleum products. The share of Indian Flag vessels in carrying grouped cargo was 3.6%, dry bulk 6.3% and petroleum products, 24.7% respectively during 2006-07.

Coastal Shipping : Coastal shipping is an energy-efficient, environment-friendly and economical mode of transport in the Indian transport network and a crucial component for the development of domestic industry and trade. India, with her 7,517 km long coastline studded with 13 major ports and 200 non-major ports provides congenial and favorable conditions for the development of this alternate mode of transport.

India's Coastal Shipping Tonnage as on 1st June 2008 was 590 vessels with 947734 GRT and 991378 DWT. Action plan for the development of coastal shipping is already on the anvil with the Central Government. With a view to promote coastal shipping and sailing vessel industry, the home trade vessels and sailing vessels have been exempted from the payment of lighthouse dues under the provisions of the Lighthouse Act, 1927. Meanwhile, a study has already been completed by the Tata Consultancy Services (TCS) to assess the potential of coastal shipping and the role of minor ports keeping in view the feasibility of routes and the supporting environment needed for its development. Efforts are being made to develop minor ports, which would, in turn, develop coastal shipping.

Aids to Navigation : Since Independence, India has made rapid growth in aids to Marine Navigation. From 17 Lighthouses prior to Independence, the present strength of aids to Navigation consists of 171 Lighthouses, one Lightship, one Loran-C Chain Stations, 59 Racons, 21 Deep Sea Lighted Buoys 01 wreck marking and 22 installations under Differential Global Positioning System (DGPS). To cater to the needs of light stations in the islands and for maintaining the buoys, the Directorate General of Lighthouses and Lightships is maintaining three launches, one mechanised boat and two large ocean going vessels, M.V. Sagardeep-II and M.V. Pradeep. A major scheme titled Coastal Vessel Traffic Service in the Gulf of Kachch was sanctioned in January 2002 at an estimated cost of Rs 165 crore is likely to be completed by 2008 and will provide efficient navigational service in the Gulf. In the 11th five year plan, 12 new light houses, one national Automatic identification system (AIS) network one proposed to be set up. To improve upon the efficiency local lights, CALL no approved for tracking over of 21 local lighthouses from the maritime states.

Maritime Training : The Director General of Shipping is responsible for creation of the trained manpower required for the merchant navy fleet of the country. This national obligation is being met through the Government training institutes and a number of other approved training institutes in the private sector. The importance of organised training was recognised in the year 1927 when the Training Ship "Dufferin" was established. Since then many highly skilled Indian seafarers have been trained in India who have earned commendable reputation at home and abroad.

The four training institutes, which were established by the Government are :

1. **Training Ship 'Chanakya'**; which conducts (i) Three years B.Sc. degree course in Nautical Sciences under the University of Mumbai, (ii) Pre-Sea training course for Deck Cadets.
2. **Marine Engineering and Research Institute (MERI), Kolkata**; which conducts four-years degree course in Marine Engineering under Jadavpur University.
3. **Marine Engineering & Research Institute (MERI), Mumbai**; conducts (i) one-year Training Marine Engineering course for graduate Mechanical Engineers and (ii) Three-year B.Sc. degree course in Maritime Sciences (polyvalent degree) under the University of Mumbai.
4. **LBS College of Advance Maritime Studies & Research, Mumbai**, conducts almost 46 post-sea training courses for serving Marine Officers.

In addition to the above, there are about 124 training institutes in the private sector approved by the Director General of Shipping, imparting pre-sea and post-sea training in various disciplines.

In the wake of coming into force of the STCW 95 and the Regulations thereunder stipulated by the International Maritime Organisation in 1997, the maritime training in India has undergone a sea change. New courses are being introduced. In order to meet the competition prevailing elsewhere in the world, the training requires to satisfy the international standards stipulated under STCW 95. With this in view, the Government as a first step towards the formation of a Maritime University has formed the Indian Institute of Maritime Studies registered under the Societies' Registration Act, 1860 and has brought all the four Government Training Institutes under its control. The Government have introduced an Indians Maritime University bill, 2008 in Lok Sabha on 13.3.2007. The Bill envisages that the headquarter of the University shall be at Chennai with its campus at Mumbai, Kolkata, Chennai, Visakhapatnam and such other places within its jurisdiction as it may deem fit.

SHIPPING CORPORATION OF INDIA LIMITED

The Shipping Corporation of India Ltd (SCI) was formed on 2nd October 1961. The present authorised capital of the Company is Rs 450 crore and paid up capital is Rs 282.30 crore. The status of SCI has been changed from a private limited company to Public limited from 18 September 1992. The SCI was conferred 'Mini Ratna' status by the Government of India on 24 February 2000. At present, the Government is holding 80.12 per cent of the share capital and the balance is held by financial institutions, public and others (NRIs, Corporate Bodies, etc.). SCI has been signing Memorandum of Understanding with the Ministry of Shipping and has received "Excellent" rating consistently for 16 years, up to the year 2006-2007. The SCI signed the MOU for the financial year 2008-2009 with the Ministry of Shipping, Road Transport & Highways, Government of India on 27 March 2008.

As on 01.06.2008, the share of SCI in total Indian tonnage in terms of GT is around 31% and in DWT terms 32%. Presently, the SCI's fleet stands at 79 vessels aggregating about 2.7 Million GT (4.8 Million DWT) comprising of Cellular Container Vessels, Crude Oil Tankers (including a Combination Carrier), Product Tankers, Bulk Carriers, LPG/Ammonia Carriers, Phosphoric Acid Carriers, Passenger-Cum-Cargo Vessels and Offshore Supply Vessels. The SCI provides Liner and Passengers Services, Bulk Carrier and Tanker Services, Offshore Services and Specialised Services. Additionally, the SCI also mans and manages 53 vessels aggregating to 0.12 Million

GT (0.06 Million DWT) on behalf of various Government Departments and other Organisations comprising Passenger-cum-cargo vessels, Bunkers barge, Research Vessels, Offshore Supply Vessels (OSVs), Seismic Survey Vessel, Well Stimulation vessel, Diving Support vessels, Geotechnical vessel and Multipurpose Support Vessels (MSVs). The highly diversified fleet of the SCI includes modern and fuel-efficient ships giving it a qualitative status as also a distinct competitive edge over other fleet owners.

The SCI has maintained a consistent track record of profitability and dividend. The turnover for the financial year 2006-07 was Rs. 4,210.00 crore and the net profit after tax was Rs. 1,015 crore and it has paid a dividend of 85%. The SCI's Turnover for the financial year 2007-2008 is Rs. 4,084 Crore and the Net Profit after Tax is Rs. 814 Crore and it has paid an interim Dividend of 45% for the year 2007-08. The SCI is a pioneer in India with regard to : a) STS operations for crude, POL and dry bulk cargoes, (b) Cryogenic operations (LNG/LPG), (c) Joint Ventures and other type of collaborations in shipping, and d) shipping consultancy services.

The training of personnel acquired a new dimension with the setting up of a Maritime Training Institute (MTI) at Powai, Mumbai. The MTI has extensive modern training facilities so as to ensure that the skill and expertise of the SCI personnel is at international levels. Since June 1988, all the SCI in-house courses are being conducted at the MTI. It is recognised as a branch of the World Maritime University Malmo (Sweden) for conducting International Maritime Organisation (IMO) seminars and short specialised courses in India for the countries of South East Asia and Pacific region. MTI is also recognised as an UNCTAD training centre for shipping management courses. MTI has been awarded the coveted Golden Peacock Award for excellence in Training.

On 8th March, 2007, SCI was awarded MOU Excellence Certificate for the year 2004-05 and 2005-06 by the Government of India, Ministry of Heavy Industry and Public Enterprises, Department of Public Enterprises. SCI was the winner of the best international solution award and the third annual HSBC global payments and cash management partnership award, which was posted in Bangalore on 5th Nov. 2007. The SCI won the "Shipowner/operator of the year 2007" at the searade middle east and Indian sub-continental award 2007, held in Dubai in November, 2007 SCI also won the "Shipowner of the year 2007" at Lloyds list Middle East and Indian sub-continental award, held in Mumbai in November, 2007.

Liquefied Natural Gas (Joint Ventures) : LNG has been identified as the future fuel for India's power plants and as a feedstock for Chemical/Petrochemical industry. SCI has identified carriage of Liquefied Natural Gas (LNG) as one of its thrust and growth area and has its presence in the Petronet LNG project.

India LNG Transport Company No. 1 & 2 Ltd. : These two Joint Venture companies formed at Malta are promoted by the SCI and three Japanese companies viz M/s. Mitsui O.S.K. Lines Limited (MOL), M/s. Nippon Yusen Kabushiki Kaisha Limited (NYK Lines) and M/s. Kawasaki Kisen Kaisha Limited (K Lines) and M/s. Qatar Shipping Company (Q Ships), Qatar. The two JVCs own and operate the two LNG tankers viz SS Disha and SS Raahi respectively until 31.3.2008, both tankers operated without any off-hires and have carried about 157 cargoes and 120 cargos of LNG each from the inception of the two JVCS, totalling to 18.16 million metric tonnes of LNG.

India LNG Transport Company No. 3 Ltd. : The JVC also formed at Malta is promoted by the SCI and the above mentioned three Japanese companies (Viz MOL, NYK lines, K Lines), M./s. Qatar Gas Transport Company Limited (QGTC) and M/s. Petronet LNG Limited (PLL) to construct, own and operate one LNG Tanker of about 155.000 cbm, chartered under a long-term Time Charter Agreement for 25 years. The tanker is currently under construction and will be delivered in September, 2009. It would be deployed for supplying additional 2.5 million tones of LNG to the Dehaj terminal of PLL, which is being expanded.

Irano Hind Shipping Company (IHSC) : SCI has another Joint Venture in Iran, viz Irano Hind Shipping Company, which continues to operate successfully for over 3 decades. The Joint Venture between SCI & Islamic Republic of Iran Shipping Lines (IRISIL) was established at Tehran, in March 1975. The Joint Venture Company continues to perform satisfactorily and during the Iraninan year 1385 (from 21.03.2006 to 20.03.2007) earned a Net Profit after Tax of Iranian Rials 33.336 Billion (US\$ 3.683 Million). The aggregate professional Net Profit after Tax of the Joint Venture and its Subsidiaries for the year ended 20.03.2007, stood at US\$ 18.102 Million. The fleet owned by the Joint Venture together with its Subsidiaries, as at the end of the financial year, stood at 6 ships of about 0.494 Million DWT.

Sethusamudram Ship Channel Project : The Government of India through the Ministry of Shipping decided to set up a "Special Purpose Vehicle" (SPV) in the name and style "Sethusamudram Corporation Limited" (SCL) to raise finance and to undertake such other activities as may be necessary to facilitate creation and operation of a navigable channel from Gulf of Mannar to Bay of Bengal through Palk Bay (Sethusamudram Ship Channel). As per the Government directive, this Project is to be funded by way of equity contributions from various PSUs including SCI. Pursuant to the Government directive; SCI Board decided to participate in the project with a capital investment upto Rs. 50.00 crores. The SCI's total contribution towards equity in SCL as on 22.5.2008 is Rs. 50.00 crores.

The Right to Information Act, 2005 : With a coming into effect of the Right to Information Act on 12.10.2005, SCI has complied with the provisions of the Act and has placed the "Information Request Form" along with a 'List' showing names of Public Information Officers and Assistant Public Information Officers on its website.

COCHIN SHIPYARD LIMITED

Situated in the western coast of India in the city of Cochin, State of Kerala, Cochin Shipyards is the largest shipyard in the country. Incorporated in the year 1972, Cochin Shipyards can build ships upto 1,10,000 DWT and repair ships upto 1,25,000 DWT. The yard has built varied types of ships including tankers, bulk carriers, port crafts, offshore vessels and passenger vessels. The orders executed by CSL in recent past include bulk carriers for M/s Clipper Group, Bahamas, firefighting tugs for M/s ATCO, Saudi Arabia and Platform Supply vessels for M/s Deep Sea Supplies, Norway. The yard's order book position as on 01.07.2008 includes 16 Nos. Platform Supply Vessels for Shipping Companies of Norway, Cyprus, USA and Netherlands and four Nos. Anchor Handling tugs for Shipping Companies of Cyprus. Nominated for the construction of indigenous Aircraft Carrier for the Indian Navy, the yard has undertaken substantial upgradation of facilities with the addition of a 300 T Gantry crane, additional bay, Marine Coating Shop, Movable Outfit Shop. etc. The yard is also a leading ship-repairer of the country and has repaired more than 1200 ships of all types. These include upgradation of vessels belonging to ONGC, periodical lay

up repairs and life extension of ships of Navy and Coast Guard. The yard had been consistently achieving profits for the last several years.

GARDEN REACH SHIPBUILDERS & ENGINEERS LTD, KOLKATA

The Garden Reach Shipbuilders & Engineers Limited was incorporated as a joint stock company in 1934, under the name M/s Garden Reach Workshop Limited (GRW). The Government of India acquired the company in 1960. It was renamed as "Garden Reach Shipbuilders & Engineers Limited (GRSE)" on 01 January 1977. Since then, it has grown and diversified its activities and is now a multiunit shipyard with a Shipbuilding Division and an Engineering and Engine Division. The company builds and repairs warships and auxiliary vessels for the Navy and the Coast Guard. Its present product range includes Corvettes, frigates, fleet tankers, patrol-vessels, fast attack craft, high technology ship borne equipment, portable bailey type steel bridges, turbine pumps for the agricultural sector, Marine Sewage Treatment Plants, Diesel Engines etc. "Mini-Ratna Status Category-I" was conferred on GRSE on 5 September 2006.

GRSE'S significant achievements during FY 2006-07 have been:

- (i) One Landing Ship Tank (Large), INS Shardul and two Fast Attack Craft, INS Batti Malv & INS Baratang, have been delivered to the Indian Navy.
- (ii) GRSE bagged orders for 10 Nos. Waterjet FACs from Indian Navy and 2 Nos. each of 65 Pax & 100 Pax Boats from Andaman & Nicobar Islands Administration.
- (iii) The company has acquired Rajabagan Dockyard with effect from 01 July 2006 from Central Inland Water Transport Corporation Ltd. (A Company under Ministry of Surface Transport).
- (iv) Raksha Mantri's "Award for Excellence" was presented to GRSE for design efforts for FY 2005-06 in respect of Waterjet FACs.
- (v) Engineering Division obtained the 'Patent Rights' on 09 February 2007 for designing and developing the "Double Lane Modular Steel Bridge" effective from 16 January 2003.

In order to reduce the 'build period' of ships for faster delivery, GRSE has embarked on a Modernisation Plan to the tune of Rs 402 crore in phases. The Modernisation Plan is being jointly funded by GRSE and Navy/MOD against the ASW(C) project under progress in GRSE. GRSE's contribution being Rs 184 crore. The overall effect of the modernisation will lead to enhancement of shipbuilding capacity, offer greater flexibility to adopt modern/modular build strategies, provide a framework for significant productivity improvement, with more out-fitting at launching stage and effective connectivity-cum-integration of facilities. The modernisation is expected to be completed in 2010.

HINDUSTAN SHIPYARD LIMITED, VISAKHAPATNAM

Hindustan Shipyard Limited (HSL), Visakhapatnam was set up in 1941 in the private sector and was taken over by the Government in 1952. In 1962, the shipyard became a central public sector enterprise. The shipbuilding capacity of the yard is 3.5 pioneer class vessels of 21,500 DWT each. The maximum size of the vessel that could be built is 50,000 DWT. The yard has slipways, covered building dock, wet basin and outfit jetty. HSL is the first shipbuilding yard in the country which was awarded ISO:9001 certification by Lloyds Register of Quality Assurance, London for international

standard of quality assurance. For ship repairs, the yard has facilities such as modern dry dock, wet basin, repair shops, etc., and it can undertake repairs of submarine, tankers and ships up to 70,000 DWT. HSL has an exclusive offshore platform construction yard capable of constructing two platforms per annum. Other infrastructure facilities include engineering shops, cranes and load-out facilities.

The order book of HSL has increased from about 37,195 DWT to 3,13,255 DWT during the last 3 years. Following is the present order book of HSL:-

- 2 nos. 150 Passenger vessels for Andaman & Nicobar Administration.
- 1 no. Pollution. Control Vessel for Visakhapatnam Port Trust (VPT).
- 1 no. 30,000 DWT Bulk carriers for M/s. Goodearth Maritime Ltd.
- 6 nos. 53,000 DWT Bulk carrier for M/s. Goodearth Maritime Ltd.
- 5 no. Inshore Petrol Vessels (IPV) for Indian Coast Guard.
- 1 no. 32 Ton Bollard pull tug for New Managalore Port Trust (NMPT)
- Modernization & Refit of 877 EKM Submarine "INS Sindhukirit" for Indian Navy.

The value of the above orders (on hand) is Rs. 1599.76 crs. (Approx.)

HSL has plan to further consolidate the production and achieve 4 to 5 ships (of 21,500 DWT each) per annum and productivity at 35-40 Mhrs./DWT and sustain and further grow in the shipbuilding activity. The yard has plans to continue the retrofitting/repair of submarines to Indian Navy and achieve a repair turnover of Rs. 120 to Rs. 150 crores/annum. By improving further the technology and infrastructure, the HSL will make its presence in global market and become a world-class shipyard.

HOOGLHY DOCK AND PORT ENGINEERS LIMITED, KOLKATA

Hooghly Dock and Port Engineers Limited (HDPEL), Kolkata became a Central Public Sector Undertaking in 1984. The Company has two working units in Howrah District of West Bengal, one at Salkia and another at Nazirgunge. The installed capacity in shipbuilding is 1,100 tonnes per annum and in ship repairs 125 ships per annum. Apart from a dry dock and a jetty, it has six shipways. The yard is capable of constructing various types of ships (including passenger ships) and other vessels such as dredgers, tugs, floating dry docks, fishing trawlers, supply-cum-support vessels, multi-purpose harbour vessels, lighthouse tender vessels, barges, mooring launches, etc., and undertaking repairs of different types of vessels.

HDPEL at present has orders worth Rs. 201.00 crores for shipbuilding and Rs. 2.60 crore for Ship-repairing. The Shipbuilding orders include 6 no. of Workboats for IWAI besides 1 no. of Hydraulic Surface Dredger, 2 nos. of Self loading Cargo Vessels, 1 no. of floating Dry Dock. HDPEL has secured order for construction of 4 nos. 1000 T Fuel Barges with an option for construction of 2 more Barges from Indian Navy.

PORTS

The coastline of India is dotted with 12 Major Ports and about 200 Non-major Ports. The Major Ports are under the purview of the central while the Non-major Ports come under the jurisdiction of the respective State Governments.

The 12 Major Ports (including the Port of Ennore which is a corporate port set up under the Indian Companies Act, 1956) are evenly spread out on the Eastern and Western coast. The ports of Kolkata, Paradip, Visakhapatnam, Chennai, Ennore and Tuticorin are on the Eastern coast of India while the ports of Cochin, New Managalore,

Mormugao, Mumbai, Jawaharlal Nehru at Jhavasheva and Kandla are on the Western Coast.

The capacity of major ports has increased from 20 Million Tonnes per annum (MTPA) 1951 to 504.75 MTPA as on 31st March, 2007. At the beginning of the 10th Plan, the capacity of the major ports was 343.95 MTPA which has increased to 504.75 MTPA at the end of the 10th Plan (i.e. as on 31st March, 2007) thereby achieving the capacity addition 160.80 MTPA. In all the years of 10th five year plan the capacity at the major ports exceeded the traffic handled. The non-major ports handled a traffic of 185.54 MT in 2006-07 and had a capacity of 228 MTPA at the end of 2006-07.

The total traffic handled at the Major Ports has increased from 313.55 MT at the beginning of the 10th Five Year Plan to 519.67 MT in 2007-08 out of which the container traffic was 73.48 MT. The container traffic in the major ports has increased from 61.98 MT in 2005-06 to 78.87 MT in 2007-08.

In order to improve efficiency productivity and quality of services as well as to bring in competitiveness in port services, the port sector has been thrown open to private sector participation. The Major Port Trust Act, 1963 permits private sector participation in major ports invites Foreign Direct Investment (FDI) upto 100% under the automatic route is permitted for construction and maintenance of ports and harbours. Private sector participation has been allowed in a variety of ports services which includes construction and operation of terminals/berths, warehousing/storage facility, dry docking and ship repair facilities.

Till date 17 private sector projects involving an investment of Rs. 4927 crores has been operationalised which involves capacity addition of 99.30 MTPA. 8 projects are under various stages of evaluation and implementation which involves an investment of Rs. 5181 crores and capacity addition of 75.40 MTPA.

INLAND WATER TRANSPORT

India has about 14,500 km of navigable waterways which comprise rivers, canals, backwaters, creeks, etc. About 50 million tonnes of cargo corresponding to 2.82 billion tonne km was transported in 2005-06 by Inland Water Transport (IWT). Its operations are currently restricted to a few stretches in the Ganga-Bhagirathi-Hooghly Rivers, the Brahmaputra, the Barak River, the rivers in Goa, the backwaters in Kerala, inland waters in Mumbai and the deltaic regions of the Godavari-Krishna rivers. Besides the organised operations by mechanised vessels, country boats of various capacities also operate in various rivers and canals. Data of cargo and passenger movement in unorganised sector (i.e. by country boats, etc.) has not been compiled (for which efforts are on) but it is a fact that substantial quantum of cargo and passengers are transported in the unorganised sector as well. Considering the inherent advantages of this mode in terms of fuel efficiency, environment friendliness and cost effectiveness, the Govt. of India is trying to develop this mode to make it an effect supplementary mode of transportation vis-a-vis rail and road modes.

Inland Waterways Authority of India : The Inland Waterways Authority of India (IWAI) came into existence on 27 October 1986 for development and regulation of inland waterways for shipping and navigation. The Authority primarily undertakes projects for development and maintenance of IWT infrastructure on national waterways through grant received from Ministry of Shipping, Road Transport and Highways. The head office of the Authority is located at Noida. The Authority also

has its regional offices at Patna, Kolkata, Guwahati and Kochi and sub-offices at Allahabad, Varanasi, Bhagalpur, Farakka and Kollam.

National Waterways : The Ganga between Allahabad – Haldia (1620 km) the Sadiya-Dhubri stretch of river Brahmaputra (891 km) and the Kollam-Kottapuram stretch of West Coast Canal along with Champakara and Udyogmandal Canals (205 km) in Kerala have so far been declared as National Waterways and are being developed for navigation by IWAI. Bills for declaration of 3 more waterways viz. Talcher-Darmra stretch of canals; Kakainada-Puducherry stretch of canals etc. and the Barak River as National Waterways have already been introduced in the Parliament.

Centrally Sponsored Scheme : For overall development of IWT sector in the country it is necessary that national waterways as well as other waterways are developed side by side. A large number of smaller rivers from tributaries of National Waterways rivers if developed with IWT infrastructure, many of these smaller rivers can become suitable for navigation by smaller/medium size inland vessels and can act as feeder routes to the main waterways. While the development and regulation of National Waterways is the responsibility of Central Govt./IWAI, the respective State Governments should develop other waterways. However, due to fund constraint, it has not been possible for the States to provide adequate funds for IWT development. Therefore, to encourage the States for IWT development, there was a Centrally Sponsored Scheme (CSS) for IWT sector. Under the CSS, 100 per cent grant is provided for the projects of North-Eastern States including Sikkim and 90 per cent grant to other States. The Planning Commission has discontinued the scheme for areas other than North East Region from the year 2007-08. The scheme has been continued for the North-Eastern regional and classified as a Central Sector Scheme.

Inland Vessel Building Subsidy Scheme : In order to reduce the capital burden on the IWT operators, and to enhance their profitability, an inland vessel building subsidy scheme has been introduced under which 30 per cent cost of an inland vessel is subsidized by the Central Government. This is applicable to both cargo and passenger inland vessels meant for operation in National Waterways, Sunderbans waterways and Indo-Bangladesh Protocol routes. The scheme has ended 31st 2007. However, efforts are being made to extend this scheme for another two years beyond 31st March 2007.

Protocol on Inland Water Transit and Trade : An Inland Water Transit and Trade protocol exists between India and Bangladesh under which inland vessels of one country can transit through the specified routes of the other country. The existing protocol routes are : (i) Kolkata-Pandu-Kolkata, (ii) Kolkata-Karimganj-Kolkata, (iii) Rajshahi-Dhulian-Rajshahi and (iv) Pandu-Karimganj-Pandu.

For inter-country trade, four ports of call have been designated in each country namely, Haldia, Kolkata, Pandu and Karimganj in India and Narayanganj, Khulna, Mongla and Sirajganj in Bangladesh.

With a view to providing an impetus for development for inland water transport mode, the Government of India had approved an Inland Water Transport Policy which includes fiscal concessions, and policy guidelines for rapid development of the mode and to encourage private sector participation in development of infrastructure and ownership and operation of inland vessels.

For exploring possibility of joint ventures and BOT projects in IWT sector, interactions were held with many interested firms and thereafter, some priority projects

having potential of Joint Venture projects were short-listed. For some of these projects, bids were invited by IWAI. This initiative of IWAI has succeeded in attracting some private player to IWT sector and four Memorandum of Understanding (MOU)'s have been signed between IWAI and respective successful bidders for setting up and management of jetties at Bandel, Kolaghat and Budge-Budge in West Bengal and for acquisition, operation and management of barges on O-D pairs of Kolkata-Mongla, Kolkata-Dhubri and Kolkata-Pandu. 3 Joint Venture Companies have already been incorporated and the 4th is being incorporated to execute the aforesaid projects.

National Inland Navigation Institute : An institute of national importance, viz. National Inland Navigation Institute (NINI), Patna, became functional from February 2004. This is the first institute of its kind in the country. About 300 trainees have successfully completed the vessel crew training course from this Institute so far.

Central Inland Water Transport Corporation (CIWTC) : The Central Inland Water Transport Corporation (CIWTC) with its headquarters at Kolkata was set up as a public undertaking in May 1967. The CIWTC is mainly engaged in transportation of goods by inland waterways in the Ganga-Bhagirathi-Hooghly, Sunderbans and Brahmaputra rivers. They are operating regular cargo services between Kolkata and Pandu (near Guwahati), between Kolkata and Karimganj (Assam), Kolkata-Bangladesh and between Haldia and Patna. The Government has decided to *disinvest* the corporation and the process for *disinvest* has been initiated.

CIVIL AVIATION

The Ministry of Civil Aviation is responsible for the formulation of national policies and programmes for development and regulation of civil aviation and for devising and implementing schemes for orderly growth and expansion of civil air transport. Its functions also extend to overseeing the provision of airport facilities, air traffic services, carriage of passengers and goods by air, safeguarding civil aviation operations, regulation of air transport services, licensing of aerodromes, air carriers, pilots and aircraft maintenance engineers. The Ministry also administratively controls the institution of Commission of Railway Safety, which is responsible for the safety in rail travel and operations in terms of the provisions of the Railways Act.

India has been a member of the International Civil Aviation Organisation (ICAO) and is also on the Council of ICAO since its inception. The civil aviation sector has three main functional divisions—regulatory, infrastructural and operational. The civil aviation sector in India has seen an unprecedented growth in the recent years. As on date there are a large number of companies providing passenger transport and cargo handling services in the country. The Air Transport Companies are both in the public sector and in the private sector. In the public sector, there are National Aviation company of India Limited (Air India), and its Subsidiaries viz. Alliance Air, Air India Charters Ltd, (Air India Express) etc.

Apart from Air India, Indian Airlines, Alliance Air and Air India Charters Ltd., there are at present seven private scheduled operators (as on 15.0.2009), viz. Jet Airways (India) Ltd., Jetlite Airlines, Go Airlines (India) Pvt. Ltd., Kingfisher Airlines, Spicejet Ltd., Paramount Airways Pvt. Ltd., and Inter Globe Aviation Ltd. (IndiGO) operating on the domestic sector providing a wide choice of flights and connectivity to various parts of India.

Besides above, a new category of Scheduled airlines i.e. Scheduled Air Transport (Regional) services has been introduced to enhance connectivity to smaller cities and

within a region MDLR airlines is operating as regional scheduled airlines in Northern Region.

Two cargo airlines viz. Blue Dart Aviation Pvt. Ltd. And Decan Cargo & Express Logistics (Pvt.) Ltd. are also operating scheduled cargo services in the country.

During the calendar year 2008, a total number of 5,22,603 flights (domestic only) were operated by the domestic scheduled operators carrying a total number of 40.848 million passengers (scheduled). In addition to the above mentioned scheduled airlines, there are at present 122 companies as on (15.09.09) holding non-scheduled operator's permit. While NACIL (A) provides international services NACIL (I) provides domestic services as well as services to neighbouring countries in South East Asia & Middle East. The Air India Charter also operate to the Middle East countries in the name Air India Express. the private scheduled airlines Jet Airways and Kingfisher airlines are also operating on various international sectors. Pawan Hans Helicopters Ltd., a public sector company, holding non scheduled operator's permit, is engaged in providing helicopter services to ONGC for its offshore operations and its services are also used by various state governments especially in North-Eastern region to provide connectivity to inaccessible areas and difficult terrains.

TOURIST CHARTER FLIGHTS

ITP tourist charter guidelines have been further liberalized vide Aeronautical Information Circular no. 12/2008. A total of 686 charter flights operated to India from January to December, 2008 bringing in 1,50,2342 foreign tourists.

AIR SERVICES

India has bilateral Air Services Agreements with 104 countries. Recently, New Air Services, Agreements have been signed / initialed with Mexico, Chile and Bosnia & Herzegovina. India is also in the process of modernizing and updating the existing ASAs with foreign countries based on the ICAO template. In this process revised ASAs has been initialed/signed with Iran, South Africa, UAE and Maldives.

To bring the existing Air Services Agreement between India and the respective Member States of the EC in tune with the provisions of the European Community law, a horizontal Agreement was signed between India and EC on 28th September, 2008

LIBERALIZATION OF AIR SERVICES

In accordance with the policy of liberalization in the civil aviation sector and with a view to attract more foreign passengers, the Government continued its approach during 2008 also in the matter of grant of traffic rights under bilateral agreements with various foreign countries. In order to enable greater connectivity to / from India, traffic rights have been enhanced / bilateral provisions amended with various countries during 2008 viz. Mexico. Saudi Araba, Netherlands, Qatar, Iran, Japan, Bhutan, Azerbaijan and Turkey etc.

CAPE TOWN CONVENTION

The Cape Town Convention has been acceded by the Government of India and it has come into force w.e.f. 1.7.2008. The principal objective of the Convention/Protocol is the efficient financing of mobile equipment. It is designed to establish an international legal regime for categories of high value and uniquely indentifiable mobile equipments.

The economic benefits of the Capt Town Convention are significant. It is likely to reduce the risk applicable to asset-based financing and leasing transactions by establishing an international legal framework, backed by treaty relations and, where necessary, implementing domestic laws.

MONETREAL CONVENTION

India has acceded to the Montreal Convention on 1st May, 2009. Accession to this Convention shall facilitate higher compensation and fifth State jurisdiction to international air passengers to/from India.

IBSA - FIVE YEAR ACTION PLAN

India-Brazil - South Africa (IBSA) Five Year Plan on the improvement and development of civil aviation sector through technical cooperation among the three sides was signed on 15th October, 2008 in New Delhi during the 3rd IBSA Summit.

DIRECTORATE GENERAL OF CIVIL AVIATION

The Directorate General of Civil Aviation (DGCA) is the regulatory body in the field of civil aviation. It is responsible for:-

- Regulation of air transport services to/from and within India in accordance with the provisions of the Aircraft Rules, 1937;
- Licensing of pilots, aircraft maintenance engineers and monitoring of flight crew standards;
- Registration of civil aircraft;
- Laying down airworthiness requirements for civil aircraft registered in India and grant of certificate of airworthiness to such aircraft;
- Coordination of the work relating to International Civil Aviation Organization;
- Investigation of minor air accidents and incidents and rendering technical assistance to the Courts / Committees of Inquiry appointed by the Government;
- Supervision of Training activities of Flying/Gliding Clubs'
- Licensing of aerodromes and air carriers;
- Safety oversight and surveillance of air carriers and aerodromes;
- Rendering advice to Government on matters pertaining to air transport including bilateral air services agreements with foreign countries;
- Processing amendments to the Aircraft Act, 1934 and the Aircraft Rules 1937, and other Acts relating to aviation, with a view to implementing in India the provisions of the Chicago convention and annexes thereto and other international conventions relating to aviation;
- Type certification of aircraft.

BUREAU OF CIVIL AVIATION SECURITY

The Bureau of Civil Aviation Security (BCAS) was initially set up as a Cell in the DGCA in January 1978 on the recommendation of the Pande Committee constituted in the wake of the hijacking of an Indian Airlines flight on 10th September, 1976. The role of the Cell was to coordinate, monitor, inspect and train personnel in Civil Aviation Security matters. It was reorganized into an independent Department on 1st April, 1987 under the Ministry of Civil Aviation following the Kanishka Tragedy in June 1985.

The main responsibility of BCAS is to lay down standards and measures in respect of security of civil flights at international and domestic airports in India and Indian aircraft operators at foreign airports. It is the regulator for civil aviation security in the country and is responsible for laying down the standards for pre-embarkation security and anti-sabotage measures in respect of civil flights and ensuring their compliance through regular Inspections and Security Audits. The aim of BCAS is to safeguard Civil Aviation operations against acts of unlawful interference and it is the regulatory authority for discharging all relevant national and international obligations in respect of training of personnel in aviation security responsibilities which include, inter alia, planning and co-ordination of all aviation security related activities, operational emergencies and crisis management.

The Commissioner of Security (CA), BCAS is the "Appropriate Authority" to ensure development, maintenance, updating and implementation of National Aviation Security Programme for India and fulfill all international obligations in this context.

The BCAS has its headquarters in New Delhi and 4 Regional Offices located at Delhi, Mumbai, Kolkata and Chennai airports, each under a Deputy Commissioner of Security (CA), regulating, monitoring and conducting regular security Inspections and audits of the airports in Northern, Eastern, Western and Southern region, respectively.

A proposal for restructuring/strengthening the BCAS has since been approved by the Government of India which involves establishing of four additional Regional offices at Amritsar, Guwahati, Hyderabad & Ahmedabad, each headed by a Deputy Commissioner of Security. The four existing Regional Offices at the Metros viz. Delhi, Mumbai, Chennai & Kolkata will be upgraded and headed by an officer of the level of Senior Deputy Commissioner of Security. Besides this 69 additional posts have been created at various levels to strengthen the existing infrastructure. Further, it is also proposed to create one post of Joint Commissioner of Security (CA) of the rank of Inspector General of Police to strengthen the senior management level at the BCAS Headquarters.

The BCAS has four Bomb Detection and Disposal Squads (BDDS) positioned at International Airports of Delhi, Mumbai, Kolkata and Chennai with latest sophisticated equipment like Robot, Real Time Viewing System (RTVS), Electronic Stethoscope, Explosive Detector, etc. The BDDS units at the four metros are complemented by a dog squad dedicated to the concerned airports. A dog squad has been deployed by BCAS at Srinagar airport also. These squads are used to safely handle sophisticated Improvised Explosive Devices (IEDs) and other explosives and assist local police in explosive investigations from time to time.

INDIRA GANDHI RASHTRIYA URAN AKADEMI

The Indira Gandhi Rashtriya Uran Akademi located at Fursatganj (UP) is an Autonomous Body under Government of India, Ministry of Civil Aviation. The Akademi has been established to train pilots too achieve higher standards in Flying and Ground training. The Akademi is equipped with modern and sophisticated Trainer Aircraft, Flight Simulators, Computer-Based Training System (CBT), own ATC, runway with modern Navigational and Landing Aids like DVOR/DME & ILS and own Airspace. It has various Audio-Visual Training Aids and other facilities for imparting effective Flying and Ground Training by the most Qualified Personnel. Flying Training is conducted on Trinidad TB-20 Single Engine and King Air C-90 A

Twin - Engine Turbo-Prop executive Class Aircraft, fitted with Modern Instruments and Avionics. Ab-initio to Commercial Pilots Licence (CPL), PPL to CPL Courses with Multi-Engine Aircraft Endorsement and Instrument Rating are conducted on a Regular Basis. Opportunity is also provided to the students to pursue B.Sc. (Aviation) Degree from GSJM University, Kanpur currently with CPL. The Akademi has trained 561 upto 03/03/2009, Fixed Wing Pilots and 20 Rotary Wing Pilots of Indian and Foreign Origin till now. Refresher Training to 327 Flight Instructors from various Flying Clubs / Training Institutes of the country has also been imparted. It has trained 182 Non-Institutional Pilots on Multi-Engine Endorsement.

The following modernization of facilities have been accomplished in IGRUA:-

- (a) The capacity of the Akademi has been increased to train 100 Cadets a year compared to the previous capacity of 40 per year.
- (b) 14 More Basic Training and 02 Twin Engine Aircraft have also been inducted;
- (c) Re-carpeting of Runway, Grading of basic strip and drainage improvement, extension of apron and taxi track, construction of an additional 3rd hangar for housing the aircraft have been completed;
- (d) The hostel accommodation has been enhanced to 144 students including 40 girls students;
- (e) The residential accommodation for operational staff has also been increased by the construction of 12 more dwelling units;
- (f) Upgradation of Central AC Plant and Sewerage Pump and augmentation of water supply by digging of an additional bore-well has been completed.

COMMISSION OF RAILWAY SAFETY

The Commission of Railway Safety deals with matters pertaining to safety in rail travel and operation, and for this purpose performs statutory functions as laid down in the Railways Act, 1989 and the rules framed thereunder. Formerly called the Railway Inspectorate, it functioned under the control of the Railway Board to secure its independence from the authority administering the Railways. This separation was carried out pursuant to the recommendations of a committee called the 'Pacific Locomotive Committee', which was endorsed by the Central Legislature. After its separation, the Inspectorate was attached to the Air Wing and placed under Department of Communications. It came under the administrative control of the Ministry of Tourism and Civil Aviation in May 1967, subsequently redesignated as the Ministry of Civil Aviation.

The main task of the Commission is to direct, advise and caution the railway executive through its inspectional, investigatory and advisory functions and thereby assist them in ensuring that all stipulated measures are taken in regard to the soundness of rail construction and safety in train operation.

The Commission is headed by the Chief Commissioner of Railway Safety who is also the Principal Technical Adviser to the Government of India in all matters concerning it. The headquarters of the Commission is located at Lucknow. The Chief Commissioner directs the technical activities of the Commission and issues instruction for the guidance of Commissioners of Railway Safety in respect of holding statutory inquiries into serious railway accidents, inspection of new lines including

electrification of existing lines prior to their opening for public carriage of passengers and sanction for running of new locomotives/rolling stock. The Commission has 9 circle offices, viz. two with headquarters at Mumbai, 3 with headquarters at Kolkata and one each with headquarters at Bangaluru, New Delhi, Lucknow and Secunderabad. Each circle office is under the charge of a Commissioner. In a major development, Government of India has decided to use institution of Commission of Railway Safety for safety certification of upcoming metro rail systems to ensure uniformity in safety standard.

AIRPORTS AUTHORITY OF INDIA

Airports Authority of India (AAI) was constituted on 1st April, 1995 by merging erstwhile National Airports Authority (NAA) and International Airports Authority of India (IAAI). The integration of NAA and IAAI was aimed to derive the synergy of merger and build a new organization to take up upcoming challenges in competitive environment. Civil aviation, world over, has gone a sea change and the Airports Authority of India (AAI) is ready to meet these challenges both at national and international levels. The Eleventh Five Year plan has been prepared and growth targets set for various economic parameters contributing to growth, of civil aviation are encouraging.

AAI maintains and operates 127 airports including civil enclave at Defence airfields for commercial Airlines operations. The International Airports at Delhi and Mumbai have been leased to Joint Venture Companies on 03.05.2006 for modernization etc. as part of the Restructuring being undertaken by the Government for these two International Airports. Greenfield airport developed at Shamshabad near Hyderabad has become operational with effect from 23.3.2008. Similarly, the Greenfield airport developed at Devanahalli near Bangaluru has become operational with effect from 24.5. 2008. AAI provides CNS/ATM services at all the airports in the country which include Indian airspace measuring over 2.8 million square nautical miles.

During the year 2008-09, AAI handled 13.06 lakh aircraft movements (10.40 lakhs domestic and 2.70 lakh international); 108.88 million passengers (77.30 million domestic and 31.58 million international) and 16.97 lakh metric tonnes of air cargo (5.48 lakh metric tonnes domestic and 11.49 lakh metric tonnes international).

TRAINING

AAI imparts training at its own Civil Aviation Training College, Allahabad on various operational areas like Air Traffic Control, Radars, Communication, etc. It maintains the National Institute of Aviation Management and Research (NIAMAR) at Delhi for imparting various aviation management training programmes and refresher courses. In addition there is a Fire Service Training School at Narayanpur near Kolkata and the Fire Training Centre at New Delhi for imparting training and conducting refresher courses on fire fighting rescue services.

GAGAN PROJECT

GPS Aided Geo Augmented Navigation "Gagan" is an augmentation system to enhance the accuracy and integrity of GPS signals to meet precision approach requirements in Civil Aviation and is being implemented jointly by AAI and ISRO in three phases. Technology Demonstration System will be upgraded to a full operational capability system in the second and third phase. GSAT IV being fabricated by ISRO will carry GAGAN payload. The footprint of this satellite will cover a vast geographical

area from Africa to Australia and hence would facilitate expansion of the service area of "Gagan" far beyond Indian airspace. When implemented this would replace most of the ground-based navigational aids and it would be possible to provide precision approach and landing guidance up to category I to aircraft hitherto not available due to terrain conditions precluding the provision of Instrument Landing System.

The Technology Demonstration System Phase of the Project has been successfully completed and action has been initiated for Final Operation Phase. (FOP)

DEVELOPMENT OF NON-METRO AIRPORTS BY AAI

In order to meet the growing demand for infrastructure at the airports, AAI has decided to modernize and develop 35 non-metro Airports by providing world class infrastructure facilities at these airports. The 35 non-Metro airports identified are Ahmedabad, Amritsar, Guwahati, Jaipur, Udaipur, Trivandrum, Lucknow, Goa, Madurai, Mangalore, Agatti, Aurangabad, Khajuraho, Rajkot, Vadodara, Bhopal, Indore, Nagpur, Visakhapatnam, Trichy, Bhubaneswar, Coimbatore, Patna, Port Blair, Varanasi, Agartala, Dehradun, Imphal, Ranchi, Rajpur, Agra, Chandigarh, Dimapur, Jammu and Pune. These non-Metro Airports are being developed to world class standards which include features such as modular design, structured steel and toughened glass glazing, modern flooring, high ceiling with vertical air conditioning system, modern passenger boarding bridges with glass wall, walk ways, conveyor belts, escalators, elevators, improved signages, intelligent terminals was Integrated building management system and Common User Terminal Equipment (CUTE).

The development works for Terminal Buildings and Airside have already been undertaken / in the process of award except in cases where land issues are involved. These works will be completed in phases by March, 2010.

As regards City Side Development at selected non-Metro Airports, this is being done with private sector participation. The process is under finalization for Amritsar and Udaipur airport and thereafter will be extended to other airports.

RESTRUCTURING OF DELHI AND MUMBAI AIRPORTS

Indira Gandhi International Airport, Delhi

Delhi International Airport Private Limited (DIAL) have entered with AAI an Operation, Management Development Agreement (OMDA). In accordance with OMDA, DIAL has agreed to undertake the functions of operating, maintaining, developing, designing, constructing, upgrading, modernizing, financing and managing the Indira Gandhi International Airport (Airport), Delhi as per the terms and conditions referred therein. The Shareholding pattern of DIAL is as under:

- State Promoter: Airports Authority of India 26%;
- Private Promoter: GMR Infrastructure Limited led by GMR Group (including foreigners) 74%;

Apart from OMDA, DIAL also entered a Land Lease Agreement and CNS-ATM Agreement with AAI and a State Support Agreement and a State Government Support Agreement with Government of India and Government of Delhi respectively.

The term of concession granted to DIAL, as per OMDA, is for 30 years with a right of extension for another 30 years. Communication, navigation & surveillance and air traffic management will be provided by AAI.

DIAL shall, in consideration for the grant of Concession by AAI, pay to AAI an annual fee for each year during the term of OMDA @ 45.00% of revenue of DIAL.

Chhatrapati Shivaji International Airport, Mumbai

Mumbai International Airport Private Limited (MIAL) have entered with AAI an Operation, Management Development Agreement (OMDA). In accordance with OMDA, MIAL has agreed to undertake the functions of operating, maintaining, developing, designing, constructing, upgrading, modernizing, financing and managing the CSI International Airport (Airport) in accordance with the terms and conditions referred therein.

- State Promoter: Airports Authority of India 26%;
- Private Promoter: GMR Infrastructure Limited led by GMR Group (including foreigners) 74%;

Apart from OMDA, MIAL also entered a Land Lease Agreement and CNS-ATM Agreement with AAI and a State Support Agreement and a State Government Support Agreement with Government of India and Government of Maharashtra respectively.

The term of concession granted to MIAL, as per OMDA, is for 30 years with a right of extension to another 30 years. Communication, navigation & surveillance and air traffic management will be provided by AAI.

MIAL shall, in consideration for the grant of Concession by AAI, pay to AAI an annual fee for each year during the term of OMDA @ 38.7% of revenue of MIAL.

GREENFIELD AIRPORTS

Bangaluru International Airport : Bangaluru Airport Limited (BIAL), was established with the participation of Karnataka State Industrial Investment and Development Corporation Limited, the Airports Authority of India, Siemens Project Ventures GmbH, Flughafen Zurich AG and Larsen & Toubro Limited, as shareholders, for the development, design, financing, construction, completion, maintenance, operation and management of a Greenfield airport at Dewanahalli (Airport), near Bangaluru in the State of Karnataka as a Public Private Participation venture.

The Shareholding pattern of BIAL is as under:

State Promoter

- Karnataka State Industrial Investment and Development Corporation Limited 13%;
- Airports Authority of India 13%

Private Promoter

- Siemens Project Ventures GmbH 40%
- Flughafen Zuerich AG 17%
- Larsen & Toubro Limited 17%

BIAL have entered into a Concession Agreement with Government of India and State Support and Land Lease Agreements with Government of Karnataka apart from CNS agreement with AAI.

The term of concession granted to BIAL, as per Concession Agreement, is for 30 years with an option for extension of another 30 years.

BIAL shall, in consideration for the grant of Concession by Government of India, pay to Government of India a fee amounting to four per cent (4%) of gross revenue annually.

The Airport has been opened for commercial operation on 24th May 2008.

Hyderabad International Airport (Rajiv Gandhi International Airport) : GMR Hyderabad International Airport Limited (GHIAL) was established with the participation of Government of Andhra Pradesh, Airports Authority of India, GMR Group and Malaysia Airports Holdings Berhad (MAHB), as shareholders, for the development, design, financing, construction, completion, maintenance, operation and management of a Greenfield airport at Shamshabad (Airport), near Hyderabad in the State of Andhra Pradesh as a Public Private Participation venture.

State Promoter

- Government of Andhra Pradesh 13%;
- Airports Authority of India 13%

Private Promoter

- GMR Group 63%
- MAHB 11%

GHIAL have entered into a Concession Agreement with Government of India and State Support and Land Lease Agreements with Government of Andhra Pradesh apart from CNS agreement with AAI.

The term of concession granted to GHIAL, as per Concession Agreement, is for 30 years with an option for extension of another 30 years.

GHIAL shall, in consideration for the grant of Concession by Government of India, pay to Government of India a fee amounting to four per cent (4%) of gross revenue annually.

The Airport has been opened for commercial operation on 23rd March 2008.

FLYING TRAINING SCHOOL AT GONDIA

It has been decided to establish a premier pilot Training Institute at Gondia, Maharashtra to augment the ongoing efforts of flying training schools for increasing the number of qualified and well trained pilots, to tackle the huge demand for pilots in the industry. The new Flying Training School is being established with Joint Venture Partnership (JVP). M/S. CAE of Canada who has been selected through global bidding. AAI would have an equity participation of 49% which can be shared amongst the other aviation related PSUs and the JVP will have 51% equity. The Agreements in this regard have been signed between AAI and JVP for formation of JVC. The National Flying Training Institute (NFTI) is likely to be operational by end of this year.

NATIONAL AVIATION COMPANY OF INDIA LTD. (AIR INDIA)

Air India and Indian merger attained its official status on the formation of National Aviation Company of India Ltd. (Air India) on 27th August 2007. Post merger the new entity is known as Air India while its mascot is retained as 'Maharajah'. The new company has the following subsidiaries under its control:

Name of Subsidiary Company	Authorised capital (Rs. in Crores)	Paid up capital (Rs. in Crores)
Hotel Corporation of India (HCI)	41.00	40.60
Air India Charters Ltd. (Air India Express)	30.00	30.00
Air India Air Transport Services Ltd	100.00	00.05
Air India Engineering Services Ltd	10.00	00.05
Vayudoot Ltd	50.00	36.42
Airlines Allied Services Ltd. (Alliance Air)	05.00	02.25
IAL Airport Services Ltd.	100.00	00.05

HCI : The Hotel Corporation of India Limited (HCI) is a Public Limited Company wholly owned by Air India Limited and was incorporated on July 8, 1971 under the Companies Act, 1956 when Air India decided to enter the Hotel Industry in keeping with the then prevalent trend among world airlines. The objective was to offer to the passengers a better product, both at the International Airport and at other places of tourist interest, thereby also increasing tourism to India. However, in 2002-03, three properties of HCL, viz, Indo-Hokke Hotel Limited (Centaur Hotel, Rajgir), Centaur Hotel, Juhu Beach and Centaur Hotel, Mumbai airport were sold off. The remaining units of HCI are Centaur Hotel, Delhi Airport, Centaur Hotel Lakeview, Srinagar and Flight Kitchens at Delhi and Mumbai.

AIR India Express : Air India Express has a fleet of seven leased and six owned B737-800 aircrafts. Commencing with 26 Kerla/Gulf flights, Air India Express operations have grown and new routes have been added to the network. Currently, 57 international flights are operated on different routes. In addition, Air India Express operated five weekly flights on the Chennai / Kuala Lumpur Sector on Behalf of Air India. Effective 11 January 2007. Air India flights between India and Bahrain / Doha are being operated by Air India express will operate approximately 130 flights per week. New cities such as Tiruchirapally, Jaipur, Lucknow, Hyderabad and Kolkata are likely to be added to the network. In addition, frequencies on some of the existing routes may be increased in response to market requirements.

ALLIANCE AIR : Historically Alliance Air was set up on 15.4.1996 as a separate company envisioned to function as profit centre of erstwhile Indian Airlines Limited to effectively utilize the Boeing 737 aircraft fleet and to improve productivity and profitability of India Airlines Ltd.

At present, Alliance Air has taken a lease 4 ATR-42 aircraft and commenced scheduled operations in the North-East Region with effect from 2.1.2003. These aircraft have been deployed exclusively in the North-East Region in terms of MOU with the North-Eastern Council. In return, a budgetary support of Rs. 175 crores is being provided over a period of five years (annual budget of Rs. 25 crores) by the NEC during the 10th Five Year Plan. Throughout the period of the MOU, North-Eastern Council is required to facilitate Alliance Air in obtaining concessions on ATF, Landing RNFC rates, etc. whenever available. The MOU is effective from the financial year 2002-03 for a period of five years, which has now been extended for another one year i.e. December 2008. Besides the ATR aircraft, Alliance Air operates B 737-200 aircrafts on various regional/trunk routes.

As on 31st July 2009, the total operational fleet strength of Air India is 136 of which 92 are owned and 43 leased.

As a part of fleet augmentation, an order for the purchase of 111 new aircraft (50 for erstwhile Air India, 18 for Air India Express and 43 for erstwhile Indian) has been placed by Air India.

As a part of improvement of the infrastructure, Air India is in the process of creation of bases for new aircraft as under:

- Base for short range aircraft at Thiruvananthapuram
- Additional base at Delhi
- A new base at Kolkata for A319 aircraft
- A new hangar with Annex to accommodate brand new B777 & B787 aircraft

With the growing increase in the usage of the web, Air India Offers its passengers the facility of making bookings and purchasing the tickets through the internet. Currently around 90% of the domestic tickets issued are e-tickets.

For round the clock access to Air India reservations, a toll free number has been arranged to enable passengers to get the services of booking of seats / obtaining information regarding flight arrivals / departures etc Further, Call Centres have also been established at Mumbai, Delhi and Bangaluru to cater to the needs of the passengers.

In appreciation of the services of Air India, the following awards have been received by NACIL during 2008 and 2009.

- Galileo Express Travel World Award for the best international west bound airline.
- Galileo Express Travel Award - 2008 for the best short haul international airline.
- Cargo Airline of the Year 2009

Air India has entered into joint ventures with Singapore Airline Terminal Services (SATS) for cargo handling at Bangaluru and ground handling at Hyderabad international airports.

M/s. Boeing has signed MOU with Government of Maharashtra for setting up one Maintenance Repair & Overhaul (MRO) facility at Nagpur at an estimated cost of US\$ 100 Million.

Air India has plans to partner CIAL in setting up one MRO facility near Kochi airport.

Erstwhile Air India (NACIL-A) has been registered by IATA as an IOSA Compliant Carrier.

Air India has been invited to join Star Alliance (the leading global airline alliance of 21 top international carrier).

Air India has been invited to join Star Alliance (the leading global airline alliance of 21 top international carriers). This will enable NACIL passengers to enjoy benefit, which includes seamless transfers while travelling across the world, choice of flights under code sharing arrangements and access to international lounges worldwide. Currently, the Star Alliance offers a network containing 912 destinations covering 159 countries.

Air India has also signed an MOU with GE in February 2007 to help the airline achieve the goal of becoming an environmentally sustainable airline with proper

environment programs and practices. GE would also partner NACIL to convert its headquarters into a green building through eco-friendly technologies.

Air India is also in the process of setting up 3 Automatic Test Equipment (ATE) stations at Mumbai for testing/repair/maintenance/certification of avionic components installed B777 and B787 aircraft.

During the year 2008, a total of 446 Haj Charter flights were operated carrying approximately 1.24 lakh pilgrims of which 262 flights were operated by Air India carrying approximately 64,000 passengers.

PAWAN HANS HELICOPTERS LIMITED (PHHL)

Pawan Hans Helicopters Ltd. (PHHL) an ISO 9001:2000 certified company, is one of India's leading helicopter companies and is known for its reliable helicopter operations. The company was incorporated in 1985 with the objective of providing helicopter services to the petroleum sector, linking inaccessible areas of the country and operating charters for promotion of tourism.

The Company at present has a fleet of 36 helicopters comprising SA-365N Dauphin, Dauphin AS365N3, Bell 206 L4, Bell 407 and MI-172 Helicopters. The Company has achieved flying of more than 4 lakh hours and 15 lakh landings on its fleet since its formation. The Company has achieved 26, 732 Revenue Hours and Rs. 311 crores Sales Revenue during the Financial Year 2008-09.

Pawan Hans is a leader in providing offshore helicopter support in India. Its helicopters fly under a variety of conditions for carrying out ONGC tasks at Bombay High. The Company has a strong presence in the North-East having its helicopters deployed in the States of Arunachal Pradesh, Meghalaya, Sikkim and Tripura. Regular passenger services are being run under the aegis of these State Governments. A helicopter has also been provided to Ministry of Home Affairs in the North-East for VIP transportation. PHHL runs the helicopter services from Agstumuni and Phata to the Holy shrine of Kedarnath in the months of May-June and September-October every year. The Company has also deployed two Bell 407 helicopters for operations at Katra (for Mata Vaishno Devi) from April 2008 onwards.

The company has provided helicopters to Andaman & Nicobar Islands and Lakshadweep Islands for inter-island helicopter services. It also meets the requirements of Government of Punjab (VIP transportation) and PSUs such as GAIL for pipelines surveillance.

Pawan Hans is the largest helicopter Company in India and its operating and maintenance standards are of a high order with in-house workshops and maintenance facilities.

COMMISSION OF RAILWAY SAFETY

The Commission of Railway Safety deals with matters pertaining to safety in rail travel and operation, and for this purpose performs statutory functions as laid down in the Railways Act, 1989 and the rules framed thereunder. Formerly called the Railway Inspectorate, it functioned under the control of the Railway Board till May 1941 when the Inspectorate was separated from the control of Railway Board to secure its independence from the authority administering the Railways. This separation was carried out pursuant to the recommendations of a Committee called

the 'Pacific Locomotive Committee', which was endorsed by the Central Legislature. After its separation, the Inspectorate was attached to the Air Wing and placed under Department of Communications. It came under the administrative control of the Ministry of Tourism and Civil Aviation in May 1967, presently the Ministry of Civil Aviation.

The main task of the Commission is to direct, advise and caution the railway executive through its inspectional, investigatory and advisory functions and thereby assist them in ensuring that all stipulated measures are taken in regard to the soundness of rail construction and safety in train operation.

The Commission is headed by the Chief Commissioner of Railway Safety who is also the Principal Technical Adviser to the Government of India in all matters pertaining to rail safety. The headquarters of the Commission are located at Lucknow. The Chief Commissioner directs the technical activities of the Commission and issues instruction for the guidance of Commissioners of Railway Safety in respect of holding statutory inquiries into serious railway accidents, inspection of new lines including electrification of existing lines prior to their opening for public carriage of passengers and sanction for running of new locomotives/rolling stock. The Commission has 9 circle offices, viz. two with headquarters at Mumbai, three with headquarters at Kolkata and one each with headquarters at Bangaluru, New Delhi, Lucknow and Secunderabad. Each circle office is under the charge of a Commissioner. In a major development, Government of India has decided to use institution of Commission of Railway Safety for safety certification of upcoming metro rail systems to ensure uniformity in safety standard.

TOURISM

Tourism has emerged as an instrument for employment generation, poverty alleviation and sustainable human development. During 2003-2004, direct employment in the tourism sector was estimated to be 21.54 million. Tourism also promotes national integration and international understanding and gives support to local handicrafts and cultural activities.

Tourism in India has grown substantially over the last three decades. Foreign tourist arrivals in India recorded an increase of 13.2 per cent during the year 2005 as compared to the year 2004. India's share in the world tourism market during the year 2005 was 0.49 per cent, as against 0.44 per cent in 2004. Foreign exchange earnings during the year 2005 were Rs. 25,172 crore as against Rs.21,828 crore in 2004.

Domestic tourism plays a vital role in achieving the national objectives of promoting social and cultural cohesion and national integration. Its contribution to generation of employment is very high. With the increase in income levels and emergence of a powerful middle class, the potential for domestic tourism has grown substantially during the last few years. During the year 2004, about 366 million domestic tourist visits were made and for the year 2005 it was estimated at 382 million visits.

ORGANISATION

The organisations involved in the development of tourism at the Centre are Ministry of Tourism, Indian Institute of Tourism and Travel Management, National Council for Hotel Management and Catering Technology, India Tourism Development Corporation Limited, Indian Institute of Skiing and Mountaineering and National Institute of Water Sports.

The Ministry of Tourism is responsible for formulation and implementation of policies and programmes for the development of tourism within the country and for attracting foreign tourists to India by way of developing tourism infrastructure, publicity and promotion, dissemination of information, co-ordination and supervision of activities of various segments of industry such as hotels, travel agencies, tour operators, etc.

There are 20 field offices of the Ministry of Tourism in India and 13 in other countries to undertake both developmental and promotional activities. While the overseas offices are in constant contact with tourists, travel intermediaries and media to promote tourism in India, the field offices in India provide facilitation services to tourists and co-ordinate with the State Governments on tourism infrastructural development. The main objectives of the overseas tourist offices are to position India in the tourism generating markets as a preferred tourism destination, to promote various Indian tourism products vis-à-vis competition faced from various destinations and to increase India's share of the global tourism market. These objectives are met through an integrated marketing strategy and synergised promotional activities undertaken in association with the Travel Trade and State Governments.

INDIA TOURISM DEVELOPMENT CORPORATION LIMITED

India Tourism Development Corporation (ITDC) came into existence in October 1966 with the objective of developing and expanding tourism infrastructure in the country and thereby promoting India as a tourist destination. Working on the philosophy of public sector, ITDC succeeded in achieving its objectives by promoting the largest hotel chain in India and providing all tourist services, i.e. Accommodation, Catering, Transport, in-house Travel Agency, Duty Free Shopping, Entertainment, Publicity, Consultancy, etc., under a single window. It also offers consultancy services from concept to commissioning in the tourism field both for private as well as public sector.

In pursuance of the disinvestment policy of the Government, 18 hotels have been disinvested. Keeping in view the changed scenario, the Corporation has suitably been restructured so that it continues to fulfil its original mandate for tourism development in the country. Besides consolidating and expanding its existing business areas, ITDC has made diversification into new avenues/innovative services like full-fledged Money Changer Services and Western Union Money Transfer, Training Consultancy in hospitality sector, event management and consultancy and execution of tourism and engineering projects.

ITDC has been a pioneering tourism organisation which provides all the tourist services/facilities under one roof. ITDC's present network consists of 8 Ashok Group Hotels, 7 Joint Venture Hotels including one under construction, two Restaurants (including one Airport Restaurant), 13 Transport Units, 1 Tourist Service Station, 37 Duty Free Shops at International as well as Domestic Custom Airports, 1 Tax Free outlet, 1 Sound & Light Show and 4 Catering Outlets. Besides, ITDC is also managing a Hotel at Bharatpur and a Tourist Complex at Kosi and a SEL show at Sabarmati, Ahmedabad owned by the Department of Tourism.

The Ashok International Trade Division of ITDC offers world class duty free shopping facilities to international travellers at its 38 outlets, earning crucial foreign exchange for the country and showcasing Indian products to the world.

The Ashok Travels and Tours (ATT) handles work relating to Domestic/International ticketing, hotel booking and tour packages, car and coach rentals, money changing services, money transfer services, overseas insurance and organising exhibitions.

The Ashok Reservation and Marketing Services (ARMS) Division of ITDC, which is mainly responsible for marketing of Ashok Group of Hotels, participated in national/international events like ITB Berlin to ensure direct interaction with Foreign Tour Operators to promote various services of ITDC.

The Ashok Institute of Hospitality & Tourism Management (AIH&TM) of ITDC has been associated with the pioneering efforts in human resource development for more than three decades. Awarded the ISO-9001-2000 Certification, the institute conducts 18 months Craft/Certificate courses in the field of Culinary Skill Development, besides providing training to management trainees/apprentices and organising Executive Development programmes for the officials of ITDC. Under an MOU signed with the prestigious Kurukshetra University, the AIH&TM started 4-year Bachelor's Degree Course in International Hospitality Business Management from August 2004.

HOTEL MANAGEMENT AND FOOD CRAFT INSTITUTES

The Ministry of Tourism has accorded high priority to the development of manpower to meet the growing needs of Hotels, Restaurants and other Hospitality-based Industries. For this purpose, 21 Institutes of Hotel Management and Catering Technology and 10 Food Craft Institutes (3 of these are now also State IHMS) have been set up in the country. In addition to the above, four more Institutes of Hotel Management are in the pipeline at Uttaranchal (Dehradun), Jharkhand (Jamshedpur), Chhattisgarh (Raipur) and Haryana (Kurukshetra). These Institutes conduct Degree courses in the field of Hotel Management, Catering Technology and Applied Nutrition and Craft Courses in Food and Beverage Services, Accommodation Operations, Dietetics and Hospital Food Service, Food Production and Patisserie, House Keeping, Front Office, etc. IHM's Mumbai, Bangalore and Pusa (New Delhi) have started 2 Years M.Sc Hospitality courses also. Food Craft Institutes conduct Craft Courses for duration ranging from six months to one year for operational staff. All these training Institutes are affiliated to the National Council for Hotel Management Catering Technology and Applied Nutrition (NCHMCT) at apex level which regulates academics for all these Institutes.

INDIAN INSTITUTE OF TOURISM AND TRAVEL MANAGEMENT

The Indian Institute of Tourism and Travel Management (IITTM) located in Gwalior is an autonomous body set up to provide education in Tourism and Travel Management and to meet the demands of professionally trained people in the tourism industry. The Institute offers Bachelor degree in Tourism Management, MBA and Post-Graduate Diploma in Tourism Management courses. The Institute also organizes Executive Development Programmes, seminars and workshops related to tourism and travel management.

Capacity Building for Service Providers (CBSP) : In the year 2002, the Ministry launched a programme called CBSP to train the persons engaged in small hotels, dhabas, eating joints, restaurants, etc., and also handling tourists like Immigration

staff, airport staff, security/Police personnel, guides, taxi operators, bus drivers, etc. The objective was to provide short term training to improve their etiquette, behaviour and attitude towards tourists.

The scope of this scheme has been further enlarged and the training programmes of 3/6 months duration have been added for skill development of existing as well as fresh service providers. Under this scheme, a new programme called 'Project Priyadarshini' was also launched in 2005 aimed at imparting training to women in taxi driving/operation, entrepreneurship like setting up souvenir kiosks, etc, to adopt tourism as their profession.

National Institute of Water Sports, Goa : The Ministry of Tourism set up the National Institute of Water Sports (NIWS) as training cum resource centre for the Water Sports Tourism Industry at Goa. The NIWS conducts and facilitates courses in various activities like sailing, scuba diving, skiing, etc. The Institute also acts as a nodal centre for water sports-oriented tourism activities in the country.

HOTEL ACCOMMODATION

The hotel sector forms one of the most important segments of the tourism industry with high potential for employment generation and foreign exchange earnings. To give impetus to this sector, the government provides concessions under EXIM Policy and other incentives. The Industrial Policy has now placed hotels and tourism related activities as a priority industry. Foreign investment and collaborations are now facilitated under the new economic policy. Automatic approval is available for foreign direct investment upto 100 per cent in Hotel and Tourism sector.

CLASSIFICATION OF HOTELS UNDER THE STAR SYSTEM

The Department of Tourism classifies functioning hotels under the star system into various categories from one to five-star deluxe, and Heritage (Heritage, Classic, Grand and Heritage Renaissance) and Apartment Hotels from three star to five-star deluxe, Time Share Resorts from three star to five-star and Guest Houses. The Department also reclassifies these hotels after every five years to ensure that requisite standards are maintained by them.

The Hotels and Restaurants Approval and Classification Committee (HRACC) set up for the purpose has representatives drawn from Central Government, State Government and hotel and travel industry associations.

HERITAGE HOTELS

A Special category for classification of heritage hotels has been introduced to cover functioning hotels in palaces, havelies, castles, forts and residences built prior to 1950. As the traditional structure reflects the ambience and lifestyle of the bygone era and is immensely popular with the tourists, the scheme is aimed to bring such properties into the approved sector and this ensures that such properties, landmarks of India's heritage are not lost due to decay and disuse.

TRAVEL TRADE

The Department of Tourism has a scheme of approving Travel Agents, Tour Operators, Adventure Tour Operators and Tourist Transport Operators. During 2005, keeping in view the spurt in Domestic Tourism, a new category for the recognition of Domestic Tour Operators has been introduced. The aims and objectives of this schemes are to

encourage quality, standard and service in these categories so as to promote tourism in India. The Travel Trade Division also interacts with the travel trade associations like Travel Agents Association of India (TAAI), Indian Association of Tour Operators (IATO), Indian Tourist Transport Operators Associations, (ITTA), etc., and other agencies like India Convention Promotion Bureau, Pacific Asia Travel Association (PATA), etc.

The Travel Trade Division also deals with all matters pertaining to the regulation and training of tourist guides at Regional level and also co-ordinates with other Ministries such as Civil Aviation, Culture, Railways, Surface Transport, External Affairs and Home Affairs on various issues to improve the facilities for the tourists visiting various destinations in India.

CELEBRATION OF VARIOUS TOURISM EVENTS

A number of events and road shows have been organised during 2005-06 for spreading awareness about India Tourism in domestic and international tourism market to attract more tourists to India. The major events organised by the Ministry in collaboration with various State Tourism Departments are: Golf open tournament, Srinagar; Sindhu Darshan at Leh; Heritage Festival, New Delhi; All India Crafts Mela, Hyderabad; Heritage International Festival, Jaipur; India International Boat Show, Kochi; Paragliding Show and Tourism Conclave in Himachal Pradesh; Mega Folk Festival "Virasat" in Dehradun; Prithivi 05-Global Eco-Meet, Kochi; Domestic and International Photo Exhibition "A Confluence of Cultures" and Essay and Photographic competition on "What Tourism Means To Me" on World Tourism Day on 27 September (every year); India National Tourism Day on 17 March 2006; Designer's Night Bazar, Surajkund Crafts Mela, Haryana; 3 Global Interline Golf Championship, Photo Exhibition, Eco-Tourism Marketing Meet; Mussorie (Uttarakhand), WTTC, Himalayan Run and Trek and Photo Exhibition on Hindu, Buddhist and Islamic monuments of Kashmir.

The Ministry of Tourism also participated in various travel and tourism events, trade fairs and exhibitions in India and abroad. The important fairs and exhibitions are Tourism Travel Fair in New Delhi, Mumbai, Bangaluru, Chennai and SATTE (South Asia Tourism and Travel Expo), New Delhi. India Tourism offices located in 20 cities in India also participated at local important fairs. The Ministry of Tourism participated in several overseas travel and tourism trade fairs, notably World Travel Market, London; ITB (International Tourism Bourse), Berlin; Arabian Travel Market (ATM), Dubai; EIBTM, Spain; IMEX, Frankfurt; Pata Travel Mart, Malaysia; FITUR, Spain; and World Travel Fair, Shanghai. India Tourism offices located in 13 overseas cities also participated in various travel and tourism fairs.

National Tourism Policy 2002: A National Tourism Policy-2002 was announced by the Government with, *inter-alia* attempts to position India as a global brand to take advantage of the burgeoning global travel and trade and the vast untapped potential of India as a destination.

Tourism in 10th Five Year Plan : In order to further accelerate the development of tourism in the country, the thrusts during the 10th Five Year Plan has been to :

- i) Position tourism as a major engine of economic growth;
- ii) Harness the direct and multiplier effects of tourism for employment generation and economic development;
- iii) and provide impetus to rural tourism;
- iv) Provide a major thrust to domestic

tourism which will act as a spring board for growth and expansion of international tourism; v) Position India as a global brand to take advantage of the burgeoning global travel and trade and the vast untapped potential of India as a destination; vi) Acknowledge the critical role of private sector with government working as an active facilitator and catalyst; vii) Create and develop integrated tourism circuits based on India's unique civilisation, heritage and culture in partnership with states, private sector and other agencies; viii) Ensure that the tourist to India gets physically invigorated, mentally rejuvenated, culturally enriched, spiritually elevated and "feels India within him".

27 Water Resources

WATER RESOURCES

THE Ministry of Water Resources lays down policies and programmes for development and regulation of the country's water resources. It covers sectoral planning, coordination, policy guidelines, technical examination and techno-economic appraisal of the projects, providing central assistance to specific projects, facilitation of external assistance and assistance in the resolution of inter-state water disputes, policy formulation, planning and guidance in respect of major, medium & minor irrigation, command area development, flood management and development of ground water resources etc.

The National Water Policy, 2002 lays emphasis on integrated water resources development and management for optimal and sustainable utilization of the available surface and ground water; creation of well-developed information system; water conservation and demand management; quantity and quality aspects as well as environmental considerations; involvement of beneficiaries and stakeholders in the project planning and participatory approach in water resources management, training and research, resettlement & rehabilitation aspects of project affected persons. The Policy also encourages Private Sector Participation in planning, development and management of water resources projects for diverse uses, wherever feasible with a view to introducing innovative ideas, generating financial resources and introducing corporate management and improving service efficiency and accountability to users.

WATER RESOURCES POTENTIAL

The average annual water availability of the country is assessed as 1869 billion cubic metres (BCM). Of this, total utilizable water resource is assessed as 1123 BCM, out of which 690 BCM is surface water and 433 BCM replenishable ground water resources.

IRRIGATION POTENTIAL

Expansion of irrigation facilities, alongwith consolidation of the existing systems, has been the main part of the strategy for increasing production of food grains. With sustained and systematic development of irrigation, the irrigation potential through major, medium and minor irrigation projects has increased from 22.6 million hectares (mha) in 1951, when the process of planning began in India, to about 102.77 mha at the end Xth Plan. Creation of irrigation potential of 104.4 mha has been reported during 2007-08. Plan-wise irrigation potential created and utilised through major, medium and minor irrigation projects in the country is indicated below:-

TABLE 26.1 : PLANWISE POSITION OF IRRIGATION POTENTIAL
CREATED AND UTILISED

Plan Period	Potential (cumulative) created (Mha)	Potential (cumulative) utilised (Mha)
Pre-Plan period	22.60	22.60
First Plan (1951-56)	26.26	25.04
Second Plan (1956-61)	29.08	27.80

Third Plan (1961-66)	33.57	32.17
Annual Plans (1966-69)	37.10	35.75
Fourth Plan (1969-74)	44.20	41.89
Fifth Plan (1974-78)	52.02	48.46
Annual Plans (1978-80)	56.61	52.64
Sixth Plan (1980-85)	65.22	58.82
Seventh Plan (1985-90)	76.44	68.59
Annual Plans (1990-92)	81.09	72.85
Eighth Plan (1992-97)	86.26	77.21
Ninth Plan (1997-2002)	93.95	81.00
Tenth Plan (2002-2007)	102.77	87.23

MAJOR AND MEDIUM IRRIGATION PROJECTS

Irrigation projects with a Culturable Command Area (CCA) between 2,000 and 10,000 hectares are classified as medium projects and those with CCA of more than 10,000 hectares as major projects. The expenditure incurred on major and medium projects and the irrigation potential created during various plan periods is indicated below:-

TABLE 26.2 : MAJOR AND MEDIUM IRRIGATION PROJECTS
(EXPENDITURE INCURRED AND POTENTIAL CREATED)

Period	Outlay/ expenditure (Rs crore)	Potential created (mha)	Cumulative (mha)
Pre-Plan period	-	9.70	9.70
First Plan (1951-56)	3.76	2.50	12.20
Second Plan (1956-61)	3.80	2.13	14.33
Third Plan (1961-66)	5.76	2.24	16.57
Annual Plans (1966-69)	4.30	1.53	18.10
Fourth Plan (1969-74)	1,242	2.60	20.70
Fifth Plan (1974-78)	2,516	4.02	24.72
Annual Plans (1978-80)	2,079	1.89	26.61
Sixth Plan (1980-85)	7,369	1.09	27.70
Seventh Plan (1985-90)	11,107	2.22	29.92
Annual Plans (1990-92)	5,459	0.82	30.74
Eighth Plan (1992-97)	21,072	2.22	32.95
Ninth Plan (1997-2002)	42,289	4.10	37.06
Tenth Plan (2002-2007)	71,213	5.30*	42.35

ACCELERATED IRRIGATION BENEFITS PROGRAMME (AIBP)

The Accelerated Irrigation Benefit Programme (AIBP) was launched during 1996-1997 to give loan assistance to the States to help them complete some of the incomplete major/medium irrigation projects which were at an advanced stage of completion

and to create additional irrigation potential in the country. The Surface Minor Irrigation Schemes of North-Eastern States, Hilly States of Sikkim, Uttranchal, Jammu and Kashmir, Himachal Pradesh and Koraput, Bolangir and Kalahandi Districts of Orissa have also been provided Central Loan Assistance (CLA) under this programme since 1999-2000. Grant component has been introduced in the programme from April 2004 like other Central Sector Schemes. As per the existing AIBP criteria effective from December 2006, grant amounting to 25% of the project cost for major and medium irrigation projects in non-special category States and 90% grant of the project cost for major/medium/minor irrigation projects in special category States (including Koraput, Bolangir and Kalahandi Districts of Orissa) are provided to the selected projects. The minor irrigation schemes in non-special category States falling in drought prone/tribal areas are treated at par with special category States and are provided 90% grant of the project cost. Major and medium projects providing irrigation benefits to drought prone/tribal area and flood prone area are also eligible for 90% grant of the project cost. The State Governments have been provided an amount of about Rs. 36,534 crores as CLA/Grant under AIBP since inception of this programme till 07.07.2009 for 268 major/medium irrigation projects and 9,908 Surface Minor Irrigation Schemes. After commencement of this programme, 109 major/medium projects and 6,584 Surface MI Schemes have been reported to be completed so far. An additional irrigation potential of 5.44 million hectare has been created through major/medium irrigation projects and an irrigation potential of 0.45 million hectare has been created through Surface MI Schemes up to March 2009.

Initial budget allocation for AIBP for the year 2008-09 was of Rs. 4,300 crores. Under PM's stimulus package, an additional allocation of Rs. 2300 crores was provided for AIBP. Thus, total allocation was of Rs. 6,600 crores. Against this allocation, the actual expenditure during the year was about Rs.7,598 crores. For the year 2009-10, budget allocation is Rs.8,000 crores.

As per the existing AIBP guidelines, projects benefiting drought prone/tribal area, project included in the Prime Minister's Relief Package for Agrarian Distress Districts of Maharashtra, Karnataka, Andhra Pradesh and Kerala and projects in the States having irrigation development below national average could be included in AIBP of the 65 major/medium projects initially included in the Prime Minister's Relief Package for Agrarian Distressed Districts of Andhra Pradesh, Karnataka, Kerala and Maharashtra, so far 38 projects have been funded under AIBP. The grant released so far for these projects is about Rs.4,369 crores.

HYDROLOGY PROJECT

Hydrology Project Phase-II has been taken up with the assistance of International Bank of Reconstruction and Development (IBRD). Agreement for the Hydrology Project-II between the IBRD (World Bank) and Government of India was signed on 19.01.2006. The project has become effective from 5th April 2006. The duration of the project is six years and is estimated to cost Rs. 631.83 crore supported with a loan of 104.98 Million US\$ from IBRD. The Ministry of Water Resources is the nodal agency for implementation of the project. A Project Coordination Secretariat has been established in the Ministry for this purpose.

The objectives of the project are to extend and promote the sustained and effective use of Hydrological Information System (HIS) by all potential users concerned with water resources planning and management, both in public and private sectors, thereby

contributing to improved productivity and cost effectiveness of water related investments.

The project is being implemented in 13 States viz. Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Goa, Punjab, Puducherry and Himachal Pradesh and eight central agencies viz. Central Water Commission (CWC), Central Ground Water Board (CGWB), India Meteorological Department (IMD), National Institute of Hydrology (NIH), Central Water and Power Research Station (CWPRS), Ministry of Water Resources (MoWR), Central Pollution Control Board (CPCB) and Bhakhra Beas Management Board (BBMB).

The project is being monitored by a National Level Steering Committee (NLSC) headed by the Secretary, Ministry of Water Resources with State Secretaries/Principal Secretaries of the concerned Departments as Members. At the State level also Steering Committees have been formed and Project Coordinators have been appointed.

During the year 2008, three key consultants have been appointed for Technical Assistance and Management Consultancy (TAMC), Decision Support System for Planning and Management of Water Resources (DSS-Planning) and Decision Support Consultancy for Real Time Operation of the Bhakhra and Beas System of Reservoirs (DSS-RT). The basins for DSS (P) studies have been identified in each State and necessary data is being collected and provided to DSS (P) consultants. 18 proposals of surface water and ground water domain for Purpose Driven Studies (PDS) have been finalised to be carried out by the participating agencies.

WATER QUALITY ASSESSMENT AUTHORITY

In view of the multiplicity of agencies involved in water management in the country, the Ministry of Environment & Forests, issued an Extraordinary Notification on 22nd June 2001 constituting the "Water Quality Assessment Authority" with effect from 29th May 2001.

The Secretariat of the WQAA is in the Ministry of Water Resources. The Water Quality Review Committees have been constituted in the States with an objective to improve coordination amongst the Central and State agencies, review/assess schemes launched/to be launched to improve quality of water resources, review water quality data analysis and interpretation in order to identify problem areas and developing action plans for improving quality on a sustainable basis, identify hot spots for surveillance monitoring and to look into other specific miscellaneous issues related to water quality arising from time to time.

Based on the recommendations of the Expert Committee and Task Force, a Gazette Notification on the Uniform Monitoring Protocol for adoption by all the water quality-monitoring agencies has been issued in June 2005. A Working Group has also been constituted by WQAA to deal with issues relating to minimum flows in riverine systems. The draft report of the Working Group was discussed in the 6th Meeting of the WQAA held on 23.05.2008, wherein it was decided that the Group needs to carry out some more studies and to take into consideration any court directions, which are in force and where its non implementation would create legal problems.

In accordance with the decisions of WQAA, the Water Quality Monitoring Committee (WQMC) was also constituted to assist the WQAA in its functions. Ten meetings of the WQMC have been held so far, the last meeting was held on 10.08.2007.

The status of progress made by WQAA and WQMC was discussed in the 6th meeting. For preparation of Water Quality Management Plans by various State governments, the guidelines were finalized/ approved during the 6th meeting of WQAA.

In order to make State Water Quality Review Committees more effective and to establish co-ordination among various agencies in the field of water quality monitoring, one workshop at national level and four workshops at regional level have been organized. A national level workshop on development of Water Quality Management Plan (WQMP) for State Water Quality Review Committees (WQRCs) was organized by the CPCB.

COMMAND AREA DEVELOPMENT & WATER MANAGEMENT PROGRAMME

The Centrally sponsored Command Area Development (CAD) Programme was launched in 1974-75 with the main objectives of improving the utilization of created irrigation potential and optimizing agriculture production and productivity from irrigated agriculture through a multi-disciplinary team under an Area Development Authority.

Initially, 60 major and medium irrigation projects were taken up under the CAD Programme, covering a Culturable Command Area (CCA) of about 15.00 million hectare. From 1974-75 till now 314 projects with a CCA of 28.95 Million ha have been included under the programme. After inclusion of new projects, deletion of completed projects and clubbing of some projects, there are now 136 projects under implementation. The programme was restructured and renamed as Command Area Development & Water Management (CADWM) Programme w.e.f. 1-4-2004. The scheme is now being implemented as a State sector scheme during the XI Five Year Plan (2008-09 to 2011-12).

The National Water Policy, 2002 stresses on participatory approach in water resources management. It has been recognized that participation of beneficiaries in water resource management will help considerably in proper upkeep of irrigation system and optimal utilization of irrigation water. The participation of farmers in the management of irrigation would promote responsibility for operation and maintenance and collection of water charges from the areas under the jurisdiction of Water Users' Association (WUAs). A one-time functional grant is provided to the registered WUAs under the programme. Minimum contribution of 10 per cent for beneficiaries has been made mandatory in the cost of construction of field channels, full package OFD works, reclamation of water logged areas and one time functional grant to WUAs.

The evaluation made in the past has revealed that the CAD Programme made positive impact on various important indicators, like increase in the irrigated area, productivity and production, irrigation efficiency etc. Despite efforts for efficient irrigation water management, the problem of water logging has surfaced in many irrigated commands. Under the component on reclamation of water logged areas, 482 schemes of nine States, namely, Bihar, Gujarat, Madhya Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Orissa and Uttar Pradesh have been approved for reclamation of 63,566 ha. of water logged area. Out of this, an area of about 50,249 ha. has been reported to be reclaimed by these States up to March 2009.

REPAIR, RENOVATION & RESTORATION (RRR) OF WATER BODIES

The Government of India sanctioned a Pilot Scheme for "National Project for Repair, Renovation & Restoration (RRR) of Water Bodies directly linked to Agriculture" in

January 2005 with an estimated cost of Rs.300 crore to be shared by Centre and State in the ratio of 3:1 proposed to be implemented during the remaining period of Xth Plan. The scheme was approved for 26 districts in 15 States, namely, Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu, West Bengal, Himachal Pradesh, J&K, Gujarat, Kerala and Maharashtra at an estimated cost of Rs. 299.92 crore (Rs. 224.94 crore Central share and Rs. 74.98 crore as State share). Against Central share of Rs. 224.94 crore, an amount of Rs. 197.30 crore has been released to the States. These projects cover 1,098 water bodies with total original Culturable Command Area (CCA) of 1.72 lakh hectares. The spillover activities of the Pilot Scheme of RRR of Water Bodies are being continued during the year 2009-2010. Physical works for restoration of 955 water bodies has been completed in the States by June 2009.

With a view to expand the scheme of repair, renovation and restoration of water bodies, Government of India approved two schemes for RRR of water bodies (i) one with external assistance at a cost of Rs. 6,000 crore and (ii) the other one with domestic support at a cost of Rs. 4,000 crore. The expansion of the programme envisages improvement of water bodies, improvement of catchments areas of tank commands, increase in storage capacity of water bodies, ground water recharge, improvement in agriculture and increased availability of drinking water.

Under the scheme covered by external assistance, States may take up projects for funding wherein 75% loan is taken from the World Bank and is passed on to the concerned States on back to back basis and is to be repaid by the States. The balance 25% is taken as liability of Government of India and passed on as Additional Central Assistance (100% grant) to the States for the projects. Domestic support funding is also in the ratio of 25:75 (Centre: State) for non-special category States and in the ratio of 90:10 for special category States (North East States including Sikkim, Himachal Pradesh, Uttarakhand, J&K and undivided Koraput, Bolangir and Kalahandi (KBK) districts of Orissa), drought prone/naxal affected/tribal areas.

Under the scheme of RRR of water bodies with external assistance, the World Bank Loan Agreement has been signed with Tamil Nadu for assistance of US \$ 485 million to restore 5,763 water bodies having CCA of 4 lakh hectares, with Andhra Pradesh for assistance of US \$ 189 million for restoration of 3000 water bodies with a CCA of 2.5 lakh hectares, with Karnataka Govt. for assistance of US \$ 64 million for restoration of 1,225 water bodies having a CCA of 0.52 lakh hectare. The Orissa project has also been signed for assistance of US \$ 112 million for restoration of 900 water bodies with CCA of 1.2 lakh hectares.

FLOOD MANAGEMENT

Out of the country's total geographical area of 329 million hectares about 45 million hectares is flood prone. Till March 2007, an area of 18.22 m ha has been provided with protection against floods by way of construction of embankments, drainage channels, town protection works and providing raised platforms.

The Union Government is providing Central assistance to the flood prone States to take up some of the critical works. The Central Government is also providing Central assistance to the border and North Eastern States for taking up certain priority works.

The Government of India has launched a "Flood Management Programme" as a State sector scheme, to provide Central assistance to the States during XI plan for

taking up flood control, river management, drainage development, flood proofing and anti-sea erosion works.

A network of Flood Forecasting and Warning System has been established by the Central Water Commission in State river basins and flood forecasts are being issued through 175 stations, out of which 147 are river level forecasting stations and 28 are inflow forecasting stations spread over 9 major river basins. During the flood season 2008-09, 6,675 flood forecasts (with 97% accuracy) were issued to the state Government/local administration in order to take timely action to save live stocks and public properties. Forecasts about (i) water levels likely to be attained in rivers as a result of floods and (ii) volume of inflow into reservoirs, are formulated and disseminated to various administrative authorities of Central Government, State Government and District Administration, media and other users on the basis of time data.

RIVER WATER DISPUTES

As per the Inter-State River Water Disputes Act, 1956 (ISRWD Act, 1956) when the water dispute arises among two or more State Governments, the Central Government receives a request under Section 3 of the Act from any of the basin States with regard to existence of water dispute. The details of such inter-State water disputes under ISRWD Act, 1956 are indicated below:-

Sl.No.	River(s)	States	Date of Constitution of Tribunal	Date of Award
1.	Krishna	Maharashtra, Andhra Pradesh, Karnataka	April 1969	May 1976
2.	Godavari	Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh and Orissa	April 1969	July 1980
3.	Narmada	Rajasthan, Madhya Pradesh, Gujarat, Maharashtra	October 1969	December 1979
4.	Cauvery	Kerala, Karnataka, Tamil Nadu and Union Territory of Puducherry	June 1990	Report u/s 5(2) received. 5.2.2007
5.	Krishna	Maharashtra, Andhra Pradesh and Karnataka	April 2004	Report u/s 5(2) pending
6.	Model/Mandovi/Mahadayi	Goa, Karnataka and Maharashtra	Under Constitution	-
7.	Vansadhara	Andhra Pradesh & Orissa	Under Const.	

In accordance with the said Act, the Central Government is required to refer a dispute to a Tribunal after it is satisfied that the dispute cannot be settled through negotiations. Accordingly, the water disputes, related to Cauvery and Krishna were referred to the Tribunals for adjudication in 1990 and 2004 respectively.

The Cauvery Water Disputes Tribunal (CWDT) passed an interim order on 25th June, 1991 and further clarificatory orders on the interim order in April 1992 and December 1995. CWDT submitted its report and decision under Section 5(2) of the

ISRWD Act, 1956 on 5.2.2007. With submission of report and decision under Section 5(2) of the Act, Central Government and the State Governments have sought explanation and guidance from the Tribunal under Section 5(3) of the Act. The matter is under consideration of the Tribunal. Further, party States have also filed SLPs in the Hon'ble Supreme Court against the decision dated 5.2.2007 of the Tribunal and the matter is subjudice at present.

The Krishna Water Disputes Tribunal (KWDT) passed orders on June 9, 2006 on the Interim Relief Application filed by the party States of Maharashtra, Karnataka and Andhra Pradesh declining to give interim relief as sought in the application and at the same time indicating certain norms with a view to facilitate adjudication of the dispute before the Tribunal. Subsequently, State of Andhra Pradesh filed Interlocutory Application under Section 5(3) of the ISRWD Act, 1956 seeking further explanation/guidance on the Order of the Tribunal of June 9, 2006 which is pending. The Tribunal in its hearing held in September and October 2006 has framed 29 issues for adjudication of the dispute before it. Further hearings of the Tribunal are continuing.

In respect of Mahadayi/Mandovi and Vansadhara water disputes, the requests were received from States of Goa and Orissa in July 2002 and February 2006. In respect of Mahadayi water dispute, a view has emerged in the Ministry that the dispute cannot be settled through negotiations and action has been initiated for establishment of a Tribunal. In respect of Vansadhara river water dispute, establishment of a Tribunal is in advanced stage of implementation.

Ravi & Beas Waters Tribunal (RBWT) set up in 1986 in pursuance of paragraphs 9.1 & 9.2 of Punjab Settlement (Rajiv-Longowal Accord, 1985) *inter-alia* to adjudicate the claims of Punjab and Haryana in Ravi-Beas waters, submitted its report on 30th January 1987. The Tribunal is to submit its further report to the Government on the references made by the party States and the Central Government seeking further guidance on its report. The hearings of the Tribunal have now become dependent on the outcome of a Presidential reference made on 22.07.2004 before the Hon'ble Supreme Court on Punjab Termination of Agreements Act, 2004.

Sutlej Yamuna Link (SYL) Canal envisages delivering Haryana's share of Ravi-Beas waters. In the matter of non-completion of SYL Canal in Punjab portion, the Hon'ble Supreme Court in a judgment of 4th June 2004, had directed the Central Government to carry out its action plan for completion of the canal. Central Government took necessary action. However, Punjab legislature on 12th July 2004 enacted Punjab Termination of Agreements Act, 2004 terminating all agreements relating to Ravi-Beas Waters and obligations thereunder. A Presidential reference in the matter of the above Act was filed before the Hon'ble Supreme Court on 22.07.2004, outcome of which is awaited.

GROUND WATER DEVELOPMENT IN THE COUNTRY

The total annual replenishable ground water resources of the country have been assessed as 433 billion cubic meter (BCM). Existing gross ground water draft as on March 2004 for all uses is 231 BCM per year. The stage of ground water development is about 58%. The development of ground water in different areas of the country has not been uniform. Highly intensive development of ground water in certain areas in the country has resulted in over exploitation leading to decline in the levels of ground water and sea water intrusion in coastal areas. There is a continuous increase in dark and over-exploited areas in the country.

As per the latest assessment of ground water resources carried out jointly by the Central Ground Water Board (CGWB) and the States, the assessment units are categorized as 'over exploited'/'critical' and 'semi-critical' based on the stage of ground water development and the long-term water level declining trend during the past decade (1995-2004). Out of 5,723 assessment units (Blocks/Mandals/Talukas) in the country, 839 units in various States have been categorized as 'over exploited', i.e., the annual ground water extraction exceeds the annual replenishable resource. In addition, 226 units are 'critical', i.e., the stage of ground water development is above 90 per cent and less than 100 per cent of annual replenishable resource with significant decline in long term water level trend in both pre-monsoon and post-monsoon period. There are 550 semi-critical units, where the stage of ground water development is more than 70 per cent. List of these areas has been circulated to the State Pollution Control Boards and the Ministry of Environment and Forests which refer the new industries/projects falling in these areas to the Central Ground Water Authority (CGWA) for obtaining clearance for ground water withdrawal.

The CGWA has so far notified 43 over-exploited areas in the country for regulation of ground water development and management. For enforcement of the regulatory directions issued under Section 5 of Environment (Protection) Act, 1986, concerned Deputy Commissioners/District Magistrates have been authorized to take necessary action in case of violation of directives of CGWA in the notified areas. For more effective regulation of ground water development and management, Advisory Committees under the Chairmanship of District Collector/Deputy Commissioners with members drawn from various organizations have been constituted which will render advice in matters pertaining to regulation of ground water development and management.

The CGWA have also notified 65 over-exploited areas in various States, for registration of ground water abstraction structures, which showed a very steep decline in ground water levels and which required action for regulation. The CGWA has issued directions to the Chief Secretaries of all States having over-exploited blocks to take all necessary measures to promote/adopt artificial recharge to ground water/rain water harvesting. The CGWA has also decided to notify more over-exploited areas in the country in compliance of its mandate following the provisions under rule 4 of the Environment (Protection) Rules, 1986.

ARTIFICIAL RECHARGE OF GROUND WATER ADVISORY COUNCIL

Artificial Recharge of Ground Water Advisory Council has been constituted by the Government in the year, 2006 under the Chairmanship of Hon'ble Minister of Water Resources. Main objective of the Advisory Council is to popularise the concept of artificial recharge of ground water among various stakeholders. The Advisory Council comprises of Members from the concerned Central Ministries/Departments, representatives of State Governments, Public Undertakings, financial institutions, representative of industries and renowned subject experts/farmers/NGOs. 1st meeting of Advisory Council was held in July 2006 and the second in September 2007.

As per the recommendation of the Council, various action have been initiated which include:-

- ❖ Organization of National Ground Water Congress.
- ❖ Declaration of year 2007 as the 'Water Year'.

- ❖ Implementation of 5,000 Farmers Participatory Action Research Programme (FPARP) in 25 States/UTs of the Country.
- ❖ Institution of Ground Water Augmentation Awards & National Water Award to encourage the Non-Governmental Organizations (NGOs)/Gram Panchayats/Urban Local Bodies/Institutions/Corporate Sector and Individuals.
- ❖ Report on “more crop and income per drop of water” was prepared and follow up action on recommendation initiated.
- ❖ Preparation of a policy on use of water for industries is under finalization in MoWR.

FARMERS PARTICIPATORY ACTION RESEARCH PROGRAMME (FPARPS)

- During the inaugural address at the first meeting of the Artificial Recharge of Ground Water Advisory Council held on 22nd July 2006 New Delhi, Hon'ble Prime Minister emphasized that “we have to minimize our water use, invest in science and technology to ensure that we can grow crops which use less water. In other words, find ways of valuing the crop per drop”.
- To implement the suggestion of the Hon'ble Prime Minister, the Council approved the “More Crop and Income per Drop of Water” report for implementation through Farmers Participatory Action Research Programme (FPARP) in the country.
- The Ministry of Water Resources has sanctioned 5,000 demonstrations under FPARPs in two to three crop seasons through 60 identified institutes which include agricultural universities, ICAR research institutes, ICRISAT and WALMIS etc. in 25 States/UTs in the country, at a cost of about Rs. 24 crores with the objective of demonstrating the technologies available to the farmers for increasing productivity and profitability of agriculture through generating synergy among water, crops and their varieties, agronomic practices, soil nutrients and implements.
- Each programme covers a minimum of one hectare and is being implemented in a participatory mode, with the farm family having a sense of ownership of the programme.
- More than 14,500 farmers are participating in these programmes. Till *Rabi* season, 2009, 4127 demonstrations (as on 30.06.2009) have been completed and 528 demonstrations are under progress.
- The performance of the programme is being monitored by the field formations of CWC & CGWB.

GROUND WATER AUGMENTATION AWARDS & NATIONAL WATER AWARD

- The Ministry of Water Resources instituted Bhoomijal Samvardhan Puraskars (Ground Water Augmentation Awards) including one National Water Award in the year 2007.
- The awards aim to encourage the Non-Governmental Organizations (NGOs)/Gram Panchayats/Urban Local Bodies (for population up to 1 lakh)/institutions/corporate sector and individuals for adopting innovative practices of ground water augmentation by rainwater harvesting and artificial recharge,

promoting water use efficiency, re-cycling and re-use of water and creating awareness through peoples participation in the targeted areas for sustainability of ground water resources.

- There are 21 Ground Water Augmentation Awards (Bhoomijal Samvardhan Puraskars) for all categories taken together. Each award consists of a cash award of Rs. 1 lakh and a plaque with citation.
- There will be one National Water Award amongst 21 award winners for best innovative practices of water conservation etc. which consists of a cash award of Rs. 10 lakh and a plaque with citation.
- For the year 2007, Her Excellency, the President of India gave away the National Water Award to Hiware Bazar Gram Panchayat, Ahmednagar district, Maharashtra and Bhoomijal Samvardhan Puraskars to 14 Gram Panchayats/NGOs/Local Bodies.
- The detailed guidelines of the awards are available on the website of the Ministry of Water Resources at <http://mowr.gov.in/> under Guidelines-National Water Award.
- The nominations for Award/Puraskars as forwarded/recommended by the Nodal Department of the States/UTs are shortlisted by a Selection Committee (Jury) which comprises of a Chairperson and four expert Members.
- For the year, 2008, these awards are proposed to be given during Valedictory Session of the National Ground Water Congress, 2009.

SCHEME ON ARTIFICIAL RECHARGE TO GROUND WATER THROUGH DUGWELLS

- The Government has sanctioned a State Sector Scheme of 'Artificial Recharge of Ground Water Through Dugwells' during XI Plan amounting to Rs. 1798.71 crore for implementation in seven States namely - Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamilnadu. The scheme covers 146 districts comprising 1180 over-exploited, critical and semi-critical blocks in the these States.
- The scheme envisages installation of 4.45 million ground water recharge structures in the existing irrigation wells of the farmers to facilitate large scale ground water recharge in the area, of which 2.72 million are owned by the small and marginal farmers and 1.73 million owned by other farmers. Average cost of recharge per well is Rs. 4000, which varies from Rs. 3600 in Maharashtra to Rs. 5700 in Andhra Pradesh. In order to encourage the farmers for participation in the scheme, provision has been made in the scheme for subsidy to the beneficiary farmers to the extent of 100% for the 'marginal' and 'small farmers' and 50% for 'other' category of farmers.
- The recharge processes through implementation of scheme is expected inter-alia lead to improvement in water quality, sustainability of drinking water supplies & socio-economic conditions of the population of the affected areas. The outcome of the scheme would be evaluated through concurrent impact assessment studies by an independent agency.
- An amount of Rs. 1499.27 has been released by the Ministry of Finance (MoF) to NABARD to be provided as subsidy to beneficiary farmers. The Ministry of

Water Resources (MOWR) is the Nodal Ministry for the purpose of monitoring the progress of the scheme at national level and to take measures for experience sharing among all stakeholders, knowledge transfer and awareness. A National Level Programme Monitoring Committee (NPMC) has been constituted in the Ministry for the purpose. The regional offices of CGWB would provide necessary technical assistance to the States and the implementing agencies.

- In order to implement the scheme, the States have constituted the State level Steering Committees and identified Nodal Departments. As on 30th June, 2009, funds amounting to Rs. 173.961 crore including Rs. 156.961 crore as subsidy to the beneficiaries and 17 crore for Information, Education and Communication (IEC)/capacity building activities have been released to the concerned States. The funds could not be released to the State of Andhra Pradesh, as the implementing agency is yet to be identified by the State Government. State-wise details of funds released are given below:

(As on 30.06.2009)

(Rs. in crore)

Sl. No.	State	Fund Released as subsidy to Farmers	Fund released to States for IEC activities	Total fund released
1	Andhra Pradesh	0.00	0.00	0.00
2	Gujarat	39.854	3.25	43.104
3	Karnataka	13.510	2.00	15.210
4	Madhya Pradesh	0.000	2.00	2.000
5	Maharashtra	9.324	2.00	11.324
6	Rajasthan	3.405	2.00	5.405
7	Tamil Nadu	90.868	5.75	96.618
	Total	156.961	17.00	173.961

NATIONAL WATER RESOURCES COUNCIL

National Water Resources Council was set up by the Government of India in March 1983. The Prime Minister is the Chairman, Union Minister of Water Resources is the Vice-Chairman, and Minister of State for Water Resources, concerned Union Ministers/Ministers of State, Chief Ministers of all States & Lieutenant Governors/Administrators of the Union Territories are the Members. Secretary, Ministry of Water Resources is the Secretary of the Council.

NATIONAL WATER BOARD

The Government of India constituted a National Water Board in September, 1990 under the Chairmanship of Secretary, Ministry of Water Resources to review the progress achieved in implementation of the National Water Policy and to report the progress to the National Water Resources Council from time to time. The Secretaries of Union Ministries of Agriculture, Rural Development, Urban Development, Surface Transport, Environment & Forests, Planning and Science & Technology, Chairman, Central Water Commission, Chief Secretaries of all States/Union Territories are its Members and Member (Water Planning & Projects), Central Water Commission is the Member Secretary. The 10th meeting of National Water Board was held on 18th September 2009.

INTERNATIONAL COOPERATION

(A) INDIA-NEPAL COOPERATION

The Union Government is having continuous dialogue with the Government of Nepal at various levels for cooperation in the field of water resources development.

A Treaty on Integrated Development of Mahakali River had been signed between the Government of India and Government of Nepal in February 1996; which came into force in June 1997. Pancheshwar Multipurpose Project on river Mahakali (known as river Sarda in India), is the centerpiece of Mahakali Treaty. India-Nepal Joint Group of Experts (JGE) has been overseeing the physical and financial progress with respect to finalization of Joint Detailed Project Report of Pancheshwar Multipurpose Project. All related field investigations have been completed and Detailed Project Report is to be finalized after resolving the pending issues; which are under discussion with Nepal. The project will have power and irrigation benefits besides incidental benefits of flood moderation.

During the 3rd meeting of India-Nepal Joint Committee on Water Resources (JCWR) held from 29.09.08 to 01-10-08 at Kathmandu (Nepal), it was decided to set up Pancheshwar Development Authority (PDA) at the earliest for the development, execution and operation of Pancheshwar Multipurpose Project. During the 4th meeting of JCWR held on 12-13 March 2009 at New Delhi, draft Terms of Reference (TOR) of PDA were also discussed and it was agreed to discuss and finalize it in the next meeting of JCWR.

Agreement has also been reached with Nepal to take up joint field investigations, studies and preparation of Detailed Project Report of Sapta Kosi High Dam Multipurpose Project and Sun Kosi Storage-cum-Diversion Scheme. A Joint Project Office was opened in August 2004 in Nepal for undertaking the above work. It was to complete the investigation works by February, 2007. However, because of the prevailing situation in Nepal, the field investigations have been delayed. The field works at Kosi High Dam site in Nepal, are suspended since May, 2007 due to security reasons.

During the 3rd meeting of JCWR held at Kathmandu on 29th September – 1st October 2008, Nepalese side assured the Committee that security to the officers and staffs at the investigation work sites would be ensured. After the 3rd meeting of JCWR, the tenure of JPO-SKSKI was extended to June 2010 to complete the field investigations and preparation of DPR.

During the 4th meeting of JCWR held on 12-13 March 2009 at New Delhi, the Indian side reiterated its request to the Nepalese side to provide security at all sites, so that the investigations may be resumed immediately to complete the works by June 2010. Nepalese side conveyed that Government of Nepal was making all possible efforts to ensure that the work would resume at the earliest at Sapta Kosi Project area.

In order to rationalize the number of technical committees and to put in place an effective joint mechanism, a three tier mechanism comprising of (i) Joint Ministerial Level Commission on Water Resources (JMCWR) at the level of Ministers of Water Resources of India and Nepal, (ii) existing JCWR at the level of Secretaries (WR) of India and Nepal and (iii) Joint Standing Technical Committee (JSTC) at the level of Chairman, Ganga Flood Control Commission, Patna was agreed to, in the 3rd meeting of JCWR, held from 29th September 2008 to 1st October 2008 at Kathmandu (Nepal). During the 4th meeting of JCWR, Terms of Reference of JMCWR was finalized.

(B) INDIA-BHUTAN COOPERATION

A scheme titled "Comprehensive Scheme for Establishment of Hydro-meteorological and Flood Forecasting Network on Rivers Common to India and Bhutan" is in operation. The network consists of 35 hydro-meteorological/meteorological stations located in Bhutan and being maintained by the Royal Government of Bhutan with funding from India. The data received from these stations are utilized in India by the Central Water Commission for formulating flood forecasts. A Joint Expert Team (JET) consisting of officials from the Government of India and Royal Government of Bhutan continuously reviews the progress and other requirements of the scheme.

The matter relating to problem of floods created by the rivers originating from Bhutan and coming to India was taken up with the Royal Government of Bhutan. A Joint Group of Experts (JGE) on Flood Management has been constituted between India and Bhutan to discuss and assess the probable causes and effects of the recurring floods and erosion in the southern foothills of Bhutan and adjoining plains in India and recommend appropriate and mutually acceptable remedial measures to both Governments.

The first meeting of JGE was held in Bhutan from 1st to 5th November 2004. The JGE had series of discussions and also made field visits to some of the affected areas which included the sites prone to landslides and dolomite mining areas. Based on the discussions, the JGE felt that a more detailed technical examination is required and accordingly a Joint Technical Team (JTT) under the Chairmanship of Member (PID), North Bengal Flood Control Commission was constituted.

JTT held its first meeting in April 2005. The JTT studied some sources of sediment load, nature of slides and suggested further studies and preparation of maps to be taken up for deciding remedial measures to be recommended by the JTT. Preliminary report (January 2006) of Joint Technical Team was received in MoWR during February 2006.

Further, as per the decision taken in the first meeting of JGE, a five members Indian team visited Tsatichu lake in Eastern Bhutan (which was formed due to massive landslide occurred on the right bank of river Tsatichhu on 10th September 2003) alongwith the officials of Royal Govt. of Bhutan between 18th and 23rd December 2006. During the joint visit, it was observed that the quantity of water in the lake at present was very small and the threat of flood to downstream areas, including Indian Territory negligible, however, it was recommended that there was a need to monitor any future developments like further landslides leading to blockade of outlet and the level of water in the lake should be monitored, specially during monsoon.

Second meeting of JGE was held on February 26-27, 2008 at New Delhi. During the meeting, preliminary report (January 2006) of Joint Technical Team, report of Joint visit (December 2006) by India - Bhutan Experts Team to Tsatichu Lake in Bhutan and Permission of Royal Government of Bhutan for construction of bullheads on river Manas near Mathanguri were discussed.

During the second meeting of JGE, the JTT has been reconstituted and in the modified ToR of the reconstituted JTT, some rivers/streams flowing from Bhutan into Assam to be identified by JTT based on the field visit have also been included for studies/recommendations for remedial measures. Further, during the second meeting of JGE, it has been decided to undertake another joint visit by India and Bhutan Experts Teams to the landslide dam site in 2008.

MEA vide their letter dated 10.04.2008 have conveyed approval of the concerned authorities of Royal Government of Bhutan for construction of the said deflectors. In pursuance of MEA letter dated 10.04.2008, the permission of Royal Government of Bhutan has been conveyed to the Secretary, Water Resources Deptt., Govt. of Assam with a request to approach the local administration of Panbang block of Zhemgang District of Bhutan to undertake the construction of the deflectors vide MoWR letter dated 22.04.2008.

(C) INDIA-BANGLADESH COOPERATION

An Indo-Bangladesh Joint Rivers Commission (JRC) is functioning since 1972 with a view to maintain liaison in order to ensure the most effective joint effort in maximizing the benefits from common river systems which is headed by Water Resource Ministers of both the countries. A Treaty was signed by the Prime Ministers of India and Bangladesh on 12th December 1996 for the sharing of Ganga/Ganges waters. The Treaty shall remain in force for a period of thirty years to be renewable by mutual consent. A Joint Committee has been set up for implementing, joint inspections and monitoring of the sharing arrangements at Farakka in India and at Hardinge Bridge in Bangladesh for the dry season (Jan to May) every year.

The 36th meeting of the Indo-Bangladesh JRC was held at Dhaka from 19th -21st September 2005 wherein various matters pertaining to cooperation in water resources sector with Bangladesh, including Tipaimukh Dam Project, interlinking of rivers, sharing of waters of common rivers, bank protection works, flood forecasting etc. were discussed. As per the decision taken during 36th meeting of JRC, the Hon'ble Ministers of Water Resources of India and Bangladesh along with their delegations undertook visit from 14th to 21st September 2006 to the sites of river banks protections, minor lift irrigation and drinking water schemes along the concerned common/ border rivers including a stretch of river Ichhamati, where river forms boundary between India and Bangladesh to assess the situation on the ground. During field visit and discussions, there was understanding between both sides and differences were narrowed down. There was also better appreciation and greater clarity on the issues involved. However, as some more technical details were required, agreement could not be reached.

The Indo-Bangladesh Joint Rivers Commission (JRC) recognized that the long term sharing of waters of river Feni should also be examined along with Teesta and other six common rivers already agreed to. It was reiterated that priority should be given to sharing of water of river Teesta. The JRC also recognized that lean season flow in Teesta will not meet the needs of both the countries and hence any sharing formula of the lean season flow should be based on shared sacrifice. It was decided that further discussions on the matter will be made in the next meeting of JRC which is proposed to be held in India in due course.

A new chapter in the Indo-Bangladesh relations opened up with signing of a Treaty by the Prime Minister of India and Bangladesh on 12th December 1996, on the sharing of Ganga/Ganges waters at Farakka during the lean season. As per the Treaty, the Ganges water is distributed at Farakka (which is the last control point on river Ganga in India) during lean period, from 1st January to 31st May every year on 10 daily basis in as per the formula provided in the Treaty. The validity of treaty is 30 years. Though there is provision of review of Treaty after 5 years, no party has asked for its review so far. The sharing of water as per the Treaty is monitored by a

Joint Committee comprising the members of Joint River Commission from Bangladesh and India. Three meetings of the Joint Committee are held every year. The Treaty is being implemented to the satisfaction of both the countries since 1997.

India is providing the flood data of Farakka for Ganga (from 15th June to 15th October) and the Flood data of Pandu, Goal Para and Dhubri for Brahmaputra and of Silchar for Barak during monsoon period (from 15th May to 15th October) to Bangladesh for use of their flood forecasting and warning arrangements, besides the data of river Teesta, Manu, Gumti, Jaladhaka and Torsa etc. is also provided. The transmission of flood forecasting information from India during the monsoon, which is being supplied free of cost has enabled the civil and military authorities in Bangladesh to shift the population affected by flood to safer places.

(D) INDIA-CHINA COOPERATION

In the year 2002, the Government of India had entered into an MoU with China for provision of hydrological information on Yaluzangbu/Brahmaputra river in flood season by China to India. In accordance with the provisions contained in the MoU, the Chinese side is providing hydrological information (Water level, discharge and rainfall) in respect of three stations, namely Nugesha, Yangcun and Nuxia located on river Yaluzangbu/ Brahmaputra from 1st June to 15th October every year, which is utilized in the formulation of flood forecasts by the Central Water Commission. This MoU expired in 2007. A new Memorandum of Understanding (MoU) on hydrological information of the Brahmaputra/Yaluzangbu River in flood season by China to India with a validity of five years has been signed with China on 05.06.08 during the visit of Hon'ble External Affairs Minister of India to Beijing from June 4-7, 2008.

Another Memorandum of Understanding has been signed during the visit of the Chinese Premier to India in April 2005 for supply of hydrological information in respect of Sutlej (Langquin zangbu), in flood season. Chinese side is providing hydrological information in respect of their Tsada station on river Sutlej (Langquin zangbu) from the monsoon of 2007.

The Hon'ble President of the People's Republic of China, paid a state visit to the Republic of India from 20 to 23 November, 2006. During the visit, it was agreed to set up an expert level mechanism to discuss interaction and co-operation on provision of flood season hydrological data, emergency management and other issues regarding trans-border rivers as agreed between them. Accordingly, the two sides have set up the Joint Expert Level Mechanism. The Expert Group from Indian side is led by the Commissioner, Ministry of Water Resources, while in China, it is led by Director, International Economic and Technical Cooperation and Exchange Center, Ministry of Water Resources, People's Republic of China.

The first meeting of the Joint Expert Level Mechanism was held on 19-21 September 2007 at Beijing, wherein the issues related to bilateral co-operation on exchange of hydrological information between the two countries were discussed. The 2nd meeting of Expert Level Mechanism (ELM) on Trans-Border Rivers was held at New Delhi from 10-12th April 2008. During the meeting, work regulations of the Expert Level Mechanism were agreed and signed by the two sides. It has been agreed that the Expert Level Mechanism shall meet once a year, alternatively in China and India.

The third meeting of Expert Level Mechanism(ELM) was held at Beijing from 21st to 25th April 2009 which helped in understanding of each other's position for smooth transmission of flood season hydrological data .

INDUS WATER TREATY, 1960

Under the Indus Water Treaty, 1960, India and Pakistan have created two permanent posts of Commissioner for Indus Waters, one each in India and Pakistan, who are the representatives of the respective Governments for all matters arising out of the treaty and serve as the regular channel of communication with regard to implementation of the Treaty. The two Commissioners together form the Permanent Indus Commission (PIC). The PIC holds periodical meetings and also undertakes tours of inspection to projects/works in India and Pakistan. By way of implementation of the Treaty, the PIC held its 102nd meeting, to exclusively discuss the issues raised by Pakistan on Baglihar Hydroelectric Project, at New Delhi. The Commission also held its 103rd meeting in New Delhi in which issues of initial filling of Baglihar Hydroelectric Project, Kishenganga Hydroelectric Project were also discussed. In the spirit of co-operation, three tours viz. 108th, 109th & 110th tour of Inspection were undertaken by PIC to visit Neelum Valley in Pakistan occupied Kashmir (PoK), Baglihar Hydro-Electric Project (J&K) in India and Merala Headworks in Pakistan.

As a gesture of goodwill, flood data of the rivers Chenab, Ravi, Sutlej and Tawi is being communicated to Pakistan during the period from 01.07.09 to 10.10.09 for undertaking advance flood warning measures.

Keeping in view the national importance, in the year, 2008, the proposed Bursar Hydroelectric Project, Gyspa Hydroelectric Project, Ujh Multipurpose Project and Second Ravi-Beas Link Project besides Shahpurkandi Dam Project were included, in the list of National Projects to enable more effective utilization of the water resources potential available under the Treaty. Pursuant to this, efforts to identify suitable sites/prepare DPRs are on going.

CENTRAL ORGANISATIONS

(A) CENTRAL WATER COMMISSION

The Central Water Commission (CWC) is a premier technical organisation in the country in the field of water resources since 1945. The Commission is entrusted with the responsibilities of initiating, co-ordinating and furthering schemes for control, conservation and utilisation of water resources throughout the country in consultation with the State governments concerned for purposes of flood control, irrigation, drinking water supply and hydro power development. CWC also undertakes investigation, construction and execution of any such schemes as required.

The CWC is headed by a Chairman, who also holds the status of Ex-officio Secretary to the Government of India. It has three technical wings, namely, (i) Design and Research, (ii) Water Planning and Projects and (iii) River Management. Each of the wings is headed by an engineering officer designated as Member, with the Ex-officio status of an Additional Secretary to the Government of India. The wings consist of organisations headed by Chief Engineers, with Directorates under them, each headed by a Director/Superintending Engineer. There are 32 organisations and 147 Directorates/ Circles under the CWC.

There are thirteen regional organisations of CWC which are functioning from Bangalore, Bhopal, Bhubaneswar, Chandigarh, Coimbatore, Delhi, Hyderabad,

Lucknow, Nagpur, Patna, Shillong, Silliguri and Gandhi Nagar, each headed by a Chief Engineer. These organisations closely interact with the States and are entrusted with the monitoring of medium and major projects, command area development, Rehabilitation and Renovation of water bodies, minor irrigation and other water management activities, appraisal of medium projects, flood forecasting and hydrological observations.

BROAD FUNCTIONS OF CWC

- To undertake surveys and investigations, prepare designs and schemes for the development of river valleys for hydro power generation, irrigation by gravity flow or lift, flood management, environmental management, rehabilitation and resettlement, soil conservation, anti-water logging measures, reclamation of alkaline and saline soils, drainage and for drinking water supply;
- To advise and assist the State Governments in the investigation, surveys and preparation of river valley and hydro-power development schemes;
- To undertake construction work of any river valley development scheme on behalf of the Government of India or State Government concerned;
- To collect, co-ordinate the collection of, publish and analyse the data relating to rainfall, runoff and temperature, silting of reservoirs, behaviour of hydraulic structures and environmental aspects etc.
- To collect, maintain and publish statistical data relating to water resources and to act as the Central Bureau of Information relating to water resources;
- To initiate morphological studies to visualise river behaviour, bank erosion/ coastal erosion problems;
- To advise the Government of India and the concerned State Governments on the basin-wise development of water resources;
- To advise the Government of India with regard to all matters relating to the Inter-State water disputes;
- To initiate studies on socio-agro-economic and ecological aspects of irrigation projects for the sustained development of irrigation.

(B) CENTRAL SOIL AND MATERIAL RESEARCH STATION

The Central Soil & Materials Research Station (CSMRS), New Delhi is a premier organization in the field of geo-mechanics, construction materials and allied fields specifically in respect of water resources projects. The mandate of CSMRS is basic and applied research followed by consultancy and dissemination. Further, this Research Station provides technical assistance to the Departments of Central and State Governments, Public Sector Undertakings and other agencies in India and abroad, covering areas such as soil mechanics and foundation engineering including soil dynamics, geotextiles, soil chemistry and rockfill technology, concrete technology, drilling technology for sub-surface characterisation and construction materials, rock mechanics including instrumentation, engineering geophysics and numerical modelling, concrete chemistry, electronics and information technology. CSMRS has recently established Instrumentation Demonstration Centre and Numerical Modeling Unit with state-of-art equipments and softwares. It has successfully undertaken investigation on most 2000 projects in the last two and half decades and disseminated

knowledge to several engineers and scientist working in both governmental and non-governmental organizations.

SUBORDINATE ORGANIZATIONS

(A) CENTRAL WATER AND POWER RESEARCH STATION

The Central Water and Power Research Station (CWPRS), Khadakwasla, Pune, is the centre of excellence in hydraulic research at the national level. From its inception in 1916 as an agency dealing with the twin problems of irrigation and drainage, CWPRS is an institution of international standing in hydraulic research.

The mandate of the institution encompasses undertaking specific research studies supported by necessary basic research. Comprehensive R&D support is offered to a variety of projects dealing with water resources, power and water-borne transport. Consultancy and advisory services are rendered to a variety of clients of the institution within the sphere of its activities. Disseminating expertise and research findings amongst hydraulic fraternity and promoting hydraulic research activities at other institutions by imparting training to their research manpower are also undertaken. As the regional laboratory of the Economic and Social Commission for Asia and the Pacific (ESCAP) since 1971, CWPRS has contributed in many projects in the neighborhood as well as countries in the Middle East and Africa. .

The major disciplines/laboratories of CWPRS are: River Engineering, Reservoir and Appurtenant Structures, Coastal and Offshore Engineering, Ship Hydrodynamics, Hydraulic Machinery, Earth Sciences, Mathematical Modelling, Foundation & Structures and Instrumentation & Control Engineering. About 50 Divisions - well equipped with state-of-the-art equipment, software and other high quality infrastructure - are engaged in hydraulic research at the institution within the ambit of the disciplines/laboratories mentioned above. The institution, with an interdisciplinary approach in all its activities, represents unique services available to the country and the ESCAP region.

(B) CENTRAL GROUND WATER BOARD

Central Ground Water Board (CGWB), a subordinate office of the Ministry of Water Resources, Government of India, is the national apex agency entrusted with the responsibilities of providing scientific inputs for management, exploration, monitoring, assessment, augmentation and regulation of ground water resources of the country. Central Ground Water Board was established in 1970 by renaming the Exploratory Tubewells Organization under the Ministry of Agriculture, Government of India. It was merged with the Ground Water Wing of the Geological Survey of India during 1972.

Central Ground Water Board is a multi-disciplinary scientific organization consisting of Hydrogeologists, Geophysicists, Chemists, Hydrologists, Hydrometeorologists and Engineers and has its headquarters at BHUJAL BHAWAN, NH 4, Faridabad, Haryana. It is headed by the Chairman and has four main wings, namely (i) Sustainable Management & Liaison (SML), (ii) Survey, Assessment & Monitoring (SAM), (iii) Exploratory Drilling & Materials Management (ED&MM) and (iv) Training and Technology Transfer (T&TT). Each wing is headed by a Member. The administrative & financial matters of the Board are being dealt with by the Director (Administration) and Finance & Accounts Officer (FAO) respectively. The Board has 18 regional offices, each headed by a Regional Director, supported by 17 Engineering

Divisions and 11 State Unit Offices for undertaking various field activities. The Rajiv Gandhi National Ground Water Training & Research Institute (RGNGT&RI), which coordinates the capacity building activities of the Board functions from the CGWB headquarters, Faridabad at present. Various activities related to regulation of ground water development in the country are being looked after by the Central Ground Water Authority (CGWA), constituted under the Environmental (Protection) Act, 1986.

Major activities being taken up by Central Ground Water Board include macro-level ground water management studies, exploratory drilling programme, monitoring of ground water levels and water quality through a network of ground water observation wells, comprising both large diameter open wells and purpose-built bore/tube wells (piezometers), implementation of demonstrative schemes for artificial recharge and rainwater harvesting for recharge augmentation. Periodic assessment of replenishable ground water resources of the country is carried out by the Board jointly with the concerned State Government agencies. Geophysical studies, remote sensing & GIS studies and ground water modeling studies are taken up to supplement these activities. The Board also takes up special studies on various aspects of ground water sector such as ground water depletion, sea water ingress, ground water contamination, conjunctive use of surface & ground water, water balance etc. It also organizes various capacity building activities for its personnel as well as Central/State Government organizations engaged in various activities in ground water sector as well as mass awareness campaigns on the importance of water conservation and judicious ground water management. The data generated from various studies taken up by CGWB provide a scientific base for water resource planning by the stakeholders. Besides advising the States and other user agencies on planning and management of ground water resources, Central Ground Water Board also provides technical know-how for scientific ground water exploration, development and management to various stakeholders.

The Board regularly publishes scientific reports based on the data generated through various investigations for dissemination to the stakeholders. These include State and District hydrogeological reports, ground water year books and Atlases, ground water user maps and guides/manuals/pamphlets on various aspects of ground water management.

CENTRAL GROUND WATER AUTHORITY (CGWA)

Central Ground Water Authority (CGWA) has been constituted under Section 3(3) of Environment (Protection) Act of 1986 vide Ministry of Environment & Forests' notification dated 14.1.1997 and reconstituted under MOEF notification dated 6.11.2000. Central Ground Water Authority (CGWA) was constituted under sub-section (3) of Section 3 of the Environment (Protection) Act, 1986 for the purposes of regulation and control of ground water development and management in the country.

The Authority is engaged in various activities related to regulation of ground water development to ensure its long-term sustainability. The CGWA is regulating withdrawal of ground water by industries/projects in over-exploited, semi-critical and critical blocks/talukas/mandals/districts through clearance of such proposals. The CGWA also conducts mass awareness and water management training programmes throughout the country as proactive measures to create awareness and capacity building in ground water management.

It has also initiated action to promote roof top rainwater harvesting in the country. It has also issued directions to Chief Secretaries of all States having over-

exploited blocks to take all necessary measures to promote/adopt artificial recharge of ground water/rain water harvesting.

Various actions initiated by the CGWA for regulation and control of ground water resources in the country include issuance of directions to Group Housing Societies, Institutes, Hotels, Industries, Farm Houses, etc. in the notified areas of Delhi, Faridabad, Gurgaon and Ghaziabad and other areas of NCT Delhi where ground water table is below 8 metres from ground surface, to adopt roof top rain water harvesting system.

DECENTRALIZATION OF POWERS AND FUNCTIONS OF CGWA

As part of streamlining the regulatory function of Central Ground Water Authority (CGWA), District Magistrates have been appointed as authorized officers for grant of permission for extraction of ground water for drinking/domestic uses in 36 out of 43 blocks/talukas notified by CGWA in 10 States for ground water regulation. They have been advised to process the request for grant of permission for extraction of ground water for drinking/domestic purposes in notified areas as per guidelines issued by CGWA."

(C) FARAKKA BARRAGE PROJECT

The Farakka Barrage Project was constructed for preservation and maintenance of Kolkata Port by improving the regime and navigability of the Bhagirathi-Hoogly river system. The river Bhagirathi, the feeder canal and navigation lock at Farakka form part of the Haldia-Allahabad Inland Waterway. The Principal components of the project are: (a) 2,245 metre long barrage across the Ganga with a rail-cum-road bridge necessary river training works, and a head regulator on the right side, (b) 213 metre long barrage across the river Bhagirathi at Jangipur, (c) Feeder canal of 1113 cubic metres per second (40,000 cubic feet per second) carrying capacity and 38.38 km long, taking off from the head regulator on the right of the Farakka Barrage, and (d) navigation works such as locks, lock channels, shelter basins, navigation lights and other infrastructure.

Farakka Barrage Project authority also undertakes emergent anti erosion works since 2005 along the bank of the river Ganga in some of the critical reaches between Rajmahal and Jalangi.

(D) SARDAR SAROVAR CONSTRUCTION ADVISORY COMMITTEE

The Sardar Sarovar Construction Advisory Committee (SSCAC) located, at Vadodara, was constituted in 1980 as per the directive of the Narmada Water Disputes Tribunal (NWDT), for scrutiny of estimates, technical features, design and to monitor the progress of the construction activity to ensure efficient, economical and timely execution of Unit-I (Dam and Appurtenant works) and Unit - III (Hydro-Power Complex) of the Sardar Sarovar Project (SSP). The Secretary, Ministry of Water Resources, is the Chairman of the Committee. Representatives from the departments like Irrigation, Power, Revenue, Welfare etc. concerned with the construction of the project of the four party States along with their counterparts from the Government of India and the Narmada Control Authority are Members of the Committee.

(e) BANSAGAR CONTROL BOARD

The Bansagar Control Board was constituted by the Central Government in consultation with the Governments of Madhya Pradesh, Bihar and Uttar Pradesh

with a view to ensure efficient, economical and early execution of the Bansagar Dam on Sone river, including all connected works in Madhya Pradesh but excluding the canal systems. The headquarter of the Board is at Rewa (M.P.). The Union Minister of Water Resources is the Chairman of the Board. The day-to-day activities of the Board are managed by an Executive Committee of the Board under the Chairmanship of Chairman, Central Water Commission. Funds for the project are provided by the beneficiary States of Madhya Pradesh, Uttar Pradesh and Bihar in the ratio of 2:1:1.

The revised estimated cost of the Dam Project is Rs.1,054.96 crore (at 1998 price level). All the Non Over Flow (NOF) blocks and both the key blocks on either sides have been completed up to top elevation RL 347.00m. All spillway blocks have been raised to crest level (EL 326.40m) in June 2000. All the construction sluices have been plugged. Spillway bridge and piers of the dam had been fully completed. The Left and Right rock fill dam have been completed. All the six saddle dams have been fully completed. All the 18 Nos. Radial Crest Gates have been erected and made operational.

(F) GANGA FLOOD CONTROL COMMISSION

Ganga Flood Control Commission with its headquarters at Patna, was established in 1972. It serves as the Secretariat and executive limb of Ganga Flood Control Board which is headed by Union Minister for Water Resources and has as its members, the Union Minister for Finance, Railways, Surface Transport and Agriculture or their representatives, Union Minister of State for Water Resources, the Chief Ministers of the basin States or their representatives and Member, Planning Commission. The Commission is headed by a Chairman who is assisted by two full-time Members.

Main functions of the Commission include - preparation and updating of a comprehensive plan for flood management, techno-economic appraisal of flood management schemes, assessment of adequacy of waterways under road and rail bridges, monitoring and performance evaluation of flood management schemes, and participation in international and national committees set up by the Government of India on Ganga basin States pertaining to the subject of flood management.

(G) UPPER YAMUNA RIVER BOARD

A Memorandum of Undertaking (MoU) was signed by the Chief Ministers of Himachal Pradesh, Haryana, Uttar Pradesh, Rajasthan and National Capital Territory of Delhi on 12th May 1994 regarding allocation of utilizable surface flow of Yamuna up to Okhla among the co-basin States. As per the provision in the MoU, the Upper Yamuna River Board (UYRB) with its headquarters in the National Capital Region was constituted. Upper Yamuna Review Committee (UYRC) was also constituted, for supervising the working of the UYRB to ensure implementation of the MoU regarding allocation of surface flow of Yamuna and to issue directions, as deemed necessary, for proper development. Uttarakhand has also been made Member of Upper Yamuna River Board and Upper Yamuna Review Committee subsequently.

In the UYRC meeting and a special meeting held by the Hon'ble Minister (WR) on 12.04.06 and 20.12.06 respectively, an important issue in the early implementation of storage dams viz. Renuka, Kishau & Lakhwar Vyasi in Upper Yamuna Basin, was discussed. The co-basin States held differing views on the sharing of benefit and cost of these projects. In a meeting taken by Chairman, UYRB on 11th February 2008 and other subsequent meetings in Planning Commission and Central Water Commission also, divergent views were expressed by the basin States. It was, however, decided to

assign priority to construct these projects and further discussion on evolving the formula for sharing of costs and benefits would continue.

Government of India has included aforesaid three storage projects as National Projects, for which central assistance to be provided would be 90% of the project cost of irrigation and drinking water components of the project, as grant. The projects would be eligible for the central grant after techno-economic clearance of the Detailed Project Report by the Advisory Committee of the Ministry of Water Resources on Irrigation, Flood Control & Multipurpose Projects and investment clearance by the Planning Commission.

During the 34th meeting of UYRB held on 30.12.08, the issues affecting early implementation of the projects were further discussed in an endeavour to ascertain the views of all co-basin States on sharing of cost and benefits of the three storage projects and resolve the issues. 3^d Steering Committee Meeting was held on 20.07.2009 in which the issues were discussed and some directions have been given towards early implementation of the three storage projects.

PUBLIC SECTOR UNDERTAKINGS

(A) WATER AND POWER CONSULTANCY SERVICES LTD (WAPCOS)

INTRODUCTION

WAPCOS Limited is a "MINI RATNA" Public Sector Enterprise under the aegis of the Union Ministry of Water Resources. Incorporated on June 26th, 1969 under the Companies Act, 1956, WAPCOS has been providing consultancy services in all facets of water resources, power and infrastructure sectors in India and abroad.

FIELDS OF SPECIALISATION

Main fields of specialization of the company cover Irrigation and Drainage, Flood Control and Land Reclamation, River Management, Dams, Reservoir Engineering and Barrages, Integrated Agriculture Development, Watershed Management, Hydropower and Thermal Power Generation, Power Transmission and Distribution, Rural Electrification, Ground Water Exploration, Minor Irrigation, Water Supply and Sanitation (Rural and Urban), Environmental Engineering including Environmental Impact Assessment and Environmental Audit, Ports and Harbours and Inland Waterways, Rain Water Harvesting; Survey & Investigations, Human Resource Management, System Studies and Information Technology. WAPCOS has also been venturing into newer fields such as Software Development, City Development Plans, Financial Management System, Technical Education, Quality Control and Construction Supervision, Roads & Bridges. The Company has recently amended its Articles of Association to provide concept to commissioning services for developmental projects in India and abroad.

RANGE OF CONSULTANCY SERVICES

WAPCOS' spectrum of services covers a wide range of activities e.g. pre-feasibility studies, feasibility studies, simulation studies, diagnostic studies, socio-economic studies, master plans and regional development plans, field investigations, detailed engineering including designs, detailed specifications, tendering process, contract and construction management, commissioning and testing, operation & maintenance, quality assurance & management, software development and human resource development.

FINANCIAL STATUS

WAPCOS has on date an authorized capital of Rs.200 lakh (Paid up Capital i.e. initial investment of Government Rs.30 lakh and issue of Bonus Shares Rs.170 lakh).

PERFORMANCE DURING THE YEAR 2008-09

In the year 2008-09, the company has achieved a turnover of Rs. 20507 lakh and secured new business worth Rs. 25246 lakh. In the year 2008-09, WAPCOS attained a unique score of 1.0, which is the highest achievable score as per evaluation criteria of the MoU system of Department of Public Enterprises, Govt. of India. WAPCOS has paid a dividend of 175% of its paid-up capital for the year 2008-09, which is the highest ever since inception of the Company.

REGISTRATION WITH INTERNATIONAL ORGANISATIONS AND OPERATIONS ABROAD

WAPCOS have successfully completed/on-going consultancy assignments abroad in 40 countries and is registered with various international funding agencies for participating in the funded projects like World Bank/International Bank for Reconstruction and Development, African Development Bank, Asian Development Bank, Food and Agriculture Organization, International Fund for Agricultural Development, United Nations Development Program, World Health Organization, West African Development Bank, Indian Technical and Economic Cooperation (ITEC) Programme, Overseas Economic Cooperation Fund, Japan Bank for International Cooperation (JBIC) etc. Apart from India, WAPCOS is currently engaged in providing consultancy services in Afghanistan, Bhutan, Cambodia, Ethiopia, Eritrea, Laos, Lesotho, Mozambique, Rwanda, Sudan, Swaziland, Uganda, Zambia and Zimbabwe.

(B) NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED

National Projects Construction Corporation Limited (NPCC), a Government of India Enterprise under the aegis of Ministry of Water Resources, was incorporated in 1957 with the objective to carry out infrastructure works and other related activities for development of the nation.

NPCC has executed varied nature of projects like Housing, Institutional Buildings, Commercial Complexes, Industrial Projects, Roads & Highways, Bridges and Flyovers, Silos, Irrigation & River Valley Projects, Dams & Barrages, Hydel and Thermal Power Projects etc. in India & abroad.

NPCC is an ISO 9001-2000 certified public sector company and some of the important projects executed/under execution by NPCC are listed below:-

1. Construction of Parli & Paras Thermal Power Projects in Maharashtra.
2. Engineering College at Ramgarh/Polytechnic College at Pakur Bahragora, Bhaga and Gola in Jharkhand.
3. Lab. & Administrative Building for Desert Medical Research Centre (DMRC) at Jodhpur /Auditorium for Patel Chest institute at Delhi.
4. Gagan River Protection Works at Moradabad in Uttar Pradesh.
5. Construction of Flyover at Noida in Uttar Pradesh.
6. Grain Silos Projects in Iraq.
7. Chukha Hydel Projects, Bhutan.

8. Nahar-Saad Canal Project, Iraq.
9. Construction of Vishakhapatnam Steel Plant in Andhra Pradesh/ Modernization of Rourkela Steel Plant in Orissa.
10. Assam Rifles Buildings works in all States of North-East.
11. Construction of Maneribhali Hydro-Electric Project, Uttrakhand.
12. Jobat Dam in Madhya Pradesh.
13. Gerua Bridge in Bihar.
14. Construction of PMGSY Roads in Bihar , Jharkhand & Uttar Pradesh.
15. Indo-Bangladesh Border fencing & Road works in Tripura, Mizoram, Assam & Meghalaya.
16. Construction of Indo Tibbatan Border Road in Laddakh in J&K.

OTHER ORGANISATIONS

(A) NARMADA CONTROL AUTHORITY

The Central Government framed the Narmada Water Scheme, which, among other things, constituted Narmada Control Authority and a Review Committee in 1980 for implementation of the decisions and directions of the Narmada Water Disputes Tribunal.

The Narmada Control Authority, a high powered inter-action body, is headed by the Secretary, Ministry of Water Resources as the Chairman with Secretaries of the Union Ministries of Power, Environment & Forests, Social Justice & Empowerment, Tribal Affairs, Chief Secretaries of the four party States, one Executive Member and the three full time Members appointed by the Central Government and four part-time Members in-charge of department of Irrigation/Power/State Electricity Boards appointed by the party States. The Review Committee of Narmada Control Authority (RCNCA) headed by the Union Minister of Water Resources comprises of Union Minister for Environment & Forests and Chief Ministers of the party States as Members. The Secretary, Ministry of Water Resources, is the convener of the RCNCA. It may suo-moto, on the application of any party state or Secretary to the Government of India, Ministry of Environment & Forests, review any decision of the Authority.

As per the decision taken by the NCA in its meeting on 8^h March, 2006 for according permission to raise the height of the Sardar Sarovar Dam, the Elevation of Block No. 22 to 50 have been subsequently raised to Elevation Level (EL) 121.92 metre. The Government of Gujarat has completed the raising of Sardar Sarovar Dam Spillway blocks upto EL 121.92 m. The construction of main canal carrying water from Sardar Sarovar Dam upto Rajasthan border is completed upto 357 km length out of its total length of 458 kms in Gujarat. Completion of works in 357 km to 458 km of Canal Phase-II(B) and two major structures falling within 263 km to 357 km of Canal Phase-II (c) are in progress as on 31-3-2009. Narmada Water has reached Rajasthan on 8.3.2008 by completing one monoliths of major canal siphon works and bye-pass arrangement at khari canal siphon. Partial irrigation benefits are being realized by releasing Narmada water from the Sardar Sarovar Dam since it has been raised upto EL 121.92 m. Government of Gujarat has developed 5.41 lakh ha. of command area and Rajasthan has also developed 40,000 ha initially to utilize Narmada Waters which was reached through Narmada Main Canal with effect from

March 2008. Drinking water supply has also started in 8215 villages and 135 urban centres including the whole of Saurashtra and fully covered of Kutch region. All the 6 units of River Bed Power House and 5 units of Canal Head Power House have been commissioned successfully and are in operational condition. The total hydro-power generated from the generating units already installed is 2317.67 million units during the year 2008-09. These energy benefits are shared by the party States as per the provisions of NWDT Award.

(B) BETWA RIVER BOARD

The Betwa River Board was constituted by the Ministry of Water Resources for efficient, economical and early execution of the Rajghat Dam Project, a joint venture of Madhya Pradesh and Uttar Pradesh. The headquarter of the Board is at Jhansi (U.P.). The Union Minister for Water Resources is the Chairman of the Board. The activities of the Board are managed by the Executive Committee of the Board under the Chairmanship of Chairman, Central Water Commission. The funds for construction of the Rajghat Dam, Power House Projects and for meeting the expenses of the Office of the Board are borne by the States of Madhya Pradesh and Uttar Pradesh in equal proportion.

The Rajghat Dam and Rajghat Hydro Electric Projects are inter-State projects of Madhya Pradesh and Uttar Pradesh. The estimated cost of the Rajghat Dam is Rs.300.60 crore (at 2000 price level) and that of the Power House Rs.139.74 crore (at 1997 price level). The Rajghat Dam is almost complete. All the three units of Rajghat Hydro-Electric Project have been synchronized during 1999 and the power generation is continuing in all units since then.

(C) TUNGABHADRA BOARD

The Tungabhadra Board was constituted for the completion operation and maintenance of the Tungabhadra Project. The Board is responsible for the common portion of the Tungabhadra Project. The Krishna Water Disputes Tribunal has made specific provision in the Award for the use of Tungabhadra water by the States of Karnataka and Andhra Pradesh. The responsibility for carrying out this specific provision relating to the use of Tungabhadra waters has been entrusted to the Tungabhadra Board by the Tribunal. The Board is regulating the water for irrigation, hydropower generation and other uses on the right bank.

The Board consists of a Chairman appointed by the Government of India, one Member from Government of India and two Members from concerned States each representing Andhra Pradesh and Karnataka. An officer of the Central Government appointed as the Secretary of the Board is the Chief Executive of the Board. Funds for the functioning of the Board are provided by the two State Governments.

The working table for canal-wise distribution of water to the States is prepared every year by the Tungabhadra Board in consultation with the State Governments and is reviewed from time to time during the water year. The regulation of water is carried out in accordance with the agreed working table. The power generated is shared between the States of Karnataka and Andhra Pradesh in the ratio of 20:80.

(D) NATIONAL INSTITUTE OF HYDROLOGY

The National Institute of Hydrology (NIH), functioning since 1978, has its headquarters at Roorkee (Uttarakhand). To carry out field related research, the NIH

has four regional centers located at Belgaum, Jammu, Kakinada and Sagar and two centers for flood management studies at Guwahati and Patna.

The objectives of the Institute are: (a) to undertake, aid, promote and coordinate basic, applied and strategic research on all aspects of hydrology, contributing to sustainable water resources development in the country; (b) to act as a repository of knowledge and information, and dissemination of the same in the country; (c) to act as a center of excellence for transfer of technology, human resources development and institutional development in specialized areas of hydrology; (d) to conduct user defined, demand-driven research through consultancy in the field of hydrology and (e) to cooperate and collaborate with relevant national and international organizations in achieving the above objectives. To fulfill these objectives, the Institute has established world class laboratories in the area of nuclear applications of hydrology, water quality laboratory and remote sensing and GSI application laboratory.

The Institute is presently focusing studies and R&D on the following thrust areas; hydrology of extremes, impact of land use changes on water resources, ground water modeling and management, sustainable water systems management, surface water modeling and regional hydrology and environmental hydrology. The Institute is involved in a number of nationally important water resources projects including World Bank funded Hydrology Project.

The NIH is also hosting the Secretariat of INCOH, which is also the nodal agency in India for the International Hydrology Programme of UNESCO. The Institute is participating under institutional strengthening and Vertical Extension Component of the Hydrology Project Phase II (HP-II) besides, acting as the nodal agency for the implementation of DSS (Planning) for Integrated Water Resources Development and Management.

(E) BRAHMAPUTRA BOARD

The Brahmaputra Board was constituted in December, 1981 for planning and implementation of measures for the management of floods and bank erosion in the Brahmaputra and Barak Valley. The major activities of the Board are preparation of Master Plans, preparation of detailed project report of multipurpose projects, drainage development schemes and anti-erosion schemes in the valley apart from execution of schemes/projects in the North Eastern Region. The Board has already completed five Project Reports in the North Eastern Region. The Board has completed 41 Master Plans which have been approved by the Government of India and have been sent to the States for implementation. Another 3 Master Plans have also been completed and approved by the Board. Remaining 13 nos. are under various stages of preparation by Brahmaputra Board.

The Board has also taken up execution of anti-erosion measures for avulsion of Brahmaputra at Dholla Hatighuli, protection of Majuli Island in Assam, anti-erosion works of Nagrijuli, Rangia town and Mukamua/Borbhag area from flood and erosion of Puthimari river, Assam. Few drainage development schemes in this region viz. Harang, Borbhag, Amjur, Singla, Jangrai, Jakaichuk & East of Barpeta have also been taken up.

(F) NATIONAL WATER DEVELOPMENT AGENCY

The Ministry of Water Resources had formulated a National Perspective Plan(NPP) in August, 1980 for Water Resources Development by transferring water from water

surplus basins to water deficit basins/regions by Interlinking of Rivers. The NPP has two main components, i.e. the Himalayan Rivers Development Component and the Peninsular Rivers Development Component. The NPP envisages additional irrigation benefits of 35 million hectare, i.e., 25 million hectare from surplus water and 10 million hectare by increased use of ground water which will be over and above the ultimate irrigation potential of about 140 million hectare from major, medium and minor irrigation projects and 34 million KW of hydropower, apart from the benefits of flood control, navigation, water supply, fisheries, salinity, pollution control, etc. The Himalayan Component of inter-basin water transfer proposals envisages benefits directly to the States of Uttar Pradesh, Haryana, Rajasthan, Gujarat, Assam, West Bengal, Bihar, Jharkhand and Orissa and enrich the Peninsular Component from the surplus waters of Brahmaputra. The Peninsular Component envisages benefit to the States of Andhra Pradesh, Orissa, Karnataka, Tamil Nadu, Puducherry, Madhya Pradesh, Rajasthan, Maharashtra and Gujarat.

The National Water Development Agency (NWDA) was set up as a Society in 1982 to carry out surveys and investigations and to prepare feasibility reports of the links under the NPP. The NWDA carried out water balance studies of 137 basins/sub-basins and at 71 identified diversion points and topo-sheet studies of 74 identified storages and 37 link alignments under NPP. NWDA has, after carrying out aforesaid detailed studies, identified 30 links, comprising of 16 links under Peninsular Components and 14 links under Himalayan Components for preparation of Feasibility Reports for effecting transfer of water. NWDA has completed feasibility reports of 16(14 under Peninsular and Indian portion of 2 under Himalayan component) water transfer links. Five links under Himalayan Component involve international dimensions; therefore, target for completion of feasibility report of such links cannot be given. One link under peninsular component falls entirely in Karnataka; as such concurrence of Karnataka is required. Feasibility Reports of remaining links are under progress.

In December 2002, MoWR with the approval of Hon'ble Prime Minister of India has set up a Task Force on Interlinking of Rivers (TF-ILR) to suggest modalities for arriving at speedy consensus amongst the States for sharing and transfer of surplus water to deficit areas, providing guidance on norms of appraisal of individual projects in respect of economic viability, socio-economic impacts, environmental impacts and preparation of resettlement plans. Task Force had submitted two Action Plans outlining the time schedules for the completion of the feasibility studies, detailed project report, estimated cost, implementation schedule, concrete benefits and advantages of the project, etc. and possible approaches for funding, cost recovery and execution of ILR programme.

The National Common Minimum Programme (NCMP) of the UPA Government envisaged that the Government would make a comprehensive assessment of the feasibility of linking the rivers of the country starting with the southern rivers in a fully consultative manner. After comprehensive assessment of feasibility of Interlinking of Rivers in the country, the Government decided that the Task Force on Interlinking of Rivers, which has submitted Action Plans I & II and completed its mandated task may be wound up. Accordingly, the Task Force was set up in December, 2004. A Special Cell working under Ministry of Water Resources, will look after the residual routine work of Task Force.

Further, the Government of India has constituted a Committee of Environmentalists, Social Scientists and other experts on ILR Project in

December 2004 to advise Government on Environmental, Social issues, etc., and to involve them in the consultation process. The committee has held five meetings so far.

The implementation of the inter-basin water transfer link schemes can be taken up in a phased manner depending on the priorities of the Government and availability of funds. But before this, certain other steps, viz., negotiations and agreements amongst the States involved in inter-basin transfer, preparation of Detailed Project Reports (DPRs), Techno-economic appraisal of DPRs and investment clearance of the schemes, funding arrangements and fixing of agencies for execution, etc., would be necessary.

The links namely (i) Ken-Betwa link; (ii) Parbati-Kalisindh-Chambal link; (iii) Godavari(Polavaram) – Krishna(Vijayawada) link; (iv) Damanganga-Pinjal link; and (v) Par-Tapi-Narmada Link have been identified as priority links for consensus building amongst concerned State for taking up preparation of Detailed Project Report (DPR).

The status of consensus among States on these links is given as under: -

KEN-BETWA LINK

A tripartite MoU was signed between the Union Minister of Water Resources, Chief Ministers of Government of Madhya Pradesh and Uttar Pradesh on 25th August 2005 in the presence of Dr. Manmohan Singh, Hon'ble Prime Minister of India for preparation of DPR of Ken-Betwa link by Central Government. The works for preparation of DPR have been started by NWD, by end of December 2008.

PARBATI-KALISINDH-CHAMBAL LINK

Government of Madhya Pradesh & Rajasthan have agreed in principle for preparation of DPR of Parbati-Kalisindh-Chambal link and informed that MoU in this regard is under consideration and shall be submitted to the Central Government shortly.

PAR-TAPI- NARMADA LINK AND DAMANGANGA – PINJAL LINK

The draft MoU for taking up their DPRs was sent to the concerned states of Gujarat and Maharashtra for their concurrence during April, 2007. The concurrence of the two states has been received. Further action for signing the MOU in this regard is being taken.

GODAVARI (POLAVARAM) – KRISHNA (VIJAYWADA) LINK

This link is being discussed with the concerned States in 'Consensus Group'.

RIVER SYSTEM

The river systems of India can be classified into four groups viz., (i) Himalayan rivers, (ii) Deccan rivers, (iii) Coastal rivers and (iv) Rivers of the inland drainage basin. The Himalayan rivers are formed by melting snow and glaciers and therefore, continuously flow throughout the year. During the monsoon months, Himalayas receive very heavy rainfall and rivers swell, causing frequent floods. The Deccan rivers on the other hand are rainfed and therefore temporal. Many of these are non-perennial. The Coastal streams, especially on the West Coast are short in length and have limited catchment areas. Most of them are non-perennial. The streams of the inland drainage basin of western Rajasthan are few and far apart. Most of them are of an ephemeral character.

The main Himalayan river systems are those of the Indus and the Ganga-Brahmaputra-Meghna system. The Indus, which is one of the great rivers of the

world, rises near Mansarovar in Tibet and flows through India and thereafter through Pakistan and finally falls in the Arabian Sea near Karachi. Its important tributaries flowing in Indian Territory are the Sutlej (originating in Tibet), the Beas, the Ravi, the Chenab and the Jhelum. The Ganga-Brahmaputra-Meghna is another important system of which the principal sub-basins are those of Bhagirathi and the Alaknanda, which join at Dev Prayag to form the Ganga. It traverses through Uttaranchal, Uttar Pradesh, Bihar and West Bengal. Below Rajmahal hills, the Bhagirathi, which used to be the main course in the past, takes off, while the Padma continues eastward and enters Bangladesh. The Yamuna, the Ramganga, the Ghaghra, the Gandak, the Kosi, the Mahananda and the Sone are the important tributaries of the Ganga. The Chambal and the Betwa are the important sub-tributaries, which join Yamuna before it meets the Ganga. The Padma and the Brahmaputra join inside Bangladesh and continue to flow as the Padma or Ganga. The Brahmaputra rises in Tibet, where it is known as Tsangpo and runs a long distance till it crosses over into India in Arunachal Pradesh under the name of Dihang. Near Passighat, the Debang and Lohit join the river Brahmaputra and the combined river runs all along the Assam in a narrow valley. It crosses into Bangladesh downstream of Dhubri.

The principal tributaries of Brahmaputra in India are the Subansiri, the Jia Bhareli, the Dhansiri, the Puthimari, the Pagladiya and the Manas. The Brahmaputra in Bangladesh receives the flow of the Teesta, etc., and finally falls into the Ganga. The Barak river, the Head stream of the Meghna, rises in the hills in Manipur. The important tributaries of the river are the Makku, the Trang, the Tuivai, the Jiri, the Sonai, the Rukni, the Katakhal, the Dhaleswari, the Langachini, the Maduva and the Jaitnga. The Barak continues in Bangladesh till the combined Ganga-Brahmaputra join it near Bhairab Bazar.

In the Deccan region, most of the major river systems flowing generally in east direction fall into the Bay of Bengal. The major east flowing rivers are the Godavari, the Krishna, the Cauvery, the Mahanadi etc. the Narmada and the Tapti are major West flowing rivers.

The Godavari in the southern Peninsula is the second largest river basin covering 10 per cent of the area of India. Next to it is the Krishna basin in the region, while the Mahanadi is the third largest basin. The basin of the Narmada in the uplands of the Deccan, flowing to the Arabian Sea, and of the Kaveri in the south, falling into the Bay of Bengal are about the same size, though with different character and shape.

There are numerous coastal rivers, which are comparatively small. While only handful of such rivers drain into the sea near the delta of east coast, there are as many as 600 such rivers on the West Coast.

A few rivers in Rajasthan do not drain into the sea. They drain into the salt lakes and get lost in the sand with no outlet to sea. Besides these, there are the desert rivers, which flow for some distance and are lost in the desert. These are the Luni, the Machhu, the Rupen, the Saraswati, the Banas, the Ghaggar and others.

The entire country has been divided into twenty river basins/group of river basins comprising twelve major basins and eight composite river basins. The twelve major river basins are (1) Indus, (2) Ganga-Brahmaputra-Meghna, (3) Godavari, (4) Krishna, (5) Cauvery, (6) Mahanadi, (7) Pennar, (8) Brahmani-Baitarani, (9) Sabarmati, (10) Mahi, (11) Narmada and (12) Tapi. Each of these basins has a drainage area exceeding 20,000 sq. km.

The eight composite river basins combining suitably together all the other remaining medium (drainage area of 2,000 to 20,000 sq.km) and small river systems (drainage area less than 2000 sq.km) for the purpose of planning and management are: (1) Subernarekha - combining Subernarekha and other small rivers between Subernarekha and Baitarani, (2) East flowing rivers between Mahanadi and Pennar; (3) East flowing rivers between Pennar and Kanyakumari; (4) Area of Inland Drainage in Rajasthan Desert; (5) West flowing rivers of Kutch and Saurashtra including Luni; (6) West flowing rivers from Tapi to Tadri; (7) West flowing rivers from Tadri to Kanyakumari and (8) Minor rivers draining into Myanmar (Burma) and Bangladesh.

28 Welfare

THE Ministry of Social Justice and Empowerment is committed towards educational development, economic empowerment and social empowerment of persons belonging to Scheduled Castes, Other Backward Classes, rehabilitation of persons with disabilities, victims of drug abuse, aged etc.

CONSTITUTIONAL MEASURES

NATIONAL COMMISSION FOR SCHEDULED CASTES

The National Commission for Scheduled Castes, a Constitutional body monitors the safeguards provided for Scheduled Castes and also reviews issues concerning their welfare. The Commission has wide powers to protect, safeguard and promote the interests of the SCs. The Commission has been conferred powers of a civil court trying a suit, to summon and enforce the attendance of any persons from any part of India and examining on oath, receiving evidence on affidavits. The Commissioner submitted its first report on 17-7-2006.

NATIONAL COMMISSION FOR SAFAI KARMACHARIS

The National Commission for Safai Karmacharis, a statutory body has, inter-alia, been empowered to investigate into specific grievances as well as matters relating to implementation of programmes and schemes for welfare of Safai Karmacharis.

PROTECTION OF CIVIL RIGHTS ACT, 1955 AND SCHEDULED CASTES AND SCHEDULED TRIBES (PREVENTION OF ATROCITIES) ACT, 1989

Protection of Civil Rights Act, 1955 provides for preventing any person on grounds of untouchability, from enjoying the rights accruing on account of abolition of untouchability. Provisions for legal aid to Scheduled Castes in cases relating to untouchability have been made by 22 States/Union Territories. Special Cells have been set up in 21 States for initiating and exercising supervision over prosecution for contravention of provisions of the PCR Act. 22 special Mobile Courts have been set up in Andhra Pradesh for expeditious disposal of such cases. Necessary guidelines and instructions are issued to States from time to time for effective implementation of the provisions of the PCR Act.

The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, specifies offences, which are considered as atrocities, and provides for deterrent punishments for commission of the same. Comprehensive Rules were also framed under the SCs and STs (POA) Act in 1995, which among other things provided for relief and rehabilitation of the affected people. It also envisages preventive measures, and State have to evolve schemes, among and Union Territories except Arunachal Pradesh and Nagaland have specified special courts for trial of offences under this Act. 137 Exclusive Special courts have also been set up in Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Rajasthan, Tamilnadu and Uttar Pradesh, 11 States (Andhra Pradesh, Bihar, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamilnadu and Uttarakhand) have been identified atrocity prone areas.

Under the Centrally sponsored scheme for implementation of both the Act, State Governments are funded on 50:50 basis and Union Territories are given cent

percent central assistance. During the year 2006-07 Rs. 36.44 crore were released to States/UTs.

A Committee under the Chairpersonship of the Hon'ble Minister of Social Justice & Empowerment has been constituted for effective coordination to devise ways and means to curb offences of untouchability and atrocities against SCs and STs and their effective administration/implementation. The first meeting of the Committee was held on 18.09.2006 at New Delhi and the second meeting was also held on 15.01.2007 at Jaipur. The Inter-State Council Meeting was held on 9th December 2006 exclusively on the subject 'Offences of untouchability against Scheduled Castes and Scheduled Tribes'. This meeting was chaired by the Hon'ble Prime Minister and attended by the Chief Ministers and other senior officials. As a follow up the Hon'ble Minister (SJ&E) had addressed a d.o. letter dated 24.4.2007 to all chief Ministers of States to ensure that the year 2007-08 turns out to be an untouchability and atrocity free year.

The Ministry of Social Justice & Empowerment has launched National Awards to be given to Non-Governmental Organizations (NGOs) or individual Human Rights Activists who have done outstanding fieldwork in the area of eradicating untouchability and in combating offences of atrocities under the Protection of Civil Rights Act, 1955 and the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989. There will be four awards every year. Award to individual activist shall carry an amount of Rs. 2.00 lakhs and Rs. 5.00 lakhs to an Institution. The Award will be given to outstanding NGOs or Human Rights Activists in each of the four regions of the country namely North, South, East and West for rendering yeomen services in the said fields. The award may be shared by more than one recipient or organization. The Award was instituted in 2006 and is given annually. The date of receipt of the nominations for the award is 31st October of the respective year. Modalities and other details of the Scheme are available at the website of the Ministry of Social Justice & Empowerment.

EDUCATIONAL DEVELOPMENT

Pre-Matric Scholarships for Children of those engaged in Unclean Occupation : Under the Scheme, the Children of families engaged in unclean occupations such as scavenging, flaying and tanning are assisted to pursue education upto matriculation level. The scholarship is provided through State Governments and Union Territory Administrations. Central assistance is provided to the State Governments on 50:50 basis and to the Union Territory Administration on 100 per cent basis over and above their committed liability. Students amongst target groups with disabilities are also assisted. There is no income ceiling prescribed under the scheme.

The scheme provides scholarship of Rs. 40 per month in classes I to V, Rs. 60 per month in classes VI to VIII and Rs. 75 per month in classes IX to X in respect of day scholar; for hostelers Rs. 300 per month in classes III to VIII and Rs. 375 per month in classes IX to X.

The duration of scholarship in an academic year is ten months. The Day Scholars and hostelers are eligible for ad-hoc grant of Rs. 550 and Rs. 600 per students gap annum respectively. During 2006-07 Rs. 20.25 crores has been released to States/UTs for covering about 6.54 lakh students.

Post-Matric Scholarships for SC Students : Under the scheme, financial assistance is provided to Scheduled Caste students for pursuing studies beyond matriculation

in recognised institutions. The assistance include maintenance allowance for various categories of courses, reimbursement of compulsory non-refundable fee charged by the institutions and other allowance such as study tour charges, thesis typing/printing charges and book grant, revisions of income ceiling to Rs. one lakh per annum for eligibility Scholarship is disbursed through respective State Governments and UT Administrations.

The scheme provides for 100 per Central assistance to the State. Governments and UT Administrations over and above the perspective committed liability of the States/UTs. The committed liability of the North Eastern States has, however, been dispensed with. During the year 2006-07 an amount of Rs. 526 crores has been released to the States/UTs for covering over estimated 29.58 lakh students.

Rajiv Gandhi National Fellowship Scheme : A new Scheme named Rajiv Gandhi National Fellowship (RGNF) for Scheduled Caste Students has been introduced during the current financial year 2005-06. Fellowships, in the form of financial assistance, are to be provided to students belonging to Scheduled Castes to pursue higher studies leading to award of M.Phil and Ph.D. degree. A student, belonging to Scheduled Caste registered in a regular and full time M.Phil/Ph. D course in a University/Academic institution will be eligible for the fellowship. The fellowships will be on the same scale as that of the University Grants Commission (UGC) Junior Research Fellowships. In total, 1333 fellowships each year are to be awarded initially during 2005-06 and 2006-07. The scheme is being implemented through the University Grants Commission. An amount of Rs. 34.18 crores was released to UGC during 2006-07 under the scheme.

National Overseas Scholarship and Passage Grants for Higher Education : Under this scheme assistance is provided to meritorious students for pursuing higher studies of Masters level courses, Ph.D and Post Doctoral research Programmes abroad in specified fields like Engineering, Technology and Science only. Rate of maintenance allowance was enhanced to US\$ 8,200 or Pounds Sterling 5,200 per annum per candidate. The contingency allowance for books, essential apparatus, study tour charges, typing and binding of thesis, etc. was also revised to US \$ 550 or Pound Sterling 400 per annum for candidates in U.K. the scheme provides for air passage, visa fee, equipment allowance, incidental expenses charged by the institution as per actual and insurance premia, etc. The awardees were permitted to undertake research/teaching assistantship. Financial assistance under the scheme is provided for a maximum period of four years for Ph.D. research, for 3 years for Master's Programme. Students whose family income exceeds Rs. 18,000 per month are not eligible for assistance and only one child of the same parents/guardians is eligible to get benefit under the scheme. The prospective awardees should not be more than 35 years of age. During 2006-07, Rs. 1.05 crores was disbursed to 20 students that include 17 SCs, two students from de-notified nomadic and semi-nomadic tribe and one student from landless agricultural labourers and traditional artisans.

Upgradation of Merit for SC Students : The main objective of the scheme is to upgrade the merit of Scheduled Caste students by providing them with facilities for all-round development through education in residential schools. The scheme provides for 100 per cent Central assistance to States/UTs for arrangement of remedial and special coaching for SC students studying in class IX to XII. Financial assistance is provided to students as package grant of Rs. 15,000 per year per student, out of which Rs. 5,000 is for boarding and lodging, Rs. 1,000 for pocket expenses, Rs. 2,000 for books and

stationery and Rs. 7,000 as an honorarium to Principals/experts involved in providing the remedial/special coaching. SC students with disability enjoy additional benefits. During the year 2006-07 Rs. 3.00 crores were released to the States/UTs.

Coaching and Allied Scheme for Weaker Sections including SCs, OBCs and Minorities : The scheme aimed to equip aspiring students for preparing them for various competitive exams. Aspiring students take their guidance and coaching from the centers run by State Governments/UTs, Universities and NGOs. These centres are extended Central assistance to provide coaching to students. During 2006-07, Rs. 3.91 crores was released to the implementing agencies in pre-revised schemes.

Hostels for Scheduled Caste Boys and Girls : The objective of the Scheme is to provide hostel facilities to SC Boys and Girls studying in middle schools, higher secondary schools, colleges and Universities. The financial assistance is provided for construction of hostels. The maintenance of hostel, boarding and lodging of students, however, rest with the respective States/UTs. The Scheme provides for release of Central Assistance to State Govts. on 50:50 matching share basis and 100% to UTs and also 90% to Central Universities. Other Universities can also get Central Assistance upto 45% and the remaining amount has to be provided by their respective States (45%) and themselves 10%. The NGOs also get assistance on the basis of 45:45:10 through their States/UTs for extension of their existing hostels. During the year 2006-07 Rs. 25.23 crores was released for construction of 109 boys hostel and Rs. 28.811 crore for construction of 204 girls hostels.

DR. AMBEDKAR FOUNDATION

The main objective of the Foundation is to propagate the ideology and message of Baba Saheb Dr. B.R. Ambedkar among the masses in India as well as abroad. The following were achievements under different schemes during the year. A sum of Rs. 6.25 lakhs was released for benefiting 25 persons under Dr. Ambedkar Medical Scheme. A sum of Rs. 58.39 lakhs were released for maintenance of Dr. Ambedkar Chairs in Universities/Institutions for research for the year 2006-07. The Foundation also published collected works in Tamil and Urdu under Samajik Samta Kendra Yojana.

ECONOMIC DEVELOPMENT

Special Central Assistance to Scheduled Castes Sub Plan (SCSP) : Under Special Central Assistance (SCA) to Scheduled Castes Sub Plan (SCSP) (earlier known as SCP), cent percent assistance is provided to State and Union territories as an additive to their Special Component Plans. The assistance would be used to give an added thrust to the development programmes for SC persons living below poverty line. During the year 2006-07 Rs. 459.15 crores was released to States/UTs.

National Scheduled Castes Finance and Development Corporation : The National Scheduled Castes Finance and Development Corporation (NSFDC) provides concessional finance for employment generation to the persons belonging to the Scheduled Castes living below double the poverty line (i.e. Rs. 40,000 p.a. in rural areas and Rs. 55,000 p.a. in urban areas), skill development through training, entrepreneurial development and innovative projects. The Corporation is also implementing 'Mahila Samridhi Yojana' The Corporation has assisted 53,315 beneficiaries during the year 2005-06.

National Safai Karamcharis Finance and Development Corporation : National Safai Karamcharis Finance and Development Corporation (NSKFDC) extends concessional finance assistance to the Safai Karamcharies beneficiaries for establishments 'Mahila Samridhi Yojana'. The Corporation has assisted 77,970 beneficiaries during 2006-07.

State Scheduled Castes Development Corporation : State Scheduled Castes Development Corporation (SCDCs) are functioning in 26 States/Union Territories. The Central Government contributes 49 per cent to the authorised share capital of the SCDC's against the 51 per cent contributed by the State Government. During the year 2005-06 Rs. 16,902 lakhs was released as Government of India's contribution to benefit anticipated 77,970 beneficiaries.

Scheme for Rehabilitation of Manual Scavengers : A new Self Employment Scheme for Rehabilitation, of Manual Scavengers (SRMS) was launched from January 2007 for rehabilitation of scavengers and their dependents by March, 2009 with total expenditure of Rs. 735.60 crores. The Central Government has released Rs. 56.00 crores during 2006-07 to NSKFDC as Grant in aid for implementation of the scheme.

Voluntary Organisations Working for Scheduled Castes : The objective of the scheme is to utilise the services of capable and reliable voluntary organisations in the process of social-economic development of scheduled casts. Under this scheme, grant-in-aid is given to the voluntary organisations to the extent of 90 per cent of each project cost for activities such as general/technical/vocational education including preschool education, medical centers, dispensaries and income generating activities.

DEVELOPMENT OF SCHEDULED TRIBES

The tribal people of India, who come under the category of '*Scheduled Tribes*' (STs) in terms of the provisions of the Constitution of India, number 8.43 crore—constituting 8.2 per cent of the population of the country (Census 2001).

Scheduled Areas and Tribal Areas : Scheduled Tribes live in contiguous areas unlike other communities. It is, therefore, much simpler to have an area-approach for development activities and also regulatory provisions to protect their interests.

In order to protect the interests of Scheduled Tribes with regard to land alienation and other social factors, provisions of "Fifth Schedule and "Sixth Schedule" have been enshrined in the Constitution.

The Fifth Schedule under Article 244(1) of Constitution defines "*Scheduled Areas*" as such areas as the President may by Order declare to be Scheduled Areas after consultation with the Governor of the State.

The Sixth Schedule under Article 244 (2) of the Constitution relates to those areas in the States of Assam, Mehalaya, Tripura and Mizoram which are declared as "*Tribal Areas*" and provides for District Councils and/or Regional Councils for such Areas. These Councils have been conferred with wide ranging legislative, judicial and executive powers.

The Fifth Schedule Areas : The criteria for declaring any area as a "*Scheduled Area*" under the Fifth Schedule are : (a) Preponderance of tribal population, (b) Compactness and reasonable size of the area, (c) A viable administrative entity such as a district, block or taluk, and (d) Economic backwardness of the area as compared to neighbouring areas.

The specification of “*Scheduled Areas*” in relation to a State is by a notified Order of the President, after consultation with the State Governments concerned. The same applies for altering, increasing, decreasing, incorporating new areas, or rescinding any Orders relating to “*Scheduled Areas*”.

The advantages of *Scheduled Areas* are that : (a) The Governor of a state, which has Scheduled Areas, is empowered to make regulations in respect of the following: (i) Prohibit or restrict transfer of land from tribal people; (ii) Regulate the business of money lending to the members of Scheduled Tribes. In making any such regulation, the Governor may repeal or amend any Act of Parliament or of the Legislature of the State, which is applicable to the area in question. (b) The Governor may by public notification direct that any particular Act of Parliament or of the Legislature of the State, shall not apply to a *Scheduled Area* or any part thereof in the State or shall apply to such area subject to such exceptions and modifications as he may specify. (c) The Governor of a State having *Scheduled Areas* therein, shall annually, or whenever so required by the President of India, make a report to the President regarding the administration of the *Scheduled Areas* in that State and the executive power of the Union shall extend to the giving of directions to the State as to the administration of the said area. (d) Tribes Advisory Council (TAC) shall be established in States having Scheduled Areas. The role of TAC is to advise the State Government on matters pertaining to the welfare and advancement of the Scheduled Tribes in the State as may be referred to it by the Governor. The TAC will consist of not more than twenty members of whom about 3/4 are from ST-MLAs. (The TAC may also be established in any State having Scheduled Tribes but not Scheduled Areas on the direction of the President of India. (e) The *Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996 (PESA)*, vide which the provisions of Panchayats, contained in Part IX of the Constitution, were extended to Scheduled Areas, also contain special provisions for the benefit of Scheduled Tribes.

The Sixth Schedule - Tribal Areas : The Sixth Schedule under Article 244 of the Constitution identifies Autonomous districts in the Tribal Areas in the states of Assam, Meghalaya, Tripura and Mizoram. It also makes provisions for recognition of Autonomous Regions within these Autonomous Districts. These have been specified in Parts I, II, IIA & III of the table appended to paragraph 20 of the Sixth Schedule. In other words, areas where provisions of Sixth Schedule are applicable are known as Tribal Areas. The State-wise details of Tribal Areas are as under :-

Part-I	Assam	1. The North Cachar Hills District 2. The Karbi-Anglong District 3. The Bodo Land Territorial Area Districts
Part II	Meghalaya	1. Khasi Hills District 2. Jaintia Hills District 3. The Garo Hills District
Part IIA	Tripura	Tripura Tribal Areas District
Part III	Mizoram	1. The Chakma District 2. The Mara District 3. The Lai District

The administration of Autonomous Districts and Autonomous Regions is done through District Councils/Regional Councils. These Councils are elected bodies and have powers of legislation, administration of justice apart from executive, developmental and financial responsibilities. The District or Regional Councils are empowered to make rules with the approval of the Governor with regard to matters like establishment, construction or management of primary schools, dispensaries, markets, cattle ponds, ferries, fisheries, roads, road transport and waterways in the district.

The Autonomous Councils of the North Cachar Hills and Karbi Anglong have been granted additional powers to make laws with respect to other matters like secondary education, agriculture, social security and social insurance, public health and sanitation, minor irrigation, etc.

The Councils have also been conferred powers under the Civil Procedure Code and Criminal Procedure Code for trial of certain suits and offences, as also the powers of a revenue authority for their area for collection of revenue and taxes and other powers for the regulation and management of natural resources.

PROCEDURE FOR DECLARATION AS ST

The term *Scheduled Tribes* is defined in the Constitution of India under Article 366(25) as *such tribes or tribal communities or parts of groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this Constitution*. Article 342 prescribes the procedure to be followed in the matter of specification of Scheduled Tribes.

In terms of Article 342(1), the President may, with respect to any State or Union Territory, and where it is State, after consultation with the Governor thereof, notify tribes or tribal communities or parts thereof as Scheduled Tribes. This confers on the tribe or part of it a Constitutional status invoking the safeguards provided for in the Constitution, to these communities in their respective States/UTs.

Thus, in terms of Article 342(1), only those communities who have been declared as such by the President through an initial public notification will be considered as Scheduled Tribes. Any further amendment in the list is to be done through an Act of Parliament (Article 342(2)). Parliament may, by law, include in or exclude from the list of Scheduled Tribes, any tribe or tribal community or parts of thereof.

The list of Scheduled Tribes is State-specific. In other words, a community declared as Scheduled Tribe in one State need not be so in another State.

SCHEDULING AND DE-SCHEDULING OF TRIBES

Thus, the first specification of Scheduled Tribes in relation to a particular State/ Union Territory is by a notified order of the President, after consultation with the State Governments concerned. The above Article also provides for listing of Scheduled Tribes State-wise/UT-wise and not on an all-India basis.

The criteria generally adopted for specification of a community as a Scheduled Tribe are : (a) indications of primitive traits; (b) distinctive culture; (c) shyness of contact with the community at large; (d) geographical isolation i.e. backwardness.

These are not spelt out in the Constitution but have become well established. They take into account the definitions in the 1931 Census, the reports of the first Backward Classes Commission (Kalelkar) 1955, the Advisory Committee on Revision of SC/ ST lists (Lokur Committee) 1965 and the Joint Committee of Parliament on the

Scheduled Castes and Scheduled Tribes Orders (Amendment) Bill, 1967 (Chanda Committee) 1969.

There are over 700 tribes (with many of them overlapping in more than one State) as notified under Article 342 of the Constitution of India, spread over different States and Union Territories of the country. It is worth noting that no community has been specified as a Scheduled tribe in relation to the States of Haryana and Punjab and the Union Territories of Chandigarh, Delhi and Puducherry.

ASCERTAINING ST STATUS OF INDIVIDUALS

General

Where a person claims to belong to a Scheduled tribe by birth, it should be verified: (a) that the person and his parents actually belong to the community claimed; (b) that the community is included in the Presidential Order specifying the Scheduled Tribes in relation to the concerned State; (c) that the person belongs to that State and the area within that State in respect of which the community has been scheduled; (d) he may profess any religion; (e) that he or his parents/grandparents, etc., should be permanent resident of the State/UT on the date of notification of the Presidential Order applicable in his case; (f) a person who is temporarily away from his permanent place of residence at the time of the notification of the Presidential Order—applicable in his case, say for example to earn a living or seek education, etc. can also be regarded as a Scheduled Tribe, if his tribe has been specified in that order in relation to his home State/Union Territory; (g) but he cannot be treated as such in relation to the place of his temporary residence notwithstanding the fact that the name of his tribe has been scheduled in respect of that State where he is temporarily settled, in any Presidential Order; (h) in the case of persons born after the date of notification of the relevant Presidential Order, the place of residence for the purpose of acquiring Scheduled Tribe status, is the place of permanent abode of their parents at the time of the notification of the Presidential Order under which they claim to belong to such a tribe. This does not apply to the STs of the Lakhadweep Islands for whom there is a requirement of being born in the U.T. in order to be eligible for ST status.

Scheduled Tribe claims on migration

- i) Where a person migrates from the portion of the State in which his/her community is scheduled, to another part of the same State in respect of which his/her community is not scheduled, the person will continue to be deemed to be a member of the Scheduled Tribe, in relation to that State
- ii) Where a person migrates from one State to another, he can claim to belong to a Scheduled Tribe only in relation to the State to which he originally belonged and not in respect of the State to which he has migrated.

Scheduled Tribe claims through marriages

The guiding principle is that no person who is not a Scheduled Tribe by birth will be deemed to be a member of Scheduled Tribe merely because he or she has married a person belonging to a Scheduled Tribe. Similarly a person who is a member of a Scheduled Tribe will continue to be a member of that Scheduled Tribe, even after his or her marriage with a person who does not belong to a Scheduled Tribe.

Issue of Scheduled Tribe certificates

The candidates belonging to Scheduled Tribes may get Scheduled Tribe certificates, in the prescribed form, from any one of the following authorities: (1) District Magistrate/Additional District Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/Deputy Collector/1st Class Stipendiary Magistrate/City Magistrate/Sub Divisional Magistrate/Taluka Magistrate/Executive Magistrate/Extra Assistant Commissioner [not below the rank of 1st Class Stipendiary Magistrate]. (2) Chief Presidency Magistrate/Additional Chief Presidency Magistrate/Presidency Magistrate. (3) Revenue Officers not below the rank of Tehsildar. (4) Sub-Divisional Officer of the Area where the candidate and/or his family normally resides. (5) Administrator/Secretary to the Administrator/Development Officer [Lakshadweep Islands].

Punishments for officials issuing Scheduled Tribe Certificates without proper verification

Action is to be taken under the relevant provisions of the Indian Penal Code if any official is found to have issued a Scheduled tribe certificate carelessly and without proper verification. This will be in addition to other action to which they are liable under the appropriate disciplinary rules applicable to them.

Liberalization of procedure for issue of Scheduled Tribe certificates to migrants from other States/Union Territories.

Persons belonging to a Scheduled Tribe who have migrated from one State to another for the purpose of employment, education etc. experience great difficulty in obtaining ST certificates from the State from which they have migrated. In order to remove this difficulty, it has been decided that the prescribed authority of a State Government/Union Territory Administration may issue a Scheduled Tribe certificate to a person who migrated from another state, on the production of the genuine certificate issued to his father/mother by the prescribed authority of the State of the father/mother's origin except where the prescribed authority feels that a detailed enquiry is necessary through the state of origin before issue of the certificate. The certificate will be issued irrespective of whether the tribe in question is scheduled or not in relation to the State/Union Territory to which the person has migrated to.

Procedure for inclusion in or exclusion from the list of Scheduled Tribes

In June 1999, the Government approved modalities for deciding claims for inclusion in, or exclusion from, the lists of Scheduled Tribes. According to these approved guidelines, only those claims that have been agreed to by the concerned State Government, the Registrar General of India and the National Commission for Scheduled Castes and Scheduled Tribes will be taken up for consideration.

Whenever representations are received in the Ministry for inclusion of any community in the list of Scheduled Tribes of a State/UT, the Ministry forwards that representation to the concerned State Government/UT Administration for recommendation as required under Article 342 of the Constitution. If the concerned State Government recommends the proposal, then the same is sent to the Registrar General of India (RGI).

If RGI is satisfied with recommendation of the State Government and recommends the proposal to the Central Government, the Government refers the proposal to the National Commission for Scheduled Tribes for their recommendation. If the National Commission for Scheduled Tribes also recommends the case, the

matter is processed for the decision of the cabinet after consulting the concerned administrative Ministries. Thereafter the matter is put up before the Parliament in the form of a Bill to amend the Presidential Order.

GENERAL STATISTICS

According to the 2001 Census, the population of Scheduled Tribes in the country was 8.43 crore - i.e., constituting 8.2 per cent of the total population of the country.

DEMOGRAPHIC STATISTICS : 2001 CENSUS

S. No.	India/State	Total population	ST Population	Percentage of STs to total population in the State
1	Mizoram	888,573	839,310	94.5
2	Lakshadweep	60,650	57,321	94.5
3	Nagaland	1,990,036	1,774,026	89.1
4	Meghalaya	2,318,822	1,992,862	85.9
5	Arunachal Pradesh	1,097,968	705,158	64.2
6	Dadra and Nagar Haveli	220,490	137,225	62.2
7	Manipur	2,166,788	741,141	34.2
8	Chhattisgarh	20,833,803	6,616,596	31.8
9	Tripura	3,199,203	993,426	31.1
10	Jharkhand	26,945,829	7,087,068	26.3
11	Orissa	36,804,660	8,145,081	22.1
12	Sikkim	540,851	111,405	20.6
13	Madhya Pradesh	60,348,023	12,233,474	20.3
14	Gujarat	50,671,017	7,481,160	14.8
15	Rajasthan	56,507,188	7,097,706	12.6
16	Assam	26,655,528	3,308,570	12.4
17	J&K	10,143,700	1,105,979	10.9
18	Maharashtra	96,878,627	8,577,276	8.9
19	Daman and Diu	158,204	13,997	8.8
20	Andaman and Nicobar	356,152	29,469	8.3
21	Andhra Pradesh	76,210,007	5,024,104	6.6
22	Karnataka	52,850,562	3,463,986	6.6
23	West Bengal	80,176,197	4,406,794	5.5
24	Himachal Pradesh	6,077,900	244,587	4.0
25	Uttarakhand	8,489,349	256,129	3.0
26	Kerala	31,841,374	364,189	1.1
27	Tamilnadu	62,405,679	651,321	1.0
28	Bihar	82,998,509	758,351	0.9
29	Uttar Pradesh	166,197,921	107,963	0.1
30	Goa	1,347,668	566	0
31	Haryana	21,144,564	0	0
32	Punjab	24,358,999	0	0
33	Chandigarh	900,635	0	0
34	Delhi	13,850,507	0	0
35	Puducherry	974,345	0	0
	India	1,028,610,328	84,326,240	8.2

The tribal population are normally seen to be living in the following three categories of locations:

1.	North-Eastern Region (NER)	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim
2.	Central Tribal Belt (CTB)	Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Orissa, Bihar, Jharkhand West Bengal, Dadra and Nagar Haveli, and Daman and Diu
3.	Other States/ UTs	Himachal Pradesh, Uttar Pradesh, Uttarakhand, Karnataka, J and K, Tamilnadu, Kerala, Andaman and Nicobar Islands, and Lakshadweep.

The Tribal communities live in about 15 per cent of the country's area, in varying ecological and geo-climatic conditions, plains, forests, hills and inaccessible areas. Tribal groups are at different stages of social, economic and educational development. They have their presence in the States and Union Territories except Haryana, Punjab, Chandigarh, Delhi and Puducherry. The predominant tribal-populated States of the country (i.e., those with tribal population of more than 50 per cent of the total population of the State are: Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Union territories of Dadra & Nagar Haveli and Lakshadweep. If a comparison is made amongst ST population alone, more than half the ST population of the country is concentrated in the States of Madhya Pradesh, Chhattisgarh, Maharashtra, Orissa, Jharkhand and Gujarat. The largest number of tribes (i.e. 62) are in the State of Orissa. The next major concentration is in the North-Eastern States.

Primitive Tribal Groups (PTGs) : While some tribal communities have adopted a mainstream way of life at one of the spectrum, there are 75 Primitive Tribal Groups (PTGs) in 17 States and Union Territories of Andaman and Nicobar Islands, who are characterized by:- (a) a pre-agriculture level of technology, (b) a stagnant or declining population, (c) extremely low literacy, and (d) a subsistence level of economy.

Their total population as per the 1991 census was about 24.12 lakh. Most of these groups are small in number, have attained various levels of social and economic progress and generally live in remote habitat, with poor administrative and infrastructure back up.

Population Profile: Many indicators in respect of Scheduled Tribes like their demography, sex-ratio, education, livelihood profile, health profile have been compiled periodically through the Census operations or by the National Sample Survey Organisation (NSSO) or the Central Statistical Organisation (CSO).

The population of Scheduled Tribes has been on the increase since 1961. The census reveals that the tribal population had grown at the rate of 24.45 per cent during the period 1991-2001. The decadal population growth between the Census Year 1981 to 1991 in respect of the tribal population had been higher (31.64 per cent) than that for the overall population (23.51 per cent). However during census years 1991 to 2001 it had been 24.45 per cent against the growth rate of 22.66 per cent for the entire population.

As compared to the sex ratio for the overall population (933 females per 1000 male), the sex ratio among Scheduled Tribes is more favourable, at 978 females per 1,000 males (2001 census).

Literacy: The literacy rate for overall population has increased from 52.2 per cent to 65.38 per cent between 1991 to 2001. In case of Scheduled Tribes the increase in literacy has been from 29.62 per cent to 47.10 per cent. The literacy rate among tribals (47.10 per cent) is however far below the overall literacy in the country (64.8 per cent).

The female literacy rate among tribals during the period 1991 to 2001 increased from 18.2 per cent to 34.8 per cent which is lower by approximately 20 per cent as compared to literacy rate of the females of the general population. However, the significant point is the increase in the total as well as the female literacy among tribals. These disparities are compounded by higher dropout rates in formal education, resulting in a disproportionately low representation in higher education.

Job profile: According to the 1991 Census figures, 42.02 per cent of the ST population were main workers, of whom 54.50 per cent were cultivators and 36.09 per cent agricultural labourers. Thus, about 82 per cent of the main workers from these communities were engaged in primary sector activities.

Indicators of Backwardness: Not surprisingly, the cumulative effect has been that the proportion of Scheduled Tribes below the poverty line is substantially higher than the national average. A majority of Scheduled Tribes continue to live below the poverty line, have poor literacy rates, suffer from malnutrition and diseases and are vulnerable to displacement.

The Central Government and the State Governments have been implementing schemes/programmes for the upliftment of STs like reservation in Services, Tribal Sub-Plans, Central Schemes, Centrally Sponsored Schemes, etc. However, a lot more is required to be done to achieve the desired development goals for STs.

DEVELOPMENT OF STs

We have seen that the HDI (Human Development Indices) of tribal population is quite low as compared to the rest of the population. This is mainly because they live in clusters generally in far flung areas, which are remote or in the vicinity of forests. The development programmes meant for the general public often elude the tribal population for the reasons of inaccessibility and difficult terrain. Nevertheless the Government of India and the State Governments have taken a number of measures over the years to improve the conditions of STs and for their development. But a lot more needs to be done. This emphasis on development of STs is quite visible in the Agenda Items of the National Common Minimum Programme (NCMP) adopted by the Central Government in May 2004.

TRIBAL SUB-PLAN (TSP)

Upgradation of administration through the innovative strategy of the Tribal Sub-Plan (TSP) for STs was launched at the beginning of the 5th Five Year Plan in 1974-75, covering 21 States and 2 U.T.S., where Scheduled Tribes constitute a sizeable population. This special strategy was expected to ensure that all the general development sectors, both at the Central and State levels, earmark funds for STs in proportion to their population so that adequate benefits from all the concerned sectors flow to this disadvantaged group. Thus the TSP strategy seeks to ensure adequate flow of funds for tribal development not only under every State Plan funds, but also from all the Central Ministries/Departments. TSP is a part of the overall plan of a State/UT or a Central Ministry/Department, and is therefore called a Sub-Plan.

The TSP to promote development activities through legal and administrative support. The TSP strategy is being implemented through 195 Integrated Tribal Development Projects (ITDPs)/Integrated Tribal Development Agencies (ITDAs), 259 Modified Area Development Approach (MADA) and 82 Clusters. The benefits of the Tribal Sub-Plan are also extended to the scattered tribal population.

The TSP is financed by four sources namely, flow from Centrally Sponsored Schemes. Special Central Assistance, State Plan, and Institutional finance. The Central Ministries have also been requested to utilize at least 8% of their budget for the welfare and development of Scheduled Tribes.

SPECIAL CENTRAL ASSISTANCE FOR TRIBAL SUB-PLAN

In support of TSP, the Government of India launched the SCA scheme in 1974 to the States and the UTs, as an additive to fill up the gaps, especially in the family based income-generating programmes. As a result, there has been a substantial increase in the flow of funds during the Ninth Five Year Plan for the development of STs besides enlargement of the share of benefits for STs under all the development programmes.

The SCA to TSP is provided by the Ministry of Tribal Affairs to 21 Tribal Sub-Plan States including North Eastern States of Assam, Manipur and Tripura. Since 2003-04 the Ministry of Home Affairs is releasing the funds under SCA to TSP meant for the UTS.

The SCA is to be utilised in conjunction with the TSP flow with a view to meeting the gaps, which are not otherwise taken care of by the State Plan. The objective and scope of SCA to TSP was originally meant for filling up of the critical gaps in the family-based income-generation activities of the TSP. From the Tenth Five Year Plan, the objective and scope of SCA to TSP has been expanded to cover the infrastructure incidental to income-generation.

The funds released under SCA to TSP to State Governments/UT Administrations are as follows.

	(Rs. in crore)
Five Year Plan	Fund released
V	119.31
VI	486.11
VII	846.95
VIII	1484.12
IX	2009.61
X	2960.83
XI (2007-08)	631.80

Grants under the First Proviso to Article 275(1) of the Constitution : The Constitution of India under the First Proviso Article 275(1) of the Constitution provides for assured special financial assistance for promoting the welfare of STs and for raising the level of administration of the Scheduled Areas to that of the rest of the State.

Programme for Development of Forest Villages

Development of forest villages is one of the thrust areas of tribal development during the 10th Five Year Plan. The Planning Commission allocated Rs. 450 crore to the

Ministry of Tribal Affairs for the development of forest villages at an average allocation of Rs. 15 lakh per village. There are about 2,474 such forest villages at an average allocation of Rs. 15 lakh per village. There are about 2,474 such forest villages in 12 States, which are still managed by State Forest Departments. It is estimated that there are about 2.5 lakh tribal families in these villages. A process of conversion of these forest villages into revenue earning villages is underway.

The funds released under the scheme are as follows:

(Rs. in lakh)	
Year	Fund Released
2005-06	19180.86
2006-07	22097.09
2007-08	4646.82
2008-09 (till 30.6.08)	13931.55.

Releases made in various Plans under Article 275(I)

Plan	Rs. in crore
V	60.00
VI	80.00
VII	100.00
VIII	340.00
IX	741.00
X	1662.70
XI	390.28

Scheme for Primitive Tribal Groups (PTGs): A Central Sector Scheme was introduced in 1998-99 for the all-round development of these groups under which financial assistance is made available to Integrated Tribal Development Projects, Tribal Research Institutes and Non-Governmental Organisations for undertaking projects/activities not covered by any of the existing schemes.

Scheme of Construction of Hostels for ST Boys and Girls: Under the scheme, Central assistance is given to States/UTs for construction of new hostel buildings and/or extension of existing hostels. In this scheme till 2007-08 the cost of the construction of the hostel building was equally shared between the Centre and the State in ratio of 50:50. In case of UTs, the Central Government bore the entire cost of the building. The cost of construction is based on the State PWD schedule of rates or local CPWD schedule of rates, which is lower. Maintenance of the hostel is the responsibility of the concerned States/UTs. The number of seats in a hostel was 100.

The scheme of Construction of Hostel for ST Boys and Girls is being continued in the 11th Five Year Plan period with the following modifications:

- 1) Central Assistance for Construction of ST Girls Hostels in all States/UTs/Universities will be 100% of the cost of construction.
- 2) Central Assistance for Construction of Boys' Hostel for ST Boys will be 100% in identified naxal-affected areas and will remain at 50% in all other areas.

Universities in naxal-affected areas would be entitled to receive 100% Central assistance.

- 3) Central assistance would also be given on the same pattern in respect of vocational training centres if sought by States/UTs.
- 4) The construction period for the hostels has been reduced from 5 years to 2 years.

(Rs. in crore)

Plan Period	Outlay	Actually Released	No. of Hostels Constructed	No. of Beneficiaries
During the 10th Plan both schemes were merged)	104.00	88.41	389	24379
2007-08	37.00	37.00	314	28146

Establishment of Ashram School in Tribal Sub-Plan Area : The scheme of Ashram School has as its objective the establishment of residential schools for STs in an environment conducive to learning to increase the literacy rates among the tribal students and to bring them at par with the other population of the country. The funding for the scheme with the State is done on matching (50-50) basis, while cent percent assistance is given to UTs.

(Rs. in crore)

Plan period	Outlay	Actually Released	No. of Ashram Schools constructed	No. of seats
X	78.30	42.97	232	17650
2007-08	147.60	20.00	97	16839

Upgradation of Merit of ST Students : The objective of this scheme is to upgrade the merit of ST students by providing them remedial and special coaching in classes IX to XII, to prepare the students for competitive examinations for seeking entry into professional courses like Engineering and Medical disciplines. The scheme provides for 100 per cent Central assistance to the States/UT's.

(Rs. in crore)

Plan period	Outlay	Actually Released	Physical Achievements
IX	4.20	3.60	329 students*
X	5.56	4.58	3352 students
2007-08	1.75	1.38	1031 students

* the number of beneficiaries from 1997-98 to 1999-2000 are for SCs & STs.

Post-Matric Scholarships for Scheduled Tribes Students

The objective of the scheme is to provide financial assistance to students belonging to STs pursuing Post-Matriculation recognized courses in recognized institutions. The scheme covers professional, technical, non-professional and non-technical courses at various levels. It also includes correspondence courses including distance and continuing education and is implemented by the State Government and UT Administrations, covering 100% Central Assistance over and above the committed liability which is required to be borne by them from their own budgetary provisions.

Budget Allocations, actually released and beneficiaries are given below :

(Rs. in crore)			
Plan period	Outlay	Actually	Released Physical Achievements
IX	221.55	260.65	2639088
X	389.09	683.98	3744000
2007-08	201.24	200.03	1028903

Vocational Training in Tribal Areas : The main aim of this scheme is to develop the skill of the tribal youth in order to gain employment/self employment opportunities. This scheme was introduced in 1992-93 as Central Sector Scheme and implemented through the State Governments/UT Administrations, Institutions or Organisations set up by Government as autonomous body, educational and other institutions like local bodies and cooperative societies and Non-Governmental Organizations. The capacity of each vocational training center is 100 with hostel facility for 50. Each center caters to five vocational courses in traditional skills depending upon the employment potential of the area. Each tribal boy/girl is trained in two trades of his/her choice, the course in each trade being of three months duration. Each trainee is attached at the end of six months to a Master Craftsman in a semi-urban area for a period of six months to learn his/her skill by practical experience, the practical experience in each trade being of three months duration. There is a provision for monthly stipend and for raw material for the trainees.

Budget Allocations, actually released and beneficiaries are given below:

(Rs. in crore)			
Name of the Five year Plan	Outlay	Actual Released	No. of VTC
IX	30.25	17.44	203
X	33.56	24.35	290
2007-08 (other than NGO)	6.75	6.75	48
XI (2007-08) (NGO)	2.25	2.25	14

Education of Girls in Low Literacy Pockets : Launched in 1992-93 the scheme envisages setting up of residential educational complexes for ST girls from I to V standard with facility for upgradation in order to raise the literacy level of tribal females. This scheme is implemented through the voluntary organizations and autonomous bodies of the State Government. During 10th Pan period an amount of Rs. 33.34 crores was released benefitting more than 8000 (appr.) ST Girls each year.

An amount of Rs. 19.75 crore was released to 76 complexes during 2007-08 benefitting 10379 ST girls.

With the beginning of financial year 2009 the scheme has been revised and renamed as 'Strengthening Education among Scheduled Tribes Girls in Low Literacy Districts'. The revised scheme covers 54 identified districts where the ST population is 25% or more, and ST female literacy rate below 35% as per 2001 census. The scheme also covers blocks in districts other than 54 identified districts which have ST population 25% or more, and ST female rate below 35% and PTG areas. Naxal affected areas are given priority and the Ministry provides financial assistance under the scheme for Girls Hostel where schools under "Sarva Shiksha Abhiyan". Kasturba Gandhi Vidyalayas or other schemes of Education Departments are available. Where such schools are not available, complete complex including hostel & school are considered. Besides free schooling, boarding/lodging, uniforms, books, food cast stipend and incentive to girls students are also provided. In addition, the organization running the educational complex is also required to impart Vocational/Skill development Training among ST girls.

Grants-in-Aid to Voluntary Organisations : The prime objective of the scheme is to enhance the reach of welfare schemes of Government and fills the gaps in service deficient tribal areas in the sectors such as education, health, drinking water, agro-horticultural productivity, social security net etc. through the efforts of voluntary organizations and to provide an environment for socio-economic upliftment and overall development of the Scheduled Tribes (STs). The Ministry gives Grant-in-aid to voluntary organizations working for the welfare of STs for projects like residential schools and non-residential, hostels, hospitals, mobile medical units, computer training centres, libraries and audio-visual units, agriculture training etc. The grant is generally restricted to 90 per cent of the approved total cost of the project and the balance 10 per cent is borne by the guarantee organizations. During the 10th Five Year Plan period 146.16 crores were released under the scheme. An amount of Rs. 34.00 crore was released during 2007-08. During the 11th Five Year Plan, from 2008-09, the scheme and its financial norms has been revised.

Rajiv Gandhi National Fellowship (RGNF) : The objective of the scheme is to provide fellowship in the form of financial assistance to students belonging to Scheduled Tribes to pursue higher studies. The fellowship under RGNF will be on the pattern of UGC Fellowships awarded to research students pursuing regular and full time M.Phil and Ph.D. Courses.

Under the scheme, 776 students have been awarded fellowships during the 10th Plan and 667 new students are expected to benefit in the year 2007-08.

National Overseas Scholarship Scheme for Scheduled Tribes (Non-Plan): The Scheme provides for financial assistance to meritorious students for pursuing higher studies abroad in specified fields of Master level courses, Ph.D. and Post-Doctoral research programmes, in the field of Engineering, Technology and Science for Scheduled Tribes, Denotified, Nomadic and Semi-nomadic tribes. The selected candidates are provided the cost of tuition and other educational fees charged by the foreign university, etc., maintenance and other grants along with travel expenses. In addition passage grants are also available to candidates belonging to ST who are in receipt of merit scholarship for postgraduate studies, research or training abroad (excluding attending seminars, workshops, conferences) from a foreign government/

organisations or under any other scheme where cost of passage is not provided. The Scheme of NOS has been revised in 2004-05.

The scheme provides financial assistance to meritorious ST students for pursuing higher studies abroad in specified fields of Master level courses, Ph.D. and Post-Doctoral research programmes, in the field of Engineering, Technology and Science.

Budget Allocations, funds actually by released and beneficiaries are given below:

Plan period	Outlay	Funds Actually Released	Physical Achievements
IX	114	50	5 students
X	418	50	5 students
2007-08	100	0.14	8 students

Scheme of Top Class Education for ST Students

The Ministry of Tribal Affairs has introduced a new scheme of Top Class Education of ST students from 2007-08 with the objective of encouraging meritorious ST students for pursuing studies at degree and post degree and post degree level in any of the selected list of institutes of excellence, in which the scholarship scheme would be operative. There are 127 top-rated institutes approved under the scheme in both the Government and private sectors covering the field of management, medicine, engineering, law and commercial courses. Each institute has been allocated five awards, with a ceiling of a total of 635 scholarships per year. The family income of the ST students from all the sources shall not exceed Rs. 2.00 lakh per annum.

The ST students will be awarded scholarship covering full tuition fee and other nonrefundable dues in respect of Government/Government-funded institutions. However, there will be a ceiling of Rs. 2.00 lakh per annum per student for private sector institutions and Rs. 3.72 lakh per annum per student for the private sector flying clubs for Commercial Pilot Training. In addition to the above, the scholarship also provides for (i) living expenses @ Rs. 220/- per month per student subject to actual, (ii) books and stationery @ Rs. 3,000/- per annum per student and (iii) cost of a latest computer system along with its accessories limited to Rs. 45,000/- as one time assistance during the course.

Grants-in-Aid for Minor Forest Produce (MFP) Operations: This is a Central Sector Scheme, with 100 per cent grant, available to the State Tribal Development Cooperative Corporations, Forest Development Corporations, and Minor Forest Produce (Trading and Development) Federations for taking up the minor forest produce operations. The funds under the scheme is available to the State TDCCS/FDC's for : (i) increasing the quantum of MFP handled by setting off operational losses, if need be : (ii) strengthening the share capital base of the Corporation for undertaking MFP operations thereby increasing the quantum of MFP presently handled; (iii) setting up of scientific warehousing facilities, wherever necessary; (iv) establishing processing industries for value addition with the objective of ensuring maximum returns on the MFPs for the tribals; (v) giving consumption loans to tribals; and (vi) supplementing Research & Development (R&D) efforts.

Exchange of visits by STs : The Scheme "Exchange of Visits by Tribals" providing wider exposure and experience sharing to the tribals by visits to the more developed areas of the country.

NATIONAL SCHEDULED TRIBES FINANCE AND DEVELOPMENT CORPORATION

With a view to pay a focused attention and accelerate the pace of economic development of Scheduled Tribes, the erstwhile National Scheduled Castes and Scheduled Tribes Financial Development Corporation was bifurcated and National Scheduled Tribes Finance and Development Corporation (NSTFDC) was set up in April, 2001 under the Ministry of Tribal Affairs. The NSTFDC has been granted license under Sec. 25 of the Companies Act (A Company not for profit). The Authorized Share Capital of the NSTFDC is Rs. 500.00 crore and paid up capital is Rs. 230.50 crore as on date.

In order to achieve the mandate set for the NSTFDC, (for undertaking self-employment ventures/activities) financial assistance is extended by NSTFDC to the Scheduled Tribes, who are having annual family income upto double the poverty line. NSTFDC also provides financial assistance as grant for skill and entrepreneurial development of the target group. The financial assistance is channelized through Government owned agencies nominated by the respective Ministries/State Governments and UT Administrations. This is aimed to raise the level of income and improve socio-economic status of the eligible Scheduled Tribes. NSTFDC also provides financial assistance for procurement and marketing/minor forest produce so as to avoid the distress sale of produce/products by the Scheduled Tribes.

Eligibility criteria for the beneficiary : The beneficiary (ies) should belong to ST community and annual family income of the beneficiary (ies) should not exceed double the poverty line (DPL) income limit (presently DPL is Rs. 39,500/- per annum for the rural areas and Rs. 54,500/- per annum for the urban areas).

In the case of **Self Help Groups (SHGs)**, all the members of the SHG should belong to the ST community having annual family income upto Double the Poverty line (DPL). Similarly for **Cooperative Society**, loan is extended to the eligible STs through co-operative Society having minimum 80% or more STs as member of the said cooperative society.

NSTFDC is implementing following programmes for the economic development of STs.

Term Loan for Income generating activities : i) NSTFDC provides term loan for viable scheme(s)/project(s) costing upto Rs. 10 lakh per individual unit/profit centre.

ii) Financial assistance upto 90% of the cost of the scheme(s)/project(s) is provided by the NSTFDC. Promoter's contribution is not insisted upon for the scheme/project costing upto Rs. 1 lakh. However, only 2-5% of the total cost of the scheme(s)/project(s) costing above Rs. 1 lakh per unit/profit centre is required as promoter's contribution depending upon the cost of unit.

iii) NSTFDC charges concessional rate of interest, which is 3% per annum for the scheme/project having NSTFDC's share upto Rs. 5 lakh per unit/profit centre and 5% for the schemes having NSTFDC's share more than Rs. 5 lakh/unit/profit centre. The SCAs are allowed to charge interest at the rate of 3% per annum over and above the interest rate charged by NSTFDC from the beneficiaries.

iv) The loan is to be repaid in quarterly/half yearly installments, as the case may be, within a maximum period of 10 years including suitable moratorium period.

Bridge Loan : Bridge loan is provided by the NSTFDC against subsidy/capital incentives etc. available for the scheme(s)/project(s) through the SCAs to meet the

gap in funding requirement of scheme(s)/project(s) costing upto 10 lakh per unit/profit centre.

Schemes for Self Help Groups (SHGs) : i) NSTFDC has introduced specific scheme for extending financial assistance for Self Help Groups (SHGs) and financial assistance is extended for the scheme(s)/project(s) having unit cost upto Rs. 25 lakh per SHG. ii) Financial assistance is extended upto 90% of the cost of the scheme/project subject to investment per member not exceeding Rs. 50,000/- per unit. iii) Minimum promoter's contribution under the scheme is 10% of the cost of the unit.

Marketing Support Assistance : i) It is provided for financial support for meeting the working capital requirement of the Central/State Government owned agencies and national level federations for undertaking procurement and/or marketing of minor forest produce/agricultural produce collected/grown by the STs and/or related product/services. ii) Marketing Support Assistance extended to the beneficiaries through the SCAs, the interest is at par with rates of interest for long term loan. iii) For Marketing Support Assistance extended to the Central/State/UT owned organizations, national level federations directly involved in procurement, the interest rate is 7% per annum.

Assistance by way of grant : Grant to meet up to 100% recurring cost in respect of regular training programmes conducted for imparting skill and entrepreneurial development training to the eligible STs through the Government/semi Government/autonomous Government bodies is extended by the NSTFDC to its SCAs.

SPECIAL SCHEMES

(a) Adivasi Mahila Sashaktikaran Yojana (AMSY) is an exclusive scheme for the economic development of ST women, at a highly concessional rate of interest. Under the scheme, NSTFDC provides Term Loan for scheme(s)/project(s) costing upto Rs. 50,000/- per individual unit/profit centre. Financial assistance up to 90% of the cost of the scheme(s)/project(s) is provided by the NSTFDC. The SCAs may charge a maximum interest @ 4% per annum from the ultimate women beneficiaries.

(b) Micro-credit scheme-launch of a new scheme : Micro Credit Scheme is meant to provide financial assistance for undertaking small self-employment ventures/activities by the eligible STs through existing profit making SHGs. SCAs shall provide eligible amount of subsidy or margin money as per their scheme(s) for the target group and remaining amount may be provided as term loan by NSTFDC. In case of no subsidy and or no share of SCAs/banks as SCAs. NSTFDC may provide 100% of the funds required as term loan subject to maximum of Rs. 15,000/- per member.

Performance of NSTFDC during 2006-07 : Till 31.03.2008, NSTFDC has cumulatively sanctioned 937 schemes/projects under its income generating programme having its share of Rs. 466.59 crores (net) for providing self employment to the 1.73 lakhs Scheduled Tribes. The above includes sanctions of Rs. 64.17 crores for assisting about 45,000 scheduled tribe women. Besides NSTFDC has also sanctioned loans of Rs. 65.00 crore for produce and marketing of the Agriculture/Forest produce and other produce etc. for 19.11 lakh number of Scheduled Tribes.

TRIBAL COOPERATIVE MARKETING DEVELOPMENT FEDERATION OF INDIA LTD. (TRIFED)

The Tribal Cooperative Marketing Development Federation of India Limited (TRIFED), was set up in 1987 as a national level apex body under the Multi State Cooperative Societies Act, 1984 (MSCS Act, 1984).

After the enactment of the Multi-State Cooperative Societies Act, 2002 (MSCS Act, 2002) TRIFED is deemed to be registered under the latter Act and is also listed in the Second Schedule to the Act as a National Cooperative Society.

The Bye-laws of TRIFED were revised in April 2003 in tune with the new Multi State Co-operative Societies Act, 2002 read with the Multi State Co-operative Societies Rules, 2002. Under its revised mandate TRIFED has stopped bulk procurement in Minor Forest Produce (MFP) and Surplus Agricultural Produce (SAP) from tribals. (This procurement is now done by the State-level Tribal Cooperatives Societies/ Federations). TRIFED now functions as a 'market developer' for tribal products and as 'service provider' to its member federations. This way TRIFED is now striving to provide economic benefits to a large number of this unorganized section of the society.

TRIFED is now engaged in the marketing development of tribal products (natural and organic products, handicrafts, ratification etc.) through its own shops ('TRIBES India') and shops selling its products on consignment basis.

Recognition of Forest Rights of STs: The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 seeks to recognize and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights on ancestral lands and their habitat were not adequately recognized in the consolidation of State forests during the colonial period as well as in independent India resulting in historical injustice to them. The Act has been notified for operation with effect from 31.12.2007.

2. The Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, for implementing the provisions of the Act, were notified on 1.1.2008 and they envisage the constitution of various Committees under the Act, viz, the Sub Divisional Level Committee, District Level Committee and the State Level Monitoring Committee, by the State Governments.

3. All the States have been requested to nominate the nodal officer for implementing the provisions of the Act. The State Government were also requested to take necessary steps to :-

a) ensure that awareness is created about the objectives, provisions and procedures of the Act and the Rules through various measures including awareness programmes and printed material such as posters in the regional languages;

b) ensure the translation and publication of the Act and the rules in all the regional languages and arrange to distribute to all Gram Sabhas, Forest Right Committees and all departments of the Government including Panchayati Raj, Rural Development, Tribal and Social Welfare and Forest Departments;

c) undertake the orientation of officials, civilian representatives and non-Government organizations in the State, who can then be called upon to assist as resource persons in the awareness programmes;

d) sensitize the Sub-Divisional and District Level Committees on the objectives, provisions and procedures of the Act and the Rules;

4. As per the Act, the responsibility for recognition and vesting of forest rights and distribution of land rights resets with the State Government, as per the Rules notified for implementation of the Act. All the State Governments have been directed that the entire process of vesting of forest rights as per the Scheduled Tribes and Other Traditional forest Dwellers (Recognition of Forest Rights) Act, 2006 should be completed at the earliest.

5. Web-based MIS for online monitoring of the implementation of the Act has been made operational with effect from 4th June, 2008 for testing purposes on website <http://www.tribal.gov.in>. However, final website would be <http://forestrights.gov.in> which is at present under process of getting security-audit clearance. After clearance which is shortly expected to be given, the progress may be seen as it shall be in public domain.

WELFARE OF OTHER BACKWARD CLASSES

The Other Backward Classes (OBC) constitutes estimated 52 per cent of population as per Second Report of Backward Classes popularly known as Mandal Report. After the Mandal Judgement in 1992 the OBCs started getting various benefits for their educational development, economic development and reservation in services.

STATUTORY BODY

National Commission for Backward Classes : In pursuance of the Supreme Court Judgement popularly known as Mandal Judgement (1992), the National Commission for Backward Classes was set up in 1993 as a permanent body for entertaining, examining and advising the Government on requests for inclusion and complaints of over-inclusion and under inclusion in the lists of Other Backward Classes (OBCs) of citizens. As per the provision of the Act, the advice tendered by the Commission shall ordinarily be binding upon the Government.

EDUCATIONAL DEVELOPMENT

Pre-matric Scholarships for OBCs : The Scholarships are awarded to the students belonging to OBCs whose parents' /guardians' income from all sources does not exceed Rs 44,500 per annum. The scholarships are given to the students in class I or any subsequent class of pre-matric stage in the case of day scholars and class III or any subsequent class of pre-matric stage in the case of hostellers. The scholarship will terminate at the end of class X. The duration of the scholarship in an academic year is 10 months. The scholarship is tenable in such institutions and for such pre-matriculation courses, which have been duly recognised by the concerned State Government and Union Territory Administration. Under the scheme, 50 per cent Central assistance is provided to the State Governments and 100 per cent in case of UTs over and above the committed liability. An amount of Rs. 25.27 crores was released under the scheme to 12 states during 2006-07 for covering 9,57,338 beneficiaries.

Post-Matric Scholarships for OBCs : The objective of the scheme is to provide financial assistance to the OBC students studying at post-matriculation or post secondary stage to enable them to complete their education. These scholarships are available for studies in India only and awarded through the State Governments/UT Administrations to which the applicant actually belongs. These scholarships are given for study in recognised institutions. Unemployed students whose parents/guardians income from all sources does not exceed Rs. 44,500 per annum are entitled for scholarships under the scheme. Under the Scheme, 100 per cent Central assistance is provided to State Governments/UT Administrations over and above the committed liability. An amount of Rs. 55.73 crores was released under the scheme to 16 states/UTs for covering 4,16,765 beneficiaries during the year 2006-07.

Hostels for OBC Boys and Girls : The scheme aims at providing better educational opportunities to students belonging to socially and educationally backward classes notified as such in the Central/State/UT lists of OBCs, generally referred to as Other

Backward Classes (OBCs). Under the scheme, 50 per cent Central assistance is provided to the States and 100 per cent to UTs for constructions of hostels. These hostels are constructed for middle, secondary, college and university level students. The expenditure on procurement of land, staffing and other maintenance shall be borne by the State Governments/UT concerned. During 2006-07 an amount of Rs 19.58 crore was released 11 States/UTs for construction of 82 hostels and for covering 4520 OBCs inmates.

Assistance to Voluntary Organisations for Welfare of OBCs : The objective of the scheme is to involve the voluntary sector for improving the educational and socio-economic conditions of the OBCs through skill upgradation and enables them to start income generating activities on their own or get gainfully employed. Under the Scheme, 90 per cent of approved expenditure in form of grant-in-aid is given to NGOs for running vocational training courses such as carpentry, computer, craft, electrician, motor winding and fitting, photography, printing, composing and bookbinding, type and shorthand and welding and fitter training, etc. An amount of Rs 2.22 crore was released in 2006-07 to 85 NGOs so as to benefit 4316 OBC beneficiaries.

ECONOMIC DEVELOPMENT

National Backward Classes Finance and Development Corporation : The National Backward Classes Finance and Development Corporation (NBCFDC) provides credit facilities to beneficiaries whose annual income is less than double the poverty line for various income generation activities including implementation of Mahila Samridhi Yojana. The corporation extended credit facilities to 1,32,108 beneficiaries.

RESERVATION IN SERVICES

Reservation is given to Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Classes (OBCs) in services under the control of Government. Reservation is also provided to persons with disabilities and the ex-servicemen in certain categories of posts. The quantum of reservation for SCs, STs, and OBCs in direct recruitment on all-India basis by open competition is 15 per cent, 7.5 per cent and 27 per cent respectively. In direct recruitment on all-India basis otherwise than by open competition, reservation is 16.66 per cent for SCs, 7.5 per cent for STs and 25.84 per cent for OBCs. In case of promotion SCs and STs get reservation at the rate of 15 per cent and 7.5 per cent respectively. There is no reservation for OBCs in case of promotion. Three per cent of vacancies are kept reserved for persons with disabilities. Ten per cent of the vacancies in the posts of the level of Assistant Commandant in all paramilitary forces, 10 per cent of the vacancies in Group-C posts and 20 per cent of the vacancies in Group-D posts are reserved for the ex-servicemen.

Article 341 and 342 of the Constitution define as to who would be the SCs and the STs with respect of any State or Union Territory. The Government has prepared a list of OBCs has been prepared by the Government. The inter-state area restrictions have been imposed so that the people belonging to the specific community residing in a specific area which has been assessed to qualify for SC, ST and OBC status only benefit from the facilities provided for them. Definition of 'ex-servicemen' for the purpose of getting reservation in services is contained in Ex-servicemen (Re-employment in Civil Services and Posts) Rules, 1979 and conditions for reservation to persons with disabilities are given under the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.

To ensure that reserved vacancies are filled by candidates belonging to appropriate category, certain relaxations and concessions like relaxation in upper age-limit, etc., are provided. Liaison officers have been appointed for SCs/STs and OBCs in each Ministry/Department to ensure proper implementation of reservation policy for them.

The representation of SCs/STs and OBCs in Central Government services as on 1 January 2005 is given below:

Group	Total	SCs	%	STs	%	OBCs	%
A	80,589	9,551	11.9	3,448	4.3	3,791	4.7
B	1,39,958	19,194	13.7	6,230	4.5	3,252	2.3
C	20,36,103	3,33,708	16.4	1,31,678	6.5	1,19,968	5.9
D	7,67,224	1,40,469	18.3	55,032	6.9	32,973	4.3
(Excluding Sweepers)							
Sweepers	8,1174	48,067	59.2	4,012	4.9	1,834	2.3
Total	30,23,874	5,02,922	16.63	1,94,388	6.43	1,59,984	5.29
(Excluding Sweepers)							
Total	31,05,048	5,50,989	17.74	1,98,400	6.39	1,61,818	5.21
(Including Sweepers)							

Note : This does not include information in respect of two Ministry.

The Scheme of reservation is being followed by public sector undertakings including nationalised public sector banks. State governments have also provided for reservation of posts for SCs, STs and OBCs, etc., and have taken steps to increase their representation in State services. Reservation in State government services, however, is under the exclusive jurisdiction of respective State Governments.

WELFARE MEASURE FOR THE MINORITIES

Five religious communities viz Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) have been notified as minorities as per provision under the National Commission for Minorities (NCM) Act-1992. These five communities constitute about 18.47 per cent of the country's population. The Government has taken the following measures for welfare of Minorities:

CONSTITUTIONAL MEASURES

National Commission for Minorities : The Minorities Commission which was set up in January 1978 by a Resolution issued by Ministry of Home Affairs became a statutory body with the enactment of the National Commission for Minorities Act, 1992 and renamed as The National Commission for Minorities. The first statutory National Commission was set up on 17th May, 1993. The NCM Act, 1992 underwent an amendment on 8th September, 1995. The amendment was carried out in Section a2(b) and 3(2) of the Act, providing for a Vice Chairperson in the Commission. With the 1995 amendment to the Act, the Commission's composition was expanded to 7 Members (including a Chairperson and a Vice Chairperson). The provision under

Section 3(2) of the Act stipulates that 5 Members including the Chairpersons shall be from amongst the minority communities. As per Gazette notification issued on 23rd October 1993 by the Ministry of Welfare.

National Commission for Religious and Linguistic Minorities : The Government of India has been seized of the welfare needs of socially and economically backward sections among religious and linguistic minorities. For having a detailed examination to determine the criteria for identifications of socially and economically backward sections among religious and linguistic minorities and to suggest measures for their welfare, the Government has constituted a National Commission for Religious and Linguistic Minorities, with the following terms of reference: (a) to suggest criteria for identification of socially and economically backward sections among religious and linguistic minorities; (b) to recommend measures for welfare of socially and economically backward sections among religious and linguistic minorities, including reservation in education and government employment; (c) to suggest the necessary constitutional, legal and administrative modalities, as required for the implementation of their recommendations; and to present a Report of their deliberations and recommendations.

The Commission has started functioning since 21 March 2005.

THE CENTRAL WAKF COUNCIL

A Wakf is a permanent dedication of movable or immovable properties for purposes recognised by the Muslim Law as religious, pious or charitable. Apart from these religious aspects, the Wakfs are also instruments of social and economic upliftment. Administration of Central Legislation for Wakfs is the responsibility of the Ministry of Social Justice and Empowerment. For the purpose of advising it on matters relating to working of the Wakf Boards and the proper administration of Wakfs in the country, the Central Wakf Council was established as a statutory body by the Central Government in December, 1964 under Section 8A of the Wakf Act, 1954 (now read as Sub-Sec(1) of the Section 9 of Wakf Act, 1995). The present Council has been reconstituted on 18 March 2005. The Union Minister in charge of Wakf is the Chairperson of the Central Wakf Council. The Central Wakf Council is also playing a vital role in the development of the society by way of implementing the following schemes: (i) Development of Urban Wakf Properties; (ii) Educational Development Programmes

Special Officer for Linguistic Minorities : The Office of the Special Officer for Linguistic Minorities (commonly known as the Commissioner for Linguistic Minorities) was created in July 1957, in pursuance of the provision of Article 350-B of the Constitution. The Commissioner for Linguistic Minorities of India (CLM) has his Headquarters at Allahabad with Regional Offices at Kolkata, Belguam and Chennai. The CLM takes up all the matters pertaining to the grievances arising out of the non-implementation of the Constitutional and Nationally Agreed Scheme of Safeguards provided to linguistic minorities that come to its notice or are brought to its knowledge by the linguistic minority individuals, groups, associations or organisations at the highest political and administrative levels of the State Governments and UT Administrations and recommends remedial actions to be taken.

ECONOMIC DEVELOPMENT

National Minorities Development and Finance Corporation : National Minorities Development and Finance Corporation (NMDFC) provides concessional finance

for self-employment activities to eligible beneficiaries belonging to minority communities having family income below double the poverty line. The authorised share capital of the corporation has been enhanced from Rs 500 crore to Rs 650 crore.

EDUCATIONAL DEVELOPMENT

Maulana Azad Education Foundation : Maulana Azad Education Foundation is a registered society with the objectives of promoting education amongst the educationally backward sections of the society, and minorities in particular. The Government of India provides corpus fund to the Foundation. Keeping in view the overwhelming response to the educational schemes of the Foundation from all over the country, the Government is considering augmentation of its corpus fund from Rs 70.00 crores to Rs 100 crores.

Three new schemes viz., Maulana Azad Sadbhawna Kendra, Maulana Azad National Scholarship for Meritorious Girls Students and Maulana Azad Literacy Award are being implemented from the current year. During the year the Foundation has sanctioned scholarship of Rs 10,000 each to 2774 girl students from 22 States. For the first time 300 scholarship were distributed in the state of Jammu and Kashmir. Under the scheme of Maulana Azad Sadbhawna Kendra the Foundation has sanctioned four projects in the state of Madhya Pradesh.

WELFARE OF PERSONS WITH DISABILITIES

For the marginalised sections of the society National Policy for Persons with Disabilities has been finalised in 2005. The policy focuses on the prevention of disabilities, the physical and economic rehabilitation measures for disabled persons. The policy is to be implemented by Government and other agencies. Various steps had also been taken in the past for welfare and rehabilitation of persons with disabilities.

PERSONS WITH DISABILITIES ACT, 1995

A comprehensive law, namely, the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 has been enacted and enforced in February 1996. The law deals with both prevention and promotion aspects of the rehabilitation such as education, employment and vocational training, creation of barrier-free environment, provision of rehabilitation services for persons with disabilities, institutional services and supportive social security measures like unemployment allowance and grievance redressal machinery both at the Central and State-Level.

National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities: The National Trust is a statutory body under “The National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999”. The main objectives of the Trust are to enable and empower persons with these disabilities to live independently as fully as possible, to extend support to registered organisations providing need-based services and to evolve procedure for appointment of legal guardians for persons with disabilities requiring such protection. During the year 384 awareness camps were held and 79,300 and professionals were given counseling.

Office of the Chief Commissioner for Persons with Disabilities : The Chief Commissioner is an important statutory functionary, appointed under Section 57 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995. The functions and duties of the Chief Commissioner include coordinating the work of State Commissioners for persons with disabilities, monitoring of utilisation of funds disbursed by the Central Government, taking steps to safeguard rights and facilities made available to persons with disabilities and also to look into complaints with respect to deprivation of rights of persons with disabilities.

The Chief Commissioner can also take *suo motu* notice of non-implementation of any Rule, Law, etc, meant for persons with disabilities and is vested with the powers of a civil court relating to summoning of witness, discovery, requisitioning and production of any document, etc.

REHABILITATION COUNCIL OF INDIA

The Rehabilitation Council of India is a statutory body set up under the Rehabilitation Council of India Act, 1992. The Council is responsible for regulating the training policies and programmes for various categories of professionals in the area of rehabilitation and special education. Its functions include: (i) standardisation and regulation of training courses at different levels in all the training institutions throughout the country, (ii) recognition of institutions/universities running training courses in the area of rehabilitation of the disabled within and outside the country on a reciprocal basis, (iii) promotion of research in rehabilitation and special education, (iv) maintenance of a Central Rehabilitation Register for professionals possessing the recognised rehabilitation qualifications in the area of rehabilitation and (v) encouragement of Continuing Rehabilitation Education programmes in collaboration with organisations working in the area of disability.

NATIONAL INSTITUTES

In order to effectively deal with the multi-dimensional problem of the disabled population, the following National Institutes/apex level Institutes have been set-up in each major area of disability; (i) National Institute for the Visually Handicapped, Dehradun, (ii) National Institute for Orthopedically Handicapped, Kolkata, (iii) Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai, (iv) National Institute for the Mentally Handicapped, Secunderabad, (v) National Institute of Rehabilitation Training and Research, Cuttack, (vi) Institute for the Physically Handicapped, New Delhi, (vii) National Institute for Empowerment of Persons with Multiple Disabilities, Chennai. These institutes are mainly responsible for conducting innovative researches, organise training programmes for manpower development and deliver services in the country.

Artificial Limbs Manufacturing Corporation of India : The Artificial Limbs Manufacturing Corporation of India (ALIMCO), Kanpur is a public sector body, engaged in manufacturing of aids and appliances for persons with disabilities. The products manufactured by the Corporation conform to ISI standards approved by the Bureau of Indian Standards. Marketing of products is done through Regional Marketing Centres at Kolkata, Mumbai, Chennai, Bhubaneswar and Delhi and also

through National Institutes, voluntary organisations, 65 the corporation has manufactured aids and appliances.

Composite Regional Centres and Regional Rehabilitation Centre : Five Composite Regional Centres (CRCs) for the Persons with Disabilities are located at Srinagar, Lucknow, Bhopal, Sundernagar and Guwahati. These centres conduct training programmes to prepare professionals in the field of rehabilitation as well as provide rehabilitation services to the disabled. Four Regional Rehabilitation Centres for Spinal Injuries and other Orthopaedic Disabilities at Mohali, Cuttack, Jabalpur and Bareilly are providing services for basic management and follow-up of the spinally injured so as to make the affected persons functionally independent.

ECONOMIC DEVELOPMENT

National Handicapped Finance and Development Corporation : The National Handicapped Finance and Development Corporation (NHFDC) is an apex-level financial institution for extending credit facilities to persons with disabilities for their economic development. Funds assistance is disbursed through the channelising agencies authorized by the State Governments/UT Administrations and Non-Government Organisations. It also extends loans for pursuing education at graduate and higher levels. Besides, it assists in the upgradation of technical and entrepreneurial skills to enable beneficiaries to manage their production units efficiently.

Scheme for Assistance to Disabled Persons for Purchase/Fitting of AIDs and Appliances : The objective of the Scheme is to assist needy and disabled persons in procuring-durable, sophisticated and scientifically manufactured, standard aids and appliances that can promote their physical, social and psychological rehabilitation by reducing the impact of disability and enhancing their economic potential. The scheme is implemented through agencies like voluntary organisations, National Institutes under the Ministry, ALIMCO, Zila Panchayats, DRDAs, etc. The implementing agencies are provided grant-in-aid for purchase, fabrication and distribution of aids and appliances. The scheme also includes under its ambit medical/surgical correction and intervention that may be essential prior to fitting of aids and appliances.

SOCIAL DEFENCE

In the areas of Social Defence the Ministry is committed towards welfare of Older Persons and rehabilitation of Drug Addicts. The programmes for the targeted groups are as follows :

National Policy for Older Persons : The National Policy for Older Persons (NPOP) was announced in January 1999, with the primary objective viz., to encourage individuals to make provision for their own as well as their spouse's old age; to encourage families to take care of their older family members; to enable and support voluntary and non-governmental organisations to supplement the care provided by the family; to provide care and protection to the vulnerable elderly people, to provide health care facility to the elderly; to promote research and training facilities to train geriatric care givers and organisers of services for the elderly; and to create awareness regarding elderly persons to develop themselves into fully independent citizens.

National Council for Older Persons (NCOP) : The Government has re-constituted a National Council for Older Persons (NCOP) to advise and aid the Government on developing policies and programmes for older persons. It provides feedback to the Government on the implementation of the National Policy on Older Persons and the specific initiatives for older persons. The NCOP is the highest body to advise and coordinate with the Government in the formulation and implementation of policy and programmes for the welfare of the aged.

Integrated Programme for Older Persons : Under this scheme, financial assistance upto 90% of the project cost is provided to NGOs for establishing and maintaining old age homes, day care centers, Mobile Medicare Units and to provide non-institutional services to older persons.

Prevention and Rehabilitation of Drug Addicts/Alcoholics : Under the Scheme, grant-in-aid to the extent of 90 per cent (95 per cent in North East States, J and K and Sikkim) of the expenditure is provided to voluntary organisations for rehabilitation of drug addicts and alcoholics.

Assistance to Voluntary Organisation for Social Defence Services : It provides for undertaking programmes for the rehabilitation of various social segments at risk not currently covered under the existing schemes of the Ministry. In particular the scheme provides for Pilot Projects in unchartered areas in which the Ministry may like to formulate independent programmes in due course. A number of programmes are being supported for rehabilitation of children of sex workers. Initiatives have also been taken to support projects for rehabilitation of widows and for providing counselling and support to traumatised children and women particularly those who have been victims of physical violence and sexual abuse.

WOMEN AND CHILD DEVELOPMENT

INTRODUCTION

Women and Children (0-18 years) constitute roughly 71.14% of the Indian population as per 2001 census. While women (including female child 0-18 years) constitute 48% of total population, the children (male and female 0-18 years) constitute 44% of total population. The development of women and children is of paramount importance and sets the pace for overall development. Earlier there was a separate Department of Women and child Development functioning as a part of Ministry of Human Resources Development since 1985 to look into matters related to Women and Children. Keeping in view its importance, a separate Ministry of Women and Child Development came into existence from 30th January 2006. Vide Government notification dated 16.2.2006, all subjects relating to Child Welfare/Protection like the Juvenile Justice (Care and Protection of Children) Act 2000, Central Adoption Resource Agency (CARA) and adoption which were earlier under Ministry of Social Justice and Empowerment have been transferred to the newly created Ministry of Women and Child Development.

VISION

The **Vision** of Ministry of Women & Child Development is “Ensuring overall survival, development and protection of women and children of the country to enable them to lead productive and wholesome lives as citizens.” The Ministry has evolved policies, plans of action, legislations, programmes and schemes for advancement of women

and children and has been implementing these with the support of State Governments, other Government agencies and voluntary sector.

FOOD AND NUTRITION BOARD

Food and Nutrition Board (FNB) is an attached office of the Ministry of Women & Child Development is involved in policy making, strategy development as well as identifying innovative measures for the improvement of the nutritional status of the people of our country. It also focuses on improving the dietary habits of the people through nutrition education and extension; promotion of low cost, locally available foods; conservation of fruits and vegetables through home-scale processing; and training of health functionaries in nutrition.

The FNB operates through a technical wing at the Centre, four Regional Offices, Quality Control Laboratories at Delhi, Mumbai, Kolkata and Chennai and 43 Community Food and Nutrition Extension Units (CFNEUs) located in 29 States/UTs.

The National Nutrition Policy (NNP) was formulated in 1993, and as a follow up the National Plan of Action was developed in 1995. The National Plan of Action identified the different sectors in the Government for taking up coordinated action to combat malnutrition. National guidelines on Infant and Young Child Feeding have been brought out and the implementation of the Infant Milk Substitutes, Infant Foods and Feeding Bottles (Regulation of Production, Supply and Distribution) Act, 1992, as amended in 2003 (IMS Act) rests with Food and Nutrition Board.

Programmes are undertaken to train master trainers such as Medical Officers, Child Development Project Officers as well as the field level functionaries. Many nutrition awareness programmes for the community, home-scale preservation of fruits and vegetables which also promotes skill development in the adolescent girls and women are organized Demonstrations for promotion of low cost nutritious recipes are held to facilitate adoption of means to achieve better nutrition. Linkages with ICDS for nutritional quality of supplementary nutrition and health and nutrition education are maintained.

Films, also and video spots, radio programmes dealing with important issues of infant and young child feeding, balanced diets, prevention of under nutrition and micronutrient deficiencies as well as diet related chronic non-communicable diseases form part of the communication strategy. Exhibitions are held and celebration of events like World Breast Feeding Week, National Nutrition Week, World food Day etc. are taken up on a regular basis.

FNB has various publications and a wall calender with useful information on the basics of nutrition to the people at large. The list of publications is on the web site of the Ministry of Women and Child Development.

ACTS RELATING TO WOMEN AND CHILDREN

The Ministry is in charge of the administration of the following Acts relating to women and children: (a) The Immoral Traffic (Prevention) Act, 1956 (as amended in 1986) (b) The Indecent Representation of Women (Prevention) Act, 1986 (60 of 1986) (c) The Dowry Prohibition Act, 1961 as amended in 1986 (d) the Commission of Sati Prevention Act, 1987 (3 of 1988) (e) The Prohibition of Child Marriage Act 2006

(notified in January 2007) (f) Protection of Women from Domestic Violence Act 2005, (g) National Commission for Women Act 1990 (h) Infant Milk Substitutes, Feeding Bottles and Infant Food (regulation of Production, Supply and Distribution) Act, 1992 (41 of 1992) (i) Commission for Protection of Child Rights Act 2005 and (j) Juvenile Justice (Care and Protection of Children) Act 2000 and the Juvenile Justice Amendment Act 2006 notified in gazette on 23rd August 2006.

In addition, the Ministry is responsible for International Cooperation in matters relating to Women and Children.

SCHEMES FOR WOMEN

The Ministry is implementing the following schemes for women :

ECONOMIC EMPOWERMENT SCHEMES

STEP : Support to Training and Employment Programme for Women (STEP) was launched as a Central Sector Scheme in 1987. It has made a significant impact on women in traditional sectors by upgrading skills and providing employment on project basis by mobilizing them into viable groups, arranging for marketing linkages, support services and access to credit. The Scheme covers traditional sectors of employment such as agriculture, Animal Husbandry, Dairying, Fisheries, handlooms, handicrafts, Khadi and Village Industries and Sericulture. The scheme is being implemented through Public Sector Organisations, State Corporations, DRDAs, Cooperatives, Federations and registered Voluntary Organisations which have been in existence for a minimum period of three years.

During the period 2007-08 and 2008-09, 70920 poor women have been benefited from the Scheme. For this purpose, an amount of Rs. 3307.90 lakhs have been released to various implementing agencies across the country.

Swayamsidha : Swayamsidha is an integrated scheme for the development and empowerment of women. It is based on the formation of women into Self-Help Groups (SHGs) with emphasis on converging services, developing access to micro credit and promoting micro enterprises. The long-term objective of the scheme is to achieve all-round empowerment of women, especially, socially and economically, by ensuring their direct access to, and control over, resources through a sustained process of mobilization and convergence of all the on-going sectorial programmes. The immediate objectives of the programme are as follows : (a) Establishment of self-reliant women's Self-Help Groups (SHGs); (b) Creation of confidence and awareness among members of SHGs regarding women's status, health, nutrition, education, sanitation and hygiene, legal rights, economic upliftment and other social, economic and political issues; (c) Strengthening and institutionalizing the savings habit in rural women and their control over economic resources; (d) Improving access of women to micro credit; (e) Involvement of women in local level planning; and (f) Convergence of services of MWCD and other Departments.

The scheme was launched in 2000-2001 covering 650 blocks in the country including 238 IMY blocks in 335 districts. Each block consists of 100 Self Help Groups in 31 States/UTs. The programme is being implemented and SHGs are formed by the ICDS machinery in most of the States. A few States such as U.P., Uttarakhand, Tamilnadu, Bihar etc. taking help from NGOs through Women's Development Corporations for the purpose. Over 69,803 women's SHGs have been formed under the scheme covering 10.02 lakh women members. An amount of Rs. 168.82 crores

have been saved by SHGs formed under the scheme. 66,369 SHGs have accounts in banks, 36,574 SHGs (56%) have availed loans from banks to the tune of Rs. 167.61 crores. 53,207 SHGs (82%) constituting over 6.52 lakhs women are engaged in Income Generation Activities (IGA). 42,386 SHGs (65%) are benefiting from coverage with other Government schemes. The SHGs have created over 5424 Community Assets. **The Scheme was ended as on 31st March, 2009.**

SOCIAL EMPOWERMENT SCHEMES

Swadhar : The Swadhar Scheme was launched by the Department during the year 2001-2002 as a Central Sector Scheme for providing holistic and integrated services to women in difficult circumstances, such as destitute widows deserted by their families in religious places like Vrindaban and Kashi, women prisoners released from jail and without family support; women survivors of natural disasters who have been rendered homeless and are without any social and economic support, trafficked women/girls, rescued or runaway from brothels or other places or victims of sexual crimes, who are disowned by family or who do not want to go back to their family for various reasons, women victims of terrorist violence who are without any family support, mentally challenged women who are without any support of family or relatives etc.

The package of services made available under the Scheme include provision for food, clothing, shelter, health care counseling and legal support, social and economic rehabilitation through education, awareness generation, skill upgradation and behavioral training. The scheme also supports a Help-line for women in distress.

The project is implemented through Social Welfare/Women and Child Development Department, Women's Development Corporation, Urban Local Bodies, reputed Public/Private Trust or Voluntary organisations etc. provided they have the needed experience and expertise in the rehabilitation of such women on a project to project basis.

An amount of Rs. 14.94 crore was released under Swadhar Scheme during the year 2008-09 (by 31st March, 2009) to benefit 15,360 women.

Short Stay Homes : The Scheme of Short Stay Homes was launched in the year 1969 with the objective to protect and rehabilitate those women and girls who are facing social, economic and emotional problems due to family stress, social ostracism, moral danger, etc. The programme was transferred to CSWB for implementation w.e.f April 1999. Temporary shelter to the needy women and girls is given for 6 months to 3 years. Children accompanying the mother or born in the home may be permitted to stay in the home upto age of 7 years, after which they may be transferred to children institutions or provided foster care services. The programme was transferred to CSWB in April 1999.

Family Counselling Centres : The objective of Family Counselling Centres is to provide preventive and rehabilitative services to women and children who are victims of atrocities and family maladjustments. The Family Counselling Centre (FCC) scheme is being implemented through Central Social Welfare Board (CSWB) since 1984 through voluntary organizations. Family Counselling Centres are also being run for special categories of clients such as at police headquarters, FCCs in Mahila Jails, Rape Crisis Intervention Centres and Pre-Marital Counselling Centres. Women's

organizations and other voluntary social welfare organizations engaged in work relating to women issues can avail grants from CSWB for setting up Family Counseling Centres. The guarantee Institutions are also expected to make 20% contribution to the budget sanctions.

Condensed Courses of Education of Women : The scheme of Condensed Courses of Education implemented through the Central Social Welfare Board and aims to benefit needy women of tribal, hilly, backward areas and urban slums of the age 15 years who would not join mainstream education system or drop outs by providing them opportunity for education at different levels—primary, middle/high school. The main objective of the scheme is to provide educational qualification and relevant skills to women in order to make them eligible for identifiable remuneration, work opportunities so as to facilitate their empowerment.

Awareness Generation Programme for Rural and Poor Women : The scheme of Awareness Generation Programme aims at generating awareness amongst women and community at large on rights, status and problems of women in particular and other social concerns. The programme enables women to organize themselves and strengthen their participation in socio-economic and political—processes. Under the scheme, 8 camps with 2 days follow up are conducted to provide a platform to women where they come together, exchange their experiences and ideas and in the process they develop an understanding of reality and are encouraged to tackle their problems themselves to fulfill their needs.

SUPPORT SERVICES FOR WOMEN

Working Women's Hostel : The scheme of assistance for construction or expansion of hostel buildings for working women with day care facilities for children is being implemented since 1972-1973. Under this scheme, assistance is provided to non-governmental organizations, cooperative bodies and other agencies engaged in the field of women's welfare, women's education, public sector undertakings, women's development corporations, local bodies, universities, state governments, etc, for construction of buildings for Working Women's Hostels. This scheme envisages provision of safe and affordable accommodation to working women (single working women, women working at places away from their hometowns, working but husband out of town, widows, divorcees, separated women, etc.) and women being trained for employment and girl students studying in post-school professional courses. Trainees are permitted to stay for a period upto one year and girl students for a period upto five years, but with the condition that first preference would be given to working women. It is also stipulated in the scheme guidelines that the category of women who are being trained for employment and girl students should not exceed 30 per cent of the total number of Women in hostel. A slightly variant scheme is implemented by Central Social Welfare Board since 1969-70, which provides maintenance grant for running hostels for working women and provide secure and safe accommodation.

OTHER INITIATIVES

Ujjawala : A new scheme called "**Ujjawala**"—'A Comprehensive Scheme for 'Prevention of Trafficking', with five specific Components—Prevention, rescue, rehabilitation, reintegration and repatriation of victims of Trafficking' has been launched on 4th December, 2007. An allocation of Rs. 10.00 crore has been made for 2008-09 under the Scheme.

The scheme comprises of five components :

1. **Prevention**, which consists of forming of community vigilance groups/ adolescents groups, awareness and sensitization of important functionaries like police, community leaders and preparation of IEC materials, holding workshop, etc.
2. **Rescue**, safe withdrawal of the victim from the place of exploitation.
3. **Rehabilitation**, which includes providing safe shelter for victims with basic inputs of food, clothing, counselling medical care, legal aid, vocational training and income generation activities etc.
4. **Reintegration**, which includes restoring the victim into the family/community (if she so desires) and the accompanying costs.
5. **Repatriation**, to provide support to cross-border victims for their safe repatriation to their country of origin.

Gender Budgeting Initiatives of the Ministry of Women & Child Development : Gender Budgeting is the application of gender mainstreaming in the budgetary process. It encompasses incorporating a gender perspective at all levels and stages of the budgetary process, and paves the way to translating gender commitments to budgetary commitments and carrying out an assessment of the budget to establish its gender differential impact.

The Ministry adopted the mission statement of 'Budgeting for Gender Equity' in 2004-05 and also framed the Strategic Framework of Activities to implement this mission 2005 onwards. Extensive work on training, capacity building, advocacy, awareness generation and sensitization was undertaken by the Ministry. The Ministry of Women & Child Development implement this mission 2005 onwards. Extensive work on training, capacity building, awareness generation and sensitization was undertaken by the Ministry. The Ministry of Women & Child Development being the nodal Ministry for Gender Budgeting is proposing to set up a full fledged Gender Budgeting Bureau with appropriate staff and infrastructural facilities. The Ministry is also planning to set up Regional Resource and Training Centres for Gender Budgeting as well as Preparation of Training Manual, A 'Gender Budgeting Handbook for Government of India Ministries & Departments' has been developed and released by the Hon'ble State Minister (I/C) in January, 2009. So far, 56 Ministries and Departments, Government of India have set up Gender Budgeting Cells (GBCs) which are headed by a officer of Joint Secretary Level.

In view of the substantial increase in workload envisaged by setting up of GBCs in all Ministries/Departments, as well as the need to take Gender Budgeting to the State and the corporate sector, there is an urgent need to set up a Gender Budgeting Bureau in the MWCD with dedicated staff and also provide a fund component to carry out the various activities pertaining to Gender Budgeting. In view of this, a Scheme for Gender Budgeting has been included in the 11th Plan. The Annual outlay for 2008-09 for the Scheme of Gender Budgeting was Rs. 3.00 crore.

Grant-in-aid for Research, Publication and Monitoring : Through this scheme, the Ministry promotes research studies workshops and seminars on emerging issues in the field of women and child development.

National Policy on Empowerment of Women : The objective of the National Policy for Empowerment adopted by the Government on 20 March 2001 is to bring about the advancement, development and empowerment of women and to eliminate all forms

of discrimination against women and to ensure their active participation in all spheres of life and activities. A National Plan of Action proposes to translate this policy into achievable goals.

Protection of women from Domestic Violence Act 2005 (number 43 of 2005) : A new law on the protection of women from domestic violence has been enacted and brought into operation from 26.10.2006.

Convention on Elimination of Discrimination against Women (CEDAW) : India signed the Convention on Elimination of Discrimination against Women (CEDAW) on 30th July 1980 and ratified it on 9th July 1993 with one reservation and two declaratory statements. The convention obligates the state parties to undertake appropriate legislative and other measures to eliminate discrimination against women and for guaranteeing them the exercise and enjoyment of human rights and fundamental freedom on the basis of equality with men. The First Report was submitted (on 21st October) in 1997 and was considered (on 24th and 30th) in June 2000. A combined 2nd and 3rd Periodic Report was submitted in June 2005. The UN Committee on CEDAW considered the Report on 18th January 2007. Regional Conference on UN Convention on Elimination of Discrimination Against Women (CEDAW) for the Southern Zone was held at Hyderabad on 15-16 May, 2008. Regional Conference for the Eastern Zone was held at New Delhi on 21-22 October, 2008.

Beijing Platform for Action : The Fourth World Conference on Women, held in Beijing in 1995 was a landmark event that set the pace for women's empowerment when a Declaration and Platform for Action (BPFA) were adopted. BPFA has identified 12 critical areas of concern for women. India adopted both without any reservations. The Committee on Status of Women reviews progress made by member countries in the critical areas. The 53rd session of Committee on Status of Women was held from 2-13, 2009 in New York.

Stree Shakti Puraskar : As a measure of recognition of achievements of individual women in the field of social development, the Government of India has instituted five national awards, known as 'Stree Shakti Puraskar'. These awards will be in the name of the following eminent women personalities from Indian history, who are famous for their personal courage and integrity :

- 1 Devi Ahilya Bai Holkar
- 1 Kannagi
- 1 Mata Jijabai
- 1 Rani Gaidenlou Zeliang
- 1 Rani Lakshmi Bai

From the year 2007, another sub category of Stree Shakti Puraskar, named at the Rani Rudramma Devi has been added, which will be awarded to individual men and women for their outstanding administrative skill, leadership quality and courage.

Each award carries a cash prize of Rs. 3 lakh and a citation.

PROGRAMMES FOR CHILDREN

Integrated Child Development Services (ICDS) Scheme : The Integrated Child Development Services (ICDS) Scheme was launched in 1975 as a Centrally Sponsored Scheme with the following objectives: (a) to improve the nutritional and health status of children below the age of six years and pregnant and lactating mothers; (b) to lay

the foundation for the proper psychological, physical and social development of the child, (c) to reduce the incidents of mortality, morbidity, malnutrition and school dropouts, (d) to achieve effective coordination of policy and implementation among various departments to promote child development, (e) to enhance the capability of the mother to look after the health and nutritional needs of the child through proper health and nutrition education. The Scheme provides for a package of services to children below 6 years and pregnant women and lactating mothers, comprising (i) Supplementary nutrition (ii) Immunization, (iii) Health check-ups, (iv) Nutrition and Health education, (v) Referrals, (vi) Pre-school, non formal education.

Population Norms : Population Norms for setting up a Project, Anganwadi Centre and Mini-AWC are as under :-

Project : (i) Community Development Block in a State should be the unit for sanction of an ICDS Project in rural/tribal areas, irrespective of number villages/population in it. (ii) The existing norm of 1 lakh population for sanction of urban project may continue.

Further to this, for blocks with more than two lakh population, States could opt for more than one Project @ one per on lac population or could opt for one project only. In the latter case, staff could be suitably strengthened based on population or number of AWCs in the block. Similarly, for blocks with population of less than 1 lac or so, staffing pattern of CDPO office could be less than that of a normal block.

Anganwadi Centres

For Rural/Urban Projects

400-800	-	1 AWC
800-1600	-	2 AWCs
1600-2400	-	3 AWCs
Thereafter in multiples of 800	-	1 AWC

For Mini-AWC

150-400	-	1 Mini-AWC
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For Tribal/Riverine/Desert, Hilly and other difficult areas/Projects

300-800	-	1 Mini-AWC
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For Mini-AWC

150-300	-	1 Mini-AWC
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Nutrition Programme for Adolescent Girls (NPAG) : The Ministry of Women & Child Development is implementing the **Nutrition Programme for Adolescent Girls (NPAG)** on a pilot project basis in 51 identified districts across the country since 2005-06. Undernourished Adolescent Girls with body weight less than 30 kg in the age group of 11-15 years and less than 35 kg. in age group of 15-19 years are covered under the scheme. Free foodgrains @ 6 kg. per beneficiary per month, are provided to these undernourished adolescent girls. The programme has been operationalised through the administrative set up of ICDS at the state, district, block and Anganwadi Centre level. Allocation of funds for NPAG is made as Special Central Assistance (SCA), on 100% grant basis, to States/UTs. Foodgrains at Central Issue Price (CIP) applicable to the BPL rates are provided by Department of Food & Public Distribution to the States/UTs for the programme. Earlier, the Planning Commission implemented the pilot project during 2002-03 & 2003-04.

Ministry of Women & Child Development is implementing **Kishori Shakti Yojana** (KSY) for addressing the needs of self development, nutrition and health status, literacy and numerical skills, vocational skills etc. of adolescent girls in the age group of 11 to 18 years. The scheme is being implemented through the infrastructure of ICDS in 6118 ICDS projects. Under KSY, various programmatic options are available to the States/UTs to selectively intervene for the development of the adolescent girls on the basis of specific needs of the area. This scheme also seeks convergence with schemes of the Health Department in order to improve the nutritional and health status of the Adolescent Girls. Grant-in-aid @ of Rs. 1.10 lakh only per block per annum is released to the States/UTs for the implementation of KSY.

Rajiv Gandhi National Creche Scheme for the Children of Working Mothers : Rajiv Gandhi National Creche Scheme for the Children of Working Mothers was launched with effect from 1st January, 2006 to provide day care facilities to the children of working mothers. The scheme is being implemented through the Central Social Welfare Board and a national level Voluntary Organisation, namely Indian Council for Child Welfare (ICCW). 25 children are kept in one creche centre. 31718 creches have been sanctioned till date benefitting 7.92 lakh children.

Objective of the scheme

- 1 To provide day care facilities to the children (age group of 0 to 6 years) of working mothers by opening creches.
- 1 To provide development services, i.e., supplementary nutrition, health care inputs like immunization, polio drops, basic health monitoring and recreation to the children of working mothers.

Financial assistance under the scheme

- 1 The governmental assistance will be limited to 90% of the schematic pattern or actual expenditure (except honorarium to creche workers) whichever is less and the remaining expenditure will have to be borne by the implementing agencies concerned.
- 1 Government grant @ Rs. 3532.00 per month per creche is given to the implementing agencies concerned.
- 1 Schematics pattern is given as under.

Grant for running creche centres : Recurring and Non-recurring grants as per the following pattern :

Recurring grant :

Components	Ceiling expenditure	Grant
Honorarium to two creche workers per creche @ Rs. 1000.00 per creche worker per month	Rs. 2000.00 per month	Rs. 2,000.00 (100%)
Supplementary nutrition per creche for 25 children for 26 days @ Rs. 2.08 per child	Rs. 2352.00 per month	Rs. 1217.00 (90%)
Emergency medicines and contingencies	Rs. 350.00 per month	Rs. 315.00 (90%)

Recurring grant

Components	Ceiling expenditure	Grant
Purchase of consumable stores once at the time of opening of new creche @ Rs. 10,000.00 per creche.	Rs. 10,000.00 per creche	Rs. 10,000.00 (100%)
Replacement of old consumable stores at an interval of five years @ Rs. 5,000.00 per creche.	Rs. 5,000.00 per creche	Rs. 5,000.00 (100%)

The scheme has in-built component of monitoring of creches through Statewise independent monitoring agencies which have been identified in consultation with the State Governments. Grant for monitoring is also given.

Childline Services : Childline having a dedicated number 1098 is a 24 hour toll free telephone service available to all children in distress or by adults on behalf of children in distress. At present, Child Line is working in 83 cities. The basic objectives of Child Line are to : (i) respond to the emergency needs of the children in difficulty and refer him/her to such services as he/she is in need of; (ii) provide a forum for networking among Government agencies and non-Governmental agencies dedicated to the network of services in child care and protection; (iii) sensitize hospitals, medical personnel, police municipal corporations etc. towards needs of children, (iv) ensure protection of rights of the child, and (v) provide an opportunity to communities to respond to the needs of children in difficult circumstances. Childline operations are coordinated, monitored and expanded by Childline India Foundation, which is the umbrella organisation, set up by the Government of India.

Integrated Child Protection Scheme (ICPS) : Ministry of Women and Child Development has launched a new centrally sponsored scheme namely—Integrated Child Protection Scheme (ICPS) from the current financial year 2009-10 for implementation through the State Governments/UT Administrations. The objectives of the scheme are to contribute to the improvement in the well being of children in difficult circumstances, as well as to the reduction of vulnerabilities to situations and actions that lead to abuse, neglect, exploitation, abandonment and separation of children from parents. The scheme is being implanted through the State Governments/UT administrations on a predefined cost sharing financial pattern.

ICPS provides preventive, statutory, care and rehabilitation services to children who are in need of care and protection and children in conflict with law as defined under the Juvenile Justice (Care and Protection of Children) Act, 2000 as amended in 2006 and any other vulnerable child.

ICPS will provide financial support for setting up and running of services for children either by NGOs following due process by the State Government/UT Administrations or by the State Governments/UT Administrations themselves. These services include (a) Emergency outreach services through children; (b) Open shelters for children in Need in Urban and Semi Urban areas; (c) Family Based Non-Institutional Care; (d) aftercare; (e) Institutional Services.

Provisions have been made under the scheme for giving financial assistance to the State Governments/UT Administrations for setting up of statutory bodies like : (a) Child Welfare Committee; (b) Juvenile Justice Board (JJB); and (c) State Juvenile Police Unit as provided under the JJ Act.

ICPS brings existing child protection programmes namely : (i) A programme for Juvenile Justice; (ii) an Integrated Programme for Street Children, and (iii) Scheme for Assistance to Homes (Shishu Greh) to promote in Country Adoption, under one umbrella with some new additional interventions.

Scheme for Welfare of Working Children in Need of Care and Protection : The implementation of the scheme commenced in January, 2005. The objective of the scheme is to provide non-formal education, vocational training etc. to working children to facilitate their entry/re-entry into mainstream education in cases where they have either not attended any learning system or where for some reasons their education has been discontinued, with a view to preventing their future exploitation.

Prevention of female foeticide : Crime and violence against the girl child starts even before she takes birth. This is evident from the incidence of female foeticide which has been increasing over the years denying the girl child the right to be born. The Ministry has suggested to Ministry of Health to strengthen the existing administrative, enforcement and monitoring provisions under the Pre-conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) (PNDA) Act, 1994 and put in place such mechanisms that can tackle the problem of sex determination and foeticide in a more effective manner.

Dhanlakshmi—Conditional Cash Transfer for Girl Child with Insurance Cover

A new Pilot Scheme "Dhanlakshmi—Conditional Cash Transfer for Girl Child with Insurance Cover (CCT)" was launched on 3rd March, 2008 by the Ministry of Women and Child Development.

The Scheme provides cash transfer to the family of the girl child (preferable the mother) on fulfilling certain specific conditionalities, for the girl child:

- 1 At birth and registration of birth
- 1 On progress of immunization (6 monthly transfer)
- 1 On completion of full immunization
- 1 On enrolment and retention in school (MWCD will provide cash transfer till Class B and MHRD will provide cash incentives from Classes 9 to 12)
- 1 Remains unmarried at the age of 18 years.
- 1 In addition, an insurance maturity coverage to the tune of Rs. 1 lakh would be taken for the girl child born on and after the cut-off date suggested in the Scheme.

The objective of the scheme is two fold :

- 1 The direct and tangible objective is to provide a set of staggered financial incentives for families to encourage them to retain the girl child and educate her.
- 1 The more subtle and intangible objective is to change the attitudinal mindset of the family towards the girl. This will force the families to look upon the girl as an asset rather than a liability since her very existence has led to cash inflow to the family.

The Scheme will be piloted in 11 Districts across seven States.

The annual outlay of Rs. 10.00 crore has been made for 2008-09.

PREVENTION OF CHILD MARRIAGE

In order to prevent child marriages, the existing Child Marriage Restraint Act, 1929 was repealed and the Prohibition of Child Marriage Act, 2006 was notified on 11th

January, 2007. Under Section 19(1) of the Act. The State Government may, by notification in the Official Gazette, make rules for carrying out the provision of this Act and Section 19(2) stated that every rule made under this Act shall, as soon as may be after it is made, be laid before the State Legislature. The same has also been supported by the Supreme Court of India vide their Order dated 24th August, 2007 in WP (Civil) 212/203 that the prohibition of Child Marriage Act, 2006 be brought into force as expeditiously as possible and preferably within a period of four weeks from date. It is expected that the States within six weeks, thereafter, shall frame appropriate Rules. This Act provisions for enhancing punishment for offenders, and for appointment of Prohibition Officers in the States to prevent child marriages.

Cooperation with UNICEF : UNICEF projects are being implemented in India through an agreement between Ministry of Women and Child Development on behalf of Government of India and UNICEF, which is prepared after mutual consultation and consensus. The Ministry of Women and Child Development is the nodal Ministry for coordination the implementation of the Agreement. The Ministry of Women and Child Development conducts periodic review meeting to coordinate and monitor the implementation and expenditure of the programme.

The new Agreement, title "Country Programme Action Plan (CPAP)" for the period 2008-2012 was signed between Ministry of Women and Child Development and UNICEF on 3rd June, 2008 in New Delhi. The CPAP will be implemented through sectoral Ministries and Departments and aims at focusing on reduction in India's infant mortality and maternal mortality rates, fighting under-nutrition, promoting girl child, addressing violence against children, providing quality education, ensuring safe drinking water and environmental sanitation and tackling HIV.

UNICEF has committed to support the Government of India's flagship programmes in the social sector in order to support and strengthen their essential work and to raise US \$ 512 million for the five year programme of cooperation in India. The GOI-INCEP Country Programme Action Plan 2008-2012 is guided by UN Convention on the Rights of the Child and other national and international instruments.

Assistance to Voluntary Organisations for Providing Social Defence Services : Under the scheme, assistance is given to Voluntary organizations working in the field of child and women welfare for innovative projects and activities which are not covered in the existing schemes of the Ministry of Women and Child Development.

Children's Day : India observes Children's Day on 14 November every year. The Day enables us to review the progress made in attaining the decadal goals, identify gaps and constraints and work out strategies to reach the time-bound goals.

Convention on the Rights of the Child : India acceded to the UN Convention on the Rights of the Child on 11 December, 1992 to reiterate its commitment to the cause of children. The objective of the Convention is to give every child the right to survival and development in a healthy and congenial environment. The member countries that have acceded to the Convention on the Rights of the Child are required to submit a periodical report about the status of the implementation of the Convention in their country. Accordingly, the first India Country Report was submitted to UN in 1997. The Second Country Report was submitted on the rights of the child in 2001, which was discussed in an oral hearing in Geneva on 21 January, 2004. The UN Committee appreciated the Report and gave its comments and observations. The next Country Report is due in 2008 and the Ministry is working on it.

India has signed two Optional Protocols to the Convention on the Rights of the Child, namely : (1) on the involvement of children in armed conflicts, and (2) on the sale of children prostitution and child pornography in September, 2004.

National Plan of Action for Children : The National Policy for Children adopted on 22nd August 1974 lays down that the State shall provide adequate services towards children both before and after birth and during the growing stages for their full physical, mental and social development.

The National Charter for Children is a policy document adopted by the government highlighting the roles and responsibilities of the government and the community towards the children and the duties of children towards their families,, society and the country. It has been notified in the Official Gazette of India on 9 February, 2004. India was an active party in the recent movements at International Platforms like World Summit for Children 1990, UN Convention on the Rights of the Child 1992, UN special session on Children May 2002. As a further Step, Ministry prepared the National Plan of Action for Children 2005 after harmonizing the goals for children set in the UN General Assembly Special Session on Children held in 2002 and the monitorable targets set in the Tenth Five Year Plan, and goals for children in related Ministries/Departments. The Action Plan has been prepared in consultation with concerned Ministries and Departments. States/Union territory Governments, Non Governmental Organization and experts. The National Plan of Action includes goals, objectives, strategies and activities for improving nutritional status of children, reducing IMR and MMR, increasing enrolment ratio and reducing drop out rates, universalisation of primary education, increasing coverage for immunization etc. National Coordination Group has been constituted for the purpose of monitoring the implementation of the provisions of the NPAC.

National Child Award for exceptional Achievement : The National Child Award for Exceptional Achievement was instituted in 1996 to give recognition to children of 4 to 15 age group with exceptional abilities who have achieved outstanding status in various fields including academics, arts, culture and sports, etc. One Gold Medal and 35 Silver Medals (one for each State/UT) are given annually. The awards for the year 2008 were given on 05-02-2009.

National Award for Child Welfare : The Award was instituted in 1979 to honour five institutions and three individuals for their outstanding performance in the field of child welfare. The National Award for Child Welfare includes a cash prize of Rs. 3 lakh and a certificate for each institution and Rs. 1 lakh and a certificate for each individual. The Awards for the year 2008 were given on 05-02-2009.

Rajiv Gandhi Manav Seva Award : This Award was instituted in 1994 to honour an individual who makes outstanding contribution towards service for children. The Awards carry a cash prize of Rs. 1.00 lakhs, a silver plaque and a citation. The number of Awards were increased to three from the year 2006. The Awards are declared on birth anniversary of late Shri Rajiv Gandhi on 20th August every year. The awards for the year 2008 were given on 05-02-2009.

STATUTORY AND AUTONOMOUS ORGANISATIONS

National Commission for Women : It is a statutory body constituted on 31.1.1992 under the National Commission for Women Act, 1990. The main task of the Commission is to study and monitor all matters relating to the Constitutional and legal safeguards provided for women and to review the existing legislations and suggest amendments, wherever necessary.

The commission also ensures speedy redressal of grievances of women. The NCW has formulated a scheme titled 'Scheme for relief and Rehabilitation of Victims of Rape, 2005'. It envisages compensation to the victims of rape up to a maximum amount of Rs. 2 lakhs for all rehabilitation measures. The National Commission for Women has also initiated a pilot project with Delhi Police in May, 2008. The project called 'Save Home, Save Family' is intended to sensitize police personnel at the Thana/Police Station level in order to deal with women issues effectively. Phase-II of the project has been initiated in March 2009 for setting up three special cells for women and children in Delhi, based on Maharashtra model. The Major function of the Cells would be to handle cases of violence against women (VAW), provision of police assistance on criminal complaints, referral to family service agencies, counseling, legal aid and generating awareness on VAW. The project is funded by the National Commission for Women and is functioning in association with Tata Institute of Social Sciences (TISS).

National Commission for Protection of Child rights: The Commissions for Protection of Child Rights Act (Number 4 of 2006) and its Amendment notified in the official Gazettee of India on 20th Jan., 2006 and 29th Dec., 2006 provides for constitution of a National Commission for Protection of Child Rights as per Section 3. The Commission has started functioning from 5th March 2007. The National Commission for Protection of Child rights is a statutory body. The objective of the Commission is proper enforcement of children's rights and effective implementation of laws and programmes relating to children. The Commission is to look into all matters such in a holistic manner. The Commission will have a Chairperson and six other members, including two women members, and a Member Secretary. The members would be experts in the field of child health, education, child care and development, juvenile justice, children with disabilities, elimination of child labour, child psychology or sociology and laws relating to children.

Rashtriya Mahila Kosh (RMK): The objective of the institution set-up on 30 March, 1993 under Societies Registration Act, 1860 is to facilitate credit support to poor women for their socio-economic upliftment. The support is extended through NGOs, Women Development Corporations, state government agencies like DRDAs, Dairy Federations, Municipal Councils, etc. RMK extends loan to the above organisations at 8 per cent and the above organizations can lend to the women Self Help Groups/ultimate women beneficiaries at an interest ranging from 8 per cent to 18 per cent. The RMK provides micro-credit with a unique credit delivery model "RMK-NGO-SHG - Beneficiaries" which is one of the main reasons for its success. The other reasons are its flexible credit norms, hassle free loans, no collateral and reasonable rate of interest.

National Institute of Public Cooperation and Child Development: National Institute of Public Cooperation and Child Development (NIPCCD), New Delhi is an autonomous organisation under the aegis of the Ministry of Women and Child Development. The objectives of the Institute are to develop and promote voluntary action in social development, take a comprehensive view of women and child development, develop and promote programmes in pursuance of the National Policy for Children, develop measures for coordination of governmental and voluntary action in social development, and evolve a framework and perspective for organising children's programmes through governmental and voluntary efforts.

The building of functionaries at the national and regional level, under the proposed Integrated Child Protection Scheme (ICPS), to be launched soon. The Institute provides technical advice and consultancy to government and voluntary agencies in promoting and implementing policies and programmes for women and child development and voluntary action. In addition, it collaborates with regional and international agencies, research institutions, universities and technical bodies. The Institute has established four Regional Centres at Guwahati, Bengaluru, Lucknow and Indore.

Central Social Welfare Board : Set-up in August, 1953, the growth of the Board is synonymous with the development of voluntary agencies in India. The Central Social Welfare Board has the objective of promoting social welfare activities and implementing welfare programmes for women, children and handicapped through voluntary organisations. In 1969, the Board was registered as a charitable company under the company's act to give it legal status. There are 33 State Boards which implement the programmes such as Awareness Generation Programme, Condensed Course of Education for Women, Family Counseling Centres, Short Stay Home, Rajiv Gandhi National Creche Scheme, Hostel for Working Women (Rent) etc.

Rashtriya Mahila Kosh (RMK) : Rashtriya Mahila Kosh (National Credit Fund for Fund) was set up by the Government of India in March 1993 as an autonomous body registered under Societies Registration Act 1860 under the Department (now Ministry) of Women and Child Development. The objective was to facilitate Credit Support to poor women for their Socio-economic upliftment.

The credit needs of poor women, specially those in the unorganized sector, are not adequately addressed by the formal financial institutions of the country. Thus RMK was established to provide loans in a quasi formal credit delivery mechanism, which is client-friendly, has simple and minimal procedure, disburse quickly and repeatedly, has flexible repayment schedules, link thrift and savings with credit and has relatively low transaction costs both for the borrower and the lender.

The RMK provides micro-credit with a unique credit delivery model "RMK-NGO-SHG-Beneficiaries". The support is extended through NGO's women Development Corporations, State Government agencies like DRDA's, Dairy Federations, Municipal Councils etc. These agencies are provided loan at 8 per cent interest on reducing balance and they can lend to the Self Help Groups (SHG)/ beneficiaries at interest ranging between 8-18 percent on reducing balance. This is a very reasonable interest rate and no collateral is required.

Central Adoption Resource Agency (CARA) : Central Adoption Resource Agency (CARA) was set up on 20th June, 1990. It was registered as an autonomous body under the Registration of Societies Act, 1860 on 18.3.1999. On the recommendation of State Governments, CARA gives recognition to agencies to facilitate inter-country adoptions. It also gives enlistment to foreign adoption agencies, as recognized under the appropriate laws of their own country, and recommended by Indian Missions abroad. So far, CARA has recognized 64 Indian Placement Agencies in the country and 152 Enlisted Agencies, which also include Government Departments in more

than 25 countries. CARA also implements Shishu Greh Scheme which promotes in-country adoptions. This scheme has been subscribed in ICPS.

PENSION AND PENSIONERS WELFARE

The Department of Pension & Pensioner' Welfare, set up in 1985, is the nodal agency of the Government of India for formulation of general policy on pension and other retirement benefits, as also for redressal of pensioners' grievances. A number of steps have been taken in the last few years for streamlining the pension administration system. In pursuance of the recommendations of the Sixth Central Pay Commission for rates of pension, family pension, etc. have been revised as under.

(i) Pension/Family Pension : Minimum pension has been enhanced to Rs. 3500/- per month w.e.f. 1.1.2006. Linkage of full pension with 33 years of qualifying service has been dispensed with. Once a Government servant has rendered the minimum qualifying service of 10 years (20 years for voluntary retirement) pension is paid at 50% of the emoluments or average emoluments received during the last 10 months, whichever is more beneficial to him.

(ii) Commutation of Pension : The commutation of pension has been allowed up to 40 per cent of pension.

(iii) Gratuity : The ceiling of gratuity has been raised to Rs. 10 Lakhs.

(iv) Family Pension : Family Pension is paid at the uniform rate of 30% of the pay last drawn. The Family pension at enhanced rate is payable to the family of a deceased government servant for a period of 10 years. In the case of deceased pensioner, enhanced family pension is paid for a period of seven years, or for a period upto the date on which the retired deceased government servant would have attained the age of 67 years, had he survived, whichever is earlier. The definition of family for the purpose of family pension has been broadened to include dependent parents; dependent widowed and divorced daughters made eligible for to family pension with effect from 1st January 1998; family pension for life extended to the dependent divorced and widowed daughters with effect from 30th August 2004 and to the unmarried daughters w.e.f. 6.9.2007. Son or daughter, suffering from any disorder or disability of mind or physically crippled or disabled, have been made eligible for family pension for life. Dependent disabled (i.e. sisters/brothers) have been made eligible for family pension for life. Dependent disabled siblings (i.e. sisters/brothers) have been made eligible for family pension for life. Maximum limit for two family pensions to dependent children of the deceased Government servants has been raised to Rs. 45,000/- with effect from 1st January, 2006.

(v) Deposit Linked Insurance Scheme : The upper ceiling of amount payable under the deposit linked Insurance Scheme has been fixed at Rs. 60,000/-.

(vi) Medical Allowance : A fixed medical allowance @ Rs. 100 per month is payable to the Pensioners residing in areas not covered by CGHS. A proposal for enhancement in Fixed Medical Allowance consequent on 6th CPC recommendations is under consideration of the Government.

(vii) CPF Retirees : CPF retirees of the period from 18th November 1960 to 31st December 1985, who retired on superannuation with 20 years of continuous service, have been allowed ex-gratia at the rate of Rs. 600/- per month with effect from 1st November, 1997.

(viii) Timely Payment of Pension & Retirement Dues : In pursuance of observations made by the Parliamentary Standing Committee of the Ministry of Home Affairs in Para 61 of its 44th Report, detailed instructions have been issued for timely payment of pension and retirement dues to the retiring employees of the Union Government. The instructions also provide for fixing responsibility of penal interest paid on delayed amount of gratuity to the retiring employees from the salary of concerned dealing Official/Supervisor and Head of Office in proportion.

(ix) Employed family pensioners have been allowed Dearness Relief (D.R.) on their family pension with effect from 18th July 1997. In the case of reemployed pensioners D.R. on pension is payable only if pay on reemployment has been fixed at the minimum of the scale of re-employed post and subject to certain conditions.

(x) Central Government Servants who had drawn lump sum payment on absorption in PSUs/Autonomous Bodies are entitled to restoration of 1/3rd commuted portion of pension duly revised as per O.M. dated 06.092007 in pursuance of Supreme Court's Judgments dated 29th November 2006 and 24th July, 2007. The D.R. has now been allowed on full pension instead of 1/3rd commuted portion of pension. In pursuance of revision of pension as per 6th Pay Commissions Recommendations, the 1/3rd restorable pension of PSU/CAB absorbed employees, who had drawn lump sum in lieu of 100% pro-rata pension, has been revised vide OM No. 4/38/2008-P&P(D) dt. 15/9/08 and as clarified vide OM. No 4/38/2008-P&PW (D) dt. 27/5/2009.

(xi) Identity Cards to Pensioners : The Government has decided to issue Identity Cards with National Emblem to all Civilian Central Government pensioners.

(xii) DA to be Treated as Emoluments for Gratuity : W.e.f. 1st January 1996, DA admissible on the date of retirement/death of the Government employee is treated as emoluments for the purpose of gratuity.

Besides following are the details of other benefits/facilities relating to pension, family pension, etc. which have been revised/improved from time to time.

(i) New Pension Scheme (Restructured Defined Contribution Pension System) : Based on the recommendations of the High-level Expert Group-(2001) to review the pension system to introduce a comprehensive pension scheme and pursuant to the announcement in the Budget 2003-2004, Department of Economic Affairs notified on 22nd December, 2003, a new "Restructured Defined Contribution Pension System" for new entrants to the Central Government service, System" for new entrants to the Central Government service, except the Armed Forces, in the first stage, replacing the existing defined benefit pension system.

(ii) The 'New Pension System' has become operative from 1st January, 2004 and applies to Central Government servants appointed on/after 1st January 2004;

(iii) Consequent to introduction of 'New Pension Scheme' with effect from 1st January 2004, CCS (Pension) Rules 1972, CCS (Commutation of Pension) Rules 1981, GPF, CPF and EOP Rules will not be applicable to Central Government servants appointed on or after 1st January 2004;

(iv) With the implementation of the 'New Scheme' with effect from 1st January 2004, the Old Pension Scheme' under the Central Civil Services (Pension) Rules, 1972 ceased to exist beyond 31st December 2003 for the Central Government servants appointed on or after 1st January, 2004. However, the employees would continue to be covered under the old pension scheme if they join after submitting technical resignation from Central Government or Central Autonomous Body where old pension scheme was in operation prior to 1st January 2004. This will facilitate mobility of employees between Central Government Department and Central Autonomous Bodies and vice-versa.

(v) Additional benefits, such as gratuity, invalid pension, family pension, etc., as hitherto availed by Govt. servants under the Old Pension Scheme, allowed on death or discharge on invalidation/disability of Govt. servants covered by New Defined Contribution Pension System.

(vi) Ex-Gratia to Disabled Children of CPF/Retirees : Physically or mentally disabled children of Contributory Provident Fund/State Reserve Police Force retirees are entitled to the benefit of ex-gratia payment for life on the same conditions as prescribed for such children of Government servants under CCS (Pension) Rules 1972 and corresponding rules applicable to Railway employees.

(vii) Medical Certificate in Respect of Disabled Children : Rules 54 (6) of CCS (Pension) Rules, 1972 has been amended. Certificate of disability shall be provided only once if the disability is permanent; and once in 5 years if the disability is temporary. The Medical Certificate would now be issued by a Medical Board.

(viii) Dearness Relief : Pensioners are allowed 100 per cent neutralization vis-a-vis the rise in cost of living and order to this effect are issued twice a year effective from 1st January and 1st July of the year.

(ix) Central Government Servants Absorbed in PSUs or Autonomous Bodies : Sub-Rules (8) of Rules 37(A) of CCS (Pension) Rules 1972 has been amended to allow the employees absorbed in PSU of Autonomous Body to exercise option either to get pro rata pensionary benefits or to continue to get combined service benefits. Prior to the above amendment, employees were eligible for benefits based on combined service.

(x) Pensioners' Portal : As part of the National e-Governance Plan (NeGP), a web-enabled 'Pensioners Portal', a Mission Mode Project, has been launched for public domain w.e.f. 30.03.2007. It envisages redressal of pensioners' grievances besides providing guidance and information on pension and retirement related matters. 27 pensioner's Associations have been identified for association with the implementation of the Portal. Hardware and software has been provided to the representatives of Pensioners Associations and official of various Ministries/Departments. An Impact Assessment study of the Scheme by an external agency is underway.

(xi) SEVOTTAM : SEVOTTAM (i.e. Services Delivery Excellence Model), which envisages bringing about excellence in services delivery and assessing and rating

the level of excellence as per the benchmarks/norms prescribed by the Department of the Administrative Reforms and Public Grievances, has been undertaken by the Department for implementation. A Citizens' Charter, Policy has been finalized under SEVOTTAM, and circulated on 28.03.2008; it outlines the Vision, Mission, Activities, Clients, Policy Framework, Grievances Redressal Mechanism, etc. of the Department.

(xii) Ex-Burmese Civil Pensioners/Family Pensioners : Ex-gratia ad-hoc allowance has been revised and raised from Rs. 1275/- p.m. to 3500/-pm. w.e.f. 1.1.2006 to Burmese Civil Pensioners/family pensioners and Pensioners/families of displaced Government Pensioners from Pakistan who are Indian nationals.

This law is very comprehensive, covers almost all levels of governance and has the widest possible reach. It is applicable not only to Union, State and Local Governments and the public authorities but also to the recipients of government grants. Access to information under this Act is extensive with minimum exemptions to safeguard national interests Even the exempted organizations are subject to the citizens' right to know when the exempted organizations are subject to the citizens' right to know when the matter relates to corruption or human rights violation.

The Act is perhaps the most progressive of all such legislations in the world. The citizen does not have to establish his *locus standi* to seek information. It overrides anything contrary to any other Act including the 'Official Secrets Act'.

The procedure for seeking information under the Act is very simple. A person seeking information from any office of the Government has to simply make a request to the concerned Public Information Officer. The request has to merely indicate the information sought and the address at which the information is required. The request can be sent either by post or submitted in person. It can be made in Hindi or English or in the official language of the area and can also be sent through e-mail.

The Act permits the applicants to inspect the official documents. It also permits the applicants to collect samples of various works.

If the applicant does not get the information within 30 days or the applicant is not satisfied with the reply given to him, he can make a first appeal within 30 days to the appellate authority who is generally the officer immediately superior to the Public Information Officer. The Appellate authority has to decide the appeal within 30 days of the receipt of appeal.

If the applicant is not satisfied with the decision of the Appellate Authority, he can file a second appeal to the Central Information Commission or the State Information Commission, as the case may be within 90 days. The Central Information Commission entertains appeals in case of offices, financial institutions, public sector undertakings, etc. under the Central Government and the Union Territories while the State Information Commission entertains appeals pertaining to offices, financial institutions, public sector undertakings, etc. under the concerned State Government.

Central Information Commission/State Information Commissions are high-powered independent Commissions. These Commissions have also been granted the authority to impose a penalty on the defaulting Public Information Officers.

The Act has transformed the regime of secrecy into the regime of openness. It is not that information shall be supplied only when a person requests for it. Rather, every public authority, in order to disseminate maximum possible information, is obliged to publish large quantum of information in respect of its organisation *suo-motu* so that the public has minimum need to resort to seek information from the public authorities.

MINISTRY OF MINORITY AFFAIRS

The Ministry of Minority Affairs was created on 29th January, 2006 to ensure a focused approach to the issues relating to the minorities and to play a pivotal role in the overall policy planning coordination evaluation and review of the regulatory and development programme for the benefit programme of the minorities communities. Five religious communities namely Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) have been notified as minorities communities under section 2(c) of the National Commission for Minorities Act, 1992. These five minorities communities constitute about 18.47 per cent of the population of the country. The Ministry is also responsible for the administration and implementation of the (i) National Commission for Minorities Act, 1992; (ii) Wakf Act, 1995 and (iii) Durgah Khwaja Saheb Act, 1955.

In a short period of time, not only has the Ministry been made fully functional but concerted efforts have been made to streamline the ongoing programmes/schemes and to launch innovative and effective schemes/programmes for the welfare of minorities communities. The details/developments pertaining to scheme run by the Ministry as well as its subordinate organizations are as under :-

Prime Minister's New 15-Point Programme for the Welfare of Minorities : The Prime Minister's New 15-Point Programme for the Welfare of Minorities was announced in June, 2006. The objectives of the programme are: (a) Enhancing opportunities for education, (b) Ensuring an equitable share for minorities in economic activities and employment, through existing and new schemes, enhanced credit support for self-employment and recruitment to State and Central Government jobs, (c) Improving the conditions of living of minorities by ensuring an appropriate share for them in infrastructure development schemes, (d) Prevention and control of communal disharmony and violence. An important aim of the new programme is to ensure that the benefits of various government schemes for the underprivileged reach the disadvantaged sections of the minority communities. In order to ensure that the benefits of these schemes flow equitably to the minorities, the new programme envisages location of a certain proportion of development projects in minority concentration areas. It also provides that, wherever possible, 15% of physical targets and financial outlays under various schemes should be marked for minorities.

As envisaged in the guidelines for the Prime Minister's New 15-Point Programme for the Welfare of Minorities, the progress of the implementation is monitored closely.

Some of the notable achievements made during 2006-07 and 2007-08 and the targets fixed for 2008-09 are given below :-

(i) Under Sarva Shiksha Abhiyan (SSA), 961 primary schools were constructed in 2006-07 in minority concentration areas and this has now increased to 2008 in

2007-08. In respect of new upper primary schools, 1,114 such schools were opened during 2006-07. This increased to 3,001 during 2007-08. Similarly, the number of Kasturba Gandhi Balika Vidyalayas (KGBV) sanctioned for educationally backwards blocks, having a substantial minority population, rose from 97 in 2006-07 to 219 in 2007-08.

(ii) Under the Swarnajayanti Gram Swarajgar Yojana (SGSY), 60,494 Swarajgaris belonging to the minorities were assisted in 2006-07 and this went up to 143,385 in 2007-08. The target for assisting swarajgaris has been fixed at 264,401 in 2008-09.

(iii) Under the Indira Awas Yojana (IAY), 14,236 BPL families belonging to the minorities were assisted for construction of pucca houses in 2006-07. This went up to 155,980 in 2007-08. The target for construction of houses for minorities below the poverty line has been fixed at 319,075 in 2008-09.

(iv) Under the Swarn Jayanti Shahari Rojgar Yojana (SJSRY), 15,933 beneficiaries were assisted for skill training in 2006-07. In 2007-08, the achievements rose substantially to 41,466. This was more than the target fixed.

(v) The proportion of priority sector lending flowing to the minorities is expected to increase from 9% to 15% over three years i.e. 2007-08 to 2009-10. Rs. 58,662.67 crores of priority sector lending, which was 9.67% of the total priority sector lending, was disbursed to minorities in 2007-08. The target for 2008-09 is 13.00%.

Exclusive scholarship schemes for students belonging to the minorities communities: Three Centrally sponsored scholarship schemes for students belonging to the minority communities have been launched. To ensure that girl students get a fair share, all three schemes have 30% scholarship earmarked for them. These schemes are :

(i) **Merit-cum-Means scholarship** is a scheme fully funded by the Central Government. Every year 20,000 new scholarships are to be awarded for technical and professional courses at under graduate and post graduate levels. 70 institutes have been listed in the scheme and student enrolled in these institutes are entitled for reimbursement of course fee upto a maximum amount of Rs. 20,000 per annum. 17,258 scholarships were sanctioned to students in 28 States/UTs in 2007-08 of which 29.02% went to girl students. The target for 2008-09 is 37258 scholarships.

(ii) **Post-Matric Scholarships** is a scheme fully funded by the Central Government. This scholarship is awarded to students belonging to the minority communities studying in class-XI up to Ph.D. level and it also includes technical and vocational courses of class XI and XII. Fees ranging from Rs. 3,000 to Rs. 10,000 per annum are reimbursed to students. 56,742 scholarships were sanctioned to students in 28 States/UTs in 2007-08; 56.80% for girl students. The target for 2008-09 is 2.5 lakh students.

(iii) **Pre-Matric Scholarship** is being implemented on a sharing basis between the Centre and States in the ratio of 75:25 for students in class-I to class-X. Fees upto Rs. 4700 per annum will be reimbursed to students under this scheme. Advertisements have been issued by both the Central and State Governments seeking applications. Four lakh scholarships are expected to be awarded in 2008-09.

Identification of Minority Concentration Districts : 90 minority concentration districts (MCD) have been identified, based on the population data of 2001 census and relevant backwardness parameters. A multi-sectoral development programme, designed to address the 'development deficits', specially in education, employment, sanitation, housing, drinking water and electricity supply has been launched from 2008-09. Baseline survey to identify 'development deficits' has been carried out by the regional research institutes affiliated to the Indian Council of Social Science Research, New Delhi. The budgetary provision for 2008-09 is Rs. 540 crore. Multi sectoral development plans of 8 minority concentration districts have already been approved.

A Coaching & Allied Scheme has been launched in July, 2007 with a view to improving the representation of minorities in government service and public sector undertakings and also to cater to the emerging trends of the job market. 60 proposals for coaching 4147 candidates have been sanctioned for the year 2007-08. The budgetary provision for 2008-09 is Rs. 10.00 crore.

Initiatives taken in Pursuance of the Sachar Committee Recommendations :

- All public sector banks have been directed to open more branches in districts having a substantial minority population, 523 branches were opened in 2007-08 in such districts.
- Expert group constituted to study and recommend the structures and functions of an Equal Opportunity Commission, Report submitted by the expert group on 13.3.2008.
- Expert group constituted for evolving an appropriate Diversity Index to measure diversity in the areas of education, housing and employment. Report submitted by the expert group on 24th June, 2008.
- A National Data Bank, to compile data on the various socio-economic and basic amenities parameters for socio-economic religious communities, set up in the Ministry of Statistics and Programme Implementation.
- An autonomous Assessment & Monitoring Authority (AMA) to analyse data collected for taking appropriate and corrective policy decisions set up in the Planning Commission.
- Mid day meal programme extended to upper primary level in all 3479 educationally backward blocks.
- Seventy seven blocks with a high concentration of Muslims identified for establishment of Block Institutes of Teacher Education (BITEs) for teacher education. Scheme for setting up BITEs being modified.
- Provision of more girls' hostel in colleges and universities in minority concentration districts proposed under the existing University Grants Commission (UGC) scheme. Proposed also to open new polytechnics with hostel facilities in MCDs.
- The madrasa modernization programme is being revised. The two components of the existing programme have been proposed as two separate schemes (a)

Quality improvement in Madrasa Education (b) Infrastructure development in Primary, Upper Primary, Secondary and Senior Secondary schools established by minorities. The scheme for quality improvement in Madrasa education to make it more attractive by providing better salary to teachers, increased assistance for books, teaching aids and computers and introduction of vocational subjects etc. has been approved.

- NCERT has prepared text books for all classes in the light of the NCF 2005.
- Thirteen Universities which were provided Rs. 40 lakhs each for starting centres for studying social exclusion and inclusive policy for minorities and SCs & STs have been set up the centres.

Maulana Azad Education Foundation (MAEF) : The present corpus of the MAEF stands at Rs. 250.00 crores. A provision of 60 crores has been made towards augmentation of the Corpus Fund of the Foundation during the year 2008-09.

In the year 2007-08, under the grant-in-aid scheme, an amount of Rs. 175 lakhs was given for construction of hostel buildings, Rs. 439.50 lakhs for construction/expansion of schools, colleges and Rs. 45 lakhs for technical education. An amount of Rs. 425.88 lakhs was disbursed under the Maulana Azad National Scholarship to 3549 beneficiaries and Rs. 4.75 lakhs was given for Vocational Training Centre run by MAEF at Delhi.

In 2008-09 (upto July, 08), under grant-in-aid scheme of MAEF, an amount of Rs. 172 lakhs has been disbursed for construction of hostel buildings, Rs. 311.90 lakhs for construction/expansion of schools, colleges and Rs. 37 lakhs for technical education. Rs. 55.44 lakhs has been disbursed to 462 beneficiaries under the Maulana Azad National Scholarship and Rs. 1.75 lakh has been spent on Vocational Training Centre run by MAEF at Delhi.

National Minorities Development and Finance Corporation (NMDFC) : The National Minorities Development & Finance Corporation (NMDFC) was incorporated on 30th September 1994, with the objective of promoting economic activities amongst the backward sections of notified minorities. To achieve its objective, NMDFC is providing concessional finance for self-employment activities to eligible beneficiaries belonging to the minority communities, having a family income below double the poverty line.

The authorized share capital of NMDFC is Rs. 750 crores. An amount of Rs. 70 crores was provided in 2007-08 and the entire amount was released to the Corporation.

The government has given its approval for increasing the authorized share capital of the National Minorities Development & Finance Corporation from Rs. 750 crores to Rs. 850 crores in 2008-09.

NMDFC has two channels to reach the ultimate beneficiaries (i) Through state channelising agencies (SCAs) nominated by the respective State/UT Governments and (ii) through non-governmental organizations (NGOs). Under the SCA programme, projects costing up to Rs. 5.00 lakhs are financed. Funds are for this

purpose are made available to the SCAs at an interest rate of 3% for further loaning to the beneficiaries at 6%. The Corporation is also implementing schemes of vocational training & educational loan through the SCAs for capacity building of the target groups for self as well as wage employment.

Under the NGO programme micro credit up to Rs. 25,000 could be given to each of the members of a minority self-help groups (SHG). Funds for this purpose are made available to NGOs at 1% for further loaning at an interest rate of 5% per annum. In addition to loaning activity, NMDFC assists the targeted group in skill upgradation and marketing assistance. Under the NGOs programme, there is also a provision of interest free loan (adjustable as grant) for promotion and stabilization of SHGs.

NMDFC is implementing the Educational Loan Scheme through state channelising agencies. Under this scheme, NMDFC provides Rs. 2,50,000 to eligible candidates belonging to the minority communities at a concessional interest rate of 3% for pursuing professional and technical education.

This year the funds disbursed by NMDFC (up to August 2008) under its term loan scheme is Rs. 6709.00 lakhs to 13889 beneficiaries. For micro-financing Rs. 1103.25 lakhs has been disbursed to 11115 beneficiaries during the same period.

Since its inception, NMDFC has released Rs. 1108.09 crores. The number of beneficiaries covered is 399976.

The government has given in principle approval for restructuring of the NMDFC by converting it from a Section 25 company to a non-deposit taking Non-Banking Finance Company (NBFC).

Annual Plan : The annual plan outlay for the Ministry of Minority Affairs has been doubled from Rs. 500 crores in 2007-08 to Rs. 1000 crores for 2008-09. A non-plan provision of Rs. 13.83 crores has been made for 2008-09.

MINORITY AFFAIRS

The Ministry of Minority Affairs was created on 29th January, 2006 to ensure a focused approach to the issues relating to the minorities and to play a pivotal role in the overall policy planning coordination evaluation and review of the regulatory and development programme for the benefit programme of the minority communities. Five religious communities namely Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) have been notified as minority communities under 2(c) of the National Commission for Minorities Act, 1992. These five minority communities constitute about 18.47 percent of the population of the country. The Ministry is also responsible for the administration and implementation of the : (i) National Commission for Minorities Act, 1992; (ii) Wakf Act, 1995 and (iii) Durgah Khawaja Saheb Act, 1955.

In a short period of time, not only has the Ministry been made fully functional but concerted efforts have been made to streamline the ongoing programmes/schemes and to launch innovative and effective schemes/programmes for the welfare of minority communities. The details/developments pertaining to schemes run by the Ministry as well as its subordinate organizations are as under :

Prime Minister's New 15-Point Programme for the Welfare of Minorities

The Prime Minister's New 15-Point Programme for the Welfare of Minorities was announced in June, 2006. The objectives of the programme are : (a) Enhancing opportunities for education; (b) Ensuring an equitable share for minorities in economic activities and employment, through existing and new schemes, enhanced credit support for self-employment, and recruitment to State and Central Government jobs; (c) Improving the conditions of living of minorities by ensuring an appropriate share for them in infrastructure development schemes; (d) Prevention and control of communal disharmony and violence. An important aim of the new programme is to ensure that the benefits of various government schemes for the underprivileged reach the disadvantaged sections of the minority communities. In order to ensure that the benefits of these schemes flow equitably to the minorities, the new programme envisages location of a certain proportion of development projects in minority concentration areas. It also provides that, wherever possible, 15% of physical targets and financial outlays under various schemes should be earmarked for minorities.

As envisaged in the guidelines for the Prime Minister's New 15 Point Programme for the Welfare of Minorities, the progress of the implementation is monitored closely.

Some of the notable achievements made after launch of the programme are given below :

- (i) Under Sarva Shiksha Abhiyan (SSA), 961 primary schools were constructed in 2006-07 in minority concentration areas and this has now increased to 3266 in 2008-09. In respect of new upper primary schools, 1114 such schools were opened during 2006-07. This increased to 3176 during 2008-09. Similarly, the number of Kasturba Gandhi Balika Vidyalayas (KGBV) sanctioned for educationally backward blocks, having a substantial minority population, rose from 97 in 2006-07 to 133 in 2008-09.
- (ii) Under the Swarnajayanti Gram Swarojgar Yojana (SGSY), 60,494 Swarojgaris belonging to the minorities were assisted in 2006-07 and this went up to 275121 in 2008-09.
- (iii) Under the Indira Awas Yojana (IAY), 14,236 BPL families belonging to the minorities were assisted for construction of pucca houses in 2006-07. This went up to 384775 in 2008-09.
- (iv) Under the Swarn Jayanti Shahari Rojgar Yojana (SJSRY), 15,933 beneficiaries were assisted for skill training in 2006-07. In 2008-09, the achievements rose substantially to 37179. This was more than the target fixed.
- (v) The proportion of priority sector lending flowing to the minorities is expected to increase from 9% to 15% over three years i.e. 2007-08 to 2009-10. Rs. 58,662.67 crores of priority sector lending, which was 9.67% of the total outstanding accounts, was for minorities. In 2008-09, Rs. 82864.65 crore which is 12.41 of total outstanding accounts was for minorities.

Exclusive Scholarship Schemes for students belonging to the minority communities

Three Centrally sponsored scholarship schemes for students belonging to the minority communities have been launched. To ensure that girl students get a fair share, all three schemes have 30% scholarships earmarked for them. These schemes are :

(i) Merit-cum-Means scholarship is a scheme fully funded by the Central Government. Every year 20,000 new scholarships are to be awarded for technical and professional

courses at under graduate and post graduate levels. 70 institutes have been listed in the scheme and students enrolled in these institutes are entitled to full re-imburement of course fee. Students of other recognized institutes are entitled for re-imburement of course fee upto a maximum amount of Rs. 20,000 per annum. 26,195 scholarships were sanctioned to students in 2008-09 of which 32.01% went to girl students. An amount of Rs. 64.79 crores was released during the year.

(ii) Post-Matric Scholarship is a scheme fully funded by the Central Government. This scholarship is awarded to students belonging to the minority communities studying in class-XI up to Ph.D. level and it also includes technical and vocational courses of class XI and XII. Fees ranging from Rs. 3,000 to Rs. 10,000 per annum are reimbursed to students. An outlay of Rs. 1150 crore has been provided for the Plan period. An amount of Rs. 70.63 crore was released to award 1.51 lakh scholarships during the year 2008-09 of which 55.76% were for girl students.

(iii) Pre-Matric Scholarship for students belonging to the minority communities was approved on 30th January, 2008. This scheme was launched on 1st April, 2008 as a Centrally Sponsored Scheme (CSS) on 75:25 fund sharing ratio between the Centre and States and is implemented through the State Governments/Union Territory Administrations. Students with not less than 50% marks in the previous final examination, whose parents/guardian's annual income does not exceed Rs. 1.00 lakh, are eligible for award of the pre-matric scholarship.

An outlay of Rs. 1400 crores has been provided in the Eleventh Five Year Plan to award 25 lakh scholarships during the plan period (2007-12). Of these 30% have been earmarked for girl students. An amount of Rs. 62.21 crores was released and 5.13 lakh scholarships were awarded during 2008-09. Of this, 50.89% scholarships were for girl students.

IDENTIFICATION OF MINORITY CONCENTRATION DISTRICTS

90 minority concentration districts (MCDs) have been identified, based on the population data of 2001 census and relevant backwardness parameters. A multi-sectoral development programme, designed to address the 'development deficits', specially in education, employment, sanitation, housing, drinking water and electricity supply has been launched from 2008-09 in these minority concentration districts. The list of 90 minority concentration districts is available on the web-site of the Ministry of Minority Affairs www.minorityaffairs.gov.in

The details of implementation of the Scheme are as under :-

Year	B.E.	No. of plans approved	Funds
2008-09	Rs. 540 cr. (BE) and Rs. 280 cr. (RE)	47	Rs. 270.85 cr.
2009-10	Rs. 990 cr.	25	Rs. 284.61 cr. (till September, 2009)

Free Coaching & Allied Scheme was launched in July, 2007 with a view to improving the representation of minorities in government service and public sector undertakings

and also to cater to the emerging trends of the job market. IT was further modified in October, 2008 for its effective implementation.

The details of implementation of the Scheme (upto 30.9.2009) are as under :

Rs. in crores				
Year	Physical Targets	Achievements	BE	Expenditure
2007-08	4000 students	4097	10.00	5.74
2008-09	4000 students	5522	10.00	7.30
2009-10	5000 students	2382	12.00	3.10

Initiatives taken in pursuance of the Sachar Committee Recommendations

- 1 All public sector banks have been directed to open more branches in districts having a substantial minority population. 523 branches were opened in 2007-08 in such districts.
- 1 Expert group constituted to study and recommend the structures and functions of an Equal Opportunity Commission. Report submitted by the expert group on 13.3.2008. A note for the Cabinet for creation of an Equal Opportunity Commission has been drafted and is under consideration.
- 1 Expert group constituted for evolving an appropriate Diversity Index to measure diversity in the areas of education, housing and employment. Report submitted by the expert group on 24th June, 2008. The recommendations of the expert group are being processed in conjunction with setting up of an EOC.
- 1 A National Data Bank, to compile data on the various socio-economic and basic amenities parameters for socio-economic religious communities, set up in the Ministry of Statistics and Programme Implementation.
- 1 An autonomous Assessment & Monitoring Authority (AMA) to analyse data collected for tacking appropriate the corrective policy decisions set up in the Planning Commission.
- 1 Mid day meal programme extended to upper primary level in all 3479 educationally backward blocks.
- 1 Seventy seven blocks with a high concentration of Muslims identified for establishment of Block Institutes of Teacher Education (BITEs) for teacher education. Scheme for setting up BITEs being modified.
- 1 Provision of more girls' hostel in colleges and universities in minority concentration districts proposed under the existing University Grants Commission (UGC) scheme. Proposed also to open new polytechnics with hostel facilities in MCDs.
- 1 The madrasa modernization programme has been revised. The two components of the existing programme have been approved as two separate schemes : (a) Quality improvement in Madrasa Education, (b) Infrastructure development in Primary, Upper Primary, Secondary and Senior Secondary schools established by minorities.
- 1 NCERT has prepared text books for all classes in the light of the NCF 2005,
- 1 Thirteen Universities which were provided Rs. 40 lakhs each for starting centres

for studying social exclusion and inclusive policy for minorities and SCs & STs have set up the centres.

Maulana Azad Education Foundation (MAEF)

An outlay of Rs. 500 crores has been provided in the 11th Five Year Plan period for enhancement of the corpus fund to Rs. 700 crore. Out of this, Rs. 110 crore have already been released during 2007-08 and 2008-09, bringing the corpus of MAEF as on 31.3.2009 to Rs. 310 crores.

In the year 2008-09, under the grants-in-aid scheme, an amount of Rs. 24.51 crore was given to 176 NGOs. Under the scheme of meritorious girl students, the Foundation sanctioned scholarships of Rs. 14.48 crores to 12,064 meritorious girls belonging to minorities.

National Minorities Development and Finance Corporation (NMDFC)

The National Minorities Development & Finance Corporation (NMDFC) was incorporated on 30th September 1994, with the objective of promoting economic activities amongst the backward sections of notified minorities. To achieve its objective, NMDFC is providing concessional finance for self-employment activities to eligible beneficiaries belonging to the minority communities, having a family income below double the poverty line.

The authorized share capital of NMDFC has been raised from Rs. 850 crores to Rs. 1000 crores in September, 2009. An amount of Rs. 75 crores was provided in 2008-09 and an amount of Rs. 125 crores was provided during 2009-10 as Central Government's equity contribution to NMDFC.

NMDFC has two channels to reach the ultimate beneficiaries : (i) through state channelising agencies (SCAs) nominated by the respective State/UT Governments and (ii) through non-governmental organizations (NGOs). Under the SCA programme, projects costing up to Rs. 500 lakhs are financed. Funds for this purpose are made available to the SCAs at an interest rate of 3% for further loaning to the beneficiaries at 6%. The Corporation is also implementing schemes of vocational training & educational loan through the SCAs for capacity building of the target groups for self as well as wage employment.

Under the NGO programme micro credit up to Rs. 25,000 could be given to each of the members of a minority self-half groups (SHG). Funds for this purpose are made available to NGOs at 1% further loaning at an interest rate of 5% per annum. In addition to loaning activity, NMDFC assists the targeted group in skill up-gradation and marketing assistance. Under the NGOs programme, there is also a provision of interest free loan (adjustable as grant) for promotion and stabilization of SHGs.

NMDFC is implementing the Educational Loan Scheme through state channelising agencies. Under this scheme, NMDFC provides Rs. 2,50,000 to eligible candidates belonging to the minority communities at a concessional interest rate of 3% p.a. for pursuing professional and technical education.

Since its inception, till 31st March, 2009 NMDFC has released Rs. 1190.84 crore. The number of beneficiaries covered is 4,34,329.

During the last financial year 2008-09, till 31.3.2009, a consolidated amount of Rs. 130.72 crore has been disbursed covering 51,198 beneficiaries.

The government has given in principle approval for restructuring of the NMDFC

by converting it from a Section 25 company to a non-deposit taking Non-Banking Finance Company (NBFC).

Annual Plan

The annual plan outlay for the Ministry of Minority Affairs has been enhanced from Rs. 1000 crore in 2008-09 to Rs. 1740 crore for the year 2009-10. A non-plan provision of Rs. 16.50 crores has been made for 2009-10.

29 Youth Affairs and Sports

YOUTH constitute nearly forty per cent of India's population. It is, therefore, necessary not only to make this vibrant and strong resource of the country beneficiaries of, but also, valuable partners in the process of our planning and development. In order that young men and women are able to contribute towards national development in a significant way, it is important that they should be able to effectively participate in the process of decision-making. Towards this end, the Ministry of Youth Affairs and Sports has in the recent past announced a National Youth Policy for the youth of the country so as to keep pace with the fast changing socio-economic scenario and also to address the emerging concerns of the youth. A National Commission for Youth has also been set up to recommend to the Government measures to tackle effectively the problems faced by the youth of India, with particular focus on unemployment. In adherence to the recommendation, two new schemes (i) National Programme for Adolescent and Youth Development (NPYAD) (restructured scheme); and (ii) Panchayat Yuva Krida Aur Khel Abihyan has been introduced in the Ministry during the 11th Plan w.e.f. 01.04.2008.

YOUTH SERVICES

NATIONAL YOUTH POLICY, 2003

The first National Youth Policy was formulated and laid in Parliament in 1988. A need was felt to revise the existing National Youth Policy, as a result of rapid socio-economic transformation in the country. The new National Youth Policy, 2003 formulated by the Ministry of Youth Affairs and Sports, is designed to galvanise the youth to rise up to the new challenges, keeping in view the global scenario and aims at motivating them to be active partners in national development.

The age group of the Youth, as per the National Youth Policy, 2003, is 13 to 35 years. The New Policy recognises four thrust areas viz., (i) Youth Empowerment; (ii) Gender Justice; (iii) Inter-Sectoral Approach; and (iv) Information and Research Network. The Policy includes eight key sectors for the development of youth. The Policy also identifies five priority groups of young people.

The Policy provides implementation mechanism through which various development programmes and activities will be undertaken for the youth with active involvement of the State Governments and Union Ministries and Departments. It has further been decided to review and revise the National Youth Policy, 2003 in the context of 11th Five Year Plan.

NATIONAL PROGRAMME FOR YOUTH AND ADOLESCENT DEVELOPMENT

(COMMON GUIDELINES FOR THE ELEVENTH FIVE-YEAR PLAN)

BACKGROUND

The scheme titled National Programme for Youth Adolescent Development (NPYAD) has been formulated by merger of four 100% central sector grants-in-aid schemes of the Ministry of Youth Affairs & Sports during 10th Plan namely, Promotion of Youth

Activities & Training, Promotion of National Integration, Promotion of Adventure and Development and Empowerment of Adolescents. The merger was done with a view to reduce multiplicity of schemes with similar objectives, ensuring uniformity in funding pattern and implementation mechanism, avoiding delays in availability of funds to the field level and institutionalising participation of State Governments in project formulation and its implementation. While there will be synergy and convergence in operational mechanism and programme delivery, there will be clear distinction with regards the financial parameters of each of the components under the scheme.

While some procedural changes were made in the schemes during the last year of 10th Five Year Plan in 2006-07, it was felt that the schemes need to be substantially restructured in order to make it more meaningful in terms of content. Impact and outcomes. The schemes were reviewed in the context of 11th Five Year Plan by the working Group constituted by the Planning Commission for formulation of the 11th Five Year Plan. The working Group has recommended that the restructured scheme should be more focused in terms of emerging needs and requirements as also with reference to the capabilities of implementing organization, programme context and methodology of training. Following these and in the context of zero - based budgeting during 11th Five Year Plan, all the four schemes have been merged into a single umbrella scheme.

The revised umbrella scheme will be operated by the Ministry of Youth Affairs and Sports as a 100% central sector scheme during 11th five Year Plan.

OBJECTIVES OF THE SCHEME

Short term objectives:

- Provide opportunity for holistic development of youth including adolescents for realisation of their fullest potential;
- Develop leadership qualities and personality development of youth and to channelise their energy towards socio-economic development and growth of the nation;
- Promote national integration, strengthen secular and eclectic outlook through creative expressions by youth;
- Foster the spirit of adventure, risk taking, teamwork, the capacity of ready and vital response to challenging situations and of endurance among youth;
- Acknowledge adolescents as a distinct subgroup among youth and address their distinct needs and at the same time provide positive stimulation and congenial environment for their all-round development; and
- To encourage research and publication and to promote technical resource support including development of information and database on issues concerning youth and adolescents.

Long - term objectives

- Engage and canalize the energy of youth in a positive manner for nation building;
- Develop amongst youth a sense of pride in nationally accepted values like democracy, socialism, and secularism;

- Promote activities and programmes, which foster social harmony and national unity among youth;
- Promote spirit of national integration, unity in diversity, pride in Indianness among the youth of different parts of the country and to induce a sense of social harmony amongst the youth;
- To motivate the youth to act as local point for dissemination of knowledge in the rural area and involve them in nation building process;
- To stimulate action for development and empowerment of adolescents, particularly from the economically and socially neglected/backward sections of society;
- To build and develop an environment which recognises the specific needs and promise of the adolescents in the country and provides for adolescent friendly services.

SCHEME BENEFICIARIES

Definition of youth and adolescent:- The Youth and Adolescents for the purpose of the scheme would be as defined in the extant National Youth Policy. In other words, the expression 'youth' would cover persons belonging to the age group of 13 to 35 years and 'adolescent' would cover persons in the age group of 10-19 years under the scheme.

Target youth and adolescents under the scheme:- The targeted beneficiaries of the programmes include members of the youth clubs affiliated to the Nehru Yuva Kendra Sangathan, National Service Scheme, State Government Youth Organisations, Bharat Scouts & Guides or student, in Schools, Colleges and Universities. Adolescents and Youth from other established youth organisations or NGOs may be considered provided they are the registered members of such organisations. Preference may be given to the youth with special abilities and youth belonging to scheduled caste, scheduled tribes, minorities and weaker sections.

Gender budgeting:- In selection of beneficiary women will have a distinct priority and care should be taken to include at least one-third beneficiaries from women.

PROGRAMME AREA AND COMPONENTS

Programme Component:- The umbrella scheme will comprise of the following broad programme area and their components:-

Name of the Programme Area	Programme Component
(a) Youth Leadership and Personality Development	i. Youth Leadership and Personality Development Training
(b) Promotion of National Integration	i. National Integration Camp
	ii. Inter-State Youth Exchange Programme
	iii. Multi-Cultural Activities
	iv. National Youth Festival
	v. State Youth Festival
	vi. National Youth Awards
(c) Promotion of Adventure	i. Promotion of adventure of basic and intermediate level in India.

- ii. Promotion of adventure of advance level including expeditions in India
- iii. Grants to Recognised Institutions.
- iv. Tenzing Norgy National Adventure Awards
- (d) Development and Empowerment of Adolescents
 - i. Life Skills Education
 - ii. Counselling
 - iii. Career Guidance
 - iv. Residential Camps
- (e) Technical and Resource Development
 - i. Environment Building
 - ii. Research & Studies on youth issues
 - iii. Documentation & Publication
 - iv. Seminars, Conferences, Exhibitions and Workshops on youth or adolescent issues, national integration and adventure.

Operational Guidelines:- There are prescribed operational guidelines of each programme area and the activities under each programme component, eligible institutions/organisations for financial assistance and their financial cost norms.

IMPLEMENTATION OF THE SCHEME

Eligibility:- The following organization are eligible for financial assistance under the scheme.

- (a) All India Organisations (AIOs) i.e.,
 - i. Nehru Yuva Kendra Sangathan (Head Quarter) for Nehru Yuva Kendra's;
 - ii. National Service Scheme (Programme Adviser Cell) for NSS Units;
 - iii. Bharat Scouts & Guides (Head Quarter) for their own Units;
 - iv. Universities including deemed Universities;
 - v. Association of Indian Universities and;
 - vi. Himalayan Mountaineering Institute. Indian Mountaineering Foundation, Jawahar Institute of Mountaineering and Winter Sports and other Adventure Institutes recognised by the Ministry;
 - vii. Spic Macay;
 - viii. National Youth Project;
 - ix. India International Rural Cultural Centre
 - x. Rajyoga Education & Research Foundation
 - xi. The Energy & Resources Institute; and
 - xii. R. K.Mission.
- (b) State Level Organisations (SLOs) i.e.,
 - i. State Governments, State Departments/ Directorates for Youth Affairs/Youth Welfare and other District Level Officers in States;
 - ii. Panchayati Raj Institutions and Urban Local Bodies;
 - iii. Educational Institutions including Polytechnics and

- iv. Non-government Organisations (NGOs) and Voluntary Agencies registered under the Societies Registration Act 1860 (or other appropriate state law). Public trusts and non-profit making companies who have completed atleast 3 years of registration on the date of application and has average annual programme expenditure of Rs. 5.00 lakhs or more during last 3 years.

Project Mode : The scheme will be implemented in the project mode through project implementing Agencies (PIAs). The PIA may submit project proposal involving one or more programme area or components under the scheme but the key factor for consideration of project will be the past experience and resource (infrastructure and technical manpower) available with the PIA. The following parameters are mandatory for formulation of project proposal by PIA.

- (i) **Project area:** The project proposal should have a well-defined geographical area and should clearly indicate forgotten beneficiaries under the project. Ordinarily two to three districts in a state will constitute a project area. Adequate justification in terms of available infrastructure manpower and past experience of the organisation needs to be given for projects having more then one State/UT in the project area.
- (ii) **Project Period:** Ordinary, the project should have a period of one year with in which a number of activities can be planned. In case the project required more than one year the same should be adequately explained in the project proposal.
- (iii) **Phasing of Project:** The project should have three phases i.e. Preparatory Phase (PP) Activity Phase (AP) and Follow-up Phase (FP). During preparatory phase environment building activities and identification/selection of the targeted beneficiaries should be taken up. This should be followed by the activity phase in which detail scheduling of activities should be organised. The follow-up phase should have evaluation of the impact of the project on the target youth and adolescents including the outcome of the project intervention with respect to its stated aims and objectives.
- (iv) **Project Budget:** The project budget should have programme component-wise cost estimate. The cost estimate under each component will have two sub-heads i.e. (i) the contribution either in kind or cash to be provided by the PIA and (ii) the financial assistance sought from government under the scheme.

Project Appraisal Committee:- The proposals will be considered by a duly constituted Project Appraisal Committee (PAC) in the Ministry of Youth Affairs and Sports. The PAC will have members from the Planning Commission, Integrated Finance Division and Administrative Division in the Ministry apart from out side experts as would be necessary. The Ministry will stipulate separate budget provisions for AIOs and SLOs from with in the annual budget allocated for the scheme. The recommendations of the PAC shall be placed for approval of the competent authority in the Ministry.

Release of funds to PIAs:- On approval of the project grants-in-aid shall be released to the PIA up to 50% of the approved amount as 1st installment. In case of State/UT Governments, NSS and NYKS advance up to 90% may be released. The balance shall be released on completion of the approved programme whichever is earlier.

Submission of documents for balance installment: The following documents are required to be submitted for consideration of further release of funds:

- (i) Utilization Certificate by the guarantee in the form GFR-19(A).
- (ii) Performance Report showing up to date item-wise physical and financial achievement with respect to sanction order.
- (iii) An undertaking stating that:
 - (a) All the terms and conditions of the financial sanctions have been adhered to;
 - (b) There is no deviation in respect of any stipulation of the sanction order including those relating to the age, number and category of the project beneficiaries;
 - (c) The amount for which reimbursement is sought from the ministry is not claimed from any other source and the organisation shall indemnify the government for any deviation noticed later, if any.
- (iv) For release of final installment of fund in addition to the above three documents the audited statement of account showing the total receipt of funds (from the ministry and other sources including own resource) and total expenditure of the sanctioned project duly certified by a Chartered Accountant needs to be furnished.
- (v) No release of fund shall be considered in case the request for second/balance installment is received in the ministry after one year of the date of sanction order.

Funding for the previously sanctioned project: The projects, which have been sanctioned under the pre-revised scheme of the Financial Assistance for Promotion of Youth Activities & Training, Promotion of National Integration, Promotion of Adventure and the Scheme for Development and Empowerment of Adolescents shall continue to be funded under this scheme as per the financial amount approved earlier. The remaining amount towards second or final installment shall be released under the scheme as committed liability. Projects sanctioned under the pre-revised Scheme shall continue to follow the earlier scheme guidelines.

Revision of the scheme guidelines and cost norm: Any provision in the scheme guidelines cost norm may be modified/relaxed with the approval of the Secretary, Youth Affairs & Sports in consultation with the Financial Adviser in the Ministry. The decision of the Ministry with regard to modification/relaxation of any provision of the scheme shall be final and binding on the Project Implementing Agency.

PATTERN OF FINANCIAL ASSISTANCE

Typical Programme Components-The financial assistance from the government of India under the scheme will be catalytic funding and the PIA is free to mobilise additional resource from other collaborating agencies/ organizations for conduct of the programme. The amount of financial assistance may vary depending on the number of participants or the duration of any individual programme drawn, which may be different than the number of participants or number of days mentioned below against the each typical programme component. The pattern of financial assistance for a typical programme component under the scheme and the eligible organisations/

institutions for the financial assistance are given below for guidance.

Sl. No.	Typical Programme Component	Financial Assistance amount under the Scheme	Eligible grantee for the prog. Component
(1)	(2)	(3)	(4)
(a)	Youth Leadership and Personality Development		
(i)	Youth Leadership and Personality Development Training Project	Rs. 3,00,000/-	AIOs/SLOs
(b)	Promotion of National Integration		
(i)	National Integration Camp for 150 persons for 7 days duration at State Capitals	Rs. 4,30,000/-	AIOs/SLOs
(ii)	Other Places Inter-State Youth Exchange Programme for 50 participants for 15 days durations	Rs. 3,53,750/- Rs. 2,92,500/-	AIOs/SLOs
(iii)	Multi-Cultural Activities	Maximum Rs. 3.0 lakh for first time grantee	AIOs/SLOs
(iv)	National Youth Festival	Maximum up to Rs. 2.00 crore	State Govts./ UT Admn.
(v)	State Youth Festival	Up to Rs. 10,00,000/-	State Govts./ UT Admn.
(vi)	National Youth Awards Individuals NGO	Rs. 40,000/- Rs. 2,00,000.-	Individuals and NGOs
(c)	Promotion of Adventure		
(i)	Grants to recognised institutions	As per approved Annual Budget	Recognised Institutions
(ii)	One-week adventure camp at basic and intermediate level for 25 persons	Rs. 93,750/-	AIOs/SLOs
(iii)	Promotion of adventure at advance level including expeditions in India	as per specific expedition	Recognised Institutions
(iv)	Tenzing Norgay National Adventure Awards	Rs. 5,00,000/-	Individuals
(d)	Development of Adolescents		
(i)	Life Skills Education (for 40 teens) One-week Residential Prog. One-week Non-residential Prog.	Rs. 65,000/- Rs. 23,000/-	AIOs/SLOs
(ii)	Counselling Out-reach Prog. Rural Counselling Centre Telephone help line	Rs. 1,73,000/- Rs. 1,28,000/- Rs. 1,00,000/-	AIOs/SLOs
(iii)	Career Guidance Career Guidance Centre First year Second/Subsequent year Career Mela	Rs. 2,34,000/- Rs. 2,14,000/- Rs. 25,000/-	AIOs/SLOs
(iv)	Second Chance Camps (4 months)	Rs. 4,56,000/-	AIOs/SLOs

(e) Technical Resource Development

(i)	Environmental Building	Maximum Rs. 2.0 lakh	AIOs/SLOs
(ii)	Research & Studies on youth issues	Maximum Rs. 3.0 lakh for first time grantee	AIOs/SLOs
(iii)	Documentation & Publication	Maximum Rs. 3.0 lakh for first time grantee	AIOs/SLOs
(iv)	Seminars, Conferences and Workshops, on youth or adolescent issues including national integration and adventure.	Maximum	AIOs/SLOs
	National Level	Rs. 5.0 lakh	
	State Level	Rs. 3.0 lakh	
	Regional/District Level	Rs. 0.50 lakh	

The maximum ceiling for grants-in-aid to a PIA will be limited to Rs. 10.0 lakh for a district or the average programme expenditure of the IA during last 3 years, whichever is less. The Project Appraisal Committee may in case of AIOs and State Government Organisations with reasons to be recorded in writing, recommend project for more than Rs. 10.0 lakh for a district.

MONITORING AND EVALUATION

An institutional monitoring and evaluation system will be evolved for the monitoring and evaluation of the projects sanctioned under the scheme. Institutions such as RGNIYD, TOC, TORCs of NSS, IDARAs or any other reputed institution/NGO/VA may be designated as the Monitoring and Evaluation Institution (MEI) for the projects sanctioned in a State/UT.

Funds for the monitoring and evaluation will be released to the MEIs from the budget under the scheme. The PIA shall produce all records connected with the project to the MEI for the monitoring and evaluation purpose.

The MEI visit the project authority on a quarterly basis and submit quarterly Progress Reports (GPRs) about the performance of the project to the Ministry under intimation to the concerned State/UT government. The MEI will also submit an end term evaluation report on completion of the project. The receipt of QPRs and evaluation report however will not hold the subsequent release of the funds to the Project Authority.

The Ministry of Youth Affairs & Sports, apart from the monitoring and evaluation done by the MEIs, may also conduct concomitant evaluation of the scheme/projects for meta evaluation study in terms of its intended outcome and benefits for youth.

NATIONAL YOUTH FESTIVAL

Every year, the Ministry of Youth Affairs and Sports has been celebrating the birthday of Swami Vivekananda, the great philosopher and thinker. Earlier, the National Youth Festival was celebrated from 12th - 16th January. It has been decided to celebrate the Festival from 8th to 12th January every year onwards. The opening ceremony of the National Youth Festival will be on the 8th January and closing on 12th January, the birth of Swami Vivekananda. As part of the celebration, holding of National Youth Festival began in 1995 as a major activity under the programme of National Integration Camp (NIC). The Idea behind a Youth Festival is to organize a gathering of the youth

and to take up one or all the programmes mentioned above so that the concept of National Integration, spirit of communal harmony, brotherhood, courage and adventure may be propagated. Like the National Youth Festival, States are also encouraged to hold State level, district level and block level youth festivals in the same line.

NATIONAL YOUTH AWARDS

National Youth Awards are given away every year to young people and to a Voluntary Organization. The Award will be considered on the theme in which that has done outstanding contribution in the field of Environment Protection including Rain Water Harvesting.

NATIONAL SERVICE SCHEME

National Service Scheme, popularly known as NSS, was launched on Gandhiji's Birth Centenary 1969 in 37 Universities involving 40,000 students with primary focus on the development of personality of students through community service. Today, NSS has more than 3.2 million student volunteers on its roll spread over 200 universities and 41 (+2) Senior Secondary Councils and Directorate of Vocational Education covering more than 10,313 colleges/institutes of higher and technical education and 7542 Secondary schools all over the country. From its inception, more than 2.9 crore students from Universities, Colleges and Institutions of higher learning have benefited from the NSS activities, as student volunteers.

The National Service Scheme has two types of programmes, viz., "Regular Activities" and "Special Camping Programme" undertaken by its volunteers. Under 'Regular Activities', students are expected to work as volunteers for two years, rendering community service for a minimum of 120 hours per annum. The activities include constructive work in adopted villages and slums, blood donation, adult and non-formal education, health, nutrition, family welfare, AIDS awareness campaigns, tree plantation, improvement of campuses, etc. Under 'Special Camping Programme', a camp of 10 days' duration is conducted every year in the adopted areas on a specific theme.

Special camping programme: NSS added a new dimension to the process of education. Aligning to the needs of the community and simultaneously preparing students for their future role as sensitised self-confident citizens. NSS special camps were organised under various themes decided as per need and requirement of the country. It has been a long journey in programme development for the students. NSS is a value based volunteer programme, which has always remained closed to the living issues affecting Indian Society. NSS volunteers have always come to the forefront to extend voluntary service in natural calamities and disasters like cyclone, earthquake, tsunami, drought and flood. NSS special camps are organised under various themes every year giving special thrust on important areas like child marriage, gender issues dowry, HIV/AIDs, adolescent health issues and national integration and social harmony.

ORGANISATION

At National Level, the NSS Headquarter in the Ministry of Youth Affairs & Sports, looks after policy, planning and monitoring of the scheme. A programme Adviser's Cell headed by a Programme Adviser has been entrusted with assessing and monitoring the targets set for a student under NSS and those under Special Camping

Programme. In the States 15 Regional Centres and functioning under the control of Deputy or Assistant Programmes. Adviser or Youth Officer.

INDIRA GANDHI NSS AWARDS

In 1993-94, during the Silver Jubilee Year of NSS, the IGNSS Awards were instituted to give recognition to selfless service rendered by the NSS volunteers programme officers and the programme Coordinations. This award is given away in a ceremony during the National Youth Festival (12th to 16th January) every year.

TRAINING

To train the NSS Programme Officers and to equip them with the modern skills of social development, 5 Orientation, Training and Research Centres (TORCs) and 13 Training and Orientation Centres (TOCs) are functioning all over the country at the expense of the Government of India. These institutes run orientation as well as refresher courses to impart training to the NSS Programme Officers who are grass root level functionaries associated with the NSS.

TARGETS & ACHIEVEMENTS

In the Year 2008-09, 31.10 lakh volunteers were enrolled for regular activities and 20,625 Special Camps were conducted and also 25,385 villages/urban slums have been adopted.

The NSS volunteers under the regular activities for environment conservation and enrichment planted thousands of saplings throughout the country. They have undertaken incentives projects like creation of NSS gardens in the Institution Campus, avenue plantation, plant identification and conducted a large number of plantation camps, 25,07,302 saplings were planted during the year.

During the Pulse Polio Immunization Campaign, more than 29,44,069 kids were administered Pulse Polio Drops in which around 5 lakh NSS volunteers were involved.

NSS volunteers enrolled themselves as potential blood donors and donated blood as and when required by the community members. During the year under report, 3.17 lakh volunteers donated blood. Apart from this regular blood donation camps, the national voluntary blood donation day was observed through out the country.

Blood is a vital component of human body which can only be replaced by blood at emergencies. Keeping this in mind the NSS volunteers enrolled themselves as potential blood donors and donated blood as and when required by the community members. During the year under report 2,21,495 volunteers donated blood. Apart from this regular blood donation camps, the national voluntary blood donation day was observed through out the country.

RD & Pre RD CAMPS

NSS volunteers participate in the Republic Day Parade in New Delhi every year. To select the marching contingent, 5 Pre-Republic Day Parade Camps are organised at 5 different places across the country. 1000 selected volunteers and NSS Programme Officers participate in these camps from which 200 volunteers are selected to take part in the month long Republic Day Camp at New Delhi in January. During their stay at Delhi the volunteers are involved in physical fitness activities like PT, Yoga, academic activities like lecture session by eminent personalities and various cultural

activities representing mini India at the camp. These volunteers also visit the President, Vice president, Prime Minister and other VIPs during their camp.

YOUTH FESTIVAL

Every year NSS participates in the National Youth Festival. Two events such as National Youth Convention and Suvichar are held during the Youth Festival in which around 200 NSS volunteers from different parts of the country participate. During these programmes, the volunteers get the opportunity to interact with eminent personalities.

NEW INITIATIVES IN NSS

New initiatives are being introduced in those areas where direct and full funding from the Central Government is possible.

The First Summer Camp for 400 NSS volunteers drawn from all over the country, was launched on 22nd June at RGNIYD, Sriperumbadur. This camp was for 12 days including 5 days of educational tour in south India. In this camp issues relating to sustainable development had been incorporated in the academic sessions to give the students an exposure to current concerns.

The Rajiv Gandhi Adventure Scheme proposes to cover every year 2000 NSS volunteers. In the current year so far 1000 volunteers have already attended these adventure camps. Each adventure camp is of 10 days. To maintain gender balance, it has been ensured that 50% of the volunteers are girls. The scheme will be gradually expanded to cover 5000 volunteers annually.

The adventure activities to be undertaken include high altitude trekking, rock climbing, white water rafting, camel safari, jungle camp etc. The adventure activities are to be carried out in collaboration with lead partners like Indian Mountaineering Foundation and National Mountaineering Schools listed below.

- I. Indian Mountaineering Foundation
- II. Himalayan Mountaineering Institute, Darjeeling
- III. Nehru Institute of Mountaineering, Uttarkashi
- IV. Western Himalayan Mountaineering Institute, Manali
- V. Jawahar Institute of Mountaineering, J & K
- VI. National Adventure Foundation
- VII. Sea Explores' Institute, Kolkata

Additional adventure camps will be in chosen locations in South India viz. Rock Climbing in Kannur, Jungle Camps in Thekkady, Sayadri in Mumbai. In the south the adventure camps will be in collaboration with the State Governments. Ooty will be Centre for the South Indian Chapter of Adventure Activities. The Southern Centre will start functioning from the newly constructed Youth Hostel in Ooty which was inaugurated recently.

7000 NSS volunteers to be deployed in Commonwealth Games 2010: These volunteers will be specially trained for this purpose. It is hoped that this would give them on international exposure and an added edge.

RD Camp facilities being scaled up: Annually 200 NSS volunteers are selected from all over the country to participate in the Republic Day Parade. Every year the camp is organized in Delhi from 1st to 31st of January. From the current year it is proposed to

scale up the facilities being provided to these volunteers. Additional academic inputs are also to be incorporated so that this experience further fine-tunes their personality and these volunteers find themselves more equipped to face the job market.

NEHRU YUVA KENDRA SANGATHAN

The Nehru Yuva Kendra Sangathan (NYKS) is an autonomous organisation of the Ministry of Youth Affairs and Sports. NYKS has its offices in 500 districts of the country. It has become one of the largest grassroots level organizations in the world, catering to the needs of more than eight million non-student rural youth enrolled through 2.53 lakh village-based Youth Clubs. These Youth Clubs work in the areas covering education and training, awareness generation, skill development and self-employment, entrepreneurial development, thrift and co-operation, besides development of the body through sports and adventure and mind through sustained exposure to new ideas and development strategies. For implementation of the programmes, every district NYK has a network of trained cadre of District Youth Coordinators, National Service Volunteers and Youth Leaders. The strength of NYKS is its vast network of Youth Clubs at grassroots level.

NYKS accomplishes its task through two categories of programmes, i.e., 'Regular Programmes' such as Youth Club Development, Vocational Training, Work Camp, Awareness Generation, Cultural Programme, Sports Promotion, Adventure Promotion, Seminars and Workshops and Celebration of National and International Days/Weeks and 'Schemes' entrusted to it by the Ministry for implementation viz., National Service Volunteers, Financial Assistance to Youth Clubs, Awards to Outstanding Youth Clubs at District, State and National level and Youth Development Centre. Special programmes undertaken in collaboration with other Ministries and organizations.

NATIONAL SERVICE VOLUNTEER SCHEME

The National Service Volunteer (NSV) Scheme was launched in 1969. This is one of the oldest and most successful scheme of the Ministry in providing a platform for the youth take up a leadership role in the spheres of the social and community service at grass roots level.

The National Service Volunteer is a youth social worker who is willing to commit his/her energy and time to the service of the community and country. National Service volunteers have been working in the field of education, agriculture, information technology, rural development and health. The NSVS provides an opportunity for the first work experience after education and is aimed to inculcate leadership qualities in them. During their deployment, the volunteers are paid Rs. 2250/- per month by way of honorarium. During 2009-10, 6708 NSVs have been sanctioned for deployment (through Nehru Yuva Kendra Sangathan 6408 and National Service Scheme 300).

There is considerable potential for utilizing the service of NSVs as a key link in the structure of the Youth Organizations.

RASHTRIYA SADBHAVANA YOJANA (RSY)

The Rashtriya Sadbhavana Yojana was launched in 2005 in place of erstwhile National Reconstruction Crops Scheme. The scheme aims at encouraging leadership among the rural youth. Under the scheme on average of around 10-20 volunteers in

each of the 501 districts having presence of NYKS were enrolled as Nehru Sathis (NYS). These NYS are to be nominated by the selected best Youth Club and Youth Development Centre in the block and district respectively. They are entitled to receive an honorarium of Rs. 1000/- per month. The parameters on which the clubs are to be evaluated have been finalized and sent to all registered clubs affiliated with NYKS for participation in the scheme. The trained volunteers would be a great strength in the efforts to and empower and encourage the youth. During 2009-10, 6000 NYSs have been sanctioned for development through Nehru Yuva Kendra Sangathan.

YOUTH HOSTELS

Youth Hostels are built to promote youth travel, to enable the young people experience the rich cultural heritage of the country. The construction of Youth Hostels has been conceived as a joint venture of the Central and State Governments. While the Central Government bears the cost of construction, the State Government provides developed land, free of cost with water, electricity and approach roads. After completion, these hostels are handed over to the State Governments for management.

So far 79 youth hostels have been constructed in the country and 6 youth hostels are under construction.

SCOUTING AND GUIDING

Scouting and Guiding is an international educational movement aimed at developing the character of boys and girls. It inculcates in them a spirit of patriotism, sympathy for others and social service. Bharat Scouts and Guides mainly promote these activities in India. The Ministry of Youth Affairs and Sports extends financial assistance for the activities including adult literacy, tree plantation, community service, leprosy awareness, promotion of hygiene and sanitation etc.

RAJIV GANDHI NATIONAL INSTITUTE OF YOUTH DEVELOPMENT

The Rajiv Gandhi National Institute of Youth Development (RGNIYD) set up at Sriperumbudur (Tamil Nadu) functions as an autonomous body for coordinating and monitoring youth-related activities in the country. The Institute is to function as: (i) a research agency and think-tank for youth programmes, policies and implementation strategies; (ii) develop multifaceted programmes for youth; (iii) function as an institute for advanced studies in the field of youth; (iv) function as a centre for documentation, information and publication pertaining to youth development; and (v) work as a Resource Centre.

The Institute was functioning with the skeleton staff and one division but is in the process of being expanded with the creation of 4 more divisions with supporting staff. Thus, the Institute will now have the following 5 divisions : (a) Training, Orientation and Extension Division, (b) Research, Evaluation and Documentation/ Dissemination Division, (c) Panchayati Raj and Youth Affairs Division, (d) International Centre for Excellence in Youth Development Division, (e) Social Harmony and National Unity Division. RGNIYD Institute has been granted the deemed University status by UGC on 23.10.2008.

SPORTS

Sports and games have always been seen as an integral component in all round development of human personality. Apart from being means of entertainment and physical fitness, sports have also played a great role in generation of spirit of healthy competition and bonding within the community. Achievement in sports have always been a source of national pride and prestige.

However, unlike in the past the modern sports have become highly competitive. The use of modern equipments, infrastructure and advanced scientific support has changed the scenario of sports at international level. Keeping in line with the growing demands of advanced equipments, infrastructure and scientific support, Government of India has taken lot of initiatives. However, these efforts could not produce significant results on account of policy and inadequate budgetary support.

NATIONAL SPORTS POLICY 2001

In order to broad-base sports and to promote excellence, the Government has formulated a National Sports Policy, 2001. The salient features of the National Sports Policy 2001 are as under :

1. Broad-basing of Sports and achievement of excellence;
2. Upgradation and development of infrastructure;
3. Support to the National Sports Federations and other appropriate bodies;
4. Strengthening of scientific and coaching support to sports;
5. Incentives to promote sports;
6. Enhanced participation of women, Scheduled Tribes and rural youth;
7. Involvement of the Corporate Sector in sports promotion; and
8. Promote sports mindedness among the public at large.

SPORTS AUTHORITY OF INDIA

The Sports Authority of India (SAI) was established by the Government of India in January 1984 as a registered society primarily to ensure effective maintenance and optimum utilisation of the various sports infrastructure that were built in Delhi during Asiad, 1982. It is now the nodal agency in the country for broad-basing sports and for training of sportspersons to achieve excellence in national and international sports. The Society for National Institute of Physical Education and Sports (SNIPES) was merged with SAI with effect from 1st May 1987. Subsequently, Netaji Subhash National Institute of Sports (NSNIS), Patiala and its allied centres at Bangaluru, Kolkata and Gandhinagar and Lakshmibai National Colleges of Physical Education at Thiruvananthapuram came under Sports Authority of India (SAI). It has now six regional centres at Bangalore, Gandhinagar, Kolkata, Chandigarh, Bhopal and Imphal and two sub-centres at Guwahati (Assam) and Lucknow (U.P.). Sports infrastructure is being created at Sonapat and the Northern Regional Centre would be shifted from Chandigarh to Sonapat. SAI has one Centre at Guwahati. SAI also operates a High Altitude Training Centre (HATC) at Shillaroo (H.P.).

SAI operates various schemes at sub-junior, junior and senior level, namely, National Sports Talent Contest (NSTC), Army Boys Sports Company (ABSC), SAI Training Centres (STC) and Special Area Games (SAG) to achieve excellence at national and international level. SAI has also set-up Centres of Excellence (COE) for

elite sports persons at each of its Regional Centres and one at National Institute of Sports, Patiala.

LAKSHMIBAI NATIONAL INSTITUTE OF PHYSICAL EDUCATION

The Lakshmbai National Institute of Physical Education was established initially as a College on 17th August 1957, the centenary year of the first war of India's Independence. The University is located at Gwalior, where Rani Lakshmbai of Jhansi had laid down her life for the country's freedom struggle. In recognition of the services rendered in the field of physical education and sports by the Institute, it has been upgraded to a 'Deemed University' in 1995 and has now been renamed as Lakshmbai National University of Physical Education (LNUPE), w.e.f 14.01.2009. The Institute is fully-funded by the Government of India.

The Institute offers the following full-time courses: (1) Bachelor of Physical Education (BPE) (4 years degree course); (2) Master of Physical Education (MPE) (2 years course); (3) M. Phil in Physical Education (1 year course); and (4) Ph.D in Physical Education.

Apart from the above, following PG diploma courses are also being conducted by the Institute :

(a) Information Technology; (b) Sports Management; (c) Sports Journalism; (d) Yoga & Alternate Therapy; (e) Sports coaching.

The Institute also conducts in-service training programmes in physical education for ex-army personnel, refresher/orientation course for physical education teachers in universities, colleges and schools. The Institute attracts students from abroad also.

PANCHAYAT YUVA KRIDA AUR KHEL ABHIYAN (PYKKA)

The Ministry was implementing four Centrally sponsored sports infrastructure Development Schemes during the Xth Five Year Plan period which were transferred to the State Sector w.e.f. 01.04.2005 viz., Scheme of Grants for the Creation of Sports Infrastructure, Scheme of Grants to Rural School for purchase of sports equipment and development of play grounds, Scheme of Grants for the promotion of Games & Sports in Universities and Colleges; and the Scheme of Grants for the Installation of Synthetic Playing Surface. Under these erstwhile centrally sponsored schemes, financial assistance was being provided to State Governments, educational institutions and NGOs for the creation of sports facilities on a cost sharing basis.

With the closure of these schemes, there has been no provision for providing financial assistance to State Governments, educational institutions and NGOs for creation of sports infrastructure. There is a severe inadequacy of basic sports infrastructure at grassroots level especially in rural areas. Similarly, there is also a lack of sports competitions in the rural areas. The access to sports and games facilities in schools and colleges is very discouraging with hardly 30 million out of the 210 million students having such access. Overall, hardly 50 million out of the 770 million youth, adolescents and children have access to organized sports. Given the fact that less than 5% of the population has access to sporting facilities and organized sports, the need for promoting sports infrastructure of the grassroots level in a phased but time-bound manner has been repeatedly emphasized in various fora.

Keeping these factors in view, the Government has in March 2008 approved the introduction of a new Scheme entitled Panchayat Yuva Krida Aur Khel Abhiyan

(PYKKA) which aim at providing basis sports infrastructure at the panchayat level over a period of 10 years through concerted efforts of all stakeholders, particularly the State Governments, panchayats, educational institutes, sports promotion bodies and youth clubs. All the 2,50,000 village and block panchayats and equivalent units will be covered during this period. Apart from contributing to public health, social inclusiveness, the promotion of indigenous games, and the expansion of the talent pool through the identification and nurturing of rural sports talent. PYKKA is also expected to simulate the economic activities within the sports sector as it would lead to an exponential growth in the demand for sports instructors, coaches, sports equipment and consumable and sports events and related support services.

Under the Scheme, each village Panchayat and each Block Panchayat would be given one time seed capital grant of Rs. one lakh and Rs. five lakh respectively for undertaking development of sports infrastructure viz. development of playfield, athletic track, fencing of playfield, goal posts, poles for net games, outdoor fitness equipments etc. The State share in this will be 25% for normal states and 10% for special category States. In addition, while village panchayats would be given annual acquisition grant for procurement of sports equipments and annual operational grant to meet the operational expenses of non-competition nature at Rs. 10,000 and Rs. 12,000 per annum, respectively, block panchayats would be given Rs. 20,000 and Rs. 24,000, respectively. Each block panchayat would also be provided annual competition grant of Rs. 50,000 for holding block level competitions and each district will be provided annual competition grant of Rs. 3 lakh for holding district level competitions. Further, prize money would also be provided to the winners (first three positions) in block level and district level competitions.

The Planning Commission has allocated Rs. 1500 crore for the 11th Plan Period. The total requirement of funds for the entire programme over the 11th and 12th Plan Periods has been estimated at approximately Rs. 5000 crore.

During 2008-09, nearly 23,000 panchayats have been assisted under this scheme. Against Rs. 250.78 crore sanctioned for this purpose, Rs. 92 crore was released towards the first installment.

COMMONWEALTH GAMES, 2010

Commonwealth Games, 2010 are going to be hosted in Delhi from 3rd October to 14th October 2010. For successful conduct of the Commonwealth Games, a comprehensive integrated approach is being worked out for creation and development of world class sports infrastructure, Games Village, Civic Infrastructure, Tourism, Transportation and Security related aspects.

A number of institutional arrangements have been made for ensuring proper planning and timely preparation for the Commonwealth Games, 2010. These include a Group of Ministers (GOM) under the chairmanship of Minister for Urban Development for coordinating various works related to the conduct of the Games, an Apex Committee headed by Minister for Youth Affairs & Ministers for overseeing and coordinating various matters related to CWG 2010; the Organizing Committee under the chairmanship of President, Indian Olympic Association for the conduct of the Games and a Committee of Secretaries headed by the Cabinet Secretary which is responsible for monitoring the implementation of the decisions of the GOM and taking decisions on other related matters, In addition to these arrangements of the Central level, there is a sub-committee under the Chief Minister of Delhi to take

decisions in respect of all matters pertaining to infrastructure and other preparation for the games within the jurisdiction of the Government of NCT of Delhi. Lt. Governor of Delhi has been entrusted with the overall responsibility with specific reference to security, law and order and matters coming under DDA.

All the stakeholders have been indicated their specific timelines with reference to key milestones, viz., finalization of detailed design and estimates, commencement of tendering process, award of work, commencement of work, completion of work and handing over to Organizing Committee. Work on most of the major projects has already commenced.

SCHEMES RELATING TO PROMOTION OF EXCELLENCE IN SPORTS

Scheme of Assistance to National Sports Federations : Under this scheme, the Government of India provides assistance to National Sports Federations (NSFs) for conducting National Championships and International tournaments in India, participation in international tournaments abroad, organizing coaching camps, procuring sports equipments, engagement of foreign coaches and disbursement of salaries of the paid Joint/Assistant Secretaries.

SCHEME RELATING TO TALENT SEARCH AND TRAINING

Under this Scheme, assistance is provided to promising sportspersons for training and training-cum-competitions in India and abroad, for purchase of equipment, for scientific support. Supporting personnel such as coaches, sports scientists, doctors masseurs etc. are also assisted for undergoing specialized training in particular sports disciplines and for attending seminars/conferences and major international sports events and for appearing in qualifying examinations. This scheme is implemented through Sports Authority of India (SAI).

NATIONAL SPORTS DEVELOPMENT FUND

National Sports Development Fund (NSDF) was instituted by the Central Government with a view to mobilizing resources from the Government as well as non-governmental sources, including the private/corporate sector and non-resident Indians, for promotion of sports and games in the country. In order to make contributions to the Fund attractive, 100% exemption from income tax is available on all contributions. To begin with, the Government made a contribution of Rs. 2.00 crore during the year 1998-99. Further Government contribution is on matching basis to the contributions received from the other sources. The funds available under NSDF are used towards promotion of sports in general and specific sports disciplines and individuals sportspersons for achieving excellence at the national and international level in particular; imparting special training and coaching in relevant sport disciplines to sportspersons, coaches and sports specialists; to construct and maintain infrastructure as may be required for promotion of excellence in sports; to supply equipment to Governmental and Non-Governmental organizations and individuals with a view to promoting excellence in sports; to identify problems and take up research and development studies for providing support to excellence in sports etc.

SCHEME RELATING TO INCENTIVES TO SPORTS PERSONS

The Ministry of Youth Affairs and Sports also implements various schemes as incentives to sportspersons to take up sports:

RAJIV GANDHI KHEL RATNA AWARD

The scheme was launched in the year 1991-92 with the objective of honouring sportsperson to enhance their general status and to give them greater dignity and place of honour in society. Under this scheme an amount of Rs. 7.5 lakhs is given as award for the most spectacular and outstanding performance by a sportsperson in the preceding year.

ARJUNA AWARDS

The Arjuna Award was instituted in 1961. To be eligible for the Award, a sportsperson should have had not only good performance consistently for the previous three years at the international level with excellence for the year for which the Award is recommended but also should have shown qualities of leadership, sportsmanship and a sense of discipline. The Awardee is given a statuette, a certificate, ceremonial dress and a cash award of Rs. 5.00 lakhs. Not more than 15 awards are given every year.

DHYAN CHAND AWARD FOR LIFETIME ACHIEVEMENTS IN SPORTS AND GAMES

Dhyan Chand Award for lifetime achievements in sports and games instituted in the year 2002 is given to honour those sportspersons who have contributed to sports by their performance and continue to contribute to promotion of sports even after their retirement from active sporting career. The award carries a cash of Rs three lakh, a plaque and a scroll of honour. Three awards are given every year.

DRONACHARYA AWARD

The Dronacharya Award, instituted in 1985, honours eminent Coaches who have successfully trained sportspersons or teams and enabled them to achieve outstanding results in international competitions. The awardee is given a statuette of Guru Dronacharya, a certificate, ceremonial dress and a cash award of Rs. five lakh. Not more than 5 awards are given every year.

MAULANA ABUL KALAM AZAD (MAKA) TROPHY

The Maulana Abul Kalam Azad (MAKA) Trophy was instituted in 1956-57. The top overall performing University in the Inter-University Tournaments is given the Maulana Abul Kalam Azad (MAKA) Trophy, which is a rolling trophy. A small replica of the MAKA Trophy is also awarded for retention by the University. In addition, the University also gets a cash prize of Rs 10 lakh. The second and third best universities also receive cash awards amounting to Rs five lakh and Rs three lakh respectively.

RASHTRIYA KHEL PROTSAHAN PURUSKAR

With a view to recognizing the contribution made to sports development by entities other than sportspersons and coaches, Government has instituted a new award entitled Rashtriya Khel Protsahan Puruskar from the year 2009, which has four categories, namely, community sports development, promotion of sports academies of excellence, support to elite sportspersons and employment to sportspersons. The awards consist of a citation and a trophy in each of the above mentioned categories. There is no cash award.

SPECIAL AWARDS TO WINNERS IN INTERNATIONAL SPORTS EVENTS AND THEIR COACHES

This scheme was introduced in the year 1986 to encourage and motivate outstanding

sportspersons for even higher achievement and to attract the younger generation to take sports as a career. Under the scheme, special awards are given to sportspersons and their their coaches for winning medals in recognized international sports events held in a year at following rates :

Name of Championship/Game	Gold Medal First Position	Silver Medal Second Position	Bronze Medal Third Position
Olympics Games	Rs. 50 lakhs	Rs. 30 lakhs	Rs. 20 lakhs
Official World Cups/Asian Games/Commonwealth Games	Rs. 10 lakhs	Rs. 5 lakhs	Rs. 3 lakhs
Asian and Commonwealth Championships	Rs. 3 lakhs	Rs. 2 lakhs	Rs. 1.5 lakhs

SCHEME OF SPORTS FUND FOR PENSION TO MERITORIOUS SPORTS PERSONS

This scheme was launched in the year 1994. Under this scheme, those sportspersons, who are India citizens and have won gold, silver and bronze medals in Olympic Games, World Cup/World Championships, Asian Games, Commonwealth Games and paraolympic games and have attained the age of 30 years and have retired from active sports career are eligible for life pension under this Scheme at the following enhanced rates, which are effective from 01.07.2008:

(a)	Medalists at the Olympic Games	Rs. 10,000/- p.m.
(b)	Gold medalists at the World Cups/ World Championships in Olympic and Asian Games disciplines	Rs. 8,000/- p.m.
(c)	Silver or Bronze medalists of the World Cups/World Championships in Olympic and Asian Games disciplines	Rs. 7,000/- p.m.
(d)	Gold medallists of the Asian/ Commonwealth Games	Rs. 7,000/- p.m.
(e)	Silver and Bronze medalists of Asian/ Commonwealth Games	Rs. 6,000/- p.m.
(f)	Gold medalists of Para-Olympic Games	Rs. 5,000/- p.m.
(g)	Silver medalists of Para-Olympic Games	Rs. 4,000/- p.m.
(h)	Bronze medalists of Para-Olympic Games	Rs. 3,000/- p.m.

NATIONAL WELFARE FUND FOR SPORTSPERSONS (Non-Plan)

The National Welfare Fund for sports persons was set up in March 1982 with a view to assist outstanding sportspersons of yesteryears, living in indigent circumstances who had won glory for the country in sports. Assistance from the fund is given in the form of lumpsum financial assistance ex-gratia to sportspersons or their families in case of sustaining a total injury during training for, or participation in, an international competition, sportspersons sustaining injury other than a fatal injury, families of sportspersons, for sports promoters (referees, coaches and umpires) living in indigent circumstances. Assistance is provided to those whose monthly income from all sources is less than Rs. 2,00,000/- per annum. The fund is managed & operated by a Committee with the Minister for Youth Affairs and Sports as the Chairperson.

SCHEME RELATING TO PARTICIPATIVE SPORTS**NATIONAL SPORTS CHAMPIONSHIP FOR WOMEN (Non-Plan)**

The scheme started in 1975, aims at promoting sports amongst women. Under the scheme, national level competitions are preceded by holding of lower level competitions (Block, District and State level) for which States/UTs are provided financial assistance as per norms. The scheme is implemented through the Sports Authority of India. The pattern being followed at present for Central financial assistance is as under :

- | | | |
|------|-------------------------------|-----------------------------|
| i) | for Block level competitions | Rs. 1000/- per block |
| ii) | for Distt. level competitions | Rs. 3000/- per Distt |
| iii) | for State level competitions | Rs. 10,000/- per State |
| iv) | for smaller States and UTs | Rs. 5,000/- per State or UT |

However, Central financial assistance for block level competitions is restricted to 60% of total blocks where competitions are held in a State and for the remaining 40% of the blocks; the State concerned is advised to share the full expenditure.

NORTH-EAST SPORTS GAMES

The Scheme of North-East Sports Festival was launched in the year 1986-87 and is being operated through the Sports Authority of India. The North-East Sports Festival is organized by the Sports Authority every year in one of the North Eastern States by rotation in collaboration with the concerned State Government. There is no age restriction for participation in the festival but the participants have to be residents of the NE States for the last five years. For North East States, assistance of Rs. 50,000/- per district for district level competitions and Rs. 75,000/- per discipline for State level competition is given. The funds for North-East Games are now provided from the PYKKA scheme.

SCHEME OF ASSISTANCE FOR ANTI-DOPING ACTIVITIES

Doping is the deliberate or inadvertent use by sportspersons of a substance or method banned by Medical Commission of International Olympic Committee/World Anti Doping Agency (WADA). In pursuit of gold and glory, large numbers of sportspersons all over the world are tempted to and/or use performance enhancing substances in an effort to gain a competitive edge over others. India is no exception to this malaise. Recognizing the urgent need for embarking upon a concerted effort to check doping in collaboration with the global anti-doping community, the Government of India became one of the members of the Foundation Board of WADA, set up with the initiative of the International Olympic Committee.

National Anti Doping Agency (NADA) is the national organization responsible for promoting, coordinating and monitoring the doping control programme in sports in the country. The Anti Doping rules of NADA are compliant with the Anti Doping Code of WADA.

National Dope Testing Laboratory (NDTL) is responsible for testing dope samples and conducting advance research on the subject by maintaining close association with the WADA and WADA accredited laboratories. NDTL achieved WADA accreditation on September 2008 after undergoing probation from October, 2006. The NDTL has now become the 35th WADA accredited laboratory in the World and 6th in the Asian Region.

INTERNATIONAL COOPERATION

COMMONWEALTH YOUTH PROGRAMME (CYP): The CYP came into being in 1974 with the purpose of promoting the development of young men and women in the Commonwealth countries.

Main Objectives :

- i) To encourage and support participation of youth in the process of national development;
- ii) To give recognition to the contribution made by youth in economic, social and cultural spheres;
- iii) To promote productive activity in order to eliminate unemployment;
- iv) To provide opportunities for international understanding among the youth.

Headquarters: London

Headquarters of CYP Asia Centre: Chandigarh

Present Activities:- The Ministry in collaboration with CYP Asia Centre organizes every year 3-4 programmes by way of national/regional consultations and workshops on issues of concern for the youth.

New Initiatives:- Efforts are being made to organize more programmes in collaboration with CYP Asia Centre.

EXCHANGE OF YOUTH DELEGATIONS AT INTERNATIONAL LEVEL

The International exchange of youth delegation has been conceived as an effective instrument for promoting exchange of ideas amongst the youth of different countries and to develop better relations with other countries. Under the programme, youth delegations are exchanged with foreign countries for participation in various youth programmes, meetings, seminars, conferences etc. Presently, we have youth exchange programmes with Peoples Republic of China and Republic of Korea.

New Initiatives:- Efforts are being made to sign Protocols/Agreement with more countries.

30 States and Union Territories

ANDHRA PRADESH

<i>Area</i>	: 2,75,069 sq km	<i>Population</i>	: 8.32 crores as on 1.3.09
<i>Capital</i>	: Hyderabad	<i>Principal Languages</i>	: Telugu and Urdu

HISTORY AND GEOGRAPHY

The earliest mention of the Andhras is said to be in *Aitereya Brahmana* (2000 BC). It indicates that the Andhras, originally an Aryan race living in north India migrated to south of the Vindhyas and later mixed with non-Aryans. Regular history of *Andhra Desa*, according to historians, begins with 236 BC, the year of Ashoka's death. During the following centuries, *Satavahanas*, *Sakas*, *Ikshvakus*, Eastern *Chalukyas*, *Kakatiyas* ruled the Telugu country. Other dynasties that ruled over the area in succession were the kingdoms of Vijayanagar and Qutub Shahi followed by Mir Qumruddin and his successors, known as the Nizams. Gradually, from the 17th century onwards, the British annexed territories of the Nizam and constituted the single province of Madras. After Independence, Telugu-speaking areas were separated from the composite Madras Presidency and a new Andhra State came into being on 1 October 1953. With the passing of the States Reorganisation Act, 1956, there was a merger of Hyderabad State and Andhra State, and consequently Andhra Pradesh came into being on 1 November 1956.

Andhra Pradesh is historically called the Rice Bowl of India. The state has a large river system which supplements the rainfall in the state. It is one of the few states in the country blessed with riverine geography.

Andhra Pradesh is bound on the north by Orissa and Chhattisgarh, on the west by Maharashtra and Karnataka, on the south by Tamilnadu and on the east by the Bay of Bengal with a coastline of 974 km.

AGRICULTURE

Agriculture is the main occupation of about 62 per cent of the people in Andhra Pradesh. Rice is a major food crop and staple food of the State contributing about 77 per cent of the foodgrain production. Other important crops are *jowar*, *bajra*, maize, ragi, small millets, pulses, castor, tobacco, cotton and sugarcane. Forests cover 23 per cent of the State's area. Important forest products are teak, eucalyptus, cashew, casurina, bamboo, softwood, etc. The production of food grains in the state for the first time since formation of the State is recorded at 204.04 lakhs tonnes in 2008-09 as against 198.17 lakh tones in 2007-08.

The Government is working with a mission of "Sustainable Agriculture Production with minimum cost of cultivation, eventually enhancing the return on income to the farmer". In the process of making the mission a reality, the Government is implementing schemes for the welfare of farmers like 9 hours free power supply, subsidized seed, subsidized interest rate on crop loans, subsidized

and quality agricultural inputs etc., Andhra Pradesh occupies the first position in respect of agricultural loans from commercial and cooperative banks.

The debt waiver scheme of Central Government and the incentive scheme of the State Government have helped about one crore farmers in the state to the tune of Rs. 16,000 crore. The Government of Andhra Pradesh is also keen on introducing cooperative farming to set up farm yields.

IRRIGATION

A total of 86 projects (44 Major+30 Medium+4 Flood Banks+8 Modernisation) have been taken up under *Jalayagnam* programme, with the aim of completing the ongoing and new projects in a record time to provide immediate irrigation to water starved areas on top priority by mobilizing funds from all possible sources. Till now, 12 projects were completed and water released for 19 more projects creating partial irrigation potential and the remaining projects are programmed to be completed in a time bound and planned manner, Andhra Pradesh Government has been making huge budgetary allocations for the execution of irrigation projects and it is the first state to involve the farmers in the management of irrigation sources.

POWER

Important power projects in the State are : the Nagarjunasagar and Neelam Sanjiva Reddy Sagar (Srisailem Hydrel Project), Upper Sileru, Lower Sileru, Tungabhadra Hydrel projects and Nellore, Ramagundam, Kothagudem, Vijayawada and Muddanur thermal power projects. The Srisailem Hydro Electric project (Right Bank) with an installed capacity of 770 MW and the Srisailem Left Bank HES capacity of 900 MW and the Nagarjunasagar complex with 960 MW are the principal sources of hydrel generation. Vijayawada Thermal Power station with an installed capacity of 1,260 MW and Kothagudem Thermal Power station with an installed capacity of 1,220 MW are the main sources of thermal power generation. The 1,000 MW coal-based Simhadri Thermal Power station aims at supplying the entire energy generated to the State.

Installed capacity of the State as on June, 2009 is 13,472.33 MW. The annual revenue from sale of power is Rs. 13,945 crores (including non-tariff income). Government is particularly committed to the welfare of farmers by way of enhancing free power from seven hours to nine hours to all agriculture consumers. Govt. also waived the power consumption arrears amounting to Rs. 1,259 crores relating to agricultural consumers. During the year 2008-09, 81,036 new agricultural connections were released. 21 new projects are programmed by APGENCO, out of which, 2 projects Rayalaseema TPP State II and Dr. Narla Tata Rao TPS State II (VTPS Stage IV) are already functioning.

INDUSTRIES

The Government of AP is extending various incentives for SSI & Tiny Sector and Large & Medium Scale Industries. The State Government has been promoting the manufacturing sector in a big way by providing concessions in power tariff, allotting land and relaxing labour laws in special Economic Zones (SEZs). AP has promoted 102 Special Economic Zones (SEZs) of which 64 have been notified by the Government of India. The state has recommended to Government of India for setting up of 59 IT/ITES SEZs, with active private sector participation. As of now, 12 IT SEZs with 22 units are functioning and operational creating an employment of 15,000 of IT professionals.

MINES & GEOLOGY

Andhra Pradesh is well known globally for variety of rocks and minerals and is called Ratna Grabha. Andhra Pradesh has the largest deposits of quality chrysolite asbestos in the country. Other important minerals found in the state are copper ore, manganese, mica, coal and limestone. The Singareni Coal Mines supply coal to the entire South India. The mineral consumption is increasing due to promotion of various industries and manufacture of mineral based products. The state produces about 100 to 110 million tonnes of industrial minerals and 200 million cubic meters of stone and building material. AP stands first in Barytes and Limestone production in the country. The state stands first in value of minor mineral production and second in total value of mineral production in the country contributing about 9 to 10% to the country's mineral value production. The mineral revenue is Rs. 1,660.79 crores during 2008-09. The state stands first in Mineral Revenue among the important Mineral Producing states of the country.

CIVIL SUPPLIES

Rs. 2/-a kg rice scheme : To extend help to the poor and low-income groups the State Government has been implementing the Rs. 2/-a Kg Rice supply scheme since April 7, 2008. Depending on the size of the family, each white cardholder gets 16 kg to 20 kg every month. This benefits 1.82 crore white cardholders. The Government is keen on implementing the scheme without any scope for irregularities.

HOUSING

The Government has introduced an innovative, unique, self financed housing scheme "Rajiv Swagraha" for the moderate income group in the state with an objective that every person with moderate income group in the state having no house of his/her own must have a house at affordable cost in the urban/municipal areas in the state. The houses/flats have to be made available to them at prices 25% less than the existing market rates on similar specifications. The construction of housing programme under Rajiv Swagraha is under progress. Schemes were prepared for construction of 85,961 houses/flats and bids were received for 61,793 units and bids were awarded for construction of 52,340 houses/flats.

Under Weaker Section Housing Program till the end of 31st March, 2009, 87,70,082 houses have been completed comprising 80,64,383 in rural areas and 7,05,699 in urban areas.

HEALTH

'Rajiv Arogyasri' is a unique health insurance scheme being implemented in Andhra Pradesh. The scheme enables the poor, suffering from chronic diseases, to undergo treatment costing upto Rs. 2 lakh. All white cardholders can undergo treatment for about 942 diseases. Medical and surgical treatment is provided in 344 corporate, private and Govt hospitals free of cost to patients Aarogyasri scheme is unique in its applicability, since no other state/government agency has provided universal health coverage to the poor for major ailments. The choice of hospital for treatment is with the patient. The entire process from the time of conduct of health camps to the screening, testing, treatment, follow up and claim payment is made transparent through online web based processing to prevent any misuse and fraud. This system is motivating more and more Government hospitals to participate in the scheme and utilize the revenue earned to improve facilities to provide quality

medical care and thus bring reforms in tertiary medical care. Officials from several states have visited the state and appreciated the scheme. Since inception of the scheme i.e., 1st April 2007 and as on 31st March 2009, 344 hospitals from Government and private sector have joined the network and organized 8785 health camps in rural areas wherein 15,99,520 patients have been screened and 2,43,529 surgeries/treatment conducted at a cost of Rs. 781.35 crores. In addition, 3,65,763 patients were given medical consultation as outpatients free of cost.

INFORMATION TECHNOLOGY

Andhra Pradesh has been forging ahead in the sphere of Information Technology. It is ahead of other states in exploiting the opportunities to the hilt. The State Government has introduced many schemes to utilize the maximum number of skilled human resources in the I.T. Sector. During 2008-09, I.T. sector recorded an export growth rate of over 20% with exports turnover of Rs. 31,800 crores. AP ranks 4th at National level in IT performance.

The Government is making efforts to spread IT to Tier II cities like Warangal, Tirupathi, Kakinada, Vishakhapatnam, Vijayawada, Guntur and Kadapa. As a result, job opportunities in the IT sector in Tier II cities have improved. The IIT, Hyderabad is part of the history making which started functioning from August 20, 2008. The Government of Andhra Pradesh established Rajiv Gandhi University of Knowledge Technology (RGUKT) in 2008 to cater to the educational needs of the meritorious rural youth of Andhra Pradesh, Three IIITs are established in Basara (Adilabad), Nuzvidu (Krishna) and Rajiv Knowledge Valley (Kadapa) under RGUKT. A total of 6000 students will be admitted in 2009 academic year.

TRANSPORT

Roads : The total R&B road network in the State is 69,051 km as on 31.3.2009, of which, the National Highways passing through Andhra Pradesh constitute 4,648 km., the state Highways constitute 10,519 kms and Major District Roads constitute 32,170 km and rural roads 21,714 kms. The density with reference to R&B road network in the state is 0.23 kms per one sq.km. and 0.86 kms per 1000 persons.

Railways : Of the railways route covering 5,107 km in Andhra Pradesh, 4,633 km is broad-gauge, 437 km is metre-gauge and 37 km is narrow gauge.

Aviation : Important airports in the State are located at Shamshabad, Tirupathi and Visakhapatnam. International flights are operated from Shamshabad.

Ports : There is one major Port at Visakhapatnam under Government of India and 13 Non-Major Ports under State Government. Ports offer tremendous potential for development and for the growth of a wide spectrum of maritime activities such as international shipping, coastal shipping, ship repairs, fishing, captive ports for specific industries, all weather ports tourism and sports, etc. Minor Ports of Andhra Pradesh handled 26.88 million tones of cargo during 2009-10 and AP is the 2nd highest cargo handling state in India.

TOURIST CENTRES

Andhra Pradesh Tourism Development Corporation continues to strive for promotion of new tourism products such as Eco-tourism, Beach-Tourism and Cruise-Tourism.

The Corporation currently runs a chain of 52 hotels with 1043 rooms and 2222 beds in prime locations fostering homely ambience. An impressive fleet of 144 buses cater to varied tour packages connecting to important tourism locations within and outside the state. The Corporation runs Sound & Light shows, owns and operates water fleet of 120 boats making River and Lake cruise tourism at an affordable reality. 73.79 lakh tourists visited the state and the revenue is Rs. 109.00 crores during 2008-09.

Charminar, Salarjung Museum, Golconda Fort in Hyderabad, Thousand Pillar Temple and Fort in Warangal, Sri Lakshmi Narasimha Swamy Temple at Yadagirigutta, Buddha Stupa at Nagarjunakonda, Nagarjuna Sagar, Sri Venkateswara Temple at Tirumala-Tirupathi, Sri Mallikarjunaswamy Temple at Srisailam, Kanaka Durga Temple at Vijayawada, Sri Satyanarayana Swamy Temple at Annavaram, Sri Varaha Narasimha Swamy Temple at Simhachalam, Sri Sita Rama Temple at Bhadrachalam, Araku Valley, Horsley Hills, Nelapattu, etc., are the major tourist attractions in Andhra Pradesh.

GOVERNMENT

<i>Governor</i>	: Narayan Dutt Tiwari	<i>Chief Secretary</i>	: A. Raghotham Rao
		<i>acting Chief Justice</i>	
<i>Chief Minister</i>	: Sri Konijeti Rosaiah	<i>Jurisdiction of High Court</i>	: A. R. Dave
<i>Speaker</i>	: N. Kiran Kumar Reddy	<i>Chairman Legislative Council</i>	: Puvvada Nageswara Rao

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area in 000' sq km	2001 Census Population	Headquarters
1.	Adilabad	16.1	24,88,003	Adilabad
2.	Ananthapur	19.1	36,40,478	Ananthapur
3.	Chittoor	15.2	37,45,875	Chittoor
4.	Cuddapah	15.4	26,01,797	Cuddapah
5.	East Godavari	10.8	49,01,420	Kakinada
6.	Guntur	11.4	44,65,144	Guntur
7.	Hyderabad	0.2	38,29,753	Hyderabad
8.	Karimnagar	11.8	34,91,822	Karimnagar
9.	Khammam	16.0	25,78,927	Khammam
10.	Krishna	8.7	41,87,841	Machilipatnam
11.	Kurnool	17.7	35,29,494	Kurnool
12.	Mahaboobnagar	18.4	35,13,934	Mahaboobnagar
13.	Medak	9.7	26,70,097	Sangareddy
14.	Nalgonda	14.2	32,47,982	Nalgonda
15.	Nellore	13.1	26,68,564	Nellore
16.	Prakasam	17.6	30,59,423	Ongole
17.	Nizamabad	8.0	23,45,685	Nizamabad
18.	Ranga Reddy	7.5	35,75,064	Hyderabad
19.	Srikakulam	5.8	25,37,593	Srikakulam

20.	Visakhapatnam	11.2	38,32,336	Visakhapatnam
21.	Vizianagaram	6.5	22,49,254	Vizianagaram
22.	Warangal	12.9	32,46,004	Warangal
23.	West Godavari	7.7	38,03,517	Eluru

ARUNACHAL PRADESH

<i>Area</i>	: 83,743 sq km	<i>Population</i>	: 10,97,968 (census 2001 Prov.)
<i>Capital</i>	: Itanagar	<i>Major Tribes</i>	: Monpa, Miji, Aka, Sherdukpen, Nyishi, Apatani, Tagin, Hill Miri, Adi, Digaru-Mismi, Idu-Mishmi, Khamti, Miju-Mishmi, Nocte, Tangsa and Wancho.

HISTORY AND GEOGRAPHY

Arunachal Pradesh, became a full-fledged State on February 20, 1987. Till 1972, it was known as the North-East Frontier Agency (NEFA). It gained the Union Territory status on January 20, 1972 and renamed as Arunachal Pradesh.

On August 15, 1975 an elected Legislative Assembly was constituted and the first Council of Ministers assumed office. The first general election to the Assembly was held in February 1978.

Administratively, the State is divided into sixteen districts. Capital of the State is Itanagar in Papum Para district. Itanagar is named after Ita fort meaning fort of bricks, built in 14th Century AD.

Arunachal Pradesh finds mention in the literature of Kalika Purana and Mahabharata. This place is the Prabhu Mountains of the Puranas.

It was here that sage Parashuram atoned of his sin, sage Vyasa meditated, King Bismaka founded his kingdom and Lord Krishna married his Consort Rukmini.

The widely scattered archaeological remains at different places in Arunachal Pradesh bear testimony to its rich cultural heritage.

AGRICULTURE AND HORTICULTURE

Agriculture is the mainstay of the people of Arunachal Pradesh and mainly depends on *jhum* cultivation. Encouragement is being given to the cultivation of cash crops like potatoes and horticulture crops like apples, oranges and pineapples.

INDUSTRIES AND MINERALS

For conservation and exploration of the vast minerals the Arunachal Pradesh Mineral Development and Trading Corporation Limited (APMDTCL) was set up in 1991. Namchik-Namphuk coal fields are taken up by APMDTCL To provide training to craftsmen in different trades there are two Industrial Training Institutes at Roing and Daporijo.

FESTIVALS

Some of the important festivals of the State are: *Mopin* and *Solung* of the Adis, *Lossar* of the Monpas and *Boori-boot* of the Hill Miris, *Sherdukpens*, *Dree* of the Apatanis, *Si-Donyi* of the Tagins, *Reh* of the Idu-Mishmis, *Nyokum* of the Nishis, etc. Animal sacrifice is a common ritual in most festivals.

TOURIST CENTRES

Places of tourist interest are : Tawang, Dirang, Bomdila, Tipi, Itanagar Malinithan, Likabali, Pasighat, Along, Tezu, Miao, Roing, Daporijo Namdapha, Bismaknagar, Parashuram Kund and Khonsa.

PANCHAYATI RAJ

The Arunachal Pradesh State Election Commission in support of State Govt. has successfully conducted and completed Panchayati Raj Elections in the State in the month of May 2008 for speedy development in the village and grass root level.

GOVERNMENT

<i>Governor</i>	: General (Retd.) J.J. Singh	<i>Secretary</i>	: Tabom Ban
<i>Chief Minister</i>	: Dorjee Khandu	<i>Jurisdiction of</i>	: Falls under Guwahati
<i>Speaker</i>	: Wanglin Lowangdong	<i>High Court</i>	: High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Tawang	2,172	38,924	Tawang
2.	West Kameng	7,422	74,599	Bomdila
3.	East Kameng	4,134	57,179	Seppa
4.	Papum-Pare	2,875	1,22,003	Yupia
5.	Lower Subansiri and Kurung Kumey	10,135	98,244	Ziro
6.	Upper Subansiri	7,032	55,346	Daporijo
7.	West Siang	8,325	1,03,918	Along
8.	East Siang	4,005	89,397	Pasighat
9.	Upper Siang	6,188	33,363	Yingkiong
10.	Dibang and Lower Dibang Valley	13,029	57,720	Anini
11.	Lohit and Anjaw	11,402	1,43,527	Tezu
12.	Changlang	4,662	1,25,422	Changlang
13.	Tirap	2,362	1,00,326	Khonsa

ASSAM

<i>Area</i>	: 78,438 sq km	<i>Population</i>	: 2,66,55,528
<i>Capital</i>	: Dispur	<i>Principal Language</i>	: Assamese

HISTORY AND GEOGRAPHY

The word 'Assam' as interpreted by some scholars is derived from the Sanskrit word *Asoma* meaning peerless or unparalleled. But the widely accepted opinion of the academic circles today is that the term has come from the original name of the *Ahoms* who ruled the land for about six hundred years prior to its annexation by the British.

The races like Austric, Mongolian, Dravidian and Aryan that came to this land long-long ago have contributed to its composite culture. Thus Assam has a rich legacy of culture and civilization.

Assam was known as Pragjyotisha or the place of eastern astronomy during the epic period and later named as Kamrupa. The earliest epigraphic reference to the kingdom of Kamrupa is found in the Allahabad pillar inscription of king Samudragupta. Kamrupa is mentioned as a *Pratyanta* or frontier state outside the Gupta empire but with friendly and subordinate relation to it. Hiuen Sang, the Chinese scholar pilgrim who visited Kamrupa in about 743 AD on an invitation of its monarch, Kumar Bhaskar Varman, left a record of the kingdom he called Kamolupa. Kamrupa also figured in the writings of the Arabian historian Alberuni in the eleventh century. Thus, from the epic period down to the twelfth century AD, the eastern frontier kingdom was known as Pragjyotisha and Kamrupa and kings called themselves 'Lords of Pragjyotisha'.

The advent of the *Ahoms* across the eastern hills in 1228 AD was the turning-point in Assam history. They ruled Assam nearly for six centuries. The Burmese entered through the eastern borders and overran the territory at a time when court intrigues and dissensions were sapping the vitality of the *Ahom* royalty. It became a British protectorate in 1826 when the Burmese ceded Assam to the British under the provision of the Treaty of Yandabo.

Assam is the sentinel of north-east India and gateway to the North-Eastern States. The State is close to India's international borders with Bangladesh and Bhutan. Assam is surrounded by Bhutan and Arunachal Pradesh on the north, Manipur, Nagaland and Arunachal Pradesh on the east and Meghalaya, Tripura and Mizoram on the south.

AGRICULTURE

Assam is an agricultural State. Agriculture occupies an important place in the economy of the State. The principal food crop is rice. The cash crops are jute, tea, cotton, oilseeds, sugarcane, potato, etc. Noteworthy horticulture items are orange, banana, pineapple, arecanut, coconut, guava, mango, jackfruit and citrus fruits. The State has an estimated 39.83 lakh hectares gross cropped area of which net area sown is about 27.24 lakh hectares.

FORESTS

Assam is known for her rich forest wealth which constitutes 26.22 per cent of the total forest area.

WILD LIFE

The State has five National Parks and eleven wildlife sanctuaries. The Kaziranga National Park and the Manas Tiger Project (National Park) are internationally famous for the one horned Rhino and Royal Bengal Tiger respectively.

INDUSTRY

Of agriculture-based industries, tea occupies an important place. There are six industrial growth centres in the State and two such centres are being set up at Balipara and Matia. Presently four oil refineries have been working in the State including the one at Digboi. Construction of the Export Promotion Industrial Park (EPIP) at Amingaon near Guwahati is nearing completion. A Software Technology Park will be constructed at Borjhar near Guwahati. A Central Institute for Plastic Engineering

Technology (CIPET) has been established at Amingaon near Guwahati. Assam has always enjoyed the highest reputation for her arts and crafts associated with her cottage industries. Cottage industries include handloom, sericulture, cane and bamboo articles, carpentry, brass and bell-metal crafts. Assam produces varieties of silk, *Endi*, *Muga*, *Tassar*, etc., *Muga* silk is produced only in Assam in the world.

POWER

The major power stations are Chandrapur Thermal Project, Namrup Thermal Project and a few Mobile Gas Turbine Units along with a mini hydro-electric project. Revitalising the Thermal Power Station of Bongaigaon and on-going the Karbi-Langpi Project will boost the power supply in the State. The Lakuwa Waste Heat Recovery Project is expected to be commissioned in 2008-09.

TRANSPORT

Roads: The total length of roads in the State was 37,515 km which includes 2,754 kms of National Highways. The construction of 160 km of barbed wire fencing and 27 kms of the border road along the Indo-Bangladesh International have been completed.

Railways: The length of railway tract in Assam is 2,284.28 kms comprising 1,227.16 kms under broad-gauge and 1,057.12 km under meter-gauge lines.

Aviation: The regular civil air services operate from Lokopriya Gopinath Bordoloi Airport (Guwahati), Salonibari (Tezpur), Mohanbari (Dibrugarh), Kumbhirgram (Silchar), Rawriah (Jorhat) and Silonibari (North Lakhimpur).

FESTIVALS

Assam has an exclusive range of colourful festivals. *Bihu* is the chief festival celebrated on three occasions. *Rongali Bihu* or *Bohag Bihu* marks the advent of the cropping season and it also ushers in the Assamese New Year. *Bhogali Bihu* or *Magh Bihu* is the harvest festival and *Kati Bihu* or *Kongali Bihu* coming in autumn is a simple affair.

Religion accounts for a large variety of festivals. *Vaishnavites* observe the birth and death anniversaries of prominent *Vaishnava* saints through day-long singing of hymns and staging of *Bhaonas* (theatrical performances in traditional style). *Ambubachi* in Kamakhya shrine, *Sivaratri Mela* at Umananda and other places near Siva temples, *Durga Puja*, *Diwali*, *Dol-Jatra*, Id, Christmas, *Ashokastami Mela*, *Rash Mela*, *Parasuram Mela* are other religious festivals.

TOURISM

Important places of tourism in and around Guwahati are Kamakhya temple, Umananda (Peacock Island), Navagraha (temple of nine planets), Basistha Ashram, Dolgobinda, Gandhi Mandap, State Zoo, State Museum, Sukreswar temple, Gita Mandir, Madan Kamdev temple, a magnificent archaeological place of interest, and Saraighat bridge.

Other places of tourist interest in the State are : Kaziranga National Park (famous for the one horned rhino), Manas Tiger Project, Pobi-tora and Orang (wildlife sanctuaries), Sibsagar (Shiv Temple-Rangghar-Karengghar), Tezpur (Bhairavi temple and scenic beauty), Bhalukpung (Angling), Haflong (health resort with Jatinga hills), Majuli (largest river island in the world), Chandubi lake (picnic spot), Hajo (meeting point of Buddhism, Hinduism and Islam), Batadrava (birth place of great Vaishnava saint Sankaradeva) and Sualkuchi (famous for silk industry).

GOVERNMENT

<i>Governor</i>	: Lt. Gen. (Retd.) Ajai Singh	<i>Secretary</i>	: P.C. Sarma
<i>Chief Minister</i>	: Tarun Gogoi	<i>Jurisdiction of</i>	: All North-Eastern States
<i>Speaker</i>	: Tanka Bahadur Rai	<i>Guwahati High Court</i>	

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population (in lakh) ¹	District Headquarters
1.	Dhubri	2,838	16.35	Dhubri
2.	Kokrajhar	3,129	9.30	Kokrajhar
3.	Bongaigaon	2,510	9.06	Bongaigaon
4.	Goalpara	1,824	8.22	Goalpara
5.	Barpeta	3,245	16.42	Barpeta
6.	Nalbari	2,257	11.38	Nalbari
7.	Kamrup	4,345	25.15	Guwahati
8.	Darrang	3,481	15.04	Mangaldoi
9.	Sonitpur	5,324	16.78	Tezpur
10.	Lakhimpur	2,277	8.89	North Lakhimpur
11.	Dhemaji	3,217	5.89	Dhemaji
12.	Morigaon	1,704	7.76	Morigaon
13.	Nagaon	3,831	23.15	Nagaon
14.	Golaghat	3,502	9.46	Golaghat
15.	Jorhat	2,851	10.09	Jorhat
16.	Sibsagar	2,668	10.53	Sibsagar
17.	Dibrugarh	3,381	11.72	Dibrugarh
18.	Tinsukia	3,790	11.50	Tinsukia
19.	Karbi-Anglong	10,434	8.12	Diphu
20.	North Cachar Hills	4,888	1.86	Haflong
21.	Karimganj	1,809	10.04	Karimganj
22.	Hailakandi	1,327	5.43	Hailakandi
23.	Cachar	3,786	14.42	Silchar

¹ Provisional

BIHAR

<i>Area</i>	: 94,163 sq km	<i>Population</i>	: 8,28,78,796
<i>Capital</i>	: Patna	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Bihar finds mention in the *Vedas*, *Puranas*, epics, etc., and was the main scene of activities of Buddha, and the 24 Jain Tirthankars. Great rulers of the State before the Christian era were Bimbisara, Udayin, who founded the city of Pataliputra. Chandragupta Maurya and Emperor Ashoka and Maurya dynasty, the Sungas and the Kanvas. Then came the Kushan rulers followed by Chandragupta Vikramaditya of the Gupta dynasty. Muslim rulers made inroads into the territory during the medieval period. The first conqueror of Bihar was Mohammed- bin-Bakhtiar Khalji. The Tughluqs and then the Mughals followed the Khaljis.

One of the major states of the Indian Union, Bihar is bounded on the north by Nepal, on the east by West Bengal, on the west by Uttar Pradesh and on the south by Jharkhand. Bihar has a number of rivers, the most important of which is the Ganga. The other rivers are the Sone, Poonpoo, Falgu, Karmanasa, Durgawati, Kosi, Gandak, Ghaghara, etc.

AGRICULTURE

Bihar has a total geographical area of about 93.60 lakh hectare, out of which only 55.65 lakh hectare is the net cultivated area with a gross cultivated area of 77.19 lakh hectares. About 34.62 lakh hectares net area and 46.46 lakh hectare gross area receive irrigation from different sources. Principal food crops are paddy, wheat, maize and pulses. Main cash crops are sugarcane, potato, tobacco, oilseeds, onion, chillies, jute and mesta. Bihar has a notified forest area of 6.22 lakh hectare, which is 6.65 per cent of its geographical area.

INDUSTRIES

Major Industries are : Railway Wagon Plants of Bharat Wagon Limited at Muzaffarpur and Mokamah; Oil Refinery of Indian Oil Corporation at Barauni; Fertilizer Manufacturing Plant of Hindustan Fertilizer Corporation Limited (HPCL) at Barauni and Pyrites Phosphates & Chemicals Limited (PPCL) at Amjhor; Cotton Spinning Mills at Siwan, Pandaul, Bhagalpur, Mokamah and Gaya; 13 sugar mills in the private sector and 15 in the public sector located in south and north Bihar with a total crushing capacity of 45,000 (Tonne). In addition, distilleries at Gopalganj, West Champaran, Bhagalpur and Riga (in Sitamarhi district); finished leather industry in West Champaran, Muzaffarpur and Barauni; jute mills at Katihar and Samastipur; medicine manufacturing unit at Hajipur; food processing units as also vanaspati manufacturing units at Aurangabad and Patna; besides Kalyanpur Cement Limited at Banjari, are notable on the industrial map of Bihar.

IRRIGATION

Bihar has an irrigation potential of 28.73 lakh hectares. It is created through major and medium irrigation schemes and 49.35 lakh hectares through minor irrigation schemes.

TRANSPORT

Roads : Up to March 2008, Bihar had 46107.00 km of *pucca* roads including 3734.38 km of national highways and 3989 km of state highways, 8156.00 km of major District Roads, 3818.00 km of other District Roads and 27400 km of Rural Roads.

Railways : Bihar has a fairly good railway network. There is a railway bridge at Mokamaha in north Bihar. A few railway routes connecting important places like Muzaffarpur-Samastipur-Barauni-Katihar and Muzaffarpur-Chapra-Siwan have been converted into broad gauge. The main rail junctions are at Patna, Gaya, Muzaffarpur, Katihar and Samastipur, etc.

Aviation : There is an international airport at Patna, besides landing grounds in all major districts of the State.

TOURIST CENTRES

Important places of tourist interest are Rajgir, Nalanda, Vaishali, Pawapuri (where Lord Mahavira breathed his last and attained *Nirvana*), Bodh Gaya, Vikramshila (ruins of Buddhist University of higher learning), Gaya, Patna (ancient city of Patliputra), Sasaram (tomb of Shershah Suri) and Madhubani (known for its famous Madhubani Paintings).

Mundeshwari Mandir (Kaimur), Rohtras Garh Fort (Rohtas), Jain Pilgrim Place, Kundalpur (Nalanda), Bihar School of Yoga (Munger), Manersharif Patna, Rural Tourist Place Nepura (Nalanda), Kesaria Stupa (West Champaran), Barabar Hills (Jehanabad) and Lauria Nandangarh are also important tourist places.

GOVERNMENT

<i>Governor</i>	: D. Konwar	<i>Secretary</i>	: Anup Mukherjee
<i>Chief Minister</i>	: Nitish Kumar	<i>Jurisdiction of High Court</i>	: Bihar

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (in sq km)	Population	Headquarters
1.	Araria	2,830.00	21,58,608	Araria
2.	Arwal	637.00	5,89,476	Arwal
3.	Aurangabad	3,389.2	20,04,960	Aurangabad
4.	Begusarai	1,918.00	23,49,366	Begusarai
5.	Bhagalpur	2,569.00	24,23,172	Bhagalpur
6.	Banka	3,020.00	16,08,773	Banka
7.	Bhojpur	2,395.00	22,43,144	Arrah
8.	Buxar	1,703.00	14,02,396	Buxar
9.	Kaimur (Bhabhua)	3,362.00	12,89,074	Bhabhua
10.	Darbhanga	2,279.00	32,95,789	Darbhanga
11.	East Champaran	3,968.00	39,39,773	Motihari
12.	Gaya	4,976.00	34,73,428	Gaya
13.	Gopalganj	2,033.00	21,52,638	Gopalganj
14.	Jahanabad	932.00	9,24,839	Jahanabad
15.	Jamui	3,098.00	13,98,796	Jamui

16.	Katihar	3057.00	2392638	Katihar
17.	Khagaria	1486.00	12800354	Khagaria
18.	Kishanganj	1884.00	1296348	Kishanganj
19.	Lakhisarai	1228.00	802225	Lakhisarai
20.	Madhepura	1788.00	1526646	Madhepura
21.	Madhubani	3501.00	3575281	Madhubani
22.	Munger	1419.00	1137297	Munger
23.	Muzaffarpur	3172.00	3746714	Muzaffarpur
24.	Nalanda	2355.00	2370528	Biharsharif
25.	Nawada	2494.00	1809696	Nawada
26.	Patna	3202.00	4718592	Patna
27.	Purnea	3229.00	2543942	Purnea
28.	Rohtas	3851.00	2450748	Sasaram
29.	Saharsa	1687.00	1508182	Saharsa
30.	Samastipur	2904.00	3394793	Samastipur
31.	Saran	2641.00	3248701	Chapra
32.	Shekhpura	689.00	525502	Sitamarhi
33.	Sheohar	349.00	515961	Sheohar
34.	Sitamarhi	2294.00	2682720	Sitamarhi
35.	Siwan	2219.00	2714349	Siwan
36.	Supaul	2425.00	1732578	Supaul
37.	Vaishali	2036.00	2718421	Hazipur
38.	West Champaran	5228.00	3043466	Bettiah

CHHATTISGARH

<i>Area</i>	: 1,36,034 sq km	<i>Population</i>	: 2,07,95,956 (Census 2001)
<i>Capital</i>	: Raipur	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Chhattisgarh, carved out of Madhya Pradesh came into being on 1 November 2000 as the 26th State of the Union. It fulfills the long-cherished demand of the people. In ancient times the region was known as Dakshin-Kausal. This finds mention in Ramayana and Mahabharata also. Between the sixth and twelfth centuries Sarabhurias, Panduavanshi, Somvanshi, Kalchuri and Nagvanshi rulers dominated this region. Kalchuris ruled in Chhattisgarh from 980 to 1791 AD. With the advent of the British in 1845, Raipur gained prominence instead of capital Ratanpur. In 1904 Sambalpur was transferred to Orissa and estates of Sarguja were transferred from Bengal to Chhattisgarh.

Chhattisgarh is bounded by southern Jharkhand and Orissa in the east, Madhya Pradesh and Maharashtra in the west, Uttar Pradesh and western Jharkhand in the north and Andhra Pradesh in the south. Areawise Chhattisgarh is the ninth largest state and population-wise it is seventeenth state of the nation.

AGRICULTURE

Agriculture and allied activities account for nearly 80 per cent of the work force in the state. Out of the geographical area 13,790 thousand hectares, gross cropped area is

about 35 per cent of the total geographical area. Kharif is the main cropping season. Rice is the predominant crop of the state, other important crops are maize, wheat, niger, groundnut and pulses. The state has one of the biggest collection of rice germplasm. Horticulture crops are grown in an area of about 303.57 thousand hectares.

IRRIGATION AND POWER

When the state came into being, the total irrigation capacity was 13.28 lakh hectares which has now increased to 16.81 Lakh hectares. Major completed projects are Tandula, Kodar and Paury.

The total capacity of the State Electricity Board is 1,681.05 MW, out of this the thermal power share is 1,260 MW and the rest is hydel power. The electricity board is investing in modernisation, strengthening transmission and distribution networks and creating more generating capacities. The Board itself is adding 500 MW installed generating capacity area 2 X 250 MW unit in Korba. The private sector has been encouraged to setup generating capacities and to make third party sales outside the state. Around 93 per cent of 19,720 inhabited villages of Chhattisgarh have been electrified.

MINERAL RESOURCES

Chhattisgarh hosts a wide variety of minerals found in igneous, sedimentary and metamorphic terrains. Large deposits of coal, iron ore, limestone, bauxite, dolomite and tin ore are located in several parts of the state. Lately diamondiferous kimberlites identified in Raipur district are likely to yield substantial quantity of diamonds. There are also present medium to small deposits of gold and base metals. Satite furn corundum, graphite of workable size are likely to graduate to the category of large deposits after prospecting. Twenty per cent of the country's steel and cement is produced in the state. It is the only tin ore producing state in the country. The mineral resources have immense potential for large investments in mining, setting of mineral based industries and generating employment. Chhattisgarh nestles atop the world's largest kimberlite area. Eight blocks have been demarcated for diamond exploration.

Apart from diamond, four blocks of gold exploration and five blocks for base metal investigations have also been demarcated.

INDUSTRY

Chhattisgarh is generously bestowed with natural resources like forests, minerals and surface water. The State has undergone a radical change and is thriving with industrial activities now. Chhattisgarh produces 15 per cent of the steel made in the country. Many Government of India Undertakings like Bhilai Steel Plant, National Mineral Development Corporation, South-Eastern Coal Field Limited, NTPC and a number of large cement plants by groups like ACC, Gujarat Ambuja, Grasim, CCI and La-farge of France and 53 steel projects (sponge iron/pig iron route) in private sector are also under different stages of implementation. There are approximately 133 steel re-rolling mills and a number of mini steel plants. The state also boasts of 11 ferro-alloy units, steel/cast iron casting units, engineering and fabrication units apart from large number of agro-based and food processing, chemical, plastic, construction material, forest produce based units.

Due to its conducive industrial environment, Chhattisgarh is now fetching huge amount of industrial investment. Approximately 80 MOUs worth Rs. 85,000

cores were signed for establishing new industries and expansion of existing units. Chhattisgarh stood first in Industrial Entrepreneurship Memorandum (IEM) report released by Ministry of Industries, Government of India with the proposed investment of Rs. 1,07,899 crores during the period Jan-Dec 2006.

Strategically located in central India, Chhattisgarh is able to supply power to units for all the time. About 17 per cent of the countries coal reserves in the state, offering cheap pithead power generation opportunities with the potential to produce up to 50,000 MW of power. NTPC is now installing a new power generation unit, the largest ever, by it in Bilaspur district. NTPC has started construction on its 2,640 MW Super Thermal plant in Sipat and another 600 MW plant in Korba. Several other states are also interested in installing plants here. Private sector MoUs for more than 25,000 MW and more projects are in the pipeline. Chhattisgarh State Industrial Development Corp. Ltd., Raipur has developed, maintained and is managing approximately an area of 3,500 hectares of industrial land. More than 925 industries with investments of more than Rs. 18,000 million providing direct employment to 80,000 persons have already been setup on the land developed by this corporation.

INFORMATION TECHNOLOGY

E-Governance in Chhattisgarh is oriented towards ensuring people, access to government, this makes the government even more responsive and transparent. Chips (Chhattisgarh Infotech and Biotech Promotion Society) was setup with a high powered governing council under the Chief Minister's chairpersonship, to act as a prime mover for IT and Biotechnology in the state. All citizen services of e-governance are under one umbrella project called CHOICE (Chhattisgarh On-line Information for Citizens Empowerment).

Chhattisgarh got the United Nations Development Programme (UNDP) Award 2007 for its Human Development Report, using Information technology for the betterment of citizens.

TRANSPORT

ROADS: The total length of the roads in the State is 34,930 kms. The length of the national highways is 2,225 kms, state highways 3,213.50 kms, district roads 4,814 kms and rural roads is 27,001 kms.

Two north-south and four east-west road corridors are being constructed in the state for better connectivity having a total length of 3106.75 kms.

RAILWAYS : Raipur, Bilaspur, Durg, Rajnandgaon, Raigarh and Korba are important railway stations.

TOURIST CENTRES

Chhattisgarh situated in the heart of India, is endowed with a rich cultural heritage and attractive natural diversity. The State is full of ancient monuments, rare wildlife species, carved temples, Buddhist sites, palaces, water-falls, caves, rock paintings and hill plateaus. Bastar, with its unique cultural and ecological identity; Chitrakote Falls, a spot where the river Indravati has an abrupt fall of 96 ft; Tirathgarh Falls, the picturesque waterfall of Kanger river from a height of 100 ft in the form of steps; Keshkal valley; Kangerghati National Park; Kailash caves; Sita Bongara and Kutumsar caves are rich in natural beauty. Mahamaya temple at Ratanpur, Bambleshwari Devi Temple at Dongargarh, Danteshwari Devi Temple at Dantewada, Sirpur an important centre of Buddhism from 6-10th century, Champaran, the birth

place of Mahaprabhu Vallabhacharya, Khutaghat waterfall, Dindneswari Devi temple of Malhar and the Achanakmar sanctuary, Udanti sanctuary near Raipur, Pali and Kendai waterfall of Korba district are important places of tourist interest. The Sabari temple of Kharod Janjgir-Champa; Nar Narayan temple of Sheorinarayan; Vishnu Temple of Janjgir are important religious places. The state has set up a State Tourism Promoting Board as the nodal agency for the sustained development of interrelated sectors in tourism.

GOVERNMENT

<i>Governor</i>	: Shri E.S.L. Narasimhan	<i>Chief Secretary</i>	: P. Joy Oommeh
<i>Chief Minister</i>	: Dr. Raman Singh	<i>Jurisdiction of</i>	: Chhattisgarh
<i>Speaker</i>	: Prem Prakash Pandey	<i>High Court</i>	

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (in sq km)	Population	Headquarters
1	Bastar	10,376	11,31,453	Jagdalpur
2	Bilaspur	8,569	19,93,042	Bilaspur
3	Durg	8,702	28,01,757	Durg
4	Raigarh	6,528	12,65,084	Raigarh
5	Raipur	13,445	30,09,042	Raipur
6	Rajnandgaon	8,023	12,81,811	Rajnandgaon
7	Sarguja	16,034	19,70,661	Ambikapur
8	Koria	5,978	5,85,455	Baikunthpur
9	Jashpur	6,457	7,39,780	Jashpur
10	Janjgir-Champa	4,467	13,16,140	Janjgir
11	Korba	5,769	10,12,121	Korba
12	Kanker	6,434	6,51,333	Kanker
13	Dantewada	9,055	4,89,233	Dantewada
14	Mahasamund	4,963	8,60,176	Mahasamund
15	Dhamtari	4,081	7,03,569	Dhamtari
16	Kabirdham	3,958	5,84,667	Kawardha
17	Narayanpur	6,640	1,10,800	Narayanpur
18	Bijapur	6,555	2,29,832	Bijapur

GOA

<i>Area</i>	: 3,702 sq km	<i>Population</i>	: 13,47,668 (2001 Census)
<i>Capital</i>	: Panaji	<i>Principal Languages</i>	: Konkani and Marathi

HISTORY AND GEOGRAPHY

Goa, known in the bygone days as Gomanchala, Gopakapattam, Gopakapuri, Govapuri, Gomantak, etc., abounds in a rich historical heritage. Early history of Goa

is obscure. In the first century of the Christian era, Goa was a part of the Satavahana empire, followed by the Kadamba, the Rashtrakutas of Malkhed, the Chalukyas and the Silharas. The empire of the Yadavas by the end of the 14th century was displaced by the Khiljis of Delhi and thus Muslim rule came to Goa. After the discovery of the sea route to India by Vasco-da-Gama in 1498, many Portuguese expeditions came to India. In 1510, Alfonso de Albuquerque with the help of the emperor of Vijayanagar attacked and captured Goa. With the arrival of the Jesuit priest Francis Xavier in 1542 proselytisation began in Goa. However, the Portuguese continued to rule over the territory except for an interlude during the latter half of the 17th century when Shivaji conquered a few areas in and around Goa. Even after India's independence, Goa continued to be in the hands of the Portuguese. However, they could not fulfil the aspirations of the Goan people and ultimately on 19 December 1961, Goa was liberated and made a composite union territory with Daman and Diu. On 30 May 1987 Goa was conferred statehood and Daman and Diu was made a separate union territory.

Goa is situated on the western coast of the Indian Peninsula. On its north runs the Terekhol river which separates Goa from Maharashtra and on the south lies North Canara district of Karnataka. On the east lie the Western Ghats and in the west the Arabian Sea. Panaji, Margao, Vasco, Mapusa and Ponda are the main towns of Goa.

AGRICULTURE

Rice is the main food crop. Pulses, ragi and other food crops are also grown. Main cash crops are coconut, cashewnut, arecanut, sugarcane and fruits like pineapple, mango and banana.

IRRIGATION AND POWER

With the commissioning of dams like Selaulim and Anjunem and other minor irrigation projects, the area under irrigation is rising steadily. The total irrigation potential created by these projects is 43,000 hectares. All villages have been electrified leading to cent per cent coverage.

Tillari Irrigation which is a inter-state joint venture of the Government of Maharashtra and Goa is aimed at creating an ultimate irrigation potential of 24618 ha for Goa State, besides providing 57.43 mm³ of water for domestic industrial and other non-agricultural purposes.

INDUSTRY AND MINERALS

The State has 7110 small-scale industrial units and 20 industrial estates. Mineral products are ferro-manganese, bauxite and iron ore contributing substantially to the economy of the State through exports.

FOREST

The State has a rich forest cover of 34%. About 30.18 lakh seedlings have been planted including distribution to public. 978.50 ha area has been covered under plantation.

FISHERIES

Fish assumes special significance for the State as 90% of the population of Goa is fish dietarian. Fisheries is an important industry in the state providing employment and livelihood to around 1.00 lakh people. 3220 fishermen have been covered under the State Insurance scheme. 718 fishermen are covered under saving cum relief fund.

ART AND CULTURE

The State has the distinction to have achieved the ISO 9001-2000 certification through the Directorate of Art and Culture. State Cultural Policy has been framed. Tiatr Academy of Goa has been set up. Various schemes such as Kala Sanman, Kalakar Kritadnyata Nidhi are being implemented to assist artists and promote cultural activities.

TRANSPORT

As on 31/12/2008 the total number of driving licenses issued in Goa is 4,40,152 and the total number of vehicles registered in Goa is 6,59,012.

Roads : Of the motorable roads, national highway constitutes 224 kms, state highways 232 kms and district roads 815 kms.

Railways : Goa is linked with Mumbai, Mangalore and Thiruvananthapuram through the Konkan Railway, which has introduced several fast trains on these lines. Vasco da Gama is connected with Bangaluru and Belgaum on the South Central Railway, presently for goods traffic only.

Aviation : Mumbai, Delhi, Thiruvananthapuram, Cochin, Chennai, Agati and Bangaluru are linked with Dabolim through regular Airlines services.

Ports : Mormugao is the major port in the State. Mormugao handles cargo vessels. Minor ports are located at Panaji, Tiracol, Chapora Betul and Talpona, out of which Panaji is the main operative port. One off-shore berth at Panaji has also been commissioned.

HEALTH

The health care services in the state are made available to the people at their door steps. It is one of the best performing states in India in the matter of health and medical care. Under Mediclaim scheme financial assistance has been enhanced to Rs. 8 lakhs. Mobile health care vans and the unique 108 ambulance services have been introduced to cater to the health care needs of the people advanced emergency paramedics rooms have been established at Government run primary health centres to stabilize patients inflicted with major diseases.

TOURIST CENTRES

Important tourist centres are Colva, Calangute, Vagator, Baga, Harmal, Anjuna and Miramar beaches; Basilica of Bom Jesus and Se Cathedral churches at Old Goa; Kavlem, Mardol, Mangeshi, Bandora temples; Aguada, Terekhol, Chapora and Cabo de Rama Forts; Dudhsagar and Harvalet waterfalls and Mayem lake resort. The state has rich wildlife sanctuaries, viz., Bondla, Cotigao, Molem and Dr Salim Ali Bird Sanctuary at Chorao covering an area of 354 sq km.

GOVERNMENT

<i>Governor</i>	: Dr. Shivinder Singh Sidhu	<i>Chief Secretary</i>	: Sanjay Srivastava
<i>Chief Minister</i>	: Sh. Digamber Kamat	<i>Jurisdiction of High Court</i>	: Falls under Panaji Bench of Mumbai High Court

GUJARAT

<i>Area</i>	: 1,96,024 sq km	<i>Population</i>	: 5,06,71,017
<i>Capital</i>	: Gandhinagar	<i>Principal Language</i>	: Gujarati

HISTORY AND GEOGRAPHY

The history of Gujarat goes back to 2000 BC. It is believed that Lord Krishna left Mathura to settle on the west coast of Saurashtra which later came to be known as Dwarka, the gateway. Later it saw various kingdoms : Mauryas, Guptas, Pratiharas and others. It was during the rule of Chalukyas (Solankis) that Gujarat witnessed progress and prosperity. In spite of the plunderings of Mahmud Ghazani, the Chalukyan kings were able to maintain general prosperity and well-being of the State. After this glorious respite, Gujarat faced troubled times under the Muslims, Marathas and the British rule. Before Independence, the present territories of Gujarat used to be in two parts the British and the Princely territories. With the re-organisation of the States, the Union of the States of Saurashtra and the Union Territory of Kachchh along with the former British Gujarat, became a part of the biggest bilingual State of Bombay. The present State of Gujarat came in to being on 1 May 1960. It is situated on the west coast of India. The state is bounded by the Arabian Sea on the west, Pakistan and Rajasthan in the north and north-east respectively, Madhya Pradesh in the south-east and Maharashtra in the south.

AGRICULTURE

Gujarat is the main producer of cotton, groundnut and tobacco in the country and provides inputs for important industries like textiles, oil and soap. Other important cash crops are isabgol, paddy, wheat and bajra. Forest species available in Gujarat are sadad, haldariyo and manual bamboos.

INDUSTRY

The number of registered working factories in the State were 23,308 (Provisional) at the end of 2007 with the average daily employment of 10.93 lakh. The number of small-scale industrial units in the State was 3.12 lakh at the end of September 2006. Gujarat Industrial Development Corporation (GIDC) has been assigned the role of developing industrial estates with infrastructure facilities. At the end of year 2007-08 GIDC had set up 249 industrial estates.

IRRIGATION AND POWER

The total irrigation potential through surface water as well as ground water has been assessed at 64.88 lakh hectares including 17.92 lakh hectares through Sardar Sarovar (Narmada) Project. The total irrigation potential created up to June 2008 is worked out to 42.26 lakh hectares. The maximum utilisation has been estimated at 37.42 lakh hectares up to June 2008.

ELECTRICITY

The total installed capacity for the state including central sector project has increased to 9827 MW as on 31 March 2008. All the 18066 villages have been covered under the scheme **Jyoti Gram Yojana** of Gujarat State Government.

TRANSPORT

Roads : The total length of roads (except Non-plan, Community, Urban and Project roads) was 74,038 km by the end of 2005-06.

Aviation : The main airport of Gujarat at Ahmedabad is connected with Mumbai, Delhi and other cities by daily services. Ahmedabad airport has now got the status of an International Airport. Other domestic airports are Vadodara, Bhavnagar, Bhuj, Jamnagar and Rajkot and Surat.

Ports : Gujarat has 41 ports of which Kandla is a major port. The intermediate and minor ports of Gujarat handled a total cargo of 152.81 lakh tonnes whereas Kandla port handled cargo of 722.25 lakh tonnes during 2008-09.

FESTIVALS

Tarnetar fair is held at village Tarnetar in the honour of Lord Shiva on the 4th, 5th, and 6th days of the bright half of of the month of Bhadrapada (August/September). Madhavrai fair at Madhavpur near Porbandar is, held to celebrate the marriage by elopement of Lord Krishna and Rukmani, on the ninth day of the bright half of the month of Chaitra (March/April). Ambaji fair dedicated to Amba-mother goddess is held in Banaskantha district. The biggest annual fair, Janmashtami the birthday of Lord Krishna is celebrated at Dwarka and Dakor with great enthusiasm. Other festivals are Makar-Sankranti, Navratri, Dangi Darbar, Shamlaji fair, Bhavnath fair.

TOURIST CENTRES

Religious centres like Dwarka, Somnath, Palitana, Pavagadh, Ambaji, Bhadreshwar, Shamlaji, Taranga and Girnar; Porbandar the birthplace of Mahatma Gandhi; places of memorable monuments of architectural and archaeological wonders like Patan, Siddhpur, Ghurnli, Dabhoi, Vadnagar, Modhera, Lothal and Ahmedabad; Beaches like Ahmadpur-Mandvi, Chorvad, Ubharat, and Thital; the Hill station-Saputara ; Lion sanctuary of Gir forest and wild as sanctuary in Katchchh area are major tourist attractions in the State.

GOVERNMENT

<i>Governor</i>	: Navalkishore Sharma	<i>Chief Secretary</i>	: D. Rajagopalan
<i>Chief Minister</i>	: Narendra Modi	<i>Jurisdiction of</i>	: Gujarat State
<i>Speaker</i>	: Ashok Bhatt	<i>High Court</i>	

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population (2001 Census)	Headquarters
Ahmedabad	8,087	58,16,519	Ahmedabad
Amreli	7,397	13,93,918	Amreli
Anand	2,941	18,56,872	Anand
Banaskantha	10,757	25,04,244	Palanpur

Bharuch	6,527	13,70,656	Bharuch
Bhavnagar	9,981	24,69,630	Bhavnagar
Dohod	3,646	16,36,433	Dohod
The Dangs	1,764	1,86,729	Ahwa
Gandhinagar	2,163	13,34,455	Gandhinagar
Jamnagar	14,125	19,04,278	Jamnagar
Junagadh	8,846	24,48,173	Junagadh
Kheda	4,219	20,24,216	Nadiad
Kachchh	45,652	15,83,225	Bhuj
Mahesana	4,384	18,37,892	Mahesana
Narmada	2,755	5,14,404	Rajpipla
Navsari	2,209	12,29,463	Navsari
Panchmahal	5,220	20,25,277	Godhara
Patan	5,730	11,82,709	Patan
Porbandar	2,298	5,36,835	Porbandar
Rajkot	11,203	31,69,881	Rajkot
Sabarkantha	7,390	20,82,531	Himatnagar
Surat	7,657	49,95,174	Surat
Surendranagar	10,489	15,15,148	Surendranagar
Vadodara	7,549	36,41,802	Vadodara
Valsad	3,035	14,10,553	Valsad

HARYANA

<i>Area</i>	: 44,212 sq km	<i>Population</i>	: 2,11,44,564
<i>Capital</i>	: Chandigarh	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Haryana has a proud history going back to the Vedic Age. The state was the home of the legendary Bharata dynasty, which has given the name Bharat to India. Haryana finds mention in the great epic of *Mahabharata*. Kurukshetra, the scene of the epic battle between the Kauravas and the Pandavas, is situated in Haryana. The state continued to play a leading part in the history of India till the advent of the Muslims

and the rise of Delhi as the imperial capital of India. Thereafter, Haryana functioned as an adjunct to Delhi and practically remained anonymous till the First War of India's Independence in 1857. When the rebellion was crushed and the British administration was re-established, the Nawabs of Jhajjar and Bahadurgarh, Raja of Ballabgarh and Rao Tula Ram of Rewari of the Haryana region were deprived of their territories. Their territories were either merged with the British territories or handed over to the rulers of Patiala, Nabha and Jind. Haryana thus became a part of the Punjab province. With the reorganisation of Punjab on 1 November 1966, Haryana was made into a full-fledged state.

The state is bound by Uttar Pradesh in the east, Punjab in the west, Himachal Pradesh in the north and Rajasthan in the south. The National Capital Territory of Delhi juts into Haryana.

AGRICULTURE

Agriculture is the mainstay of more than 65 per cent population in Haryana with contribution of 26.4 per cent in GDP of the State. The quantum of foodgrains production, which was nearly 25.92 lakh tonnes at the time of inception of the state is likely to touch 155.08 lakh tonnes in 2008-09 due to crop intensification and increase in production of principal crops. Rice, wheat, *jowar*, *bajra*, maize, barley and pulses, sugarcane, cotton, oilseeds and potato are the major crops of the state. Under the diversification of crops, more and more area is being brought under cash crops like sugarcane, cotton and oilseeds, vegetable and fruits. Sustainable agriculture is being promoted through the propagation of resource conserving technologies and organic farming. Dhaincha and Moong have also been encouraged to maintain soil fertility.

INFORMATION TECHNOLOGY

In view of the importance of Information Technology in the globalisation process throughout the world, the State Government has formulated an IT Policy which provides several incentives for IT and ITES/BPO Industry. The Government has also recently announced a policy for Technology Parks, which gives considerable flexibility for setting up Technology Parks and IT Corridors. The objective of this policy is also to promote convergence of Information Technology with frontier technologies like Nano Technology, Bio Technology, Mobile Computing and Robotics, etc.

IT Park and Nano city are being set up in Panchkula district to create an environment and an eco system that fosters intellectual creativity in areas of frontier technologies, which in turn would create jobs and bring economic prosperity to the regions. The State Government is issuing licenses for setting up of Technology Parks, Cyber cities and IT corridors. From February 2006 to April 2008, 72 such projects have been approved in principle, which would provide employment opportunities for nearly 30000 professionals.

Further, Gurgaon has been developed as a preferred investment destination for both IT and ITES/BPO companies. Now, Gurgaon has become the home of the corporate world in India. The State Government is planning to set up Hi-Tech Habitat Centre in the Electronic City, Gurgaon for IT/ITES/BPO companies, which would provide world-class facilities. Besides Gurgaon, the state also intends to develop other areas in NCR region, especially those alongside the Kundli-Manesar-Palwal Express Highway and Faridabad, as satellites of Gurgaon-Manesar Mega IT Hub. The software exports from Haryana during 2007-08 were Rs. 17,500 (approx.) crore.

Haryana is the first state to have implemented its State Wide Area Network (ADHAAR) for voice, data and video transmission. The SWAN vertical connectivity at State Network Management Centre, District Network Management Centre (DNMC) Block Network Management Centre (BNMC) has been completed and made operational. Horizontal connectivity at phase-I offices has been established and at phase-II offices, it is being established.

The state has formulated its e-governance road map and capacity building road-map. The Government is in the process of setting up 1159 Rural and 104 Urban ICT based Common Service Centres under the State brand name e-Disha Ekal Sewa Kendra in the State and work of CSC implementation has already been started. The rollout in rural areas has been achieved 100%, while in urban/showcase CSCs it is 67%. At present Business to Citizens (B2C) services like computer training, e-ticketing, mobile recharges and insurance (general, motor and health), job placement services, internet services, financial services etc. are being provided through these centres and pilot projects are being run in all districts to start Government to Citizens (G2C) services like bus passes, electricity bill collection, issuing of *nakal* (land record), issuing of certificates like SC/BC/Income/Domicile, birth/death and issuing of new Ration Cards, Passports, Laadli scheme, Indira Gandhi Vivah Shagun Yojna etc. through these centres.

The State has established District e-Disha centres, IT Training Labs at District Headquarters etc. A suit of office automation software packages for district & revenue administration has been developed and being implemented on district LANs. The State now wants to computerize all activities of district level offices for which a pilot project proposal costing Rs. 331.65 lakhs for e-District project at Rohtak has been approved by the Government of India and work has been started on this project.

The State Government is implementing an IT Literacy Plan for Government employees to achieve 100% IT literacy in the State. Under IT Literacy Programme, IT Training Labs at Head Quarter and District Head Quarters have been set up. More than 24000 Government employees have been trained so far in the State. Besides this, to strengthen this program, IT Department, Government of India has approved a proposal worth Rs. 44.36 lakhs for imparting ICT training for women and SC/STs in the rural/urban area of the State. 800 girls/women have been trained in 10 districts under this programme.

INDUSTRY

Haryana has a large industrial base having more than 1,347 large and medium and 80,000 small scale units in the State. Haryana is the largest producer of passenger cars, tractors, motorcycles, bicycles, refrigerators, scientific instruments, etc. Haryana is the largest exporter of Basmati rice to the overseas market. Panipat handlooms and carpets are known all over the world besides, the famous Pachranga Achaar.

Since July 1991, 3914 Industrial Entrepreneur Memorandum (IEMs) were filed and up to May 2008, of these 2274 IEMs were implemented with Capital Investment of Rs 24,034 crore and generating employment for 4,02,129 persons. As a result of the new Industrial Policy, the State has received about 100 proposals for setting up of SEZs in the State which is envisaging an investment of Rs. 2.00 lakh crore in the industrial infrastructure. These projects on implementation would create several thousand crores investment in the industrial sector besides, generating huge employment. The State is developing industrial model townships at Kharkhoda,

Faridabad, Rohtak and Jagadhari besides expansion of IMT Manesar in Gurgaon. Petrochemical Hub is coming up with investment of Rs.33,000 crore at Panipat. Kundli-Manesar-Palwal Expressway is being developed with an investment of Rs. 2000 crore. This will create a large number of economic hubs all along the expressway generating new investment opportunities in the industrial and service sector.

There is a great demand from industries for allotment of industrial land in the industrial estates developed by the HSIDC and HUDA. During this period of the present Government, 98 new industrial units in the large and medium sectors and 7683 new small-scale industrial units with investment of Rs. 2744 crore have been set up generating direct employment for more than 1,25,747 persons. Besides, a large number of industrial units have undergone expansion and as a result of it fresh investment of more than Rs. 35,000 crore has been created. Recently, Indian Oil Corporation has set up Paraxylene/PTA project at Panipat with an investment of about Rs. 5000 crore. Maruti Udyog Hero Honda and many other automobile ancillaries are undergoing expansion programme with investment of about Rs. 10,000 crore. At present, investment proposals of about Rs. 70,000 crore are under implementation in the Industrial Sector.

IRRIGATION

Haryana is a beneficiary of the multi-purpose project in Sutlej and Beas sharing benefits with Punjab and Rajasthan. Major irrigation projects are western Yamuna Canal System, Bhakra Canal System and Gurgaon Canal System. Haryana has raised water from lower levels to higher and drier slopes through JLN canal project. It is a new endeavour that gave practical shape to lift irrigation for the first time in India.

The Jui, Siwani, Loharu and Jawahar Lal Nehru lift irrigation schemes have helped to carry irrigation water against gravity flow to arid areas. Sprinkler and drip irrigation have been introduced in the highly undulating and sandy tracks of Haryana.

Construction work of Hathni Kund barrage at a cost of Rs. 192 crore has been completed. Haryana and Uttar Pradesh would get additional water for irrigation purposes from the barrage and Delhi is also getting additional water for drinking.

To ensure equitable distribution of water for irrigation and drinking purpose through out the State, the Government has been constructing a canal namely Bhakra Main Line-Hansi Branch-Buttana Branch Multipurpose link Channel of 109 kilometer length to the tune of Rs. 354 crores.

To utilise surplus water of river Yamuna during monsoon season the construction work of Dadupur-Shahbad Nalvi Canal project has been taken up at an estimated cost of Rs. 267 crores. 590 cusecs surplus flood water will be used for irrigation and ground water recharging facilities to an area of 92,532 hectares falling in districts Yamuna Nagar, Ambala and Kurukshetra.

The Government has sanctioned four projects of low height dams namely Kaushalaya dam, Dangrana dam, Dewanwala dam and Chhamla dam at an estimated cost of Rs. 180 crores, Rs. 63.69 crores, Rs. 132.70 crores and Rs. 20.41 crores respectively on river Ghaggar and its tributaries to prevent wasteful flow of water and loss to property by flood during the Monsoon season. The work on Kaushalya dam has been started with effect from March 18, 2008 and is likely to be completed by March 2010.

POWER

Haryana became the first State in the country to achieve 100 per cent rural electrification in 1970. Starting with 20,000 tubewells in 1966 there were 4.51 lakh tubewells in March 2008. The average power availability during 2008-09 was 743.45 lakh units a day. The number of consumers in 2007-08 were 42.70 lakh. The installed generation capacity as on 31 March 2009 was 4636.23 MW.

TRANSPORT

Roads : In Haryana all villages stand connected with metalled roads. The length of roads in the State is more than 34,772 kms.

Railways : Kalka, Ambala, Kurukshetra, Rohtak, Jind, Hissar, Ambala, Panipat and Jakhal are important railway stations. There is a railway workshop at Jagadhari.

Aviation : There are civil aerodromes at Pinjore, Karnal, Hisar, Bhiwani and Narnaul.

TOURIST CENTRES

The Government of Haryana has set up a network of 44 Tourist Complexes in all over the State. The availability of accommodation with Haryana Tourism is now 832 rooms and 62.00 lakh tourists visit these tourist complexes every year. Haryana has adopted a multi-pronged strategy for tourism promotion. Tourist complexes have been set at strategic points along the highway passing through the State. Further, tourist complexes have been developed around Delhi through promotion of leisure tourism and conference tourism. Tourist facilities at the district headquarter and important towns have been promoted to cater to the needs of the tourists and local people. Some of the important tourist complexes are Surajkund and Damdama in Gurgaon and fascinating pocket of pines at Morni Hills are other attractions of tourist interest. The other important resorts are Ethnic India Rai, Blue Jay (Samalkha), Skylark (Panipat), Karna Lake and Oasis (Uchana), Parakeet (Pipli), Kingfisher (Ambala), Magpie (Faridabad), Dabchick (Hodal), Shama (Gurgaon), Jungle Babbler (Dharuhera), Gauriyya (Bahadurgarh), Myna (Rohtak), Blue Bird (Hisar), Red Bishop (Panchkula) and Pinjore Gardens, (Pinjore). To promote the art and culture the famous Surajkund Crafts Mela is held every year in the month of February. Similarly, to promote the ancient heritage of Pinjore, the Pinjore Heritage Festival is celebrated every year.

GOVERNMENT

<i>Governor</i>	: Shri Jagannath Pahadia	<i>Chief Secretary</i>	: Smt Urvashi Gulati
<i>Chief Minister</i>	: Bhupinder Singh Hooda	<i>Jurisdiction of</i>	: Punjab and Haryana
<i>Speaker</i>	: Shri Harmohinder Singh Chathia	<i>High Court</i>	

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS
(Census 2001)

District	Area (sq km)	Population	Headquarters
Ambala	1,574	10,14,411	Ambala
Bhiwani	4,778	14,25,022	Bhiwani
Faridabad	1,752	19,90,719	Faridabad

Fatehabad	2,538	8,70,539	Fatehabad
Gurgaon	1,254	16,60,289	Gurgaon
Hisar	3,983	15,37,117	Hisar
Jhajjar	1,834	8,80,072	Jhajjar
Jind	2,702	11,89,827	Jind
Kaithal	2,317	9,46,131	Kaithal
Karnal	2,520	12,74,183	Karnal
Kurukshetra	1,530	8,25,454	Kurukshetra
Mahendergarh	1,899	8,12,521	Narnaul
Panchkula	898	4,68,411	Panchkula
Panipat	1,268	9,67,449	Panipat
Rewari	1,594	7,65,351	Rewari
Rohtak	1,745	9,40,128	Rohtak
Sirsa	4,277	11,16,649	Sirsa
Sonipat	2,122	12,79,175	Sonipat
Yamuna Nagar	1,768	10,41,630	Yamuna Nagar
Mewat	1,859	9,93,617	Nuh
Palwal	-	-	Palwal
Total	44,212	2,11,44,564	

HIMACHAL PRADESH

<i>Area</i>	: 55,673 sq km	<i>Population</i>	: 60,77,900 (Census 2001)
<i>Capital</i>	: Shimla	<i>Principal Languages</i>	: Hindi and Pahari

HISTORY AND GEOGRAPHY

Himachal situated in the heart of the Western Himalaya, identified as "Dev Bhumi" is believed to be the abode of Gods and Goddesses. The entire State is punctuated with stone as well as wood temples. The rich culture and traditions has made Himachal unique in itself. The shadowy valleys, rugged crags, glaciers and gigantic pines and roaring rivers and exquisite flora and fauna compose the symphony that is for ever Himachal.

Himachal Pradesh came into being as a Union Territory in April 1948 as a result of integration of 30 princely states spread over 27,000 sq.km. In 1954, when another "C" class state of Bilaspur merged in Himachal Pradesh, its area increased to 28,241 sq.km. The position remained unchanged till 1966. On reorganisation of the State, the hilly areas of Punjab were merged with the State, increasing its size to 55,673 sq.km. Himachal Pradesh, today is quoted as a successful model of not only hill area development but also for having realised development in education, health and social services.

AGRICULTURE

Agriculture being the main occupation of the people of Himachal Pradesh has an important role in the economy of the state. It provides direct employment to about 69 per cent of the main working population. Income from agriculture and allied sectors

accounts for nearly 22.1 per cent of the total State Domestic Product. Out of the total geographical area of 55,673 sq. km., area of operational holding is about 9.79 lakh hectare owned by 9.14 lakh farmers. The marginal and small farmers possess 86.4 per cent of the total land holdings. The cultivated area in the state is only 10.4 per cent. About 80 per cent of the area is rain fed and farmers depend on weather gods for rains. The food grain production in 2006-2007 has been 16 lakh M.tonnes.

HORTICULTURE

Nature has endowed Himachal Pradesh with a wide range of agro-climatic conditions which have helped the farmers to cultivate large varieties of fruits ranging from temperate to sub-tropical. The main fruits under cultivation are apple, pear, peach, plum, apricot nut and citrus fruits like mango, litchi, guava and strawberry. The total area under fruits, which was only 792 hectares in 1950 has increased to 2.23 lakh hectares now. Similarly, the fruit production has also increased from 1200 MT in 1950 to 6.95 lakh tonnes in 2007 seven lakh tonnes is the new target fixed for fruit production for year 2006-07. Horticulture generates gross domestic income of about Rs. 2200 crore annually.

The Horticulture Technology Mission for the integrated development of horticulture is being implemented with a total outlay of Rs. 80 crore during the tenth five-year plan period. This Mission is based on the "end to end approach" taking into account the entire gamut of horticulture development with all backward and forward linkages in a holistic manner. Under this scheme, four centres of excellence are being created in different Agro-Climatic Zones with common facilities like water harvesting, vermicompost, greenhouses, organic farming and farm mechanisation.

ROADS

Roads are the lifelines and major means of communication in the predominantly hill State of Himachal Pradesh. Out of its 55,673 sq. km area, 36,700 km is inhabited out which 16,807 inhabited villages are scattered over slopes of numerous hill ranges and valleys. Realising the importance of construction of roads for connecting production areas with market centres, Himachal Pradesh Government has decided to connect every panchayat with roads in the next two years. When the Pradesh came into existence in 1948 there were 288 km. of roads. This number had gone up to 30,264 km by 15 August 2007.

HYDRO-POWER GENERATION

Himachal Pradesh has immense hydro-potential in its five river basins. Chenab, Rabi, Beas, Satluj and Yamuna which emanates from the western Himalayas pass through the State. The strategy of development in the power sector comprises expeditious actualisation of the Hydro Electric Potential and introduction of power sector reforms to bring efficiency in the sector and provide high quality power to the consumers at reasonable rates besides availability of abundant power to industrial and tourism sectors. The total identified potential in the State stands at 21000 M.W which is one fourth of India's total hydro-power potential. Presently out of this 6,067 M.W has already been harnessed by various agencies. Projects aggregating to 7,602 M.W are under execution. It is on the cards that State will have about 11,000 M.W actualised potential by the end of 11th Plan.

There is no denying this fact in view of the way the Government has embarked upon an accelerated Power Development Programme. The State is speedily moving towards becoming a "Power State" of the Country. All the census villages in the State have been electrified and now left out hamlets are being covered.

INDUSTRIAL GROWTH

Industrial development has been given big boost in the State. Pollution free environment, abundant availability of power and rapidly developing infrastructure, peaceful atmosphere, and responsive and transparent administration are some of the added attractions and advantages that the entrepreneurs get in Himachal Pradesh. 349 large and medium and about 33,284 small-scale industrial units with an investment of about Rs. 4822.54 crore have been set up in the state generating employment for 2 lakh persons. The sector is contributing 17 per cent to the State Domestic Product and the annual turnover on this account is about Rs. 6000 crore.

The State has formulated a new Industrial Policy and Incentive Rules- 2004, which provides attractive packages to the entrepreneurs for setting up Industrial Units in the State. 42 industrial areas and 15 Industrial Estates with all basic amenities have been developed in the State.

With a view to provide umbrella support to existing and new ventures, the State government has set up a State Level Single Window Clearance and Monitoring Authority (SLSWCMA) in Himachal Pradesh under the Chairmanship of Chief Minister to give permission to the entrepreneurs to set up industrial units in the State. This also solves all industry related and inter-departmental issues, monitors and reviews the progress of units already approved and proposed to be set up. This Authority is also focusing its attention on the development of quality infrastructure. Presently 7040 industrial units with an investment of about Rs. 27,380.99 crore envisaging employment to about 3 lakh persons have been approved. A proposal is also underway for setting up Special Economic Zone in Kangra,Una and other districts with an estimated cost of Rs.7580 crore.

The Central Government has also given attractive package for setting up of Industrial Units which also includes Income Tax Holidays. The State Government is also giving several attractive incentives including exemptions in excise duty.

INFORMATION TECHNOLOGY

The Government of Himachal Pradesh has developed an IT Vision-2010 in collaboration with NASSCOM to make Himachal Pradesh an IT destination. Under the IT policy, it has been decided to accord the status of industry to all IT projects including IT related services and educational institutions. As such, all the incentives available for industrial units are also being given to all IT units, and IT related services.

The use of IT in governance is aimed at having SMART (Simple, Moral, Accountable, Responsive and Transparent) government. The State Government official website at <http://himachal.nic.in> is a web portal providing citizen centric services to the citizens and it has got interfaces for getting inputs from the grass root level. Ist phase of the H.P. State wide Area Network (HIM SWAN) which has been

completed has been connected to internet. In the Phase-I of HIMSWAN, H.P. Secretariat Local Area Network has been established with a provision to provide LAN connectivity to every third person. In the Phase-II of HIMSWAN all the district headquarters will be connected with state headquarter. Software Technology Park and High Speed Data Connectivity Facility in Shimla has started its activities. All IT units in the State have been given Income Tax holiday up to year 2007. Information Technology Park is proposed to be set up in the State in Solan district.

BIO-TECHNOLOGY

Keeping in view the importance of bio-technology, special emphasis is being laid on exploiting the vast bio-technology potential available in the state. A separate Department of Bio-technology has been set up in the state. State's own bio-technology policy has been formulated. All bio-technological units are entitled for incentives which have been allowed for industrial units. The State Government proposes to set up Bio-Technology Park in Solan District.

IRRIGATION AND WATER SUPPLY

Net sown area in the State was 5.83 lakh hectares till 2007. Villages have been provided with the facility of drinking water. Over 14,611 hand pumps have been installed in the State so far. For better reform in water supply and irrigation sector, the State Government has taken up a WASH project with the total cost of Rs. 339 crore for irrigation as well as for drinking water supply schemes with Gesellschaft for Technische Zuoammeurbeit (GTZ).

FORESTRY

The total geographical area of the state is 55,673 sq km. As per record, the total forest area is 37,033 sq. km. Out of this, 16,376 sq. km. area is not fit for tree growth comprising alpine pastures, area under permanent snow, etc. The cultivable recorded forest area is only 20,657 sq. km.

Efforts are being taken to bring maximum area under green cover by implementing State's own projects, Government of India's projects and also through external aided projects. The World Bank has also sanctioned a Rs. 365 crore Integrated Watershed Development Project for the Mid Himalayas. 545 panchayats of 42 developmental blocks in 10 districts would be covered during the next six years. There are 2 National Parks and 32 wild life sancturies in the State. Total area under wild life sanctuaries is 5562 km area under National Parks is 1440 Km and total area of Protected Area Network is 7002 km.

EDUCATION

Himachal Pradesh has emerged as the third best State in terms of over-all development and performance. Himachal Pradesh has been adjudged number one State in Primary Education and teacher-student ratio. Himachal Pradesh has witnessed literacy revolution as we are second only to Kerala in literacy. The State has about 15,000 educational institutes, including three Universities, two Medical Colleges, one Engineering College in the Government Sector and a number of technical, professional and other educational institutions. The literacy percentage of the State according to 2001 Census is 77.13 which is much higher than the national average of 65.38. The

State Government's emphasis now is to ensure qualitative improvement in the education besides need based expansion. Sarva Siksha Abhiyan an ambitious project worth Rs. 532 crore is being evolved with the main objective of achieving universalisation of elementary education with the sole aim to spread the light of knowledge to every nook and corner of the State.

TOURISM

Tourism Industry in Himachal Pradesh has been given very high priority and the Government has developed an appropriate infrastructure for its development which includes provision of public utility services, roads, communication network, airports, transport facilities, water supply and civic amenities, etc. The State Government is poised to transform the State into "A Destination for All Seasons and All Reasons". The State Tourism Development Corporation contributes 10 per cent to the State exchequer. The corporation contributes more than Rs. 2.00 crore per annum by way of Sales tax, luxury tax and passenger tax. In the year-2007, tourist arrivals in the State were 8.3 million of which 2008 lakh were foreigners.

The State has a rich treasure of places of pilgrimage and of anthropological value. The State has also the pride of being the home to *rishies* like Vyas, Parashar, Vashist, Markandey and Lamas, etc. Hot water springs, historic forts, natural and man-made lakes, shepherds grazing their flock are sources of immense pleasure and joy to the tourist.

The State Government is aiming at promoting sustainable tourism, encouraging private sector to develop tourism related infrastructure in the State without disturbing the existing ecology and environment. The main thrust is on employment generation and promoting new concepts of tourism in the State. In order to increase the duration of the stay of the visitors/tourists, a special emphasis is being laid on the development of activities-based on tourism.

For the promotion and development of the State from the tourism point of view, the Government is focusing on the following areas : (1) History related tourism, (2) Identification of new areas/tourist destinations and promotion of village tourism. (3) Improvement of infrastructure, (4) Pilgrimage tourism. (5) Tribal tourism. (6) Eco-tourism. (7) Health tourism. (8) Promotion of adventure tourism. (9) Wildlife tourism. (10) Cultural tourism.

For the year 2006-07, there is an allotment of Rs. 6276.38 lakh for the development of tourism in the State. A sum of Rs. 8 crore for the development of Kullu-Manali-Lahaul and Spiti and Leh Monastic circuit, Rs.21.00 crore for Kangra, Shimla and Sirmour circuit, Rs.16.00 crore for Bilaspur-Mandi and Chamba circuit and Rs.30.00 lakh for construction of tourism information centre at Manali has been sanctioned by the Government of India. Rs.67.57 crore central financial assistance has been received for 1545 projects in respect of festivals and other major events.

GOVERNMENT

<i>Governor</i>	: V.S. Kokje	<i>Chief Secretary</i>	: Ms. Asha Swarup
<i>Chief Minister</i>	: Prof. Prem Kumar Dhumal	<i>Jurisdiction of High Court</i>	: Himachal Pradesh
<i>Speaker</i>	: Gangu Ram Musafir		

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population (2001 Census)	Headquarters
Bilaspur	1,167	3,40,885	Bilaspur
Chamba	6,528	4,60,887	Chamba
Hamirpur	1,118	4,12,700	Hamirpur
Kangra	5,739	13,39,030	Dharamshala
Kinnaur	6,401	78,334	Reckong Peo
Kullu	5,503	3,81,571	Kullu
Lahaul & Spiti	13,835	33,224	Keylong
Mandi	3,950	9,01,344	Mandi
Shimla	5,131	7,22,502	Shimla
Sirmaur	2,825	4,58,593	Nahan
Solan	1,936	5,00,557	Solan
Una	1,540	4,48,273	Una

JAMMU AND KASHMIR

<i>Area</i> : *2,22,236 sq km	<i>Population</i> :	1,01,43,700 (2001 Census)
<i>Capital</i> : Srinagar (Summer)	<i>Principal Languages</i> :	Urdu, Dogri, Kashmiri, Pahari, Punjabi, Ladakhi, Balti, Gojri and Dadri

HISTORY AND GEOGRAPHY

According to the most popular legend that is also recorded in *Rajtarangani* and *Nilmat Purana*, two most authoritative books, Kashmir was once a large lake and it was Kashyap Rishi who drained off the water, making it a beautiful abode. But geologists have their own theory, which says that geographical changes made way for the outflow of water by subsidence of the mountain at Khadianayar, Baramulla and thus emerged the Valley of Kashmir, the paradise on earth. Ashoka introduced Buddhism to Kashmir in the 3rd century B.C. which was later strengthened by Kanishka. Huns got the control of the valley in the early 6th century. The Valley regained freedom in 530 AD but soon came under the rule of the Ujjain empire. After decline of the Vikramaditya dynasty, the valley had its own rulers. There was a synthesis of Hindu and Buddhist cultures. Lalitaditya (697-738 AD) extended his rule up to Bengal in the east, Konkan in the south, Turkistan in the northwest and Tibet in the northeast. Considered as the most famous Hindu ruler, he was known for constructing beautiful

* includes 78,114 sq km under illegal occupation of Pakistan, 5,180 sq km illegally handed over by Pakistan to China and 37,555 sq km under illegal occupation of China. The population figures excludes population of areas under unlawful occupation of Pakistan and China where census could not be taken.

buildings. Islam came to Kashmir during 13th and 14th century AD. Zain-ul-Abidin (1420-70) was the most famous Muslim ruler, who came to Kashmir when the Hindu king Sinha Dev fled before the Tatar invasion. Later Chaks overran Haider Shah son of Zain-ul-Abidin. They continued to rule till 1586 when Akbar conquered Kashmir. In 1752, Kashmir passed on from the feeble control of the Mughal emperor of the time, to Ahmed Shah Abdali of Afghanistan. The Valley was ruled by the Pathans for 67 years.

Name of Jammu figures in the Mahabharata. Recent finds of Harappan remains and artefacts of Mauryan, Kushan and Gupta periods at Akhnoor have added new dimensions to its ancient character. The land of Jammu was divided into 22 hill principalities. Raja Maldev, one of the Dogra rulers, conquered many territories to consolidate his kingdom. Raja Ranjit Dev ruled over Jammu from 1733 to 1782. His successors were weak and thus Maharaja Ranjit Singh annexed the territory to Punjab. He later handed over Jammu to Raja Gulab Singh, a scion of the old Dogra ruling family, who had grown powerful among Ranjit Singh's governors and had annexed almost the whole Jammu region. The State was governed by Dogra rulers till 1947 when Maharaja Hari Singh signed the Instrument of Accession in favour of the Indian Union on 26 October 1947.

Jammu and Kashmir State is situated between 32° 15' and 37°-05' north latitude and 72°-35' and 83°-20' longitude East. Geographically, the State can be divided into four zones. First, the mountainous and semi mountainous plain commonly known as Kandi belt, the second, hills including Shivalik ranges, the third mountains of Kashmir Valley and Pir Panchal range and the fourth is Tibetan tract of Ladakh and Kargil. Geographically and culturally the state has three distinct regions - Jammu, Kashmir and Ladakh.

Roads : The State is connected to the rest of the country through just one highway (NH 1A), 400 kms stretch (approx) maintained by Border Roads Organization (BRO) of India. As Railway network of the State is in infancy stage, this has rendered the State totally dependent on road connectivity which provides links to the remote areas of the State. The Jammu-Srinagar National Highway (NH1A) is considered to be the most expensive road for maintenance in the world.

Out of 9933 habitations only 2735 habitations are yet to be connected. A total length of 18809.42 kms of road is being maintained by PWD. Out of this 9559.64 kms is black topped, 4832 kms metalled, 1315 kms shingled, 3000 kms fair-weather and 102 kms is Jeepable. The road length maintained by the State PWD was 14858 kms (12209 kms surfaced and 2749 kms un-surfaced) during 2002-03.

Road length maintained by Public Works Department ending March 2009 stood at 18809 kms in J&K State. PWD road length per hundred Sq. Kms of area for the State gives the value of 18.55 km. However, (PWD) road length per lakh of population gives better picture of 154.34 kms. Number of vehicles per 100 km of road length for the State stands at 3553 vehicles for roads maintained by PWD during the year 2008-09. The number of vehicles has grown upto 6.68 lakh in 2008-09 from 3.64 lakh in 2001-02 showing an exponential growth rate of 8.00 percent per annum during the period. The road length at the end of the 2008-09 maintained by PWD is 18809 kms whereas the total public and private vehicular fleet of the State is 668427 vehicles. The number of registered vehicles per 100 Sq. Km of areas is 659 while as number of vehicles registered per lakh of people is 5342.

At the end of March 2009 road length maintained by all the departments in the State was 40103 kms, of which 24017 kms were surfaced and remaining 16086 kms un-surfaced. The road density (road length per 100 sq. kms of area) of the State thus works out to be 35.71 kms against the National Average of 104.6 kms. With this road density, J&K is among the States with lowest road density in the Country, thus hampering opening up of the economy and adversely affecting delivery of public services to the people. Moreover, there are huge inter-district variations in the rural road density.

Railways : Because of the difficult terrain Railway network has not developed as in other parts of the Country. At present Jammu is the Rail head of the State and the line has been extended upto District Udhampur only (90 kms). The work on Udhampur-Qazigund rail line is under progress and intra rail link between Qazigund to Bramulla is complete. However the railway traffic has been thrown open from Baramulla to Anantnag.

Aviation : There are three major airports in the state providing aerial transport among three regions of the State and the Country. Out of the three Srinagar airport has been upgraded as international airport named as Sheikh-ul-Alam Airport, while as the facilities at Jammu and Leh airports are also being upgraded. One more airport at Kargil headquarters is connected by Dakota service.

Commissioning of Sheikh-ul-Alam International Airport at Srinagar has opened the new vistas for enhancing connectivity at International level which will inturn facilitate international tourism, promote international trade especially export which will provide a big push to the economy and generate avenues of better employment.

Agriculture : Agriculture constitutes an important sector of the state economy as around 70% of the population of J&K derive greater part of their income directly or indirectly from this sector. Economy of J&K continues to be predominantly agrarian as 49% of the total working force with 42% as cultivators and 7% as agriculture labourers depend directly on agriculture for their livelihood. Apart from direct impact of agriculture growth on generation of rural employment and incomes its significant secondary linkages with development of rural non-farm sectors as are more crucial. Trade in agricultural outputs and inputs and services required by it and processing of its products open up additional and more significant avenues for labour absorption. Agriculture in the state besides has a significant contribution in the export of rare agriculture produce like saffron, honey and basmati and remains an important source of raw material demanded by many industries. Looking at the contribution of agriculture and allied sectors to the state economy it has been estimated that 27% of GSDP (2007-08) accrue from it. The individual share of agriculture has been estimated in the range of 8-9% for 2007-08 (advance estimates).

Irrigation : Irrigation is an essential input of agriculture and is practised in all parts of the world where rainfall does not provide enough ground moisture. In areas of irregular rainfall, irrigation is used during dry spells to ensure harvests and to increase crop yields. A major constraint to the development of agriculture in J&K is the fact that only 50% of the ultimate irrigation potential of the state has been harnessed. The ultimate irrigation potential in J&K has been assessed at 1358 thousand hectares, which includes 250 thousand hectares to be developed through major and medium irrigation and 1108 thousand hectares through minor irrigation.

The net area sown in the state during 2007-08 was 734 thousand hectares whereas the gross area sown (total area sown under different crops) was 1134

thousand hectares. The mode of irrigating the crops mainly used is the canals. About 93 per cent of the net area irrigated is irrigated through canals, while tanks, tube wells and other means are also used.

Horticulture : Jammu & Kashmir is well known for its horticulture produce both in India and abroad. The state offers good scope for cultivation of all types of horticulture crops covering a variety of temperate fruits like apple, pear, peach, plum, apricot, almonds, cherry and sub-tropical fruits like mango, guava, citrus, litchi etc. Apart from this, well known spices like saffron and zeera are cultivated in some parts of the state. Horticulture is emerging as a fast growing sector in the state. Its importance is visualised by its contribution to the state's economy which is estimated to be 7-8%. Almost 45% economic returns in agriculture sector is accounted for by horticulture produce. Five lakh families comprising 30 lakh people are involved in horticulture trade.

The horticulture department has reported that an area of 3.06 lakh hectares was under horticulture during the year 2008-09 showing an increase of 3.73% over the previous year's area figures. In the area figures highest share of 43.30% is claimed by apple followed by 27.80% walnut.

The production of fruit for the year 2008-09 was reported to be 16.91 lakh tonnes registering an increase of 3.36% over the fruit production figures for 2007-08. Out of total fruit production for 2008-09, 15.26 lakh tonnes constituting 90.24% are fresh fruit and the remaining 9.76% are dry fruit. In the fruit production figures share of apple accounts for 81.18% and walnut with 8.97% share is the next major fruit.

Floriculture : Floriculture sector has been identified as the most focussed segment of horticulture. There is much more income to farmers from flower cultivation due to growing demand for flowers in domestic and foreign markets. To promote this segment floriculture nurseries have been developed where ornamental and medicinal plants are produced, besides the seed multiplication programmes of flower seeds. The Directorate of Floriculture produces more than 40 lakh seedlings of different kinds of flowers and ornamental plants not only for its own requirement but also sells the seedlings to the flower lovers on cash payment and earns revenue of Rs. 8 lakh on this account per annum.

One of the landmark achievement of floriculture department has been the establishment of Tulip Garden first of its kind of Siraj Bagh Srinagar. Situated on the foothills of the mighty Zabarwan mountains the garden has the distinction of being Asia's largest Tulip garden. The garden remains in full bloom for one month (last week of March to last week of April). The garden witness highest inflow of tourists which includes film making companies for shooting song sequences in this beautiful garden. During 2007-08, Rs. 30 lakh accrued to the state through sale of entry tickets.

Forests : The state has 20230 sq km under forest area constituting about 19.95% of total geographical area of 101387 sq km on this side of actual line of control. Out of this, area under reserved forest is 2551 sq km which account for 12.61% of total forest area, protected forest forms 87.21% with an area of 17643 sq km and the remaining 36 sq km (0.18%) are unclassified. Looking to division wise distribution of forest cover 8128 sq km are in Kashmir valley, 12066 sq km in Jammu division and 36 sq km in Ladakh region constituting 50.97%, 45.89% and 0.06% respectively of the geographical area. Per capita forest area accounts for 0.17 hectares as compared to 0.07 hectares as the national level.

Forest area reveals 90.68% under coniferous with 5.32% Deodar, 9.02% Chir, 9.73% Kail, 16.81% Fir and 49.80% others. 9.32% forest cover is claimed by non-coniferous non-commercial reserves.

Industry : In order to achieve a self sustaining economy with continued higher levels of investment, rapid rate of increase on income and employment there is no option but to go for industrialisation.

To usher in new era of industrialization comprehensive industrial policy which came into being in 2004 to be lasted till 2015 under which planned incentives are being taken to raise J&K which is predominantly known as consumer State for most of its requirements to a level of self sufficiency and in the near future to a producer State. The incentives provided in the policy are ahead of other States of the country.

The incentives under the State Industrial Policy are available to the industrial units subject to fulfillment of the conditions of 90% local employment. During the year 2008-09 incentives of different kinds amounting to Rs. 74.105 crores have been provided to 215 Industrial units of the state.

Tourism : Jammu & Kashmir is an important Tourist destination and has been a place of attraction for tourist since centuries. The lush green forests, sweet springs, perennial rivers, picturesque alpine scenery and pleasant climate of Kashmir valley the paradise on earth has remained an internationally acclaimed tourist destination, whereas Jammu region-the land of temples is attracting a large number of pilgrim tourists and the important destination has been a much sought-after destination especially for the foreign Tourists and is famous for adventure tourism.

Tourist inflow to J&K has continuously been increasing steadily from 6912000 in 2004 to 7718175 in 2008, which indicates an increase of 11.66%. The percentage increase in respect of the pilgrim visitors to Amarnath Ji has been to the extent of 24.51%, Mata Vaishno Devi Ji by 7.80%, domestic tourists by 58.79% and foreign tourist by 34.15% for the same period. During 2009 32.49 lakh tourists visited J&K ending June 2009. In the perspective of overall tourist inflow to all the three regions of the state the percentage has increased during the years 1988 to 2008 by 172.19%. It may be in place to mention here that flow of foreign tourists has certainly diverted to Ladakh region because of turmoil which erupted in the State of Jammu & Kashmir in late 1980s and the prevailing security scenario.

Tourism generates employment, though it is difficult to measure or calculate the employment generation as these jobs are scattered across many sectors and can not be identified without a proper survey. The government is contemplating to conduct the survey to ascertain the employment generation under tourism sector. Further 65th round of NSS which envisages to cover the subject of Domestic Tourism has been taken up by the NSSO in all the states and UT's as well which would provide data for devising suitable policies for upgrading Tourism sector.

The state has sufficient potential to exploit for more and more revenue generation. The annual revenue earnings made under the public sector during last 4 years is about 102.63 crore. There has been substantial increase in the earnings during the last four years from Rs. 2072.26 lakh during 2004-05 to Rs. 2916.93 lakh during 2007-08. The percentage of earnings has been more by 40.76% during 2007-08 when put in comparison to the figures of 2004-05. However, the percentage increase has been to the tune of 10.48% for the year 2007-08 as compared to 2006-07.

The department of Tourism has initiated steps in many ways to attract more and more tourists by way of providing and creating various types of facilities and tourism infrastructure particularly in the field of adventure tourism.

Festival : The fairs and festivals are a reflection of diverse cultural and social heritage of the state. All Hindu, Muslim or Sikh fairs and festivals are celebrated with full vigour and enthusiasm regardless of the religion. Like all parts of India, Jammu & Kashmir also celebrates Diwali (Hindu festival, famous for fireworks, crackers and sweets), Holi (Hindu festival, famous for colours and sweets), Eid (Besides other religious festivals Muslims observe Eid-ul-Fitre and Eid-ul-Azha, Milad-un-Nabi (SAW) and Muharam).

Makar Sankranti (known as Pongal in South India and Lohri in Punjab)-This is celebrated on January 13 of every year, to welcome the spring. People bathe in the holy rivers and perform hawans and Yagnas (Hindu workshop activities) in the temples. In the rural areas, boys visit newly-wedded couples to ask gifts according you will also be able to see the traditional "Chajja", a dance which is performed by young boys to the drum-beats, decorated colored paper and flowers.

Baisakhi (celebrated on April 13 or 14)-Considered an auspicious occasion for marriages, the festival of Baisakhi is basically the harvest festival of northern India. The name of the festival is derived from the first month of the Hindu/Vikram calendar ie "Vaishakh"

GOVERNMENT

<i>Governor</i>	: N.N. Vohra	<i>Chief Secretary</i>	: S. S. Kapoor, (IAS)
<i>Chief Minister</i>	: Omar Abdullah	<i>Jurisdiction of High Court</i>	: Jammu, Kashmir & Ladakh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Geographical Area	Population (2001 census)	No. of Tehsils	No of Blocks
1.	Anantnag	2,917	7.83	6	7
2.	Badgam	1,371	6.29	6	8
3.	Bandipora	398	3.16	3	5
4.	Baramulla	4,190	8.53	7	12
5.	Doda	4,500	2.86	4	8
6.	Ganderbai	1,945	2.12	4	4
7.	Jammu	3,097	13.57	4	8
8.	Kargil	14,036	1.19	3	9
9.	Kathua	2,440	5.11	5	8
10.	Kishtwar	7,737	1.91	4	8
11.	Kulgam	1,067	3.89	3	5
12.	Kupwara	2,379	6.50	3	11
13.	Leh	45,100	1.17	3	9
14.	Poonch	1,674	3.73	4	6
15.	Pulwama	1,090	4.41	4	4+(Part of block Keller)
16.	Rajouri	2,630	4.83	7	8
17.	Ramban	1138	0.22	2	4

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18.	Reasi	1517	2.48	2	4
19.	Samba	910	2.70	1	4
20.	Shopian	612.87	2.11	1	1+(Part of block Keller)
21.	Srinagar	294	9.89	2	1
22.	Udhampur	2380	4.96	4	7
Total		101387	101.43	82	142

Note : The boundries of newly carved out districts and the districts from which they have been carved have not been finalised yet by the concerned agencies. So the disctepancies could exist in the geographical area figured above.

JHARKHAND

<i>Area</i>	: 79,714 sq km	<i>Population</i>	: 2,69,09,428
<i>Capital</i>	: Ranchi	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Jharkhand which came into being on 15 November 2000 as the 28th State of the Union is the homeland of the tribals who had dreamed of a separate state for a long time. According to legend, Raja Jai Singh Deo of Orissa had declared himself the ruler of Jharkhand in the 13th century. It largely comprises forest tracks of Chhotanagpur plateau and Santhal Pargana and has distinct cultural traditions. In post-Independence era, the Jharkhand Mukti Morcha started a regular agitation which impelled the government to establish the Jharkhand Area Autonomous Council in 1995 and finally a full-fledged State.

Jharkhand is bound by West Bengal in the east, Uttar Pradesh and Chhattisgarh in the west, Bihar in the north and Orissa in the south.

AGRICULTURE

The State has an area of 79,714 sq km of which 18,423 sq km is forest land. Agriculture and allied activities are the major source of Jharkhand's economy. The total cultivable land is only 38 lakh hectares.

IRRIGATION AND POWER

Damodar, Maurakshi, Barakar, North Koyel, South Koyel, Sankh, Subarnarekha, Kharkai, and Ajay are major water resources in the State. The net sown area is 1.8 million hectares of which 8 per cent is irrigated.

The installed capacity of power in Jharkhand is 2,590 MW. This includes 420 MW (Tenughat Thermal Power Station), 840 MW (Patratu Thermal Power Station), 130 MW (Sikkidiri Hydel Project) and 1,200 MW (Damodar Valley Corporation Thermal/Hydel Project). The prospects of capacity addition in both the thermal and hydel sectors of various power stations is 4,736 MW. This includes 686 Mw hydel generation.

INDUSTRY AND MINERALS

Some of Jharkhand's major industries are: Bokaro Steel Plant in the public sector, Tata Iron and Steel Company (TISCO) in Jamshedpur in the private sector. Other

important industries are Tata Engineering and Locomotive Company (TELCO), Timken India Limited (Jamshedpur), Bharat Coking Limited (Dhanbad), Khilari Cement Factory (Palamu), Indian Aluminum (Muri). ACC cement (Chaibsa), Central Coalfields Limited (Ranchi), Usha Martin, Usha Beltron, Uranium Corporation (I) Limited (Jadugora), Hindustan Copper Limited (Mussabani), Tin Plate Company of India Limited (Jamshedpur), Indian Explosive Limited (Gomia), and Hindalco Bauxite (Lohardaga), etc.

The State is rich in mineral resources. The important available minerals are coal, iron ore, lime stone, copper ore, bauxite, pyrite, china clay, kyanite, fine clay, dolomite, graphite, bentonite, soap stone, quartz sand and silica sand. The nascent state of Jharkhand has the enormous potential for exploitation of coal, mica and other minerals particularly in Singhbhum, Bokaro, Hazaribagh, Ranchi, Koderma and Dhanbad.

TRANSPORT

Roads : The total length of roads in the State is 4,311 km. This includes 1,500 km national highways and 2,711 km state highways.

Railways : The state has a well-developed railway system. Ranchi, Bokaro, Dhanbad, Jamshedpur are some of the major railway stations.

Aviation : Ranchi is connected with Delhi, Patna and Mumbai. Jamshedpur, Bokaro, Giridih, Deoghar, Hazaribagh, Daltonganj and Noamundi have air strips.

TOURIST CENTRES

There are many scenic attractions in the state, namely, Ichagarh Bird Sanctuary, Udhava Bird Sanctuary-Sahibganj (Pathara Lake), Chachro Crocodile Breeding Centre-Koderma (Tilaya Dam), Chandrapura Bird Sanctuary, Jawaharlal Nehru Zoological Garden (Bokaro), Tenughat Bird Sanctuary, Dalma Wild Life Sanctuary (Jamshedpur), Tata Steel Zoological Park (Jamshedpur), Palkote Wild Life Sanctuary (Gumla), Bhagwan Birsa Zoological Gardens (Ranchi), Birsa Deer Sanctuary (Kalmati Ranchi), Betla National Park (Palamau), Ranchi Aquarium (Ranchi) and Hazaribagh National Park, Tatoloi hot water stream (Dumka) and Saranda Forest.

Apart from the above, Jharkhand has some famous temples like, Jharkhand Dham, Lagnta Baba Temple/Majar, Bindhvasini Temple, Masanjore Dam, etc.

GOVERNMENT

<i>Governor</i>	: K. Sankaranarayanan	<i>Chief Secretary</i>	: Manoj Kumar
<i>Chief Minister</i>	: President's rule	<i>Jurisdiction of High Court</i>	: Jharkhand

Names of the districts : Ranchi, Gumla, Lohardaga, Palamau, Garhwa, Dhanbad, Bokaro, Hazaribagh, Chatra, Giridih, Kodarma, East Singhbhum, West Singhbhum, Dumka, Deoghar, Godda, Pakur and Sahebganj.

KARNATAKA

<i>Area</i>	: 1,91,791 sq kms	<i>Population</i>	: 5,28,50,562
<i>Capital</i>	: Bangaluru	<i>Principal Language</i>	: Kannada

HISTORY AND GEOGRAPHY

Karnataka has a recorded history of more than 2,000 years. Apart from its subjection to the rule of Nandas, Mauryas and the Satavahanas, Karnataka came to have indigenous dynasties like the Kadambas of Banavasi and the Gangas from the middle of the 4th century AD. The world renowned Gomateshwara monolith at Sharavanabelagola was installed by a Ganga minister Chavundaraya. The colossal rock cut image of Sri Gometeshwara in the most magnificent among all Jaina works of art. Numerous visitors arrive at Shravanbelagola to gaze at this and other monuments. The Chalukyas of Badami (500-735 AD) reigned over a wider area, from the Narmada to the Kaveri from the days of Pulikeshi II (609-642 AD) who even defeated the mighty Harshavardhana of Kanauj. This dynasty created fine, everlasting and the most beautiful monuments at Badami, Aihole and Pattadakal, both structural and rock-cut. Aihole has been one of the cradles of temple architecture in the country. The Rashtrakutas (753-973 AD) of Malkhed who succeeded them heaped tributes on the rulers of Kanauj successively in the so-called 'Age of Imperial Kanauj'. Kannada literature developed during this period. Outstanding Jain scholars of India lived in their court. The Chalukyas of Kalyana (973 AD to 1189 AD) and their feudatories, the Hoysalas of Halebidu built exquisite temples, encouraged literature and various fine arts. Noted jurist Vijnaneshwara (work: Mitakshara) lived at Kalyana. The great religious leader Basaveshwara was a minister at Kalyana. Vijayanagar empire (1336-1646) patronised and fostered indigenous traditions and encouraged arts, religion and literature in Sanskrit, Kannada, Telugu and Tamil. Overseas trade flourished. The Bahamani Sultans (Capital: Gulbarga, later Bidar) and the Bijapur Adilshahis raised fine Indo-Saracenic buildings and encouraged Urdu and Persian literature. Advent of the Portuguese resulted in the introduction of new crops (Tobacco, Maize, Chillies, Groundnut, potato, etc). After the fall of the Peshwa (1818) and Tipu (1799), Karnataka came under British rule. Christian missionaries introduced English education and printing during the 19th century. Revolution in transport, communication and industries was ushered in. The urban middle-class emerged. Mysore dynasty initiated and helped industrialisation and cultural growth.

Freedom Movement was followed by the movement for the unification of Karnataka. After Independence, the Mysore State was created in 1953, wherein all the Kannada dominant areas under different dispensations were unified and the enlarged Mysore state carved in 1956 and was renamed Karnataka in 1973.

Karnataka State is situated between 11°31' and 18°14' north latitudes and 74°12' and 78°10'

FORESTRY AND WILDLIFE

The Forest department manages about 20.15% of the geographical area of the State. Forests have been classified as reserved forests, protected forests, unclassified forests, Villages forests, and private forests. There are 5 National Parks and 23 Wildlife

sanctuaries. To overcome shortage of fuel wood, fodder and timber, degraded forests and waste lands are being developed. Emphasis is also being laid on the conservation, protection and development of the fragile eco-system of the Western Ghats. Several Wildlife protection schemes such as Project Tiger and Project Elephant are being implemented with the Central assistance. The concept of Joint Forest Planning and Management applied to the 2 externally aided projects viz., Western Ghats Forestry & Environment Project (DFID) and Forestry and Environment Project for Eastern Plains (JBIS) has resulted in village forest planning and management through establishment of Village Forest Committees. Japan Bank for International Cooperation has approved a new scheme called Karnataka Sustainable Forest Management and Bio-diversity project and it is being implemented from 2005-06 to 2012-13 throughout Karnataka.

AGRICULTURE

The State has 66% Rural population and 55.60 per cent of workers are agricultural labourers. The State has 60% (114 lakh ha) cultivable land and 72% of the cultivable area is rainfed; only 28% is under irrigation. The state has 10 Agro climatic Zones. The Red soil constitutes major soil type, followed by Black soil. The net sown area of the state constituted 51.7% of the total land. During 2007-08, food grain production is anticipated to be 117.35 lakh metric tons against the target of 119.70 lakh metric ton.

DAIRY

Karnataka is one of the major milk producers and the Karnataka Milk Federation has 21 dairy processing plants with a capacity of 26.45 lakh litres a day and 42 chilling centres having 14.60 lakh litres of chilling capacity.

HORTICULTURE

Horticulture crops are grown in an area of 16.80 lakhs hectares and the produces amount to 101 lakh tons. The Union Government has earmarked Rs. 171.29 crores for Karnataka under National Horticulture Mission.

MAJOR AND MEDIUM IRRIGATION

28% of the cultivable land in the state is under irrigation. During 2006-07, 23.21 hectares of land was covered by major and medium irrigation and 9.93 lakh hectare was covered by minor irrigation, constituting a total of 33.14 lakh hectares of irrigated area.

POWER GENERATION

Karnataka was the pioneer in establishing hydroelectric projects in the country. Today, Karnataka has 7222.91 Power Generation Installed capacity and 31229 Million Units of Electricity was generated in 2007-08.

INFORMATION TECHNOLOGY

Karnataka State continues its unassailable lead in the IT sector, recording software exports of Rs. 48,700 crores, during 2006-07. For 2007-08 upto November-07 the export was Rs. 24450 crores. It is expected to grow by 25% over previous year's achievements. The recent report by Nasscom have recognised Manglore and Mysore among the fastest growing IT cities in the country.

BIOTECHNOLOGY

Karnataka State and Bangaluru city in particular have become the largest bio-clusters in the country. During 2006-07 three projects were cleared through SLSWA with an investment of Rs. 535.50 crores. The value of Biotech exports was 215 Million US\$.

TRANSPORT

Road : Total road length of Karnataka has increased from 83,749 km in 1971 to 2,15, 849 km in 2007. The Karnataka Highways Improvement Project with World Bank assistance will improve 2375 kms of road, i.e. upgradation of 900 km and rehabilitation of 1475 kms comprising state highways and major district roads at an estimated cost of Rs. 2402.51 crores. Assistance is being provided under the Rural Infrastructure Development Fund for the construction and improvement of roads and bridges in the state.

Ports : The Karnataka State has a maritime coastline of 155 nautical mile (300 kilometers) and has only one Major Port at Manglore i.e. New Manglore Port and studded with 10 minor ports of the State are Karwar, Belekeri, Tadri, Honnavar, Bhatkala, Kundapur, Hangarkatta, Malpe, Padubidri and Old Manglore. Out of 10 ports Karwar is the only all weather port while the other nine are the revenue anchorage lighterage ports. All these ports have handled a total cargo of 6573 thousand tonnes in 2006-07.

Aviation : The Civil Aviation Sector has seen tremendous growth with international air passenger traffic growth of 50% and domestic air passenger growth at 44% during 2006-07. As regards cargo traffic, the State airports handled 1.66 lakh ton of freight during 2006-07, a 19% increase over the previous year.

Bangaluru International Airports : Country's First Green Field International Airport has been set up at Devanahalli near Bangaluru at a cost of Rs. 2000 crores as a passenger and Cargo hub under Public Private Partnership and has started functioning from 28th May, 2008. This airport has put Bangalore City on global destination and offer travelers' facilities comparable with best international standards.

The Government has also planned to develop airports at Shimoga and Gulbarga on PPP basis.

TOURISM

Karnataka "One State Many Worlds" is becoming a Hub of tourist attraction of South India. The IT & BT Centre Bangaluru has received more tourists in the recent past. There is a phenomenal growth in tourist arrivals of over 40% in 2006-07 compared to 2005-06. The State is known for its Heritage monuments and Eco-Tourism destinations.

The Golden Chariot named after the famous Stone Chariot in Hampi, a world heritage site, in Southern India will travel through timeless historical heritage sites, resplendent palaces, wildlife and golden beaches.

Its 7 Nights/8 Days colourful journey begins every Monday from Bangaluru and traverses through Mysore, visiting Srirangapatna, Mysore Palace, The Nagarhole National Park (Kabini) and continuing to the historical sites of Shravanabelagola, Belur - the 11th century cradle of Hoysala architecture and a world heritage site, Halebidu, Hampi and thereafter entering into the triangular heritage site of Badami, Pattadakal, Aihole and finally the Golden Beaches of Goa before ending in Bangalore.

Karnataka has a blend of heritage places, thick dense forests and holy places. The new concept of 'Homestay' has added a new dimension to Tourism in the State. Hampi and Pattadakal have been declared as world heritage site.

NEW SCHEMES & ACHIEVEMENTS

E-Governance : Online delivery of land records scheme which was started in the year 2000 has successfully digitised 200 lakh land records and enabled the mutation process online making the RTCs easily available in Kiosks at taluk level specially set up for the purpose. It is now decided to redevelop the existing software to upgrade it with enhanced feature and strengthened technical base. The new Bhoomi software will cover all the existing features like linking with Kaveri Programme, Banks, Courts, Phodi process and have new features like linking land acquisition cases, mutations of non-agricultural land.

In addition to this, E-Governance has implemented "**Bangaluru One Programme**" a multiple service centre where citizens can pay electricity bill, telephone bill etc. and avail around 25 other services under one roof. It has also developed **Nemmadi** programme in Karnataka by establishing 765 Nemmadi tele centres under PPP in all the Hobli Headquarters to obtain the Income, Birth and Death Certificates.

Apart from this it has developed **Human Resource Management Services** (HRMS) as one of its core initiatives and most common function across all Departments.

Bhagyalakshmi : With an intention to balance the male-female ratio and to provide moral support to poor families, the Government of Karnataka has introduced an innovative scheme "Bhagyalakshmi". The benefit is limited to two girls in each BPL family. This is an umbrella programme for child development for providing financial assistance of Rs. 10,000/- which will be deposited in the name of girl child born in the BPL family and will be given at the age of 18 years along with accrued interest. During 2007-08 Rs. 132.42 crores have been released and 1.31 lakh beneficiaries have been identified. In the budget 2008-09 recently presented by the Chief Minister has raised the amount to Rs.1 lakh and 266.65 crores has been allocated.

Madilu : This is another scheme introduced to promote the institutional delivery and thereby protecting the maternal as well as the infant's health. Under the scheme a kit consisting of requirements for the baby and mother is provided after delivery. This facility is provided to all BPL families. During 2007-08 about 1.50 lakh were benefitted. Further, the institutional deliveries has increased to 67.97% in 2007-08 compared to 63.82% in 2006-07.

Bhagyaratha : In order to provide better access and further continue education, the state government has contemplated a programme to provide bicycles to both boys and girls studying in 8th standard studying in government and grant-in-aid schools. About 1.75 lakh girls and 2.33 lakh boys belonging to BPL families have been covered under this scheme during 2007-08. This year (i.e. 2008-09) this scheme has been extended to all children studying in 8th standard in government and grant-in-aid schools. Over 7 lakh children are expected to be benefitted from this.

GOVERNMENT

Governor : Hans Raj Bhardwaj

Chief Minister : B. S. Yeddyurappa

Chief Secretary : Sudhakara Rao

Jurisdiction of : Karnataka State

High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Bagalkot	6,575	16,51,892	Bagalkot
2.	Bangaluru	2,190	65,37,124	Bangalore
3.	Bangaluru Rural	5,815	18,81,514	Bangalore Rural
4.	Belgaum	13,415	42,14,505	Belgaum
5.	Bellary	8,450	20,27,140	Bellary
6.	Bidar	5,448	15,02,373	Bidar
7.	Bijapur	10,494	18,06,918	Bijapur
8.	Chamarajanagar	5,101	9,65,462	Chamarajanagar
9.	Chikmagalur	7,201	11,40,905	Chikmagalur
10.	Chitradurga	8,440	15,17,896	Chitradurga
11.	Dakshina Kannada	4,560	18,97,730	Mangalore
12.	Davanagere	5,924	17,90,952	Davanagere
13.	Dharwad	4,260	16,04,253	Dharwad
14.	Gadag	4,656	9,71,835	Gadag
15.	Gulbarga	16,224	31,30,922	Gulbarga
16.	Hassan	6,814	17,21,669	Hassan
17.	Haveri	4,823	14,39,116	Haveri
18.	Kodagu	4,102	5,48,561	Madikere
19.	Kolar	8,223	25,36,069	Kolar
20.	Koppal	7,189	11,96,089	Koppal
21.	Mandya	4,961	17,63,705	Mandya
22.	Mysore	6,854	26,41,027	Mysore
23.	Raichur	6,827	16,69,762	Raichur
24.	Shimoga	8,477	16,42,545	Shimoga
25.	Tumkur	10,597	25,84,711	Tumkur
26.	Udupi	3,880	11,12,243	Udupi
27.	Uttara Kannada	10,291	13,53,644	Karwar
28.	Ramanagar	-	-	-
29.	Chikkaballapur	-	-	-

KERALA

<i>Area</i>	: 38,863 sq kms	<i>Population</i>	: 3,18,41,374
<i>Capital</i>	: Thiruvananthapuram	<i>Principal Language</i>	: Malayalam

HISTORY AND GEOGRAPHY

Kerala is in the extreme south-west of the Indian subcontinent. When independent India amalgamated small states together Travancore and Cochin states were

integrated to form Travancore-Cochin State on 1 July 1949. However, Malabar remained under the Madras province. Under the State's Re-organisation Act 1956, Travancore-Cochin state and Malabar were united to form Kerala state on 1 November 1956.

In between the high Western Ghats on the east and the Arabian sea on the west, the width of the state varies from 35 km to 120 km. According to the geographical features, the state can be divided into hills, valleys, midland plains and costal belt. 44 rivers (41 west flowing and 3 east flowing) cut across Kerala with their innumerable tributaries and branches. The backwaters form an attractive and economically valuable feature of Kerala.

AGRICULTURE

A unique feature of the state is the predominance of cash crops. About 50 per cent of the population depends on agriculture. Kerala is a major producer of coconut, rubber, pepper, cardamom, ginger, cocoa, cashew, arecanut, coffee and tea. Spices like nutmeg, cinnamon, cloves, etc., are also cultivated. Rice and tapioca are the important food crops. The average annual decline in area under rice during the Eight Five-Year plan was around 22,000 ha, whereas it had come down to an average of 13,000 ha during the Ninth Plan period.

The unprecedented drought in recent years has contributed to the decline of paddy production during 2003-04 which was reversed in 2004-05. During 2004-05 maximum increase in rice production was recorded in Allappuzha (+75 per cent) and Palakkad (+37 per cent) compared to previous year.

Coconut is the most important cash crop of Kerala with a coverage of 9 lakhs ha. Coconut occupies 41 per cent of net cropped area and provides lively hood to over 3.5 million families.

Pepper is one of the major export oriented commodities in which the state continuous to enjoy a near monopoly in area and production.

Kerala has a substantial share in the four plantation crops of rubber, coffee, tea and cardamom. The four crops together occupy 6.53 lakh ha of the net cropped area in the state and 43 per cent of the area in the country.

Kerala accounts for 83 per cent of area under rubber in the country.

INDUSTRY

Kerala is rich in industrial potentialities and infrastructure facilities such as hydro-electric power, rich forests, rare minerals and the efficient system of transport and communications. Traditional industries are handloom, cashew, coir and handicrafts, other important industries are rubber, tea, ceramics, electric and electronic appliances, telephone cables, transformers, bricks and tiles, drugs and chemicals, general engineering, plywood splints and veneers, beedi and cigar, soaps, oils, fertilizers and khadi and village industry products. There are a number of manufacturing units for production of precision instruments, machine tools, petroleum products, paints, pulp paper, newsprint, glass and non-ferrous metals. Principal export products are cashew nut, tea, coffee, spices, lemon grass oil, sea foods, rose wood and coir. The state has an abundance of important minerals like ilmenite, rutile, monozite, zircon, sillimanite, clay and quartz sand.

The performance in the industrial export of almost all major products recorded positive growth.

The Government of Kerala assists, industrial units by providing financial assistance, infrastructure and training/consultancy services. The important agencies/departments engaged in industrial promotion are KFC, KSIDC, SIDBI, KINFRA, Directorate of Industries and Commerce, SIDC, SISI, KITCO & CMD.

The Directorate of Industries and Commerce provides infrastructure facilities for small-scale sector by acquiring land and developing it into developmental area/plots with facilities like developed land, road, water supply, electricity, necessary buildings, etc. The Small Industries Development Corporation also undertakes works on provision of infrastructure facilities for the small-scale sector through its major and mini industrial estates.

One of the major thrust areas for export promotion has been the Special Economic Zone. The scheme intends to set up Special Economic Zone in the country with a view to provide an internationally competitive and hassle free-environment for exports. Kochi is the only city in India having three Special Economic Zones – Electronic Parks at KINFRA in Kalamassery, Cochin SEZs, Port Based SEZs. Other SEZs are Malappuram Food Park, Technopark, proposed SEZ, Thiruvananthapuram Apparel Park, Film and Video Park and Animation SEZ (First Animation SEZ in India).

The small-scale industrial sector is one of the most dynamic and vibrant sectors in the Indian economy in terms of employment generation.

The Government of Kerala has drawn up an investment promotion programme named as Kerala Local Industry Promotion Programme (KLIPP) under the banner name of PRATHYASA through District Industries Centre.

INFORMATION TECHNOLOGY

Information technology and the ability to use it is increasingly being considered as the critical factor in generating and accessing wealth, power and knowledge and therefore societal welfare. The Government of Kerala has taken several steps for the development of IT in the State. Prominent among them are: (1) Technopark – Thiruvananthapuram – India's first world class, world - scale IT campus. (2.) IT Park at KINFRA at Kochi. (3) Akshaya Programme of Kerala IT Mission. (4) E-Governance initiatives of State Government like FRIENDS.

Technopark was conceived as an integrated IT environment with all necessary basic and enhanced infrastructural facilities that the industry needs. It acts as a single-point contact for most of the Government of India clearances and approvals.

Kerala has been selected as the second best state in India in implementation of e-governance. FRIENDS (Fast Reliable Instant Efficient Network for disbursement Service) is a "Single Window Mechanism" where citizens have the opportunity to pay all taxes and other financial dues to the Government.

E-pay is an online bill payment facility introduced by Government of Kerala through Akshaya e-kendras as an extension of FRIENDS project in Malappuram District during August 2004.

The citizen call centre the first of its kind in the country-setup in the state capital provides information on transactions pertaining to various government departments which are required by common citizens, over telephone.

IRRIGATION

Keeping in line with National Approach, Kerala also relied upon surface water irrigation system operating the gravitational force for distribution. A major chunk of the outlay on water resources sector was earmarked for major and medium irrigation. Out of a cumulative investment of Rs 3572.40 crore made in March 2005, Rs 2462.51 crore (69 per cent) was for major and medium irrigation.

The irrigation system in Kerala is serviced through major, medium and minor irrigation as well as ground water and command area development programmes. The completed major irrigation projects are Malampuzha, Chalakkudy, Peechi, Pampa, Periyar, Chittorpuzha, Kuttiyadi, Neyyar, Chimmuni, Pazhassi, Kanjirapuzha and Kallada and the medium projects are Pothundy, Gayathri, Walayar, Vazhani, Mangalam and Cheerakuzhi. Construction works of four major projects Muvattupuzha, Idamalayar, Karapuzha, Kuriarkuty – Karappara and the medium projects Banasurasagar, Bridge-cum-regulator at Thrithala and Chammaravattom are in progress.

In Kerala an outlay of Rs. 930 crore is set apart for irrigation sector during 10th plan period which includes Rs. 600 crore for major and medium irrigation, Rs. 205 crore for minor irrigation for Rs. 50 crore for Flood Control and Anti-Sea Erosion work. During the first three years of plan period an amount of Rs. 435.95 crore was budgeted and expenditure for the period was Rs. 494.63 crore. The major portion of the outlay on water resources sector was earmarked for major and medium irrigation projects.

The Command Area Development programme was launched with the main objective of bridging the gap between the irrigation potential created and utilised and improving agriculture production and productivity in the irrigation commands. The programme was restructured in 2003-04 and re-named as Command Area Development and Water Management Programme.

The main activities of Command Area Development Authority (CADA) include construction of field channels, field drains, enforcement of *wara bandhi* and reclamation of Water logged areas. The CAD activities were carried out in 16 completed irrigation projects, namely, Malampuzha, Mangalam, Pothundy, Walayar, Cheerakuzhy, Vazhani, Peechi, Chalakkudy, Neyyar, Gayatri, Pampa, Periyar Valley, Chitturpuzha, Kuttiyadi, Pazhachi and Kanjirapuzha with a total layout of 2.03 lakh ha. CADA programmes are implemented with financial assistance of Govt. of India. The achievement recorded during 2004-05 include construction of field channels in 1,998 ha, drains to benefit 6,156 ha, adaptive trials in 10ha, 83 training programmes, bench mark and evaluation studies in 2,302 ha. The work on reclamation of water locked areas was done in 1033 ha and 3 evaluation reports were also published.

POWER

The growth of power sector in Kerala during the last two decades has been remarkable. During the early stages of development, focus was on tapping hydro power potential in the state. Kerala Power System consists of 30 power generating stations which include 24 hydel, 5 thermal and one wind of which KSEB owns 24 hydel and one wind and two thermal stations.

The total installed capacity in Kerala as on 31 March 2005 is estimated as 2617.22 MW of which KSEB's hydel plants contribute 1810.60 MW, Wind farm at Kanchikode 2.0 MW and Thermal Power Plants 234.60 MW.

Malankara Hydro Electric Project was commissioned on 23 October 2005. As a result the installed capacity has been increased by 10.5 MW.

Under the micro-hydel programme, implementation of Micro Hydel Projects on behalf of two district Panchayats, Kammadi in Kasargode district and Chakkarakundu in Kozhikode district have been undertaken by ANERT. UNIDO has set up a Regional Centre on small hydro power at Energy Management Centre. The centre has prepared detailed project reports for 30 small hydro projects in Kerala. Of which 13 small hydro project were allotted to bidders under Captive Power Projects and Independent Power Projects on BOOT basis. The first off grid 100 KW micro hydel power projects was commissioned in Mankulam, Iduki District. Pasavaikumbe in Kasargode district and Kalyanathandu in Idukki district are two sites identified for study under the National Wind Energy Resource Assessment.

In the light of launching the project, Rajiv Gandhi Grameen Vidhyuteekaran Yojana (RGGVY) by the Government of India, proposals were submitted to the Government of India with an outlay Rs. 348.79 crore for the electrification of 3578 habitations in 930 villages covering 14 districts of Kerala. The Government of India have sanctioned Rs. 221.75 crore to implement the scheme as first phase covering seven districts in Kerala viz. Kasargod, Kannur, Wayanad, Kozhikode, Malappuram, Idukki, and Palakkad.

TRANSPORT

Transport system of the state consists of 1.61 lakh km of Road, 1148 km of Railways 1687 km of Inland Water Ways and 111 statute miles of Airways and 18 ports.

National Highways in Kerala

Sl. No.	Name	Length (kms)
1.	NH 17 - Thalappady - Edappally	420.777
2.	NH 47 - Walayar - Kaliyikkavila	416.800
3.	NH 47 A - Wellington Island to Kochi - Bypass	5.920
4.	NH 49 - Bodimettu - Muvatupuzha - Kochi	167.593
5.	NH 208 - Kollam - Aryankavu - Muvattupuzha	81.280
6.	NH 212 - Kozhikode - Kallegel	117.600
7.	NH 213 - Kozhikode - Palakkad	125.300
8.	NH 220 - Kollam - Kottayam - Kumily - Theni	190.300

Railway : The State has a total railway route of 1148 kms of which 111.14 kms are metre gauge and covers 13 railway routes. The work of guage conversion between Kollam and Punalur is in progress.

Aviation : Kerala has three air ports; viz, Thiruvananthapuram, Kochi (Nadumbassery) and Kozhikode. Of which the first two are international airports.

Port Sector : Along its coastline of 585 kms' Kerala has one major port at Kochi and 17 minor intermediate ports. The Prime Minister laid the foundation stone for the Vallarpadam International Container Transshipment Terminal on 16 December 2005. Completion of the prestigious project would make the Kochi Port as a major hubport in the Indian Ocean.

FESTIVALS

Kerala is the home of many colourful festivals. Most of them have a religious fervour inspired by Hindu Mythology. Onam is the most typical of Kerala festivals which coincides with the harvest season. It is now celebrated on astronomical New Year Day. Navarathri is celebrated as Saraswathi Pooja in Kerala. Maha Shivarathri is celebrated on the banks of Periyar river as a spectacular festival which is compared to Kumbhamela. The 41-day festival, which coincides with Makaravilakku in Sabarimala Ayyappan Temple, attracts lakhs of people from India and abroad. The Vallamkali or boat race is typical of Kerala. All the boat festivals have a religious origin except Nehru Trophy Boat race conducted in the Punnamada Lake. Thrissur celebrates Pooram festival in April - May every year with an impressive procession of caparisoned elephants and display of unparalleled pyrotechnics. Main Christian festivals are Christmas and Easter. Maramon Convention held every year on the Pumba riverbed is the biggest gathering of Christians in Asia. The Muslims celebrate Milade Shareef, Ramzan fasting, Id-ul-Fitr and Bakrid.

TOURISM

Tourism to Kerala is what apple growing is to Himachal Pradesh. Both these regions offer all the pre-conditions for sustained and successful growth of the respective activities. The factors stimulating a flourishing tourism sector include, scenic splendour, moderate climate, clean environment, friendly and peace loving people with high tolerance for cultural diversity and the potential for creating unique tourism products.

Kerala has emerged as the most acclaimed tourist destination in the country. Beaches, warm weather, back waters, hill stations, water falls, wild life, Ayurveda, treatment year-round festivals and diverse flora and fauna make Kerala a unique destination for tourists.

The Department of Tourism, Kerala Tourism Development Corporation, District Tourism Promotion Council, Bakal Tourism Development Corporation, Local Government and Private Sector are the major players in the field. The thrust areas presently being looked into are the development of village tourism, MICE tourism (meeting, incentives, conventions and events/exhibitions/trade shows), heritage tourism, eco-tourism and medical tourism.

Thenmala Eco-Tourism project features a tourist facilitation centre, shop court garden, plazas, picnic areas, natural trail, rock climbing, river crossing, amphitheatre, restaurant, suspension bridge, lotus pond, musical dancing fountain, sculpture garden, deer rehabilitation centre, boating, battery powered vehicles, etc. During 2004-05, 104622 tourists visited Thenmala and the revenue generated was Rs. 3563820.

The foreign exchange earning from tourism during 2004 is Rs. 1266.77 crore. The earning from domestic tourists during 2004 is Rs. 3881.92 crore. Total revenue generated from tourism directly and indirectly in the state is worked out to about Rs. 6829 crore. Tourism employs about 8 lakh persons in the state. The investment in tourism is about Rs. 500 crore per year.

EDUCATION

According to 2001 census, the literacy rate in Kerala is well above the National average and it is the highest among the Indian States. The literacy rate in Kerala was 90.86 per cent in 2001 as against the all India rate of 65.38 per cent. The male and female literacy rate are 94.2 per cent and 87.6 per cent respectively.

In Kerala there were 12644 schools in 2006 comprising 6817 lower primary schools, 3037 upper primary schools and 2790 high schools. Besides there are 587 CBSE School, 78 ICSE Schools, 26 Kendriya Vidyalayas and 13 Jawahar Navodaya Vidhyalayas.

The dropout rate is comparatively low in Kerala. During 2004-05 the dropout rate was 0.88 at LP level, 0.45 at UP level and 1.50 at HS level.

In order to reorganise secondary level of education in accordance with the National Educational Policy, Higher Secondary course was introduced in the state. As a first step during 1990-91, 31 government schools were upgraded to the status of Higher Secondary Schools. Grading system of evaluation has been introduced in Higher secondary levels from 2005-06 academic year onwards.

HEALTH

Kerala has achieved very good health standards in areas like birth rate, death rate, infant mortality rate, maternal mortality rate, average life at birth and immunisation. In Kerala birth rate is 16.90, death rate - 6.40, IMR - 10 and MMR - 0.87 per thousand population. Though Kerala has attained better health care indicators, the people are now facing the problem of high morbidity both from communicable and non-communicable diseases.

Kerala's health care system consists of Allopathy, Ayurveda and Homoeopathy. Three systems of medicines together have 2,711 institutions in government sector.

Kerala spends fairly substantial amount on medical and public health which is evident from the per capita government health expenditure.

DRINKING WATER SUPPLY

In Kerala 83.07 per cent urban and 62.74 per cent rural population was being supplied with piped water supply by 2004-05. The overall water supply coverage is 68.02 per cent as against 67.52 per cent.

POVERTY ERADICATION

Kerala is seeking to achieve a breakthrough in participatory poverty reduction through local government and Kudumbasree Programmes implemented by State Poverty Eradication Mission. As per the NSSO 55th round, (1999-2000). Kerala's poverty is 9.35 per cent in rural areas and 20.27 per cent in urban areas.

GOVERNMENT

<i>Governor</i>	: R.S. Gavai	<i>Chief Secretary</i>	: Lizzie Jacob
<i>Chief Minister</i>	: V.S. Achuthanandan	<i>Jurisdiction of High Court</i>	: Kerala and Lakshadweep

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters (2001 Census)
Thiruvananthapuram	2192	3234356	Thiruvananthapuram
Kollam	2491	2585208	Kollam
Pathanamthitta	2637	1234016	Pathanamthitta
Alappuzha	1414	2109160	Alappuzha
Kottayam	2208	1953646	Kottayam
Idukki	4358	1129221	Painavu
Ernakulam	3068	3105798	Ernakulam
Thrissur	3032	2974232	Thrissur
Palakkad	4480	2617482	Palakkad
Malappuram	3550	3625471	Malappuram
Kozhikode	2344	2879131	Kozhikode
Wayanad	2131	780619	Kalpetta
Kannur	2966	2408956	Kannur
Kasaragode	1992	1204078	Kasaragode

MEGHALAYA

<i>Area</i> : 22,429 sq km	<i>Population</i> : 23,18,822 (2001 Census)
<i>Capital</i> : Shillong	<i>Principal Languages</i> : Khasi, Garo and English

HISTORY AND GEOGRAPHY

Meghalaya was created as an autonomous State within the State of Assam on 2 April 1970. The full-fledged State of Meghalaya came into existence on 21 January 1972. It is bound on the north and east by Assam and on the south and west by Bangladesh. Meghalaya, literally means 'the Abode of Clouds' is essentially a hilly state. It is predominately inhabited by the Khasis, the Jaintias and the Garos tribe communities. The Khasi Hills and Jaintia Hills which form the central and eastern part of Meghalaya from an imposing plateau with rolling grassland, hills and river valleys. The southern face of the plateau is marked by deep gorges and abrupt slopes, at the foot of which, a narrow strip of plain land runs along the international border with Bangladesh.

AGRICULTURE

Meghalaya is basically an agricultural State in which about 80 per cent of its population depends primarily on agriculture for their livelihood. The State has a vast

potential for development of horticulture due to the agroclimatic variations, which offer much scope for cultivation of temperate, sub-tropical and tropical fruits and vegetables.

Besides major food crops of rice and maize, Meghalaya is renowned for its orange (Khasi Mandarin), pineapples, bananas, jackfruit, temperate fruits like plum, pear and peach, etc. Cash crops, popularly and traditionally cultivated include potato, turmeric, ginger, black pepper, arecanut, betelvine, tapioca, short staple cotton, jute and mesta, mustard and rapeseed. Special emphasis is presently being laid on non-traditional crops like oilseeds (groundnut, soyabean and sunflower), cashewnut, strawberry, tea and coffee, mushroom, medicinal plants, orchids and commercial flowers.

INDUSTRIES

The Meghalaya Industrial Development Corporation Limited, as the Industrial and Financial Institution of the State, has been rendering financial assistance to the local entrepreneurs. District Industries Centres have been working in the field for the promotion and development of small-scale, village, tiny and cottage industries. A number of industrial projects have been set up for the manufacture of iron and steel materials, cement and other industrial products.

FESTIVALS

A five-day-long religious festival of the Khasis 'Ka Pamblang Nongkrem' popularly known as 'Nongkrem dance' is annually held at Smit village, 11 km from Shillong. 'Shad Sukmynsiem', another important festival of the Khasis is held at Shillong during the second week of April. 'Behdeinkhlam', the most important and colourful festival of the Jaintias is celebrated annually at Jowai in Jaintia Hills in July. 'Wangala festival' is observed for a week to honour Saljong (Sungod) of the Garos during October - November.

TOURIST CENTRES

Meghalaya is dotted with a number of lovely tourist spots where nature unveils herself in all her glory. Shillong, the capital city, has a number of beautiful spots. A few of them are Ward's Lake, Lady Hydari Park, Polo Ground, Mini Zoo, Elephant Falls, Shillong Peak overlooking the city and the Golf Course which is one of the best in the country.

TRANSPORT

Roads: Six national highways pass through Meghalaya. The State has 7,977.98 km of both surfaced and unsurfaced roads.

Aviation: The only airport in the State at Umroi, is 35 km from Shillong.

GOVERNMENT

<i>Governor</i>	: R. K. Mooshahary	<i>Chief Secretary</i>	: R. Chatterjee
<i>Chief Minister</i>	: Dr. D.D. Lapang	<i>Jurisdiction of High Court</i>	: Falls under the jurisdiction of Guwahati High Court. There is a High Court Bench at Shillong.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
East Khasi Hills	2,820	6,60,923	Shillong
West Khasi Hills	5,247	2,96,049	Nongstoin
Ri-Bhoi	2,376	1,92,790	Nongpoh
Jaintia Hills	3,819	2,99,108	Jowai
East Garo Hills	2,603	2,50,582	Williamnagar
West Garo Hills	3,715	5,18,390	Tura
South Garo Hills	1,849	1,00,980	Baghmara

MADHYA PRADESH

<i>Area</i>	: 3,08,000 sq kms	<i>Population</i>	: 6,03,85,118
<i>Capital</i>	: Bhopal	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Madhya Pradesh is the second largest Indian State in size with an area of 3,08,000 sq.km. Geographically it occupies a pivotal position in the country.

King Ashoka first among all, ruled over Ujjain. A sizeable portion of Central India was part of the Gupta empire (300-500 A.D.). The Muslims came into Central India in the beginning of 11th century. First of all, Mahmud of Ghazni came over here and then Mohammad Gouri, who incorporated some parts of Central India into his ruling territory of Delhi. Central India was also part of the Mughal empire. During the period between the beginning of the influence of Marathas and the death of Madhoji Scindia in 1794, Marathas were on the ascendent in Central India but later on the small states started coming into existence. These small states became the cause of perpetuation of British power in the country.

Queen Ahilyabai Holkar of Indore, the Gond Maharani Kamalapati and Queen Durgawati, etc., were women rulers whose names have left an indelible imprint on Indian history for their outstanding rule. Madhya Pradesh came into being on 1 November 1956. It was reorganised on 1 November 2000 to create a new Chhattisgarh state. The successive state, now, is bound in north by Uttar Pradesh, east by Chhattisgarh, south by Maharashtra and west by Gujarat and Rajasthan.

AGRICULTURE

Agriculture is the mainstay of State's economy as 74.73 per cent of the people are rural. As much as 49 per cent of the land area is cultivable.

The net sown area during 2007 was estimated at about 14.83 m. ha. The foodgrain production was 14.45m. metric tonnes. The productivity of major crops like wheat, rice, pulses has also been good. The National Horticulture Mission has been implemented in 31 districts.

INDUSTRY AND MINERALS

Madhya Pradesh has entered the era of high-tech industries such as electronics, telecommunications, automobiles, Information Technology, etc. The state produces

optical fibre for telecommunication needs. A large number of automobile industries have been established at Pithampur near Indore. Prominent industries in the public sector in the state are Bharat Heavy Electricals Ltd. at Bhopal, Security paper mill at Hoshangabad, Bank Note Press at Dewas, newsprint factory at Neapanagar and alkaloid factory at Neemuch.

The cement production touched 12.49 million metric tonne during the period. An air cargo complex is coming up at Pithampur. The Government of India has set up a Special Economic Zone at Indore. Foreign Direct Investment is being promoted by implementing the comprehensive Economic Development Policy. The state government has announced an Industries Promotion Policy offering attractive incentives for investment in the state. The docks have been cleared for the long pending Rs. 10,300 crore Oman Bina Refinery Project at Bina in Sagar district. The Government of India has also sanctioned a National Auto Testing and Research and Development Infrastructure Project to be set up at Pithampur in Dhar district.

Madhya Pradesh is a mineral rich state. The state produced minerals worth Rs. 90.20 in 2007. It produces 21 types of minerals. The output of minerals in 2007 was -dolomite -164 thousand metric tonnes, diamond - 586 thousand carats, limestone-25640 thousand metric tonnes, bauxite-475 thousand million metric tonnes and copper ore - 2191 thousand million metric tonnes. The coal production was 25640 thousand metric tonnes. The State is famous for its traditional handicrafts and handloom cloth manufactured in Chanderi and Maheshwar.

IRRIGATION AND POWER

The net area under irrigation was 6,347 thousand-hectare in the year 2008. There is a target to increase the irrigation facilities from 39 per cent to 50 per cent. A Rs.1919 crore Water Sector Restructuring Project has been taken up to restore irrigation facility in five lakh hectares by renovating the existing irrigation system in 30 districts.

Madhya Pradesh is rich in low-grade coal suitable for power generation and also has immense potential of hydro-energy. Total installed power generation capacity in year 2007 was 9658.45 M.W. There are eight hydro-electric power stations with 902.5 MW installed capacity. A total of 50,475 out of 51,806 villages had been electrified.

DEVELOPMENT INITIATIVES

Madhya Pradesh Rural Employment Scheme has been implemented in all 50 districts. M.P. has topped in the country in its implementation. National Horticulture Mission has been launched to boost horticulture production and productivity in the state.

TRANSPORT

Roads : The total length of roads in the state is 73311 kms. The length of national highway in the state is 4280 km while State highway extends to 8729 kms. The state government has taken up the construction and upgradation of roads in a big way and about 60 thousand kilometres of roads will be constructed and upgraded.

Railways : The main rail route linking northern India with southern India passes through Madhya Pradesh. Main junctions in the state are Bhopal, Bina, Gwalior, Indore, Itarsi, Jabalpur, Katni, Ratlam and Ujjain. The divisional railways headquarters are at Bhopal, Ratlam and Jabalpur.

FESTIVALS

A number of festivals are celebrated in Madhya Pradesh. An important tribal festival is Bhagoriya marked by traditional gaiety and enthusiasm. Shivratri is celebrated in Khajuraho, Bhojpur, Pachmarhi and Ujjain and has its own local flavour while Ramnavami festival at Chitrakoot and Orchha has a unique sense of devotion imbued with tradition. Festivals of Orchha, Malwa, Pachmarhi bring to the fore, repertoire of culture and art of the people. Tansen Music Festival, Gwalior, Ustad Allauddin Khan Music Festival of Maihar, Kalidas Samaroh, Ujjain and Festival of Dances at Khajuraho are some of the well-known art festivals of Madhya Pradesh. An annual Narmada Festival has been started from this year at Bedhaghat in Jabalpur, famous for its marble rocks. A Shivpuri Festival has been started from this year at Shivpuri.

TOURIST CENTRES

Perfectly preserved medieval cities, refreshing and enchanting wildlife sanctuaries and some of the holiest and most revered pilgrim centres offer to the tourist the most fulfilling experience. Tranquil beauty of Pachmarhi, glittering splendour of Marble Rocks and roaring sound of Dhuandhar Fall at Bedaghat, Kanha National Park, with its unique Barasingha and Bandhavgarh National Park with its prehistoric caves and wildlife are some of the major attractions of the state. Gwalior, Mandu, Datia, Chanderi, Jabalpur, Orchha, Raisen, Sanchi, Vidisha, Udaygiri, Bhimbetika, Indore and Bhopal are the places well-known for their historical monuments. Maheshwar, Omkareshwar, Ujjain, Chitrakoot and Amarkantak are major centres of pilgrimage. Unique temples of Khajuraho are famous all over the world. The temples of Orchha, Bhojpur and Udaypur attract large number of tourists as well as pilgrims. Archaeological treasures are preserved in the museums at Satna, Sanchi, Vidisha, Gwalior, Indore, Mandasaur, Ujjain, Rajgarh, Bhopal, Jabalpur, Rewa and many other places. Omkareshwar, Maheshwar and Amarkantak have been declared as holy cities for their integrated development in accordance with their religious significance. Burhanpur is being developed as a new tourist destination.

GOVERNMENT

<i>Governor</i>	: Rameshwar Thakur	<i>Chief Secretary</i>	: R.C. Sahnii
<i>Chief Minister</i>	: Shivraj Singh Chouhan	<i>Jurisdiction of High Court</i>	: Madhya Pradesh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1	2	3	4	5
1.	Badwani	—	10,81,039	Badwani
2.	Balaghat	9,229	14,45,760	Balaghat
3.	Betul	10,043	13,94,421	Betul
4.	Bhind	4,459	14,26,951	Bhind
5.	Bhopal	2,772	18,36,784	Bhopal
6.	Chhatarpur	8,687	14,74,633	Chhatarpur

7.	Chhindwara	11,815	18,48,882	Chhindwara
8.	Damoh	7,306	10,81,909	Damoh
9.	Datia	2,038	6,27,818	Datia
10.	Dewas	7,020	13,06,617	Dewas
11.	Dhar	8,153	17,40,577	Dhar
12.	Dindori	—	5,79,312	Dindori
13.	Guna	11,065	16,65,503	Guna
14.	Gwalior	5,214	16,29,881	Gwalior
15.	Harda	—	4,74,174	Harda
16.	Hoshangabad	10,037	10,85,011	Hoshangabad
17.	Indore	3,898	25,85,321	Indore
18.	Jabalpur	10,160	21,67,469	Jabalpur
19.	Jhabua	6,782	13,96,677	Jhabua
20.	Katni	—	10,63,689	Katni
21.	Khandwa (East Nimar)	10,779	17,08,170	Khandwa
22.	Khargone (West Nimar)	13,450	15,29,954	Khargone
23.	Mandla	13,269	8,93,908	Mandla
24.	Mandsaur	9,791	11,83,369	Mandsaur
25.	Morena	11,594	15,87,264	Morena
26.	Narsinghpur	5,133	9,57,399	Narsinghpur
27.	Neemuch	—	7,25,457	Neemuch
28.	Panna	7,135	8,54,235	Panna
29.	Raisen	8,446	11,20,159	Raisen
30.	Rajgarh	6,154	12,53,246	Rajgarh
31.	Ratlam	4,861	12,14,536	Ratlam
32.	Rewa	6,314	19,72,333	Rewa
33.	Sagar	10,252	20,21,783	Sagar
34.	Satna	7,502	19,68,648	Satna
35.	Sehore	6,578	10,78,769	Sehore
36.	Seoni	8,758	11,65,893	Seoni
37.	Shahdol	14,028	15,72,748	Shahdol
38.	Shajapur	6,196	12,90,230	Shajapur
39.	Shayopur	—	5,59,715	Shayopur
40.	Shivpuri	10,278	14,40,666	Shivpuri
41.	Sidhi	10,256	18,30,160	Sidhi
42.	Tikamgarh	5,048	12,03,533	Tikamgarh
43.	Ujjain	6,091	17,09,885	Ujjain
44.	Umaria	—	5,15,851	Umaria
45.	Vidisha	2,742	12,14,759	Vidisha
46.	Ashoknagar	4,673.90	6,88,940	Ashoknagar

47.	Burhanpur	2,472.5	6,35,661	Burhanpur
48.	Anuppur	3,746	6,61,127	Anuppur
49.	Alirajpur	-	-	Alirajpur
50.	Singrauli	-	-	Singrauli

MAHARASHTRA

<i>Area</i>	: 3,07,713 sq km	<i>Population</i>	: 9,67,52,247
<i>Capital</i>	: Mumbai	<i>Principal Language</i>	: Marathi

HISTORY AND GEOGRAPHY

The first well-known rulers of Maharashtra were the Satavahanas (230 BC to 225 AD), who were the founders of Maharashtra, and have left a plethora of literary, epigraphic, artistic, and archaeological evidence. This epoch marks tremendous development in every field of human endeavour.

Then came the Vakatakas who established a pan-Indian empire. Under them Maharashtra witnessed an all-sided development in the fields of learning, arts and religion. Some of the Ajanta Caves and fresco paintings reached their pinnacle during their rule. After the Vakatakas and after a brief interlude of the Kalachuri dynasty, the most important rulers were the Chalukyas followed by the Rashtrakutas and the Yadavas apart from the Shilaharas on the coast. The Yadavas, with Marathi as their court language extended their authority over large parts of the Deccan.

While the Bahamani rule brought a degree of cohesion to the land and its culture, a uniquely homogeneous evolution of Maharashtra as an entity became a reality under the able leadership of Shivaji. A new sense of Swaraj and nationalism was evolved by Shivaji. His noble and glorious power stalled the Mughal advances into this part of India. The Peshwas established the Maratha supremacy from the Deccan Plateau to Attack in Punjab.

Maharashtra was in the forefront during freedom struggle and it was here that the Indian National Congress was born. A galaxy of leaders from Mumbai and other cities in Maharashtra led the Congress movement under the guidance of Tilak and then Mahatma Gandhi. Maharashtra was the home of Gandhiji's movement, while Sevagram was the capital of nationalistic India during the Gandhian era.

The administrative evolution of the state of Maharashtra is the outcome of the linguistic reorganisation of the States of India, effected on 1 May 1960. The State was formed by bringing together all contiguous Marathi-speaking areas, which previously belonged to four different administrative hegemonies. They were the district between Daman and Goa that formed part of the original British Bombay Province; five districts of the Nizam's dominion of Hyderabad; eight districts in the south of the Central provinces (Madhya Pradesh) and a sizeable number of petty native-ruled state enclaves lying enclosed within the above areas, were later merged with adjoining districts. Located in the north centre of Peninsular India, with the command of the Arabian Sea through its Port of Mumbai, Maharashtra has a remarkable physical homogeneity, enforced by its underlying geology. The dominant physical trait of the State is its plateau character. Maharashtra is a plateau of plateaus, its western upturned rims rising to form the Sahyadri Range parallel to the sea-coast and its slopes gently descending towards the east and south-east. Satpuda ranges cover northern part of

the State, while Ajanta and Satmala ranges run through central part of State. Arabian Sea guards the western boundary of Maharashtra, while Gujarat and Madhya Pradesh are on the northern side. Chhattisgarh covers the eastern boundary of the State. Karnataka and Andhra Pradesh are on its southern side.

AGRICULTURE

About 65 per cent of the total workers in the State depend on agriculture and allied activities. Net irrigated area in 2003-2004 was 29.4 lakh hectares. Principal crops grown in the State are rice, jowar, bajra, wheat, tur, mung, urad, gram and other pulses. The State is a major producer of oilseeds. Groundnut, sunflower, soyabean are major oil seed crops. Important cash crops are cotton, sugarcane, turmeric and vegetables. The State has an area of 13.66 lakh hectares under various fruit crops like mango, banana, orange, grape, cashewnut etc.

INDUSTRY

The State has been identified as the country's powerhouse and Mumbai, its capital as the centre point of India's financial and commercial markets. Industrial sector occupies a prominent position in the economy of Maharashtra. Food products, breweries, tobacco and related products, cotton textiles, textile products, paper and paper products, printing and publishing, rubber, plastic, chemical and chemical products, machinery, electrical machinery, apparatus and appliances, and transport equipment and parts contribute substantially to the industrial production in the state. The growth in industrial production (manufacturing) in the state during 2005-06 was 8.9 per cent over the year

IRRIGATION AND POWER

By the end of June-2005, 32 major, 178 medium and about 2,274 state sector minor irrigation projects had been completed. Another 21 major and 39 medium irrigation projects are under construction. The gross irrigated area in 2004-2005 was 36.36 lakh hectares.

Maharashtra had an installed capacity of 12,909 MW in 2004-2005. The Plant Load Factor (PLF) in the State was 81.6 per cent and power generation was 68,507 million KWH.

TRANSPORT

Roads : Total length of roads in the State as in March 2005 was 2.29 lakh km consisting of 4,367 kms of national highways, 33,406 kms of state highways, 48,824 kms of major district roads, 44,792 kms of other district roads, and 97,913 kms of village roads.

Railways: Maharashtra has 5,527 kms of railway routes of which 78.6 per cent are broad gauge, 7.8 per cent meter gauge and 13.6 per cent narrow gauge.

Aviation : Maharashtra has a total of twenty-four Air fields/airports. Of these 17 are under the control of the State government, four are managed and controlled by the International Airports Authority/Airports Authority of India and three by the Ministry of Defence. The Airfields under the control of the State government have no facilities for the operation of commercial flights at present.

Ports: Mumbai is a major port. There are two major and 48 notified minor ports in the State.

TOURIST CENTRES

Some important tourist centres are : Ajanta, Ellora, Elephanta, Kanheri and Karla caves, Mahabaleshwar, Matheran and Panchgani, Jawhar, Malshej ghat, Amboli, Chikaldara, Panhala Hill stations and religious places at Pandharpur, Nashik, Shirdi, Nanded, Audha nagnath, Trimbakeshwar, Tuljapur, Ganpatipule, Bhimashanker, Harihareshwar, Shegaon, Kolhapur, Jejuri and Ambajogai.

GOVERNMENT

<i>Governor</i>	: S.M. Krishna	<i>Chief Secretary</i>	: D.K. Shankaran
<i>Chief Minister</i>	: Ashok Chouhan	<i>Jurisdiction of High Court</i>	: Maharashtra and Goa

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

Districts	Area (sq km)	Population (on '00) provisional	Headquarters
Ahmednagar	17,034	40,88,077	Ahmednagar
Akola	5,431	16,29,305	Akola
Amravati	12,235	26,06,063	Amravati
Aurangabad	10,106	29,20,548	Aurangabad
Bhandara	3,890	11,35,835	Bhandara
Beed	10,692	21,59,841	Beed
Mumbai City	157	33,26,837	Mumbai
Mumbai (Sub.)	446	85,87,561	Bandra
Buldhana	9,680	22,26,328	Buldhana
Chandrapur	11,417	20,77,909	Chandrapur
Dhule	8,061	17,08,993	Dhule
Gadchiroli	14,477	9,69,960	Gadchiroli
Jalgaon	11,757	36,79,936	Jalgaon
Jalna	7,715	16,12,357	Jalna
Kolhapur	7,692	35,15,413	Kolhapur
Latur	7,166	20,78,237	Latur
Nagpur	9,810	40,51,444	Nagpur
Nanded	10,545	28,68,158	Nanded
Nashik	15,539	49,87,923	Nashik
Osmanabad	7,550	14,72,256	Osmanabad
Parbhani	6,511	14,91,109	Parbhani
Pune	15,637	72,24,224	Pune
Raigad	7,162	22,05,972	Aligbag
Ratnagiri	8,196	16,96,482	Ratnagiri
Sangli	8,577	25,81,835	Sangli
Satara	10,475	27,96,906	Satara
Sindhudurg	5,222	8,61,672	Oras
Solapur	14,886	38,55,383	Solapur

Thane	9,563	81,28,833	Thane
Wardha	6,311	12,30,640	Wardha
Yavatmal	13,594	24,60,482	Yavatmal
Nandurbar	5,035	13,09,135	Nandurbar
Washim	5,150	10,19,725	Washim
Gondia	5,430	12,00,151	Gondia
Hingoli	4,526	9,86,717	Hingoli

MANIPUR

<i>Area</i>	: 22,327 sq km	<i>Population</i>	: 22,93,896 (2001 Census)
<i>Capital</i>	: Imphal	<i>Principal Language</i>	: Manipuri

HISTORY AND GEOGRAPHY

Manipur has a long and glorious history from before the beginning of the Christian era. The recorded history of kingship started from 33 A.D., which marked the coronation of Pakhangba. After Pakhangba a series of kings ruled over the kingdom of Manipur. The independence and sovereignty of Manipur remained uninterrupted until the Burmese invaded and occupied it for approximately seven years in the first quarter of the 19th century (1819-1826). Then came the British Parmaountcy in 1891. Manipur regained independence along with the rest of India in 1947. When the Constitution of India came into force on the 26th January, 1950, Manipur became a Part C State under a Chief Commissioner in 1950 - 51, a Council of Advisors was introduced and in 1957 this was replaced by a territorial Council of 30 elected and 2 nominated members. Later in 1963 a Territorial Assembly of 30 elected and 3 nominated members was established under the Government of Union Territories Act, 1963. In December 1969 the Chief Commissioner was replaced by the Lt. Governor. Manipur became a full-fledged State on the 21st January, 1972 with a Legislative Assembly of 60 members of whom 19 are reserved for Scheduled Tribes and one for Scheduled Castes. The state is represented in the Lok Sabha by two members and by one member in Rajya Sabha.

Manipur is situated on the eastern frontier of India. It is bounded on the east by Myanmar (Burma), on the north by the State of Nagaland, on the west by the State of Assam and the south by the State of Mizoram and Myanmar. Manipur lies between 23.83 N and 25.68N latitude and between 93.03 E and 94.78E longitude. It has an area of 22,327 sq. kms. Physically, Manipur comprises two parts - the hills and the valley. The valley is at the centre surrounded by hills on all sides. The hill covers about 9/10 of the total area of the State. Manipur Valley is about 790 metres above the sea level. The hill ranges are higher on the north and gradually diminish in height as they reach the southern part of Manipur. The valley itself slopes down towards the south.

AGRICULTURE

Agriculture and allied activities is the only mainstay of the State's economy where about 70 per cent of the population depends on it. The state has two distinct topographical zones—valley and hills. The valley is known as the "Rice Bowl" of the State and its climate is sub-tropical to tropical to sub-temperate. The hills have sub-

temperate to temperate climate with an average altitude of 3000 m above MSL. The State has distinct winter, warm humid and rainy season. The average rainfall during the last 10 years was 1482.20 mm with heavy precipitation during the month of June, July and August. The growth of agriculture in the State has been quite uneven and unsatisfactory for the reason that its production still depends on seasonal rainfall.

Agriculture in the State is confined to 10.48 per cent of the total geographical area. The percentage of agricultural land in valley districts is 47 per cent and that in the hill districts is 53 per cent. According to 2001 census, the ratio between man and agricultural land in ha is 1:0.10. The irrigated area is 30,980 ha. i.e. 13.24 per cent of the net agricultural land. The State is marginally deficit in cereals and highly deficit in the production of oilseeds and pulses. In spite of the rapid advancement in the crop productivity, the rapid population growth poses a great problem to agriculture in the State.

The State Agriculture Department now plans to go ahead with diversification and commercialization during the 11th Plan period (2007-2012) with the following aims and objective :

- i) To increase the Net Agricultural Area of the State to the tune of 3.86 per cent and 18.68 per cent Gross Agricultural Area over the 10th Plan achievement.
- ii) To increase the cropping intensity from the present level of 132.73 per cent to 140.45 per cent by the end of 11th Plan.
- iii) 7.97 Per cent Annual growth rate of the over all crop production and targeted 39.85 per cent increase in crop production by the end of 11th Plan over the 10th Plan achievement.

FOREST

The forest cover of the State, based on satellite data of February 2004 and January-February 2005 is 17,086 sq.kms. which is 76.53 percent of the geographical area, out of which 923 sq. kms falls under Very Dense Forest, 5,541 sq. kms. falls under Moderately Dense Forest and 10,622 sq. kms falls under Open Forest. Forest Survey of India (FSI) has reported that there has been decrease of 7 sq. kms in Very Dense Forest, 54 sq. km. in Moderately Dense Forest and 112 sq. kms. in Open Forest. Also Scrub Forest has decreased by 35 sq. kms. The decrease in forest cover is mainly due to the practice of shifting cultivation in all the hill districts and partially due to flowering of bamboo in districts of Tamenglong, Churachandpur and Chandel.

Siroy hill range in Ukhrul District, Manipur is the abode of Siroy Lily (*Lilium macklineae*), the flower which is not found elsewhere in the world. The Dzuko valley is also the only habitat of the endemic and the rare species—Dzuko Lily (*Lilium chitrangade*).

Manipur is the only spot on earth in which the Brow-antlered deer (*Cervus eldi eldi*) locally known as Sangai is found. This rare deer is surviving in its natural habitat at the Keibul Lamjoi, Bishanpur District. This habitat was declared as a national Park in the year 1977 covering an area of 40 sq. kms. It is situated at the southern end of the famous fresh water lake, the Loktak Lake, a Ramsar Site. It is unique in its own physical feature as the park lies submerged under water covered entirely on the surface by a floating entangled mass of vegetation like grass, shrubs and earth, called phumdi. The deer survives on top of this phumdi. The conservation

measures taken up by the State has led to the rise of Sangai population from a mere 14 animals in the year 1975 to 180 in the year 2003.

The other area already declared as protected areas besides Keibul Lamjao National Park is the Yangoupokpi—Lokchao Wildlife Sanctuary with an area of 184.40 sq. kms. It is situated at Chandel District and is located on the Indo-Malayan Zoogeographical Zone. The Malayan sun bear is found in this wildlife sanctuary.

The State is very rich in bio-diversity; large areas are still virgin forests. These are the habitats of very rare plants of rich medicinal value like *Taxus baccata*, ginseng, etc. To give an impetus to Medicinal Plants, the State Government hosted an International Conclave on Medicinal Plants for ASEAN and BIMSTEC countries at Imphal during 11-13 December, 2008 where delegates from 12 countries viz. Bangladesh, Bhutan, Brunei Darussalam, Cambodia, India, Indonesia, Laos, Malaysia, Nepal, Sri Lanka, Thailand and Vietnam participated and presented papers. The conclave was the first of its kind in the State of Manipur. Manipur is also the home of many rare orchids and ferns.

IRRIGATION

Major and Medium Irrigation had been introduced in the State from 1980. So far 8 (eight) Major and Medium Irrigation & Multipurpose Project have been taken up of which 5 (five) projects viz. Loktak Life Irrigation Project, Khoupum Dam Project, Imphal Barrage Project, Sekmai Barrage Project and Singda Multipurpose Project were completed by the end of VIIIth Plan. By the end of Eight Plan period, only about 67,546 ha. has been brought under irrigation of which Major and Medium irrigation projects contributed 28,150 ha. and Minor Irrigation contributed 39,396 ha.

At present, three Major and Medium Irrigation Projects viz. Khuga Multipurpose Project, Thoubal Multipurpose Project and Dolaithabi Barrage having large irrigation potential are being undertaken. Unless these projects are completed, the desired level of irrigation facilities cannot be provided to achieve the desired level of agricultural growth. Hence, the priority of the State is to complete these ongoing projects. Thoubal Multipurpose Project has been partially completed and 4,000 ha of irrigation potential has been created.

On completion of the ongoing projects with modernization of the completed projects an ultimate annual irrigation of 1,06,950 ha. water supply of 19 MGD and power generation of 9.75 MW will accrue to the State.

COMMERCE & INDUSTRIES

Handloom industry is the largest cottage industry providing maximum number of employment after agriculture in the state. This industry has been flourishing since time immemorial. It remains an important source of income especially for womenfolk of the State. The traditional skill of handloom weaving is not only a status symbol for the womenfolk but also an indispensable aspect of the socio-economic life. Food Processing is another popular industry in Manipur. In view of the importance of the industry. State Government has established a Food Processing Training Centre and Food Processing Processing Training Hall at Imphal. A Food Park at Nilakuthi, Imphal East District is in good progress and it will provide common facilities like cold storage, weigh bridge, warehousing, post office, banks, power & Water supply to 60 Food Processing Units.

Indo-Myanmar Border Trade through Lan Custom Station, Moreh was opened on 12th April, 1995. The opening of Border Trade has been providing large scale employment to many families in the State. The Department of Commerce and Industries of the State Government has been acting as a liaisoning agent for promotion and development of the Border Trade. To promote Border Trade, the Warehouse, Conventional Hall and Stay Facility Centre have been set up a border town Moreh. The director General of Foreign Trade (G & T) Camp office has been opened in the Directorate of Commerce & Industries Complex, Imphal. Among the other thrust areas, State Govt. contemplates to the setting up of an Integrated Check Post at Moreh under the initiative of Ministry of Home Affairs. Land acquisition for 45.50 acre of land within the Custom's notified area for construction of Integrated Check Post at Moreh is under active process to facilitate export-import. The State Government has facilitated the visit of a trade delegation from Manipur to Myanmar and the visit of the representative of the Embassies of Czech Republic and Thailand in connection with the development of import and export. Actions have been taken to carry out base-level survey for export-import potential of Manipur.

POWER

The power supply of the State of Manipur depends upon the Central Sector Generating Stations located in the North Eastern Region. They are :

1. Loktak Hydro Electric Project of National Hydroelectric Power Cooperation Ltd. (NHPC).
2. Kopili HE Project of North Eastern Electric Power Corporation Ltd. (NEEPCO).
3. Khandong HE Project (NEEPCO).
4. Doyang HE Project (NEEPCO).
5. Ranganadi HE (NEEPCO).
6. AGBPP, Kathalguri (NEEPCO).
7. AGTPP, Ramchandranagar (NEEPCO).
8. Baramura Gas Thermal Project (TSECL).

Except during monsoon, most of the generating stations operate below installed capacity, reducing power allocation to the State. At present, Manipur is allocated about 40 to 50 MW in the day time and 70-90 MW during load hour against the demand of 100 MW and 150 MW during the day time and peak hour respectively.

Manipur has substantial hydro power potential of more than 1800 MW, which is sufficient not only to meet the local requirement for domestic and industrial uses but leaves surplus for marketing outside. Some major power projects which are at different stages of implementation are :

1. The Loktak Down Stream Hydro-Electric Project (2x33 MW) is being implemented through a Joint Venture Company (JVC) of NHPC and State Government with 74.26 equity share participation and may be operational during the 12th plan period.
2. The Tipaimukh Hydro-Electric Project (1500 MW) a Special Purpose Vehicle (SPV) of NHPC Ltd. (69% Equity Share), SJVNL (26% Equity Share) and Government of Manipur (5% Equity Share) is being taken up and may be operational during the 12th plan period.

3. Survey and investigation of the Irang Hydro Electric Project (15x4 MW) is in the advance stage.
4. Survey and investigation of the Tuivai Hydro Electric Project (17x3 MW) is expected to be completed during 2010-11.

TRANSPORT

Roads: The total length of roads in Manipur by 2008 including National Highways, NEC, BRTF & Roads under Rural Development, was 12618 km. Out of this total road length, the surfaced length is 5443 Km.

3 National Highways : i) NH-39, ii) NH-53 and iii) NH-150 criss-cross the State connecting all Districts. Imphal the capital of Manipur is joined by NH-39 with Nagaland on the North and Myanmar on the east, on the west with Assam by NH-53 and Mizoram on the south by NH-150.

The Saurashtra-Silchar Super Highway Project is being extended to Moreh. With the proposed Moreh to Mae Sot (Thailand) Highway coming up, Manipur will become the gateway to South-East Asia.

Aviations : Imphal Airport is the second largest airport in the North Eastern Region. Imphal is connected to Aizwal, Guwahati, Kolkata, Silchar and New Delhi by Indian Airlines, Jet Airways, Indigo and Air Deccan and Alliance Air. New flights from carrier like Spicejet and Kingfisher.

Imphal Airport is being upgraded into the status of International Airport for which process of land acquisition work has already been taken up. A "dedicated airline" for NE Region, particularly for connectivity within the NE States is under consideration of NEC/DoNER.

Railways: The State is include in the railway map of India with opening of a rail head at Jiribam in May, 1990. It is 225 km from Imphal. Dimapur (Nagaland), 215 kms. from Imphal is the nearest rail-head.

The Jiribam - Tupul Railway line has been declared as a National Project. Construction of the Line has started with completion of 68 kms. survey. It is targeted for completion by 2014. Further, the Line will be extended from Tupul to Imphal.

FESTIVALS

A year in Manipur represents a cycle of festivities. Hardly a month passes by without a festival which to the Manipuris is a symbol of their social, cultural and religious aspirations. Important festivals of the State are : Lai Haraoba, Rasa Leela, Cheiraoba, Ningol Chak-Kouba, Rath-Jatra, Idul Fitre, Imoinu Iratpa, Gaan-Ngai, Lui-Ngai-Ni, Idul Zuha. Yaoshang (Holi), Durga Pujah, Mera Houchongba, Diwali, Kut, Christmas, etc.

TOURIST CENTRES

Blessed with a salubrious climate and landscapes languishing in natural beauty and scenic splendour, the state extends to the tourists a warm welcome to visit again and again. Some important tourist centres in the State are : Kangla, Shree Shree Govindajee Temple, Khwairamband Bazar (Ima Keithel), War Cemeteries, Shaheed Minar, Npi Lan (Women's War) Memorial Complex, Khonghampat Orchidarium, INA Memorial (Morang), Loktak Lake, Keibul Lamjao National Park, Bishnu Temple at Bishnupur, Sendra, Moreh, Siroy village, Siroy Hills, Dzuko Valley, State Museum,

Kaina tourist Home, Khongjom War Memorial Complex, India Peace Memorial (Red Hill) etc.

GOVERNMENT

<i>Governor</i>	: Shri Gurbachan Jagat	<i>Chief Secretary</i>	: Shri D.S. Poonia, IAS
<i>Chief Minister</i>	: O. Ibobi Singh	<i>Jurisdiction of High Court</i>	: A permanent bench of the Guwahati High Court, Imphal Bench started functioning from 14 March 1992. The Chief Justice of India laid foundation stone for construction of a new High Court Complex on 30th April, 2006
<i>Speaker</i>	: Dr. Sapam Budhichandra Singh		

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.N.	District	Area	Population	Headquarters
1.	Senapati	3,271	2,83,621	Senapati
2.	Ukhrul	4,544	1,40,778	Ukhrul
3.	Chandel	3,313	1,18,327	Chandel
4.	Churachandpur	4,570	2,27,905	Churachandpur
5.	Tamenglong	4,391	1,11,499	Tamenglong
6.	Imphal (West)	519	4,44,382	Lamphel
7.	Imphal (East)	709	3,94,876	Porompat
8.	Thoubal	514	3,64,140	Thoubal
9.	Bishnupur	496	2,08,368	Bishnupur

MIZORAM

<i>Area</i>	: 21,081 sq km	<i>Population</i>	: 8,91,058
<i>Capital</i>	: Aizawl	<i>Principal Languages</i>	: Mizo and English

HISTORY AND GEOGRAPHY

Mizoram is a mountainous region which became the 23rd state of the Indian Union in February 1987. It was one of the districts of Assam till 1972 when it became a Union Territory. After being annexed by the British in 1891, for the first few years, Lushai Hills in the north remained under Assam while the southern half remained under Bengal. Both these parts were amalgamated in 1898 into one district called Lushai Hills District under the Chief Commissioner of Assam. With the implementation of the North-Eastern Reorganisation Act in 1972, Mizoram became a Union Territory and as a sequel to the signing of the historic memorandum of settlement between the Government of India and the Mizo National Front in 1986, it was granted statehood on 20 February 1987. Sandwiched between Myanmar in the east and the south and Bangladesh in the west, Mizoram occupies an area of great strategic importance in the north-eastern corner of India. Mizoram has great natural beauty and an endless variety of landscape. It is rich in fauna and flora.

The origin of the word 'Mizo' is not known. The Mizos came under the influence of the British Missionaries in the 19th Century. Now most of the Mizos are Christians. Mizo language has no script of its own. The missionaries introduced the Roman script for the Mizo language and formal education. Literacy in the state has grown rapidly, and Mizoram literacy at 88.8 per cent today, is the second highest in the country. The state government is striving hard to attain the top position in the near future.

AGRICULTURE

About 80 per cent of the people of Mizoram are engaged in agricultural pursuits. The main pattern of agriculture followed is Jhum or Shifting cultivation. Of the total 21 lakh ha. of land estimated, 6.30 lakh hectares of land is available for cultivation of horticulture crops. The existing area under different horticulture crops account for about 4127.6 hectares, which is only 6.55 per cent of the estimated potential area. This indicates the vast scope for horticulture crops to flourish in Mizoram. The main horticulture crops are Mandarin Orange, Banana, Passion Fruit, Grapes, Hatkora, Pineapple, Papaya, etc., and flowers like Anthurium, Bird of Paradise, Orchid, Chrysanthemum, Rose and other subsidiary seasonal flowers. Spices like Ginger, Turmeric, Black Pepper and Bird's eye Chillies are also grown. People have also started extensive cultivation of oil palm, medicinal and aromatic plants.

IRRIGATION

The ultimate surface irrigation potential is estimated at 70,000 hectares of which 45,000 hectares is under flow and 25,000 hectares by construction and 70 pucca minor irrigation projects and six lift irrigation projects for raising double and triple crops in a year are nearing completion.

INDUSTRY

The entire Mizoram is a Notified Backward Area and was categorised under 'No Industry District' in mid seventies. With the announcement of State Industrial Policy 1989, few modern small-scale industries have come up during the past decade. To further accelerate growth of industries, a New Industrial Policy of Mizoram was announced in the year 2000. The Policy identified thrust areas like Electronics and Information Technology, Bamboo and Timber based products, Food and Fruit Processing, Textiles, Handloom and Handicrafts, etc.

In order to attract investment from outside the state, the Policy permits joint venture for all large, medium and small scale industries with local partners. Infrastructural development like Industrial Growth Centre (IGC) at Luangmual, Aizawl, Export Promotion Industrial Park (EPIP) at Lengte, Integrated Infrastructural Development Centre (IIDC) at Pukpui, Lunglei and Food Park at Chhingchhip are nearing completion, apart from upgradation of the existing industrial estates.

Scientific cultivation of Tea has also been taken up. Establishment of Apparel Training and Design Centre, Gems cutting and polishing are in the pipeline to encourage setting up of Export Oriented Units (EOUs). Of the cottage industries, Handloom and Handicrafts are given high priority and the two sectors are flourishing to meet consumers demand in the state and in the neighbouring states of Meghalaya, Nagaland, etc.

With the opening up of border trade with Myanmar and Bangladesh, and the 'Look East Policy' of the Government of India coupled by peaceful condition of the state, Mizoram will no more be a remote corner state of the country, and as a result of which industrialisation will substantially gain momentum in the near future.

POWER

Construction of Tuirial HEP (60 MW) is in progress. Survey and investigation works of Kolodyne HEP (500 MW) has been completed by CWC. This project provides inland water transport facilities for the region besides generating 500 MW of power and the Government of Mizoram has given paramount importance to it. 3 MW capacity Tuipanglui and Kau-Tlabung SHPs were commissioned recently thus enhancing the state's hydro generation by 15 MW capacity. Works on Maicham-II (3MW), Serlui 'B' (12MW) and Lamsial (0.5 MW) SHPs are in progress and expected to be commissioned during 2007.

A Total of 695 villages have been electrified and 709 km of 132 kv line completed.

TRANSPORT

Total road length in the state is 5,982.25 km (BRO & State PWD). Rail link in the state has been established at Bairabi. Aizawl is connected by air. In order to have a better connectivity, the Government has undertaken the Mizoram State Roads Projects with a total cost of Rs 350 crore under funds provided by the World Bank. Connectivity under PMGSY covering a total length of 2,421 km connecting 384 villages of Mizoram is making steady progress.

FESTIVALS

Mizos are basically agriculture oriented. All their activities centre around jhum cultivation and their festivals are linked with such agricultural operations. Kut is the Mizo term for festival. Among the various cultural festivals, only three viz. *Chapchar Kut*, *Mim Kut* & *Thalfavang Kut* are observed today.

TOURIST CENTRES

Aizawl, located at nearly 4,000 ft. above sea level, is a religious and cultural centre of Mizoram. Champhai is a beautiful resort on the Myanmar border. Tam Dil, a natural lake with virgin forests, is 80 km from Aizawl and 10 km from Tourist Resort of Saitual. Vantawng Falls, 5 km from the town of Thenzawl, is the highest and most beautiful waterfall in Mizoram. The department of Tourism has opened Tourist Lodges in all the bigger towns all over the state, and Highway Restaurants and Travellers' Inns in other townships. There is also a Recreational Centre at Beraw Tlang, Aizawl and Alpine Picnic Hut at District Park near Zobawk.

GOVERNMENT

<i>Governor</i>	: Lt. Gen. (Retd.) M.M. Lakhera	<i>Chief Secretary</i>	: Hauzel Haukhum
<i>Chief Minister</i>	: P.V. Lalthanhawla	<i>Jurisdiction of High Court</i>	: Falls under the jurisdiction of Guwahati High Court. There is a bench at Mizoram.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Aizawl	3,576.31	3,39,812	Aizawl
2.	Lunglei	4,538.00	1,37,155	Lunglei
3.	Chhimituipui	1,399.90	60,823	Saiha
4.	Lawngtlai	2,557.10	73,050	Lawngtlai
5.	Champhai	3,185.85	1,01,389	Champhai
6.	Kolasib	1,282.51	60,977	Kolasib
7.	Mamit	3,025.75	62,313	Mamit
8.	Serchhip	1,421.60	55,539	Serchhip

NAGALAND

<i>Area</i>	: 16,579 sq kms	<i>Population</i>	: 19,88,636
<i>Capital</i>	: Kohima	<i>Principal Languages</i>	: Angami, Ao, Chang, Konyak, Lotha, Sangtam, Sema and Chakhesang.

HISTORY AND GEOGRAPHY

Nagaland, the 16th State of the Indian Union, was established on 1 December 1963. It is bound by Myanmar on the East, Arunachal on the North, Assam on the West and Manipur on the South. It lies between the parallels of 98 degree and 96 degree East Longitude and 26.6 degree and 27.4 degree latitude North of the Equator.

The State of Nagaland has an area of 16.579 sq kms with a population of 19,88,636 as per the 2001 census. The State is mostly mountainous except those areas bordering Assam valley. Mount Saramati is the highest peak in Nagaland with a height of 3,840 metres and its range forms a natural barrier between Nagaland and Myanmar.

The Nagas belong to the Indo-Mongoloid group of people living in the contiguous areas of the North Eastern hills of India and the upper portion of Western Myanmar. The major-recognised tribes of Nagaland are Angami, Ao, Chakhesang, Chang, Khiamniungan, Kuki, Konyak, Lotha, Phom, Pochury, Rengma, Sangtam, Sumi, Yimchungru and Zeliang. The Naga languages differ from tribe to tribe and sometimes even from one village to another. They are, however, under the Tibeto-Burma family.

In the 12th and 13th centuries, gradual contacts with the Ahoms of present day Assam was established but this did not have any significant impact on the traditional Naga way of life. However, in the 19th Century the British appeared on the scene and ultimately the area was brought under British Administration. After Independence this territory was made a centrally administered area in 1957 administered by the Governor of Assam. It was known as the Naga Hills Tuensang Area. This failed to quell popular aspirations and unrest began. Hence, in 1961, the

area was renamed as Nagaland and given the status of State of the Indian Union, which was formally inaugurated on 1 December 1963.

AGRICULTURE

Nagaland is basically a land of agriculture. About 70 per cent of the population depends on agriculture. The contribution of agricultural sector in the state is very significant. Rice is the staple food. It occupies about 70 per cent of the total area under cultivation and constitutes about 75 per cent of the total food production in the state.

The major land use pattern is *slash* and *burn* cultivation locally known as Jhum. Area under jhum cultivation and terraced cultivation is about 1,01,400 hectares. The total food production during the year was 3,86,300 MT.

Out of the total land area of 16,57,587 hectares, forest area occupies approximately 8,35,436. There are wild life sanctuaries and national parks, namely, Intanki and Puliebadze in Kohima District, Fakim in Tuensang and Rangapahar in Dimapur.

POWER

According to the 1981 census, Nagaland achieved cent per cent electrification in the rural areas. Nagaland has so far achieved 100 per cent village electrification reaching even the remotest village of the state.

IRRIGATION

There is no major or medium irrigation project so far constructed in the state. The irrigation works are mostly meant to divert small hill streamlets to irrigate valleys used for rice cultivation. The total area under irrigation covers 93,231.43 hectares.

TRANSPORT

Roads : The total length of roads in Nagaland is 9,860 km which includes national highway, state highways, district and village roads.

Railways/Aviation : Dimapur is the only place in the state from where air and train services are available.

FESTIVALS

Music and dances are an intrinsic part of Naga life. Folk songs and ballads eulogizing bravery, beauty, love, generosity, etc., are transmitted from generation to generation. Likewise dancing is an important part of every festive occasion. Feasting, singing, dancing and merrymaking invariably accompany festivals. Some of the important festivals are Sekrenyi, Moatsu, Tokhu Emong and Tuluni.

TOURISM

With the opening of the state to the international tourist by relaxation of Restricted Area Permit (RAP), a good number of foreign tourists as well as domestic tourists visit Nagaland every year.

The HORNBILL festival conceived by the Tourism Department and held in the first week of December is an annual event where all tribes of Nagaland come together to celebrate, exhibit and sell their traditional wares, foodstuffs and crafts. Three traditional festivals, namely Sekrenyi at ToupHEMA in Kohima District (Feb 26-27), Monyu at Pongo in Longleng Sub-division (April 1-3) and *Moatsu* at Chuchuyimlang in Mokokchung district (May 1-3) have been identified as festival destinations.

INDUSTRIES

The process of industrialisation in the state is in its infancy, but the need to have more industries has been well recognized. Nagaland Mechanised Bricks Co. Ltd., in Dimapur with one lakh capacity of bricks per day has been commissioned. Handloom and Handicrafts are important cottage capacity industries, which are mainly being managed by cooperative societies. The Nagaland Handloom and Handicrafts Development Cooperation Ltd. in Dimapur is the state owned corporation, which is responsible for the promotion and marketing of handloom and handicraft products in the state. An industrial growth centre at Ganeshnagar near Dimapur is ready for operation.

The Nagaland Industrial Development Corporation is the premier promotional organisation in providing guidance and capital assistance to entrepreneurs. The fruits and vegetables processing and cold storage plant at Dimapur has an installed capacity of processing 5 MT of fruits and vegetables per day and 3000 MT cold storage facility.

GOVERNMENT

<i>Governor</i>	: Shyamal Dutta	<i>Chief Secretary</i>	: Lal Huma
<i>Chief Minister</i>	: Neiphiu Rio	<i>Jurisdiction of High Court</i>	: Falls under Guwahati High Court. There is a bench at Kohima.

AREA, POPULATION AND DISTRICT HEADQUARTERS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Kohima	3,144	3,14,366	Kohima
2.	Mokokchung	1,615	2,27,320	Mokokchung
3.	Mon	1,876	2,59,604	Mon
4.	Tuensang	4,228	4,14,801	Phek
5.	Zunheboto	1,255	1,54,909	Tuensang
6.	Wokha	1,628	1,61,098	Wokha
7.	Dimapur	927	3,08,382	Dimapur
8.	Phek	2,026	1,48,246	Phek

ORISSA

<i>Area</i>	: 1,55,707 sq km	<i>Population</i>	: 36,804,660
<i>Capital</i>	: Bhubaneswar	<i>Principal Language</i>	: Oriya

HISTORY AND GEOGRAPHY

Orissa, the land of Oriyas, was known as Kalinga in ancient days. In the third century BC (261 BC) Ashoka the Mauryan emperor, sent a powerful force to conquer Kalinga

which offered stubborn resistance. Kalinga was subdued but the carnage which followed, struck Ashoka with remorse. After the death of Ashoka, Kalinga regained its independence. In the second century BC, it became a powerful country under Kharavela. With the death of Kharavela, Orissa passed into obscurity. In the fourth century AD, Samudragupta invaded Orissa which lay astride his path and overcame resistance offered by five of its kings. In 610 AD, Orissa came under the sway of King Sasanka. After Sasank's death, Harsha conquered Orissa.

Orissa had its own rulers (Ganga dynasty) in the seventh century AD. In 795 AD, Mahasivagupta Yajati II came to the throne and with him began the most brilliant epoch in the history of Orissa. He united Kalinga, Kangoda, Utkal and Koshala in the imperial tradition of Kharavela. Under the kings of Ganga dynasty, Orissa continued to flourish. Narasingha Dev of this dynasty is reputed to have built the unique Sun Temple of Konark. From mid-16th Century, Orissa was ruled successively by five Muslim kings till 1592, when Akbar annexed it into the Mughal empire. With the decline of the Mughal empire, Marathas occupied Orissa. They continued to hold it till the British took over in 1803.

Orissa was made into a separate province on 1 April 1936. After Independence, princely states in and around Orissa surrendered their sovereignty to the Government of India. By the States Merger (Governor's provinces) Order, 1949 the princely states of Orissa were completely merged with the state of Orissa in January 1949. Although the state of Orissa had many ancient names like Kalinga, Utkal and Udra, it is widely known as the land of Lord Jagannath. Lord Jagannath is intimately connected with the social, cultural and religious life of Orissa. Jainism, Islam and Christianity have had considerable impact on the people of Orissa in different periods.

Orissa is situated in the north-eastern part of the Indian peninsula. It is bound by the Bay of Bengal on the east, West Bengal on the north-east, Jharkhand on the north, Chhattisgarh on the west and Andhra Pradesh on the south. The state may be broadly divided into four geographical regions-the northern plateau, central river basin, eastern hills and coastal plains.

AGRICULTURE

Agriculture occupies a vital place in the economy of the State. It contributes 26 per cent of the net domestic product of the state. 65 per cent of the total work force directly or indirectly engaged in agriculture. The production of foodgrains has fluctuated over the years. This is due to various natural calamities. However, during 2006-07, about 73.45 lakh MT of food grains were produced in the State. Paddy is the principal food grain and its production during 2006-07 was 10341 TMT. Sugarcane cultivation has been widely accepted by the farmers.

IRRIGATION

Irrigation is one of the key factors not only to stabilize agricultural production but also to encourage farmers to go for higher application of inputs and adoption of most modern technology to increase production. By the end of year 2006-07 about 28.31 lakh hectares of land has been brought under irrigation.

POWER

The total power generation in states sector during 2005-06 was 3095 MUs. Out of 46,989 inhabited villages in the state 38,044 village have been electrified till the end of March-2006.

INDUSTRY

The Industrial Promotion and Investment Corporation Limited (IPICOL), Industrial Development Corporation Limited (IDCOL) and Orissa State Electronics Development Corporation (OSEDG) are the three nodal agencies for promotion of large and medium industries in the State. To accelerate the pace of Industrial Development MoUs for investment of over 4 lakh crores signed with reputed national and international investors in steel, aluminium and alumina, petrochemical, I.T. and ITES, Thermal Power Generation and other sectors. the state is also providing institutional and financial support with various incentives and concessions for promotino of small-scale, village and cottage industries. By the end of 2006-2007, there were about 4550 micro, small and medium enterprises production with an investment of Rs. 271.14 crore providing employment opportunities for 20,839 persons.

TRANSPORT

During 2006-07 the total road length of the state comprising 3,596 kms National Highway, 29 kms State Express Highway, 3855 kms State Highway, 3842 kms of Major District Roads, 6,515 kms of other District Roads, 27,284 kms Rural Roads, 20,314 kms Panchayat Samiti Roads, 1,39,942 kms Gram Panchayat Roads, 7,298 kms Forest Roads, 17,282 kms Urban Roads, 6,277 kms Irrigation Roads and 88 kms GRIDCO road.

Railways : The State had 2339 kms of railway route including 54 kms of narrow gauge . There are 234 railway stations and 127 Passenger halts in the State.

Aviation : Ministry of Civil Aviation, Government of India has taken up expansion and modernisation of Bhubaneswar Air Port (Biju Patnaik Air Port) in view of its geographical, tourist and commercial importance. Flights from Bhubanewswar to cities like Delhi, Kolkata, Chennai, Hyderabad, Bangalore and Mumbai are available.

Ports : Among the 11 major ports in the country, Paradeep is the only port belonging to Orissa. Besides, construction of mega port of international standard at Dhamra has now commenced. Gopalpur is going to be an all-weather Port for which work has already started. Several port developers have also shown interest in putting up all-weather port at Subarnarekha mouth (Kirtania) in Balasore and Devi mouth at Astaranga. With the development of these ports Orissa's coastline will be a major hub of international trade.

GOVERNMENT

<i>Governor</i>	: Muralidharan Chandrakanta	<i>Chief Secretary</i>	: Shri Ajit Kumar Tripathy Bhandare
<i>Chief Minister</i>	: Naveen Patnaik	<i>Chief Justice</i>	: Dr. Balbir Singh Chauhan
<i>Acting Speaker</i>	: Prahallad Dora	<i>Jurisdiction of High Court</i>	: Orissa

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Angul	6,375	11,40,003	Angul
2.	Balasore	3,806	20,24,508	Balasore
3.	Bolangir	6,575	13,37,194	Bolangir
4.	Boudh	3,098	37,33,72	Boudh
5.	Bhadrak	2,505	13,33,749	Bhadrak
6.	Bargarh	5,837	13,46,336	Bargarh
7.	Cuttack	3,932	23,41,984	Cuttack
8.	Deogarh	2,940	2,74,108	Deogarh
9.	Ganjam	8,206	31,60,635	Chhatrapur
10.	Dhenkanal	4,452	10,66,878	Dhenkanal
11.	Gajapati	4,325	51,18,837	Parlakhemundi
12.	Jagatsinghpur	1,668	10,57,629	Jagatsinghpur
13.	Jajpur	2,899	16,24,341	Jajapur Town
14.	Jharsuguda	2,081	5,09,716	Jharsuguda
15.	Keonjhar	8,303	15,61,990	Keonjhar
16.	Kalahandi	7,920	13,35,494	Bhawanipatna
17.	Koraput	8,807	11,80,637	Koraput
18.	Kendrapara	2,644	13,02,005	Kendrapara
19.	Khurda	2,813	18,77,395	Khurda
20.	Mayurbhanja	10,418	22,23,456	Baripada
21.	Malkangiri	5,791	5,04,198	Malkangiri
22.	Nawarangpur	5,291	10,25,766	Nawarangpur
23.	Nayagarh	3,890	8,64,516	Nayagarh
24.	Nuapada	3,852	5,30,690	Nuapada
25.	Puri	3,479	15,02,682	Puri
26.	Kandhamal	8,021	6,48,201	Phulbani
27.	Rayagada	7,073	8,31,109	Rayagada
28.	Sambalpur	6,657	9,35,613	Sambalpur
29.	Sundargarh	9,712	18,30,673	Sundargarh
30.	Sonepur	2,337	5,41,835	Sonepur

PUNJAB

<i>Area</i>	: 50,362 sq km	<i>Population</i>	: 2,43,58,999
<i>Capital</i>	: Chandigarh	<i>Principal Language</i>	: Punjabi

HISTORY AND GEOGRAPHY

Ancient Punjab formed part of the vast Indo-Iranian region. In later years it saw the rise and fall of the Mauryas, Bactrians, Greeks, Sakas, Kushans and Guptas. Medieval

Punjab saw a supremacy of the Muslims. Ghaznavi was followed by the Ghoris, the slaves, the Khiljis, the Tughlaks, the Lodhis and the Mughals. Fifteenth and sixteenth centuries marked a period of watershed in the history of Punjab. Through teachings of Guru Nanak, Bhakti movement received a great impetus. Sikhism began as a socio-religious movement, which was more interested in fighting evils in religion and society. It was Guru Gobind Singh, the tenth Guru, who transformed the Sikhs into the Khalsa. They rose to challenge tyranny and after centuries of servitude, established a humane Punjabi Raj based on secularism and patriotism. Maharaja Ranjit Singh, in the works of a Persian writer, changed Punjab from Madam Kada to Bagh-Bahist (from the abode of sorrow to the garden of paradise). But soon after his death the entire edifice collapsed due to internal intrigues and British machinations. After two abortive Anglo-Sikh wars, Punjab was finally annexed to the British Empire in 1849.

The fight against the British rule had begun long before Mahatma Gandhi's arrival on the scene. The revolt found expression through the movement of a revivalist or reformist character. First, it was the Namdhari sect, which believed in self-discipline and self-rule. Later, it was Lala Lajpat Rai who played a leading role in the Freedom Movement. Punjab was in the vanguard of India's freedom struggle on all fronts in India and abroad. Punjab's hardships did not end with Independence. It had to face the misery of Partition with large-scale bloodshed and migration. Besides their rehabilitation, there was the task of reorganisation of the State.

Eight princely states of East Punjab were grouped together to form a single state called PEPSU—Patiala and the East Punjab States Union—with Patiala as its capital. PEPSU state was merged with Punjab in 1956. Later in 1966, Haryana was carved out of Punjab and during the same year the erstwhile capital of Punjab was shifted from Shimla to Chandigarh.

Situated in the north-western corner of the country, Punjab is bound on the west by Pakistan, on the north by Jammu and Kashmir, on the north-east by Himachal Pradesh and on the south by Haryana and Rajasthan. There are 13 Members of Parliament from Punjab and 117 Members of Legislature are elected to form the state Government.

AGRICULTURE

The State has 84% of its total geographical area (50.33 lakh hectares) under cultivation. The cropping intensity is around 189% with over 97% of the cultivable area being under assured irrigation. The State produces 20% of the country's wheat, 11% rice, 13% cotton and contributes significantly to the Central Pool with about 50% wheat and 40% rice. The paddy and wheat productivity in the State is 4022 kg/ha and 4450 kg/ha against the national average of 2173 kg/ha and 2868 kg/ha respectively. Fertilizer consumption at 225 kg/ha is almost two times higher than the national average of 113 kg/ha. The State's farm economy is highly mechanized owing 18% of the country's tractors. During 2008-09 the production of Paddy was 167 lakh mt against which 132.18 lakh mt was procured and production of wheat was 157 lakh mt against which a record 109.84 lakh mt was procured.

INDUSTRY

There are 1.54 lakh small-scale and 375 large and medium units in the state of Punjab as on 31/3/2009. These units produce bicycle parts, sewing machines, hand tools,

machine tools, auto parts, electric good items, sports goods, surgical instruments, leather goods, hosiery, knitwear, nuts and bolts, textile goods, textile, sugar, vegetable oil, etc., giving employment to about 11.69 lakh persons. S.A.S Nagar, (Mohali) in the vicinity of Chandigarh has emerged as an attractive destination for IT and IT enabled industries. Under the Industrial Infrastructure Upgradation Scheme (IIUS), Government of India has approved Machine Tools Cluster at Batala. Government of India is yet to approve the proposals for setting up of Hand Tool Cluster at Jalandhar and Common Facility Centre for Knitwear and Apparel Exporters Organization, at Ludhiana. State Government proposes to set up three more clusters namely steel Rolling Mills Cluster, Mandi Gobindgarh, Information Technology Park and Development of Spinning Industry, for these project reports are being prepared. Besides, above mentioned clusters, 22 clusters of Micro, Small & Medium industries have been identified for development in the state and have been sent to Micro Small & Medium Enterprises, Government of India, New Delhi. Out of these 13 proposals have been approved by Government of India for conducting Diagnostic Study Report.

Development of Industry has been adversely affected in the State as a result of withdrawal of Freight Equalization on coal and Iron & Steel by Government of India. This has been further compounded with grant of tax exemption to the neighbouring States of Himachal Pradesh & Jammu & Kashmir. As a result a large number of Industrial Units from Punjab have expanded their capacities by making investments in the State of Himachal Pradesh & Jammu & Kashmir.

IRRIGATION

The total Geographical area of the State is 50.36 lakh hectares, out of which about 41.74 lakh hectares area is under cultivation. After partition of the country in 1947, Indus water treaty of 1960 between India and Pakistan restricted India's right to usage to only three eastern rivers Satluj, Beas and Ravi. The State has three dams namely Bhakra Dam with storage capacity of 5.60 MAF constructed on River Satluj, Pong Dam with storage capacity 1.90 MAF constructed on River Ravi. At present the area under irrigation is 40.77 lakh hectares, which is 97.68% of the area under cultivation. The canal surface water distribution System consists of 14500 km of Canals/ Distributaries covering six major systems in the state namely: Sirhind Canal system, Bhakra Main Line, Bist Doab Canal, Upper Bari Doab Canal, Sirhind feeder and Eastern canal. 27% area is irrigated by canal surface water and 73% area by 12.82 lakh tubewells. The total length of watercourses is 1,20,000 km in the State, out of which 41,294 km watercourses has been lined so far. The canal water and electricity is being provided free of cost to the farmers in the State.

Project for remodeling of UBDC System to utilise additional water available on completion of Ranjit Sagar Dam has been completed under AIBP at a cost of Rs. 177.80 crore and benefited the 118 thousand hectares area of Amritsar and Gurdaspur district. The problem of adequate water discharge in Kasur Branch Lower and Sabraon Branch Canal System has been removed by undertaking the remodeling of their parent channel i.e., Kasur Branch Upper, thereby restoring adequate canal water supplies to the vast agricultural area of UBDC System.

It is proposed to convert Banur Canal System from non-perennial to perennial under the Project costing Rs 58.15 crore. A consolidated Project costing Rs. 299.22 crore for increasing capacity of various channels of BML Canal System,

Sirhind Feeder System, Bist Doab Canal System and Eastern Canal System has been proposed for funding by NABARD under which an additional irrigation potential of 33,000 hectares will be created.

The backward Kandi Area in Punjab has been developed by constructing 12 Low Dams with estimate cost of Rs. 420.00 crore which will further provide irrigation facilities to 12000 hectares. Similarly with the completion of Kandi canal from Talwara to Balachaur an additional area of 29640 hectares will be brought under irrigation. Besides, 1800 deep tubewells are being energized in the kandi area for irrigation purposes.

84800 hectare area is affected by water logging out of total area of 263929 Ha of three districts Ferozepur, Mukatsar and Faridkot. The impact of high water table in the southern part of state has been reduced with the construction of new drains and the maintenance of existing 8000 km of drains. Besides 1800 km of flood protection embankments and about 3800 river training works have also been completed. Installation of shallow tubewell along Sirhind Feeder in the most critical area also helped arresting the seepage from the canal. In order to arrest the menace of water logging in Ferozepur, Faridkot and Mukatsar districts by relining of Rajasthan Canal and Sirhind Feeder with an approximate cost of Rs. 1440 crore under AIBP. The central Punjab faces water depletion in 112 blocks (70%) out of 141 blocks declared dark in the central Punjab.

POWER

The present generation capacity of Punjab is 6841 MW, whereas peak unrestricted demand is about 9000 MW. There is a shortfall of 30% of peak demand. The construction of Bhakra Nangal Complex including Bhakra Dam, Bhakra Main line, Nangal Hydel Channel, Ganguwal and Kotla Power House, Harike Barrage, Sirhind Feeder, remodelling of Madhopur Headwork into barrage, etc., and Beas Dam at Pong have been some of the major Irrigation and Hydroelectric Projects which have played a significant role in enhancing the irrigation and power potential of the State. Madhopur Beas Link was constructed to transfer surplus water of Ravi to Beas. A similar Beas-Satluj Link Project envisages the utilisation of the Beas water for the production of electricity at slapper and then transferring this water to Gobind Sagar lake. The Mukerian and Anandpur Sahib Hydroelectric projects are two important irrigation and power projects.

All the four units of Ranjit Sagar Dam (4 x 150 MW) have been commissioned successfully. Annual generation from this project shall be 2,100 MUs' out of which 4.6 per cent of energy generated shall be supplied to Himachal Pradesh and 20 per cent energy generated shall be supplied to J&K at genuine cost. By the completion of this dam, water of all three rivers allocated to Punjab under Indus Water Treaty will be harnessed. About Rs 500 crore per annum has started accruing. Moreover this project is likely to cover its own cost by the next four or five years. Four new thermal Power Plant are being setup in the State namely Talwandi Sabho (1980 MW) in Bathinda district, Rajpura (1320 MW) in Patiala district, Gidderbaha (2640 MW) in Mukatsar district and Goindwal Sahib (540 MW) in Tarn Taran district.

PEDA

Punjab Energy Development Agency (PEDA) has installed about 200, 2HP Solar Photovoltaic Water Pump Sets for irrigation purposes in the state. 16 Mini Hydel

(15.85 MW) and 28 Micro Hydel (35 MW) Projects have been commissioned on BOO basis. PEDDA has also commissioned Rs. 4.5 crore, 200 kwp Solar Photovoltaic Grid Interactive Power Plant at village Khatkar, Kalan, Distt. Shahid Bhagat Singh Nagar 218.65 MW Biomass/Baggasse based cogeneration power projects have been commissioned in the State.

Punjab Energy Development Agency being the state designated agency for implementation of Energy Conservation Act 2001 in the state of Punjab, has initiated activities such as publicity and awareness of Energy Conservation/energy efficiency through print/electronic media, energy audit of building and industries, demo projects of energy efficiency in Municipal street lighting and water pumping, mandatory measure announcements, promotion of CFL/energy efficient lighting in domestic sector.

TRANSPORT

Roads : Public Works Department (Building and Roads) has been responsible for roads, bridges and buildings. The total road network length is 63833 kms., consisting of 1739 kms National Highways. 1462 kms State Highways, 5968 kms Major and other District Roads, 45000 kms Rural Link Roads, 8130 kms Urban Roads, 1534 kms Project Roads. Out of total 3400.02 kms rural roads, new construction of 815.16 kms and upgradation of 2584.86 kms under PMGSY has been completed.

Aviation : There are three Civil Aviation Clubs at Ludhiana, Patiala and Amritsar. There is a domestic Airport at Chandigarh an International Airport at Rajasansi (Amritsar and two Aerodromes at Patiala and Ludhiana (Sahnewal). Two Aviation Clubs are coming up at Faridkot and Talwandi Sabo.

FAIRS AND FESTIVALS

Besides festivals of Dussehra, Diwali, Holi, other important festivals/fairs/melas are Maghi Mela at Mukatsar, Rural Sports at Kila Raipur, Basant at Patiala, Holla Mohalla at Anandpur Sahib, Baisakhi at Talwandi Saboo, Urs at Rauza Sharif at Sirhind, Chappar Mela at Chappar, Skeikh Farid Agam Purb at Faridkot, Ram Tirath at Village Ram Tirath, Shaheedi Jor Mela at Sirhind, Harballah Sangeet Sammelan Baba Sodal at Jalandhar. In addition to above Fairs and Festivals three heritage festivals at Amritsar, Patiala, Kapurthala are also celebrated every year and are very popular among the tourists.

TOURISM

The State has a large number of places of tourist interest some of which include Golden Temple, Durgiana Mandir, Jallianwala Bagh and the Wagah Border in Amritsar, Takht Sri Kesgarh Sahib and Khalsa Heritage Complex at Anandpur Sahib, Bhakra Dam, Qila Androon, Moti Bagh Palace and Chattbir Zoo at Patiala, Wetland at Harike Pattan, Sanghol (district Fatehgarh Sahib) and Rupnagar archeological Museum at Rupnagar, Shaheed Bhagat Singh Memorial at Village Khatkar Kalan, SBS Nagar for archeological importance, Mughal Complex at Aam Khas Bagh, Rauza Sharif of Sheikh Ahmed at Graves of Afghan Rulers at Sirhind and Sodal Temple at Jalandhar, commemorative of Maharishi Balmiki Heritage.

To meet the requirement of trained manpower in tourism Industry and enhancement of employment generation the State Government has introduced the Hospitality courses in Schools, Colleges. LT.Is and Polytechnics.

In Rural areas, the scheme of Farm Tourism has been launched to provide better opportunities of employment with the assistance of District Administration. Uptill now 23 farm houses have been registered under Diamond/Gold/Silver category. Besides this, to explore the resources of the State, the project of Heritage Village is being set up at Guru Nanak Dev University, Amritsar with an estimated cost of Rs 22.00 crores. Quila Gobind Garh Fort, Amritsar which has been handed over to the State Government by the Army, is being renovated and conserved to be opened for general public. The Department of Tourism, Punjab has got prepared Tourism Master plan from the UNWTO.

PENSIONS

Punjab Government is paying monthly pension of Rs. 250/- to 12.30 lakh old persons (60 and above for women and 65 and above for men), 84,568 destitute children, 1,10,967 disabled persons and 2.14 lakh widows Rs. 468.00 crore has been allocated for 2009-10 for payment of pensions to these 16.40 lakh persons.

Under "Indira Gandhi National Old Age Pension" scheme, Rs. 200/- p.m. over and above the pension paid by the State Government is given to disabled, issueless persons, widows and destitute old persons of 65 years and above belonging to below poverty line families. 100% ACA is provided for this purpose by GOI under National Social Assistance Programme. 1,59,292 beneficiaries are covered in Punjab under this scheme.

GOVERNMENT

<i>Governor</i>	: General (Retd.) S.F. Rodrigues	<i>Chief Secretary</i>	: K.R. Lakhanpal
<i>Chief Minister</i>	: Sardar Prakash Singh Badal	<i>Jurisdiction of High Court</i>	: Punjab, Haryana and Chandigarh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population (P)	Headquarters
1.	Amritsar	5,075	30,96,077	Amritsar
2.	Bhatinda	3,377	11,83,295	Bathinda
3.	Faridkot	1,472	5,50,892	Faridkot
4.	Fatehgarh Sahib	1,180	5,38,041	Fathegarh Sahib
5.	Ferozepur	5,865	17,46,107	Ferozepur
6.	Gurdaspur	3,570	21,04,011	Gurdaspur
7.	Hoshiarpur	3,310	14,80,376	Hoshiarpur
8.	Jalandhar	2,658	19,62,700	Jalandhar
9.	Kapurthala	1,646	7,54,521	Kapurthala
10.	Ludhiana	3,744	30,32,831	Ludhiana
11.	Mansa	2,174	68,87,558	Mansa
12.	Moga	1,672	8,94,854	Moga
13.	Muktsar	2,596	7,77,493	Muktsar
14.	Nawan Shehar	1,258	5,87,468	Nawan Shehar

15.	Patiala	3,627	18,44,934	Patiala
16.	Roop Nagar	2,117	11,16,108	Roop Nagar
17.	S.A.S. Nagar	1,093	6,98,317	Roop Nagar
18.	S.B.S. Nagar	1,267	5,87,468	Roop Nagar
19.	Sangrur	5,021	20,00,173	Sangrur
20.	Tarn Taran	2,449	9,39,057	-

RAJASTHAN

<i>Area</i> : 3,42,239 sq km	<i>Population</i> :	5,64,73,122
<i>Capital</i> : Jaipur	<i>Principal Languages</i> :	Hindi and Rajasthani

HISTORY AND GEOGRAPHY

Rajasthan, the largest State in India area-wise prior to Independence was known as Rajputana. The Rajputs, a martial community ruled over this area for centuries.

The history of Rajasthan dates back to the pre-historic times. Around 3,000 and 1,000 BC, it had a culture akin to that of the Indus Valley civilisation. The Chauhans who dominated Rajput affairs from seventh century and by 12th century they had become an imperial power. After the Chauhans, it were the Guhilots of Mewar who controlled the destiny of the warring tribes. Besides Mewar, the other historically prominent states were Marwar, Jaipur, Bundi, Kota, Bharatpur and Alwar. Other states were only offshoots of these. All these states accepted the British Treaty of Subordinate Alliance in 1818 protecting the interest of the princes. This naturally left the people discontented.

After the revolt of 1857, the people united themselves under the leadership of Mahatma Gandhi to contribute to the freedom movement. With the introduction of provincial autonomy in 1935 in British India, an agitation for civil liberties and political rights became stronger in Rajasthan. The process of uniting scattered states commenced from 1948 to 1956 when the States Reorganisation Act was promulgated. First came Matsya Union (1948) consisting of a fraction of states, then, slowly and gradually other states merged with this Union. By 1949, Major states like Bikaner, Jaipur, Jodhpur and Jaisalmer joined this Union making it the United State of Greater Rajasthan. Ultimately in 1958, the present State of Rajasthan formally came into being, with Ajmer state, the Abu Road Taluka and Sunel Tappa joining it.

The entire western flank of the state borders with Pakistan, while Punjab, Haryana, Uttar Pradesh and Madhya Pradesh bound Rajasthan in north-east, south-east and Gujarat in south-west.

AGRICULTURE

Total cultivable area in the State is 225 lakh hectares (2008-2009). The estimated food grain production is 161.80 lakh tonnes (2008-09). Principal crops cultivated in the State are rice, barley, jowar, millet, maize, gram, wheat, oilseeds, pulses, cotton and tobacco. Cultivation of vegetable and citrus fruits such as orange and malta has also picked up over last few years. Other crops are red chillies, mustard, cumin seeds, fenugreek methi and asfoetida hing.

INDUSTRY AND MINERALS

Endowed with a rich culture, Rajasthan is also rich in minerals and is fast emerging on the industrial scenario of the country. Some of the important Central undertakings are Zinc Smelter Plant at Devari (Udaipur), Copper Plant at Khetri Nagar (Jhunjhunu) and Precision Instrument Factory at Kota. Small-scale industrial units numbering 13,16,267 with a capital investment of Rs 8,88,820.70 crore provides employment potential to about 13,16,267 persons in the States as on March 2009. Major industries are textiles and woollens, sugar, cement, glass, sodium plants, oxygen, vegetable dyes, pesticides, zinc, fertilizers, railway wagons, ball bearings, water and electricity metres, sulphuric acid, television sets, synthetic yarn and insulating bricks. Besides, precious and semi-precious stones, caustic soda, calcium carbide, nylon and tyers, etc. are other important industrial units.

Rajasthan has rich deposits of zinc concentrates, emerald, granite, gypsum, silver ore, asbestos, feldspar and mica. Promotional Industrial Park of the country has been established and made operational at Sitapura (Jaipur).

IRRIGATION AND POWER

By the end of March 2009 irrigation potential of 36.46 lakh hectares was created in the state through various major, medium and minor irrigation projects and additional irrigation potential of 58,067 hectares (excluding IGNP & CAD) had been created. The installed power capacity in the State has become 7019.59Mw upto December 2009 of which 4375.30 Mw is produced from State-owned projects, 766.00 Mw from collaboration projects and 1879.29 Mw from the allocation from Central power generating stations.

TRANSPORT

Roads : The total length of roads was 1,86,806 km as on March 2009.

Railways : Jodhpur, Jaipur, Bikaner, Kota, Sawai Madhopur and Bharatpur are main rail junctions of State.

Aviation : Regular air services connect Jaipur, Jodhpur and Udaipur with Delhi and Mumbai.

FESTIVALS

Rajasthan is a land of festivals and fairs, besides the national festivals of Holi, Deepawali, Vijayadashmi, Christmas, etc., birth anniversaries of gods and goddesses, saintly figures, folk heroes and heroines are celebrated. Important fairs are Teej, Gangaur(Jaipur), annual Urs of Ajmer Sharif and Galiakot, tribal Kumbh of Beneshwar(Dungarpur), Mahaveer fair at Shrimahavirji in Sawai Madhopur, Ramdeora(Jaisalmer),Janbheslwari fair(Mukam-Bikaner), Kartik Poornima and Cattle Fair (Pushkar-Ajmer) and Shyamji Fair(Sikar), etc.

TOURISTS CENTRES

Jaipur, Jodhpur,Udaipur, Bikaner, Mount Abu, Sariska Tiger Sanctuary in Alwar, Keoladeo National Park at Bharatpur, Ajmer, Jaisalmer, Pali and Chittorgarh are important places of tourist interest in the State.

GOVERNMENT

<i>Governor</i>	: Shilendra Kumar Singh	<i>Chief Secretary</i>	: Kushal Singh
<i>Chief Minister</i>	: Ashok Gehlot	<i>Chief Justice</i>	: Justice Narain Ray
<i>Speaker</i>	: Deependra Shekhawat	<i>Jurisdiction of High Court</i>	: Rajasthan

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Ajmer	8,481	21,80,526	Ajmer
2.	Alwar	8,380	29,90,862	Alwar
3.	Banswara	5,037	15,00,420	Banswara
4.	Barmer	28,387	19,63,758	Barmer
5.	Bharatpur	5,066	20,98,323	Bharatpur
6.	Bhilwara	10,455	20,09,516	Bhilwara
7.	Bikaner	27,244	16,73,562	Bikaner
8.	Bundi	5,550	9,61,269	Bundi
9.	Chittorgarh	10,856	18,02,656	Chittorgarh
10.	Churu	16,830	19,22,908	Churu
11.	Dholpur	3,034	9,82,815	Dholpur
12.	Dungarpur	3,770	11,07,037	Dungarpur
13.	Ganganagar	7,944	17,88,487	Ganganagar
14.	Jaipur	11,588	52,52,388	Jaipur
15.	Jaisalmer	38,401	5,07,999	Jaisalmer
16.	Jalore	10,640	14,48,486	Jalore
17.	Jhalawar	6,219	11,80,342	Jhalawar
18.	Jhunjhunu	5,928	19,13,099	Jhunjhunu
19.	Jodhpur	22,850	28,80,777	Jodhpur
20.	Kota	5,481	15,68,580	Kota
21.	Nagaur	17,718	27,73,894	Nagaur
22.	Pali	12,387	18,19,201	Pali
23.	Sawai Madhopur	5,043	11,16,031	Sawai Madhopur
24.	Sikar	7,732	22,87,229	Sikar
25.	Sirohi	5,136	8,50,756	Sirohi
26.	Tonk	7,194	12,11,343	Tonk
27.	Udaipur	12,511	26,32,210	Udaipur
28.	Dausa	2,950	13,16,790	Dausa
29.	Baran	6,955	10,22,568	Baran
30.	Rajsamand	4,768	9,86,269	Rajsamand
31.	Hanumangarh	12,690	15,17,390	Hanumangarh
32.	Karoli	5,041	12,05,613	Karoli
33.	Partapgarh	4,189	7,06,807	Partapgarh

SIKKIM

<i>Area</i> : 7,096 sq km	<i>Population</i> : 5,40,493 (2001 census)
<i>Capital</i> : Gangtok	<i>Principal Languages</i> : Lepcha, Bhutia and Nepali

HISTORY AND GEOGRAPHY

The early history of Sikkim starts in the 13th century with the signing of a blood-brotherhood treaty between the Lepcha Chief Thekong Tek and Tibetan prince Khye-Bumsa at Kabi Lungtsok in North Sikkim. This follows the historical visit of three revered Lamas to Yuksam in 1641 in West Sikkim where they consecrated Phuntsog Namgyal, a sixth generation descendent of Khye-Humsa as the first Chogyal of Sikkim, thus heralding the beginning of the Namgyal dynasty in Sikkim. With the march of history, events in Sikkim saw the State pass through the process of democratisation and become an integral part of the Indian Union in 1975. Guru Padmasambhava blessed Sikkim enroute to Tibet. Sikkim is a blessed land where people from all communities live in harmony. In spite of the fact that Sikkim comprises different people and multi ethnic society, it is perhaps the most peaceful State of the Indian Union to promote communal harmony and human relations, a feat which is much expected in a plural society like India.

Sikkim is a small hilly state, bound by vast stretches of Tibetan Plateaux in the North, the Chumbi Valley of Tibet and the Kingdom of Bhutan in the East, the Kingdom of Nepal in the West and Darjeeling (West Bengal) in the South. The State has a total area of 7,096 sq km and is stretched over 112 km from North to South and 64 km from East to West. It lies in the North-Eastern Himalayas between 27 degree 00'46'' to 28 degree 07'48'' North Latitude and 88 degree 00'58'' to 88 degree 55'25'' East Longitude.

The world's third highest mountain, Khangchendzonga, regarded as the guardian deity of Sikkim. Sikkim is one of the 18 biodiversity hotspots in the world. More than 5000 species of angiosperms are found in the State, nearly one third of the total species of angiosperm found in the country. There are over 4000 species of flowering plants, 300 species of ferns and algies, over 500 species of orchids, atleast 36 species of Rhododendrons, 40 species of oak, 40 species of primulas and bamboos, about 150 species of mammals, 500 to 600 species of birds, over 400 species of butterflies and moths and many species of reptiles in the State. Rare blue sheep, Tibetan mastiff, yaks and red pandas are found here.

TOURISM

Sikkim is famous for its lush green vegetation, forest, scenic valleys and majestic mountains and a range of rich and magnificent cultural heritage and peace loving people who provide a safe haven for tourists. The State Government supports eco-friendly and pilgrimage tourism and accordingly have provided facilities to enable visitors to enjoy a first-hand experience of the rich heritage and lifestyle of Sikkim. Recognising the potential of adventure tourism, the state government is setting up a Himalayan Centre for Adventure Tourism at Chemchey Village in South Sikkim.

The premier monastery of Sikkim is Pemayantshe in Pelling. Apart from this there is Tashiding Monastery in West Sikkim, which is considered the holiest of all the monasteries in Sikkim. The most ancient monastery of Sikkim is in Yuksom, called the Drubdi monastery. It was the personal hermitage of Lhatsun Chenpo (Patron

Saint of Sikkim), and was possibly built in 1700 AD. Some of the other monasteries are Phodong, Phensang, Rumtek, Ngadak, Tolung, Ahlay, Tsuklakhang, Ralong, Lachen, Enchey and others. Of the Hindu temples, the best known is the Thakurbari, in the heart of Gangtok. Then there is a holy cave in South district, which has a Shiva Lingam that irradiates the cave where no other light finds its way. There are some important Gurdwaras and Mosques, chief among them being in Gangtok and Ravangla.

FESTIVALS

Sikkim's population comprises the three principal ethnic communities of the Bhutias, Lepchas and the Nepalese. Maghey Sankranti, Durga Puja, Laxmi Puja and Chaite Dassai/Ram Navami Dassai, Tyohar, Sonam Losoong, Namsoog, Tendong Lho Rum Faat (Worship of Mt. Tendong), Losar (Tibetan New Year) are the major festivals. The other festivals include Sakewa (Rai), Sonam Lochar (Gurung), Barahimzong (Mangar).

AGRICULTURE

Agriculture is the mainstay of majority ruler populace of Sikkim. The economy of the state is linked with agriculture that serves as the source of livelihood and economic security of more than 64% of the population. The total agriculture land holding in Sikkim is estimated to be 109,000 ha i.e. around 15% of total geographical area. The net area sown is estimated to be 78,300 Ha (Agri Census 2000-2001). Farming practice in Sikkim is integrated in nature. Maize, rice, wheat potato, large cardamom, ginger and orange are the principle crops. Sikkim has the largest area and highest production of cardamom in India, Ginger, potato, orange and off-season vegetable are the cash crops of Sikkim.

INDUSTRY

Though Sikkim is a tiny Himalayan State, the Government and its people are very conscious about the environment and therefore has paid priority for setting up eco-friendly industries and the thrust areas are Agro-Horticulture and Floriculture based, Animal Husbandry and Dairy Development, Handloom & Handicrafts; Tourism, Precision Oriented high value low volume products, Hydel Power, Tea, Health, Education etc. After the announcement of North-East Industrial and Investment Policy, 2007, to North-East Region, including Sikkim w.e.f. 1.4.2007, a number of industrial units have been set up especially in pharmaceutical and other activities like packaging etc., besides the existing famous units like, Sikkim Jewels, Sikkim Time Corporation, Temi Tea Estate and Directorate of Handloom & Handicrafts. The Sikkim Industrial Development & Investment Corporation and NEDFI are providing long term loans to Micro and Medium industrial activities and other service oriented units.

Sikkim is considered as one of the best destinations for investment in the entire North East due to prevailing peace and tranquility, political stability and rule of law in the State.

IRRIGATION AND POWER

The Department of Irrigation and Flood Control has covered 3789.88 hectares agricultural land. Tenth Five year Plan targets to irrigate 5000 hectares of agricultural land.

The State has installed hydropower capacity of 40.7 MW, diesel generation of capacity of 5 MW, and transformation capacity of 132/66 KV of 200 MVA and 66/11 KV of 207.5 MVA. Under PSU, NHPC has installed hydropower of 570 M.W. Hydropower potential of 4538 MW are awarded to private generating companies on BOOT format. Out of them power projects of 2015 MW are under construction. The total estimated seasonal hydro potential of the State is of 8000 m.w.

TRANSPORT

Roads : Gangtok is connected by roads with Darjeeling, Kalimpong, Siliguri and also with all the district headquarters within Sikkim. The total road length of the state is 2,383 kms which includes 873.40 km road maintained by Border Roads Organisation.

Railways and Aviation : The closest railway stations are Siliguri (113) and New Jalpaiguri (125 km) connecting Koklata, Delhi, Guwahati, Lucknow and other important cities. There is no airport in Sikkim. There is a helicopter service between Gangtok and Bagdogra.

INFORMATION TECHNOLOGY

A new Information Technology Department has been created in the state and has prepared extensive projects to give top priority to this department. The newly created department has already launched a number of web sites on Sikkim and is now aiming for e-governance through the use of information tools. The official website of Sikkim hosted and maintained by the Department of Information Technology, Government of Sikkim is www.sikkimgovt.org.

GOVERNMENT

<i>Governor</i>	: Balmiki Prasad Singh	<i>Chief Secretary</i>	: T.T. Dorji
<i>Chief Minister</i>	: Pawan Chamling	<i>Chief Justice</i>	: Aftab Husain Saikh
<i>Speaker</i>	: K.T. Namgyal Gyartser	<i>Jurisdiction of High Court</i>	: Sikkim

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	East	954	1,78,452	Gangtok
2.	North	4,226	11,240	Mangan
3.	South	750	98,604	Namchi
4.	West	1,166	98,161	Gyalshing

TAMILNADU

<i>Area</i>	: 1,30,058 sq km	<i>Population</i>	: 6,24,05,679
<i>Capital</i>	: Chennai	<i>Principal Language</i>	: Tamil

HISTORY AND GEOGRAPHY

Tamilnadu has a hoary antiquity. Though early *sangam* classics throw historical references it is only from the Pallavas we pass to recorded history.

South India had remained under the hegemony of the Cholas, the Cheras and the Pandyas for centuries. The Pallavas held supremacy from about the second quarter of the fourth century AD. They were the originators of the famous Dravidian style of temple architecture. The last Pallava ruler was Aparajita in whose reign the later Cholas under Vijayalaya and Aditya asserted themselves by about the 10th century. At the end of the 11th century, Tamilnadu was ruled by several dynasties like the Chalukyas, Cholas and Pandyas. In the two centuries that followed, the imperial Cholas gained paramountacy over South India.

Muslims gradually strengthened their position, which led to the establishment of the Bahamani Sultanate, by the middle of the 14th century. At the same time, the Vijayanagar Kingdom quickly consolidated itself and extended its sway over the whole of South India and at the close of the century, Vijayanagar became the supreme power in South. However, it crumbled at the battle of Talikota in 1564 to the confederate forces of the Deccan Sultans.

Even during the period of the tumultuous confusion that followed the battle of Talikota, European commercial interest had appeared as rivals in the area of South India. The Portuguese, the Dutch, the French and the English came in quick succession and established trading centres known as 'Factories'. East India Company which had established their factory at Masulipatnam, now in Andhra Pradesh, in 1611 gradually annexed territories by encouraging enmity among the native rulers. Tamilnadu was one of the first of British settlements in India. The State is the successor to the old Madras Presidency which in 1901 covered the bulk of the southern peninsula. The composite Madras State was later reorganised and the present Tamilnadu was formed.

Tamilnadu is bounded on north by Andhra Pradesh and Karnataka on west by Kerala, on east by the Bay of Bengal and on south by the Indian Ocean.

AGRICULTURE

Agriculture is the major occupation in Tamilnadu. The total cultivated area in the State was 58.15 lakhs hectares in 2007-08. The principal food crops include paddy, millets and pulses. Commercial crops include sugarcane, cotton, sunflower, coconut, cashew, chillies, gingelly and groundnut. Plantation crops are tea, coffee, cardamom and rubber. Major forest produces are timber, sandalwood, pulp wood and fuel wood. Tamilnadu occupies a premier position in the production and extensive application of bio-fertilizers. Efforts are on to improve farming technologies so as to increase yields in the low rainfall areas of the State. Annual foodgrains production in the year 2007-08 was 65.81 lakhs Mt.

INDUSTRY AND MINERALS

Major Industries in the State are cotton, heavy commercial vehicles, auto components, railway coaches, power pumps, leather tanning industries, cement, sugar, paper, automobiles and safety matches.

Knowledge based industries like I.T. and Biotechnology have become the thrust area in the industrial scene in Tamilnadu. TIDEL, a software technology park, has been established in Tharamani, Chennai. The Software export from the State which was Rs. 20,700 crores in 2006-07 is expected to cross Rs. 25,000 crores in 2007-08. Top

I.T. and Telecom companies such as Nokia, Motorola, Foxcon, Flextronic and Dell have commenced production.

Global auto majors Hyundai Motors, Ford, Hindustan Motors and Mitsubishi have commenced production plants. Ashok Leyland and TAFE have set up expansion plants in Chennai.

Main mineral wealth of the state is granite, lignite and limestone. The state is an important exporter of tanned skin and leather goods, yarn, tea, coffee, spices, engineering goods, tobacco, handicrafts and black granite. Tamil Nadu contributes to 60 per cent of the tannery industry in India.

IRRIGATION

Important irrigation schemes and modernisation of existing Periyar Vaigai System, Palar Basin System and Parambikulam-Aliyar System besides the minor system in Vellar, Pennayar, Araniyar Amaravathi, Chithar basins totalling, an extent of six lakh acres of existing ayacut in Tamil Nadu have been benefited by implementing the 'System Improvement and Farmers Turnover Projects' executed with assistance from World Bank. The World Bank has also approved Rs 2,547 crores for the Irrigated Agriculture Modernisation and Water Bodies Restoration Management Project. The Project covers about 6,17lakh ha. in 63 selected sub-basins throughout the state. Nine irrigation projects which were just started and going on a slow progress have been speeded up with adequate fund and guidance for early completion. The major irrigation system covering one-third of irrigated extent in Tamil Nadu, namely tank irrigation system has been given due regard for development under WRCP and 620 tanks maintained by Public Works Department falling under Palar, Vaigai and Tamaraparani Basins have been taken up for rehabilitation and improvement. This project is nearing completion to the maximum satisfaction of the farmers. This State has become the pioneer State to implement the system of 'River basin management' by an individual body consisting of officials and farmers besides various representatives of the basin.

POWER

The total installed capacity for electricity in the State is 10,214 MW as on 31.03.2009. The installed capacity of State Sector is 5,690 MW and that of Private Sector is 1,180 MW. Apart from this 2825 MW is available as share from Central Sector, 305 MW is obtained from external assistance and 214 MW from Captive Power Plants. Apart from this wind mills from the private sector provide 4270 MW and 466.10 MW is received from co-generation plants and 109.55 MW from Bio-mass plants.

As on 31.03.2009, there are 1259 sub stations, 1.64 lakh ckt kms of Extra High Tension/High Tension lines, 5.26 lakh kms of low tension lines, 1.86 distribution transformers and 203.87 lakh service connections.

TRANSPORT

Roads : The length of roads network in Tamil Nadu is 61,641 km.

Railways : The total length of railways is 3,927 km and the main junctions stations are Chennai, Madurai, Tiruchirapalli, Coimbatore, Tirunelveli, Salem, Erode and Arakkonam.

Aviation : Chennai being the international airport in the southern region, is the main centre of airline routes. Besides, there are airports at Tiruchirapalli, Madurai, Coimbatore and Salem.

Ports : Major ports in the State are Chennai, Egmore and Tuticorin. There are seven other minor ports including Cuddalore and Nagapattinam.

FESTIVALS

Pongal is the harvest festival celebrated by the farmers in January to worship the sun, the earth and the cattle as thanks giving for a bounteous harvest. *Pongal* is followed by the *Jallikattu*-Bull fight, Tamilnadu style in some parts of southern Tamilnadu. Alanganallur in Tamilnadu is internationally famous for *Jallikattu*-Bull fight. *Chithirai* festival, Madurai: Madurai brings a spectacular re-enactment of the marriage of the Pandiyan princess Meenakshi to Lord Sundareswarar. *Adipperukku* is a festival celebrated on the 18th day of Tamil month, *Adi*, on the banks of rivers. It marks the commencement of new farming operations. A truly secular festival - where devotees flock to the shrine of saint Quadirwali. One of the descendants of the Saint is chosen as a *Peer* or spiritual leader and is honoured with offerings. On the tenth day of the festival, the Saint's tomb is anointed with sandalwood and later the holy sandal paste is distributed to everyone. *Velankanni* festival : Wondrous legends surround the church, the most famous being that of the ship wrecked Portuguese sailors, who in the 16th century, vowed to build a great shrine for the Virgin Mary, for saving their lives in a terrible storm. The *Velankanni* festival attracts thousands, clad in orange robes to the sacred spot where the ship landed. Equally famous are the Virgin Mary's miraculous healing powers - earning for the church the name 'Lourdes of the East'. *Navarathiri* festival : Literally, this means the festival of 'nine nights' taking unique and different forms in different states of India - all to propitiate the goddess *Sakthi*, for power, wealth and knowledge. Music Festival : In December Chennai celebrates her priceless heritage of *carnatic* music and dance to present a galaxy of star artistes, old and new.

TOURIST CENTRES

Chennai, Mamallapuram, Poompuhar, Kancheepuram, Kumbakonam, Dharasuram, Chidambaram, Tiruvannamalai, Srirangam, Madurai, Rameswaram, Tirunelveli, Kanniyakumari, Thanjavur, Velankanni, Nagoor, Chithannavasal, Kazhugumalai (monument centres), Courtallam, Hogenakkal, Papanasam, Suruli (water-falls), Ooty (Udhagamandalam), Kodaikanal, Yercaud, Elagiri Kolli Hills (hill stations), Guindy (Chennai), Mudumalai, Annamalai, Mundanthurai, Kalakad (wild life sanctuaries), Vedanthangal and Point Calimere (bird sanctuaries), Arignar Anna Zoological Park, near Chennai, are some of the places of tourist interest.

GOVERNMENT

<i>Governor</i>	: S.S. Barnala	<i>Chief Secretary</i>	: L. Tripathy
<i>Chief Minister</i>	: M. Karunanidhi	<i>Jurisdiction of High Court</i>	: Tamil Nadu and Pondicherry

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Chennai	174	43,43,645	Chennai
2.	Kancheepuram	4,307	28,77,468	Kancheepuram
3.	Thiruvallur	3,550	27,54,756	Thiruvallur

4.	Vellore	6,077	34,77,317	Vellore
5.	Thiruvannamalai	6,190	21,86,125	Thiruvannamalai
6.	Cuddalore	3,706	22,85,395	Cuddalore
7.	Villupuram	7,190	29,60,373	Villupuram
8.	Salem	5,425	30,16,346	Salem
9.	Namakkal	3,404	14,93,462	Namakkal
10.	Dharmapuri	9,622	28,56,300	Dharmapuri
11.	Pudukottai	4,651	14,59,601	Pudukottai
12.	Erode	8,209	25,81,500	Erode
13.	The Nilgiris	2,549	7,62,141	Udhagamandalam
14.	Coimbatore	7,469	42,71,856	Coimbatore
15.	Tiruchirappalli	4,511	24,18,366	Tiruchirappalli
16.	Karur	2,901	9,35,686	Karur
17.	Perambalur	1,750	4,93,646	Perambalur
18.	Ariyalur	1,944	6,95,524	Ariyalur
19.	Thanjavur	3,476	22,16,138	Thanjavur
20.	Nagapattinam	2,417	14,88,839	Nagapattinam
21.	Thiruvarur	2,377	11,69,474	Thiruvarur
22.	Madurai	3,696	25,78,201	Madurai
23.	Theni	2,869	10,93,950	Theni
24.	Dindigul	6,058	19,23,014	Dindigul
25.	Ramanathapuram	4,175	11,87,604	Ramanathapuram
26.	Sivagangai	4,143	11,55,356	Sivagangai
27.	Virudhunagar	4,283	17,51,301	Virudhunagar
28.	Tirunelveli	6,810	27,23,988	Tirunelveli
29.	Thoothukudi	4,621	15,72,273	Thoothukudi
30.	Kanniyakumari	1,684	16,76,034	Nagercoil
31.	Tiruppur	4719.85	19,17,033	Tiruppur

TRIPURA

<i>Area</i>	: 10,491.69 sq km	<i>Population</i>	: 31,99,203
<i>Capital</i>	: Agartala	<i>Principal Languages</i>	: Bengali and Kokborak

HISTORY AND GEOGRAPHY

Tripura has its unique tribal culture and a fascinating folklore. The history of Tripura can be learnt from '*Rajmala*' chronicles of king Tripura and writings of historians. There are references of Tripura even in the *Mahabharata* and the *Puranas*. According to '*Rajmala*', the rulers were known by the surname '*Fa*' meaning '*father*'. There is a reference to rulers of Bengal helping Tripura kings in the 14th century. Kings of Tripura had to face frequent Mughal invasions with varying successes. They defeated the Sultans of Bengal in several battles. Nineteenth century marked the beginning of the modern era in Tripura when king Maharaja Bir Chandra Kishore Manikya Bahadur

modelled his administrative set-up on the British India pattern and brought in various reforms. His successors ruled Tripura till 15 October 1949 when the state merged with the Indian Union. Initially, a part 'C' state, it became a centrally administered territory with the re-organisation of states in 1956. In 1972, Tripura attained the status of a full-fledged state.

Tripura is strategically situated between the river valleys of Myanmar and Bangladesh. Encircled almost on three sides by Bangladesh, it is linked with Assam and Mizoram in the North-East.

IRRIGATION

Tripura is a predominantly hilly state having geographical area of 10,49,169 hectare. Amid the undulating terrain, the cultivable 2,80,000 hectares, as on 31 March 2008, an area of 93,359 hectares of land which is 79.97% of irrigation area and 33.34% of cultivable land has been brought under irrigation coverage through Medium Irrigation, Lift Irrigation, Diversion, Deep Tube Well, Shallow Sube Wells etc. The nature of schemes completed and commissioned by PWD (Water Resource) include 1411 nos. Diversion Schemes and 166 nos. Irrigation Deep Tube Wells. The three ongoing medium irrigation projects (Gumati, Khowai and Manu) have also been partially commissioned and expected to be complete by 2009-10.

POWER

The present highest peak demand of power in the State is around 162 MW. Power available now from own generating stations is around 80 MW. About 40 MW power is being imported from the State's allocated share from the Central Sector power generating stations in the NE-Region. It is estimated that the peak demand during 2012 will be around 396 MW considering the demand arising out of Rajiv Gandhi Vidyutikaran Yojana (RGGVY) and Industrialization in the State.

NEW POWER PROJECTS IN TRIPURA

1. 1 x 21 MW GT Project at Baramura, West Tripura under NEC, Implementing Agency : TSECL, Work is in progress, completion schedule :- December 2009.
2. OTPC Power project (740 MW) at Palatana, Udaipur, Tripura South : Tripura's share is 200 MW. Likely to be commissioned in 2011-12.
3. Monachak G.T. Project (104 MW) : Implementing Agency : NEEPCO, likely to be commissioned in 2010-11.

TRANSPORT

Roads : The total length of roads in Tripura is 1,997 km of which major district roads constitute 90 km. Other district roads are 1,218 km and State Highway is 689 km.

Railways : The work for Rail line up to Agartala as a part of National Project has been completed. The project for extension of Rail Line from Agartala to Sabroom has been approved by Central Government.

Aviation : The main Airport is at Agartala.

TOURISM

The important tourist centres are :

(a) West-south Tripura Tourism Circuit: (i) Agartala (ii) Kamalsagar (iii) Sepahijala (iv) Neermahal (v) Udaipur (vi) Pilak (vii) Mahamuni

(b) West-North Tripura Tourism Circuit: (i) Agartala (ii) Unokuti (iii) Jampui Hill.

FESTIVALS

a) Tourism Festival: (i) Tourism Festival at Vanghmun, (ii) Unokuti Tourism Festival, (iii) Neermahal Tourism Festival, (iv) Pilak Tourism Festival.

b) Cultural Religious Festival: (i) Makar Sankranti at Thirthamukh and Unokoti, (ii) Holi, (iii) Ashokashtami at Unokoti, Brahmakunda (Mohanpur), (iv) Rash (v) Bengali New Year, (vi) Garia, Dhamail, Biju and Hozagiri Festival, (vii) Boat Race and Manasa Mangal Festival, (viii) Ker and Kharchi Festival, (ix) Durgapuja, (x) Diwali, (xi) Christmas at Jampui Hills, (xii) Budha Purnima, (xiii) Rabindra-Najrul-Sukanta Utsav, (xiv) Street Drama Festival, (xv) Chongpreng Utsav, (xvi) Khumpui Festival, (xvii) Wah Festival, (xviii) Folk Cultural Festival (Loka Utsav), (xix) Murasing Festival, (xx) Sanghati Festival, (xxi) Baishakhi Festival (Sabroom), etc. are celebrated annually.

GOVERNMENT

<i>Governor</i>	: Dinesh Nandan Sahaya	<i>Chief Secretary</i>	: Shashi Prakash
<i>Chief Minister</i>	: Manik Sarkar	<i>Jurisdiction of</i>	: Falls under
<i>Speaker</i>	: Remendra Chandra Debnath	<i>High Court</i>	: Guwahati High Court Agartala Bench

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	North Tripura	2,820.63	5,90,913	Kailashahar
2.	South Tripura	2,151.77	7,67,440	Udaipur
3.	West Tripura	2,996.82	15,32,982	Agartala
4.	Dhalai	2,552.47	3,07,868	Ambassa

UTTARAKHAND

<i>Area</i>	: 53,484 sq km	<i>Population</i>	: 84,89,349
<i>Capital</i>	: Dehradun	<i>Principal Languages</i>	: Hindi, English, Garhwali, Kumauni

HISTORY AND GEOGRAPHY

Uttarakhand finds mention in the ancient Hindu scriptures as Kedarkhand, Manaskhand and Himavant. The Kushanas, Kunindas, Kanishka, Samudra Gupta, the Pauravas, Katuris, Palas, the Chandras and Panwars and the British have ruled it in turns. It is often called the Land of the Gods (*Dev Bhoomi*) because of its various holy places and abundant shrines. The hilly regions of Uttarakhand offer pristine landscapes to the tourists.

The State of Uttarakhand was earlier a part of the United Province of Agra and Awadh which came into existence in 1902. In 1935, the name of State was shortened to the United Province. In January 1950, the United Province was renamed as Uttar Pradesh and Uttaranchal remained a part of Uttar Pradesh before it was carved out of Uttar Pradesh on 09 November 2000. It is incepted as the 27th State of India.

Located in the foothills of the Himalayas, the State has international boundaries with China (Tibet) in the north and Nepal in the east. On its north-west lies Himachal Pradesh while on the south is Uttar Pradesh.

AGRICULTURE

About 90 per cent of the population of Uttarakhand depends on agriculture. The total cultivated area in the State is 7,67,571 hectares.

INDUSTRY AND MINERALS

The State is rich in mineral deposits like limestone, marble, rock phosphate, dolomite, magnesite, copper greyphyte, gypsum, etc. The number of small-scale industries is 34,231 providing employment to 1,77,677 persons, with an investment of Rs 14,965.67 crore.

IRRIGATION AND ENERGY

Agricultural land under irrigation is 5,49,381 hectares. The State has excellent potential for hydropower generation. There are a number of hydro-electric projects on the rivers Yamuna, Bhagirathi, Bhilangana, Alaknanda, Mandakini, Saryu Gauri, Kosi and Kali generating electricity. Total hydropower potential approx 25,450 MW. Projects allotted to various agencies 13,667 MW. Out of 15,761 villages, 15,241 villages have been electrified.

TRANSPORT

Roads : The total length of metalled roads in Uttarakhand is 29,939 km. The length of PWD roads is 22,623 km. The length of roads built by local bodies is 15,041 km.

Railways : The main railway stations are Dehradun, Hardwar, Roorkee, Kotdwar, Kashipur, Udham Singh Nagar, Haldwani, Ramnagar and Kathgodam.

Aviation : There are air strips at Jolly Grant (Dehradun), and Pantnagar (Udham Singh Nagar). Air strips at Naini-Seni (Pithoragarh), Gauchar (Chamoli) and Chinyalisaur (Uttarkashi) are under construction. From this year Pawan Hans Ltd., has started helicopter service from Rudraprayag to Kedarnath for pilgrims.

FESTIVALS

The world-famous *Kumbh Mela/Ardh Kumbh Mela* is held at Hardwar at every twelfth/sixth year interval. Other prominent fairs/festivals are : Devidhura Mela (Champawat), Purnagiri Mela (Champawat), Nanda Devi Mela (Almora), Gauchar Mela (Chamoli), Baisakhi (Uttarkashi), Magha Mela (Uttarkashi), Uttaraini Mela (Bageshwar), Vishu Mela (Jaunsar Bhabar), Peerane-Kaliyar (Roorkee), and Nanda Devi Raj Jat Yatra held every twelfth year.

TOURIST CENTRES

Prominent places of pilgrimage/tourist interests are Gangotri, Yamunotri, Badrinath, Kedarnath, Hardwar, Rishikesh, Hemkund Sahib, Nanakmatta, etc. Kailash Mansarovar Yatra can be performed through Kumaon region. The world-famous Valley of Flowers, Pindari Glacier, Roop Kund, Dayara Bugyal, Auli, and hill stations like Mussoorie, Dehradun, Chakrata, Nainital, Ranikhet, Bageshwar, Bhimtal, Kausani, Lansdowne etc. are the other tourist destinations.

GOVERNMENT

<i>Governor</i>	: Smt. Margaret Alwa	<i>Chief Secretary</i>	: Indu Kumar Pandey
<i>Chief Minister</i>	: Dr. Ramesh Pokhriya "Nishank"	<i>Jurisdiction of High Court</i>	: Uttarakhand
<i>Speaker</i>	: Harbansh Kapoor		

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Uttarkashi	8,016	2,95,013	Uttarkashi
2.	Chamoli	7,520	3,70,359	Gopeshwar
3.	Rudra Prayag	2,439	2,27,439	Rudra Prayag
4.	Tehri Garhwal	3,796	6,04,747	New Tehri
5.	Dehradun	3,088	12,82,143	Dehradun
6.	Pauri Garhwal	5,329	6,97,078	Pauri
7.	Pithoragarh	7,169	4,62,289	Pithoragarh
8.	Champawat	2,004	2,24,542	Champawat
9.	Almora	3,689	6,30,567	Almora
10.	Bageshwar	1,696	2,49,462	Bageshwar
11.	Nainital	3,422	7,62,909	Nainital
12.	Udhamsingh Nagar	3,055	12,35,614	Udhamsingh Ngr. (Rudrapur)
13.	Hardwar	2,360	14,47,187	Hardwar

UTTAR PRADESH

<i>Area</i>	: 2,40,928 sq km	<i>Population</i>	: 16,61,98,000
<i>Capital</i>	: Lucknow	<i>Principal Languages</i>	: Hindi and Urdu

HISTORY AND GEOGRAPHY

The history of Uttar Pradesh is very ancient and interesting. It is recognised in the later Vedic Age as Brahmarschi Desha or Madhya Desha. Many great sages of the Vedic times like Bhardwaja, Gautam, Yagyavalkya, Vashishtha, Vishwamitra and Valmiki flourished in this state. Several sacred books of the Aryans were also composed here. Two great epics of India, *Ramayana* and *Mahabharata*, appear to have been inspired by Uttar Pradesh.

In the sixth century BC Uttar Pradesh was associated with two new religions-jainism and Buddhism. It was at Sarnath that Buddha preached his first sermon and laid the foundations of his order and it was in Kushinagar in Uttar Pradesh where Buddha breathed his last. Several centres in Uttar Pradesh like Ayodhya, Prayag, Varanasi and Mathura became reputed centres of learning. In the medieval period Uttar Pradesh passed under Muslim rule and led the way to new synthesis of Hindu and Islamic cultures. Ramananda and his Muslim disciple Kabir, Tulsidas, Surdas and many other intellectuals contributed to the growth of Hindi and other languages.

Uttar Pradesh preserved its intellectual excellence even under the British administration. The British combined Agra and Oudh into one province and called it United Provinces of Agra and Oudh. The name was shortened to the United Provinces in 1935. In January 1950 the United Provinces was renamed as Uttar Pradesh.

The State is bound by Uttarakhand and Himachal Pradesh in the north, Haryana in the west, Madhya Pradesh in the South and Bihar in the east. Uttar Pradesh can be divided into two distinct regions (i) Southern Hills and (ii) Gangetic Plain.

AGRICULTURE

Agriculture is the main occupation of 66 per cent of the population of the state. The net cultivated area in the state is 167.50 lakh hectares. In the year 2006-07 the state produced 260.27 lakh metric tonnes of wheat, 109.12 lakh metric tonnes of rice, 18.14 lakh metric tonnes of pulses and 7.54 lakh metric tonnes of oilseeds and 1309.22 lakh tonnes sugar cane. Total foodgrains production during 2006-2007 was 418.65 lakh metric tonnes.

INDUSTRY AND MINERALS

During the year 2006-07 there were 6,12,338 small-scale industrial units involving a total investment of Rs. 7172 crore and employment opportunities for 2396 thousand persons. About 73.20 lakh tonnes of sugar was produced in the state during the year 2007-08. There were 68 textile units. Thirty-two automobile units with an investment of Rs. 5,740 crore provided jobs to 20280 persons.

It is planned to develop 102 sectors of New Okhla Industrial Development Authority (NOIDA) by the year 2011. The Authority includes industrial sectors, housing sectors, group housing sectors, residential buildings, commercial assets and institutional sectors. Steps have been taken to develop other industrial areas in the state on the pattern of Noida and Greater Noida. A Software Technology Park has been set up in Kanpur while five more Software Parks are proposed to be set up.

Under the public sector, mining of limestone, magnesite, coal, rock phosphate, dolomite and silicon-sand is carried out. The bulk production of minor and some of the major minerals like limestone, silica-sand, magnesite, pyrophyllite and diaspore is mostly with the private sector. Important mineral based industries include large cement plants in Sonebhadra.

IRRIGATION AND POWER

UP Power Corporation, UP State Power Generation and UP Hydel Power Corporation had been formed by reorganising UP State Electricity Board on 14 January 2000.

During 2001-02 the total installation capacity was 4659 MW, in 2003-04 it was 4621 MW which has now been raised upto 4706 MW. During the year 2001-02 the total power production was 226330 lakh KW and in the year 2003-04 it was 228355 which is at present 209114 during the year 2004-05.

Power is an important input to accelerate the process of economic growth. The installed capacity of re-organized Uttar Pradesh during Tenth Five Year Plan was 7821.82 MW. Only 56.6 per cent of 97135 villages were electrified and 7.88 lakh private tubewells were energized. At the time of inception the total installed capacity

of UPSEB, including thermal and hydro, was 2,635 MW which has now been raised to 5414 MW (derated 5,885.75 MW).

An expenditure of Rs. 2,094.5256 crore was made to raise the irrigation potential to a level of 267.99 lakh hectares. It is estimated that the irrigation potential created in U.P. is 319.12 lakh hectare till the end of 2004-05. Out of this only 231.61 lakh hectare could be utilized. Additional irrigation potential of 5.14 lakh hectare is expected to be created in the year 2005-06 and the target for 2006-07 is 7.41 lakh hectare.

TRANSPORT

Roads : The total road length of PWD in the state is 131969 km. This includes 3794 km of national highways, 8449 km of state highways, 119726 of other district roads and 72,931 km of rural roads.

Railways : Lucknow is the main junction of the northern network. Other important railway junctions are Agra, Kanpur, Allahabad, Mughalsarai, Jhansi, Moradabad, Varanasi, Tundla, Gorakhpur, Gonda, Faizabad, Bareilly and Sitapur.

Aviation : There are airports at Lucknow, Kanpur, Varanasi, Allahabad, Agra, Jhansi, Bareilly, Hindon (Ghaziabad), Gorakhpur, Sarsawa (Saharanpur) and Fursatganj (Rae-Bareilly).

FESTIVALS

The biggest congregation, perhaps of the world, Kumbha Mela is held at Allahabad every twelfth year and *Ardh kumbh Mela* every sixth year. Magh Mela is also held at Allahabad in January when the people come in large number to have a dip in the holy Sangam. Among other fairs is the fortnight long *Jhoola* fair of Mathura, Vrindavan and Ayodhya, when dolls are placed in gold and silver jhoolas or cradles. A dip in the Ganga on Kartik Poornamasi is supposed to be the holiest and there are big congregations at Garhmukteshwar, Soran, Rajghat, kakora, Bithur, Kanpur, Allahabad, Varanasi and Ayodhya. A famous cattle fair is held at Bateswar in Agra district. Dewa in Barabanki district has become famous because of the Muslim saint Waris Ali Shah. Besides, important festivals of the Hindus, Muslims, etc., are widely celebrated in the state.

TOURIST CENTRES

Uttar Pradesh has varied attractions for all kinds of tourists. Besides ancient places of pilgrimage like Varanasi, Vindhyachal, Ayodhya, Chitrakoot, Prayag, Naimisharanya, Mathura, Vrindavan, Dewa Sharief, Dargah of Sheikh Saleem Chisti in Fatehpur Sikri, Sarnath, Shravasti, Kushinagar, Sankisa, Kampil, Piprahwa and Kaushambi, places like Agra, Ayodhya, Sarnath, Varanasi, Lucknow, Jhansi, Gorakhpur, Jaunpur, Kannauj, Mahoba, Devgarh, Bithur, and Vindhyachal have rich treasures of Hindu and Islamic architecture and culture.

GOVERNMENT

<i>Governor</i>	: B.L. Joshi	<i>Chief Secretary</i>	: Atul Kumar Gupta
<i>Chief Minister</i>	: Kumari Mayawati	<i>Jurisdiction of</i>	: Uttar Pradesh
		<i>High Court</i>	

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

Sl. No.	District	Area (sq km)	Population	Headquarters
1.	2	3	4	5
1.	Agra	4,027	36,20,436	Agra
2.	Aligarh	3,650	29,92,286	Aligarh
3.	Allahabad	5,482	49,36,105	Allahabad
4.	Azamgarh	4,054	39,39,916	Azamgarh
5.	Bahraich	4,420	23,81,072	Bahraich
6.	Balia	2,981	27,61,620	Balia
7.	Banda	4,460	15,37,334	Banda
8.	Barabanki	4,402	26,73,581	Barabanki
9.	Bareilly	4,120	36,18,589	Bareilly
10.	Basti	2,688	20,84,814	Basti
11.	Bijnore	4,561	31,31,619	Bijnore
12.	Badaun	5,168	30,69,426	Badaun
13.	Bulandshahar	4,352	29,13,122	Bulandshahar
14.	Deoria	2,538	27,12,650	Deoria
15.	Etah	4,446	27,90,410	Etah
16.	Etawah	2,311	13,388,71	Etawah
17.	Faizabad	2,341	20,88,928	Faizabad
18.	Ambedkar Nagar	2,350	20,26,876	Akbarpur
19.	Fatehpur	4,152	23,08,384	Fatehpur
20.	Farukhabad	2,181	15,70,408	Fatehgarh
21.	Gaziabad	1,148	32,90,586	Gaziabad
22.	Gautam Buddha Nagar	1,442	12,02,030	Noida
23.	Gazipur	3,377	30,37,582	Gazipur
24.	Gonda	4,003	27,65,586	Gonda
25.	Gorakhpur	3,321	37,69,456	Gorakhpur
26.	Hamirpur	4,282	1043724	Hamirpur
27.	Hardoi	5986	3398306	Hardoi
28.	Jalaun	4565	1454452	Orai
29.	Jaunpur	4038	3911679	Jaunpur
30.	Jhansi	5024	1744931	Jhansi
31.	Kanpur (Dehat)	3021	1563336	Akbarpur Mati
32.	Kanpur (City)	3155	4167999	Kanpur
33.	Lakhimpur Kheri	7680	3207232	Kheri
34.	Lalitpur	5039	977734	Lalitpur
35.	Lucknow	2528	3647834	Lucknow
36.	Mainpuri	2760	1596718	Mainpuri
37.	Mathura	3340	2074516	Mathura
38.	Meerut	2590	2997361	Meerut
39.	Mirzapur	4521	2116042	Mirzapur

40.	Moradabad	3718	3810983	Moradabad
41.	Muzaffarnagar	4,008	3543362	Muzaffarnagar
42.	Pilibhit	3,499	1645183	Pilibhit
43.	Pratapgarh	3717	2731174	Pratapgarh
44.	Raibareilli	4609	2872335	Raibareilli
45.	Rampur	2367	1923739	Rampur
46.	Jyotiba Phule Nagar	2249	1499068	Jyotiba Phule Nagar
47.	Saharanpur	3689	1499068	Saharanpur
48.	Shahjahanpur	4575	2547855	Shahjahanpur
49.	Sitapur	5743	3619661	Sitapur
50.	Unnao	4558	2700324	Unnao
51.	Sultanpur	4436	3214832	Sultanpur
52.	Varansi	1535	3138671	Varansi
53.	Mau	1713	1853997	Mau
54.	Siddharthnagar	2895	2040085	Navgarh
55.	Firozabad	2361	2052958	Firozabad
56.	Sonbhadra	6788	1463519	Robertsganj
57.	Maharajganj	2952	2167041	Maharajganj
58.	Sant Ravidas Nagar	1015	1353705	Bhadohi
59.	Mahoba	2884	708447	Mahoba
60.	Hathras	1840	1336031	Hathras
61.	Kaushambi	1780	1293154	Kaushambi
62.	Kushinagar	2906	2893196	Podraune
63.	Chandauli	2541	1643251	Chandauli
64.	Balrampur	3349	1682350	Balrampur
65.	Shrawasti	2458	1176391	Shrawasti
66.	Chitrakoot	3164	766225	Chitrakoot
67.	Baghpat	1321	1163991	Baghpat
68.	Kannauj	2093	1388923	Kannauj
69.	Orraiya	2015	1179993	Orraiya
70.	Sant Kabir Nagar	1646	1420226	Khalilabad
71.	Kanshi Ram Nagar	-	92485	Kanshi Ram Nagar

WEST BENGAL

Area : 88,752 sq km

Population : 8,01,76,197

Capital : Kolkata

Principal Language : Bengali

HISTORY AND GEOGRAPHY

Bengal finds a coveted place even in pre-historic times. At the time of Alexander's invasion a powerful kingdom called Gangaridai ruled over Bengal. Ascendancy of the Guptas and the Mauryas had somewhat little effect on Bengal. Later Sasanka became King of Bengal and is said to have played an important role in north-eastern

India in the early half of the seventh century. He was succeeded by Gopala, who founded the Pala dynasty, which ruled for centuries and had created a huge empire. The Palas were followed by the Sena dynasty which was ended by Muslim rulers from Delhi. Bengal was ruled by various Muslim rulers and governors till the Mughal period in sixteenth century.

After the Mughals, history of modern Bengal begins with the advent of European and English trading companies. Battle of Plassey in 1757 changed the course of history when the English first gained a strong foothold in Bengal and India. In 1905 it was partitioned to achieve some political returns but people's growing movement under the auspices of Congress led to the reunion in 1911. This triggered off hectic movement for freedom which culminated with Independence in 1947, and partition.

After 1947, the merger of native princely states began which ended with its final reorganisation in 1956 (as per Recommendations of the States Reorganisation Act, 1956) when some Bengali speaking areas of a neighbouring state were transferred to West Bengal.

The land frontiers of the State touch Bangladesh in the east and are separated from Nepal in the west, Bhutan lies in the north-east, while Sikkim is on the north. On the west are the states of Bihar and Jharkhand, while in the south lies Orissa, and the Bay of Bengal washing its southern frontiers.

AGRICULTURE

Agriculture plays a pivotal role in the State's economy and nearly three out of every four persons is directly or indirectly involved in agriculture. The total food production in the State in 2007-08, was 16060.0 thousand tonnes. During 2007-08, the production of rice was 14719.2 thousand tonnes, of wheat 917.3 thousand tonnes and of pulses 158.0 thousand tonnes respectively. The production of oilseeds during the same period was 705.7 thousand tonnes and of potato 9900.89 thousand tonnes. The production of jute was 8216.0 thousand bales in 2007-08.

INDUSTRY

In 2008, 187 projects with a total investment of Rs. 4060.78 crore were implemented in the State. The index of industrial production (Base 1993-94 =100) of West Bengal has been consistently rising from 132.8 in 2001-02 to 200.8 in 2007-08. Despite economic recession, industrial production index in West Bengal grew by 4.0 per cent in 2007-08 over previous year. Within the industrial sector the rates of growth of manufacturing sector it may be noted, have been quite impressive over the years. The contribution of manufacturing sector was 7.9 per cent in 2007-08.

The salient features of the State policy on industrial promotion and economic development are to welcome foreign technology and investment, private sector investment in power generation, improvement and upgradation of industrial infrastructure. The thrust areas are petrochemicals and downstream industries, electronics and information technology, iron and steel, metallurgical and engineering, textile, leather and leather products, food processing, medicinal plants, edible oil, vegetable processing and aquaculture.

In the recent years the flow of investment in the districts like Bankura, Midnapur, Burdwan and Purulia has been quite impressive. In 2007 highest amount of investment, Rs. 1532.52 crore took place in chemical and petrochemical sector, followed by Rs. 1359.62 crore in iron and steel sector, Rs. 705.13 crore in food

processing sector, Rs. 471.26 crore in engineering industry, Rs. 328.51 crore in software and other services sector.

The State Government has continued its effort for accelerating the process of industrialization with the State implementing 42 numbers of industrial Entrepreneur Memorandums (IEMs) with an additional employment generation of 4535 persons in 2007, in the iron and steel sector.

Several companies like JSW Bengal, Bhusan Steel Limited, Jai Balaji, Videocon groups will set up integrated steel, cement and captive power plants in the State. Apart from JSW Bengal some of the important approvals received in the sponge iron and steel sector during the period include-5 million tonnes per annum (tpa) steel plant of Jai Balaji group involving investment of Rs. 7737 crore at Purulia, 1.1 million tpa steel plant of Adhunik Corporation involving an investment of Rs. 1850 crore at Raghunathpur in Purulia, 0.6 million tpa steel plant at Kharagpur in Midnapore and 1.1 million tpa steel plant of Shyam Group involving investment of 910 crore, 2 million tpa steel plant of Shyam Sel Limited involving investment of Rs. 1028 crore.

Apart from the above mentioned power projects of steel companies, the State received an important IEM for setting up of 1200 MW power plant by Bharat Aluminium Company at Raniganj.

Although the State has no linkage for iron ore supplies, the companies have decided to set up steel plants in the State and source the raw materials from neighboring states like Jharkhand and Orissa. Apart from these, the State government has also been making efforts to locate Petroleum, Chemical and Petrochemicals Investment Region (PCPIR) in the State, which has the potential to draw huge investments.

Major investments are taking place in mine, steel plants, forging, pig iron etc. The easy availability of power, removal of freight equalization, close proximity to areas with natural resources relevant to the industry, and a labour force, traditionally skilled in operating iron and steel units are factors that have influenced the surge in investment in this sector. In recent years, investment in the chemical and cement industry has also picked up.

After the commissioning of the Haldia Petrochemicals Limited (HPL) in 2000, downstream units in the plastic and other related industries were set up in the State and they are mostly engaged in manufacturing plastic items like buckets, containers, moulded furniture, battery containers, nylon nets, house wares etc. During 2008 an amount of Rs. 138 crore has been invested in 67 HPL downstream units. Thus direct employment of 43863 persons was created till 2006-07. Indirect employment of 80044 persons was created.

The State Government has introduced policy reforms in several areas in conjunction with practical measures to sustain investor confidence; the State Government has introduced policy reforms in several areas. It has promulgated in a quick succession its policies on the development of industries in Biotechnology, Mines and Minerals, Information Technology and IT enabled services sectors. These policy statements have clearly enunciated the State Government objectives and outlined map to achieve them. Through WBIIDC and WBIDC the State Government has set up the leather complex, foundry, rubber, chemical, plasto-steel, light engineering, polymer, garments and jute parks. Setting up of industrial parks in the Paschim Medinipore, Bankura, Malda, Darjeeling, Jalpaiguri districts have been initiated.

The State Government is focused on developing Special Economic Zones (SEZs). It encourages hassle free manufacturing and trading for export promotion. Till March, 2008, 6 notified approvals have been issued by the Ministry of Commerce, Government of India. Around 80 per cent investment takes place in IT/ITES sector and 2 per cent in biotech sector. In West Bengal, there are three functional Special Economic Zones—Falta (multi products zone), Manikanchan (Salt lake—gems and jewellery) and WIPRO (Salt Lake—IT/ITES).

The Calcutta Leather Complex at Bantala has already been declared as a Special Economic Zone. It is a perfect model of public private partnership, spread over around 1,100 acres of land and is steadily emerging as one of the largest projects of its kind in the world.

The Food Processing Industries & Horticulture Department of the State Government promotes food-processing industries in the State. There is an increasing trend towards setting up of Food Processing Industries in West Bengal and in 2006-07, 67 projects with a total investment of Rs. 336.18 crore were implemented in the food processing industries sector.

The State has identified the Information Technology (IT) sector as a priority sector for growth. The IT Hub at sector-V of Salt Lake is India's first fully integrated electronic complex spread over 150 acres of green pollution free area near airport. An estimated 15,000 new jobs were created in 2007-08. The gross value of export under software Technology Park in Kolkata has already touched Rs. 4000 crore during 2007-08 as against Rs. 2167 crore in 2005-06 and Rs. 3169 crore in 2006-07.

POWER AND IRRIGATION

There are 7 major irrigation projects and 34 medium irrigative schemes being managed by the irrigation and Waterways Department of the State Government. Teesta Barrage Project and Subarnarekha Barrage Projects are the two major in-going schemes. A cumulative potential to the tune of 145020 hectares has been created from the Teesta Barrage Project upto 2007-08 against the ultimate potential of 527000 hectares. The Subarnarekha Barrage Project envisages the utilization of the share of water resources available from the river Subarnarekha as per the Tripartite Agreement with the Government of Bihar (presently Government of Jharkhand) and Orissa to irrigate an area of 99248 hectares in Kharif and 30766 hectares in Rabi in the districts of Paschim and Purba Medinipur of the State.

The State Government took up several Medium Irrigation Schemes in the districts of Bankura, Birbhum, Burdwan and Purulia. Out of the 32 schemes in Purulia, 25 schemes have been completed and 7 schemes are continuing, of which 2 schemes namely Patloi and Tatko Irrigation Schemes are included under modified programme of AIBP. The ultimate irrigation potential achieved through the completed medium irrigation schemes is 43,002 thousand hectares, whereas the ultimate irrigative potential of the on-going schemes is 8.21 thousand hectares.

The ultimate minor irrigation potential in the State has been estimated as 44.34 lakh hectares, out of which 31.34 lakh hectares are from ground water resources and 13.00 lakh hectares are from surface water resources. At the end of the Annual Plan of 2008-09, creation of irrigation potentials in the Minor Irrigation sector has been estimated to reach 40.20 lakh hectares, of which 27.47 lakh hectares through ground water resources and 12.73 lakh hectares through Surface Water Resources.

The electricity generating utilities in West Bengal in the State Sector are West Bengal Power Development Corporation Limited (WBPDECL), Durgapur Projects

Limited (DPL) for thermal power generation, West Bengal State Electricity Distribution Company Limited (WBSEDCL) West Bengal State Electricity Distribution Company Limited, Renewable Energy Development Agency (WBREDA) for non-conventional energy generation. Besides, Damodar Valley Corporation (DVC) and National Thermal Power Corporation (NPTC) in the Central Sector, CESC Limited and Disergarh Power Supply Corporation in the Private sector are the other power generating utilities in the State. Total generation of power produced by the state agencies was 16270.1 MU in 2008-09 (from April to October). The total number of Mouzas Electrified upto October 2008 is 37416 and in 2008-09 (upto October 2008) the total number of pump sets energized is 1,15,357.

TRANSPORT

Roads : The length of roads as on 31 March 2002 was 91970 km including 1898 km national highways. The length of roads under State highway is 3533 km, under PWD 12565 km and that of the district roads are 42,479 km respectively.

Railways : The total length of railway route in the State in 2007-08 was 4561.93 km. Howrah, Asansol, Sealdah, Bandel, Bardhaman, Kharagpur and New Jalpaiguri are the main junctions.

GOVERNMENT

<i>Governor</i>	: Gopal Krishna Gandhi	<i>Chief Secretary</i>	: Ashok Mohan Chakraborty
<i>Chief Minister</i>	: Buddhadeb Bhattacharjee	<i>Jurisdiction of</i>	: West Bengal and
<i>Speaker</i>	: Hasim Abdul Halim	<i>High Court</i>	: Andaman and
<i>Chief Justice</i>	: S.S. Najjar		: Nicobar

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Bankura	6,882	31,91,822	Bankura
2.	Bardhaman	7,024	69,19,698	Bardhaman
3.	Birbhum	4,545	30,12,546	Suri
4.	Kolkata	185	45,80,544	Kolkata
5.	Darjeeling	3,149	16,05,900	Darjeeling
6.	Howrah	1,467	42,74,010	Howrah
7.	Hooghly	3,149	50,40,047	Chinsurah
8.	Jalpaiguri	6,227	34,03,204	Jalpaiguri
9.	Coochbehar	3,387	24,78,280	Coochbehar
10.	Malda	3,733	32,90,160	English Bazar
11.	Medinipur	14,081	96,38,473	Medinipur
12.	Murshidabad	5,324	58,63,717	Berhampore
13.	Nadia	3,927	46,03,756	Krishnagar
14.	North 24 Parganas	4,094	89,30,295	Barasat
15.	South 24 Parganas	9,660	69,09,015	Alipore
16.	Purulia	6,259	25,35,233	Purulia
17.	Uttar Dinajpur	3,140	24,41,824	Raigunj
18.	Dakshin Dinajpur	2,219	15,02,647	Balurghat

Note : The district Medinipur has been bifurcated on 1 January 2002 into Purba and Paschim Medinipur (the population figures of census 2001 are yet to be incorporated).

ANDAMAN AND NICOBAR ISLANDS

<i>Area</i> : 8,249 sq km	<i>Population</i> : 3,56,152 (2001 census)
<i>Capital</i> : Port Blair	<i>Principal Languages</i> : Hindi, Nicobarese, Bengali, Tamil, Malayalam, Telugu

HISTORY AND GEOGRAPHY

The Union Territory of the Andaman and Nicobar Islands, is situated between 6° and 14° North Latitude and 92° and 94° East Longitude. The islands located north of 10° north latitude are known as Andaman Group of islands while islands located south of 10° north latitude are called Nicobar Group of islands. The climate of the islands can be defined as humid, tropical coastal climate. The islands receive rainfall from both the south west and north east monsoons and maximum precipitation is between May & December.

The original inhabitants of the islands lived in the forests on hunting and fishing. There are four Negrito tribes, viz., the Great Andamanese, Onge, Jarawa and Sentinalese in the Andaman group of islands and two Mongoloid tribes, viz., Nicobarese and Shompens in the Nicobar group of islands.

AGRICULTURE

A total of 51,694.35 hect. of area 8068.71 hectares. under agriculture and plantation in the Andaman and Nicobar Islands was damaged by Tsunami / Earthquake. Out of that paddy and other field crops is 2177.70 ha. and 5891.01 ha. under plantation crops. Area under permanent submergence is 4206.64 hect. with paddy and other field crops.

Paddy the main food crop, is mostly cultivated in Andaman group of Islands, whereas Coconut and Areca nut are the cash crops of Nicobar group of Islands. Field crops, namely, pulses, oilseeds and vegetable are grown followed by paddy during Rabi season. Different kinds of fruits such as mango, sapota, orange, banana, papaya, pineapple and root crops are grown on hilly land owned by the farmers. Spices, viz. pepper, clove, nutmeg and cinnamon are grown under multitier cropping system. Rubber, red oil, palm and cashew are grown on a limited scale in these Islands.

FORESTS

Recorded forest is 7,171 sq km of the total geographical area of the islands. Many types of forests are found in the islands, such as tropical wet evergreen, tropical semi-evergreen, moist deciduous, littoral, mangrove and swamp forests. A large variety of timbers are found in the Andaman group of islands. The most valuable timbers are padauk and gurjan. These species are not found in Nicobar.

WILD LIFE

There are 96 Wildlife Sanctuaries, 9 National Parks and 1 Biosphere Reserve in these Islands. Mammals - out of 55 terrestrial and 7 marine mammal species reported so far, 32 species are endemic. Birds - as many as 246 species and sub species of birds are reported to inhabit these Islands and of these 99 species and sub-species are endemic. Reptiles - there are 76 terrestrial reptiles found here, of these, 24 species are endemic. Marine Line -Islands harbour more than 1,200 species of fish, 350 species of

echinoderms, 1,000 species of molluscs and many more lower forms of life. Among vertebrates dugongs, dolphins, whales, salt water crocodiles, sea turtles, sea snakes, etc., are common. Coral and Coral reefs - so far 179 species of corals belonging to 61 genera have been reported. Reefs are mostly fringing type on eastern coast and barrier type on the western coast.

INDUSTRY

There are 1833 registered MSMEs and Handicrafts Units as on 31 March 2007. Two units are 100 per cent export oriented units in the line of Fish/Prawn processing activity. Apart from this, there are shells and wood based handicraft units. SSI units are engaged in the production of paints and varnishes, mini flour mills, soft drinks and beverages, steel furniture and fixtures, readymade garments, steel gate grills and structures. MSMEs handicraft units are also engaged in shell crafts, bakery products, rice-milling, furniture-making, etc. The Andaman and Nicobar Islands Integrated Development Corporation in the Public sector has spread its wings in the field of Tourism, Fisheries, Industries and Industrial financing and functions as authorized agents for Alliance Air/Jet Airways/Air Deccan.

TRANSPORT

The Motor Transport Department of A & N Administration operates from 13 stations in Northern and Southern group of islands. The department has a total number of 205 buses in operation mainly in rural area of A & N islands. Computerized ticketing for ATR express service has been implemented w.e.f. 15th August, 2007 where advance tickets can be obtained.

During the year 2007-08 a total of 135.88 lakh people travelled by the State Transport Service buses and the Department has generated a revenue of Rs. 1075.22 lakhs. It is therefore evident that the Department has been making steady progress in not only providing better public transport service but also has been increasing its earnings.

TOURISM

Andaman and Nicobar Islands have been recognised as an eco-friendly tourist's destination. As a tourist paradise, these islands have something very special to offer like Cellular Jail, Ross Island and Havelock Island.

The Andaman tropical evergreen rain forests, beautiful silver sandy beaches, serpentine mangrove-lined creeks, marine life abounding in rare species of plants, animals, corals, etc., provide a memorable experience to the tourists. There is tremendous scope for enjoying nature in the beach resorts, water sports and adventure water sports, adventure tourism like trekking, Island camping, Nature trail, Scuba Diving, etc.

Tourism Department runs guest houses in various parts of the Islands for comfortable accommodation to tourists visiting these Islands. The important places of tourist interest are Anthropological Museum, Marine Museum, Water Sports Complex, Gandhi Park, North Bay, Viper Island, Ross Island, Chidiyatapu, (Bird watching), Red Skin Island, Corbyn's cove Beach, Islands like Neil Island, Havelock Island, Cinque, Little Andaman, Diglipur (Ross and Smith), etc.

As regards the connectivity, the islands are well connected to the mainland by air and sea. Indian Airlines, Air Deccan, Jetlite operates to Portblair from Kolkata and Chennai. There are regular passenger ship service from Chennai, Kolkata and Vishakhapatnam.

GOVERNMENT

<i>Lt. Governor</i>	: Lt. Gen. (Retd.) Bhopinder Singh, PVSM, AVSM,
<i>Chief Secretary</i>	: Vivek Rai
<i>Jurisdiction of High Court</i>	: Falls under the jurisdiction of Kolkata High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	South Andaman	3181.401	2,08,471	Port Blair
2.	Nicobar	1,841	42,068	Car Nicobar
3.	North and Middle Andaman	3226.599	1,05,613	Mayabunder

CHANDIGARH

<i>Area</i>	: 114 sq km	<i>Population</i>	: 9,00,635
<i>Capital</i>	: Chandigarh	<i>Languages</i>	: Hindi, Punjabi, English

HISTORY AND GEOGRAPHY

Chandigarh is a fully grown town of most modern architectural splendour. The city nestles in a picturesque setting in the foothills of Shivalik hills and enjoys the popular epithet the "City Beautiful". Representative of modern architecture and town planning, the city is a creation of the French Architect, Le Corbusier. Chandigarh and the area surrounding it were constituted as a Union Territory on 1 November 1966. It serves as the joint capital of both Punjab and Haryana States. It is bound on North and West by Punjab and on the East and South by Haryana.

ADMINISTRATION

Chandigarh Administration is moving on four broad fronts. First, it is our aim to provide, with the help of information technology, an accessible and transparent administration. We were among the earliest to implement the provisions of the Right to Information Act. A number of services, for which citizens earlier had to go to government offices, are now available on computer and mobile phones. All rules are being reviewed to see what simplification can be carried out to make them user-friendly. The purpose is to minimise the exercise of discretion, and minimise the leg work of the citizen in dealing with the Administration.

Secondly, the Administration is working towards a higher rate of economic growth by encouraging economic activities which provide greater value addition, such as knowledge based industries, high-end commercial activity, etc., Chandigarh already has the highest per capita income in the country.

Thirdly, the Administration is seeking to provide infrastructural services such as electricity supply, water supply, health and educational services and public

transport which should compare with those in advanced countries. It will take time, but we believe that our ambitions can be achieved in the medium term.

Fourthly, the Administration is all too conscious of the fact that the benefits of development do not reach everyone equally. Hence there is a special emphasis on reaching out to those whom development has by-passed.

TRANSPORT

Chandigarh Administration comprehending the need for a user friendly transport system has decided to launch a Mass Rapid Transport System shortly. The UT Administration and the State Governments of Punjab and Haryana have come together for the implementation of the project.

Administration will soon introduce Air Conditioned and Double Decker buses. 85 buses were purchased and put on routes during the year 2007-08.

CTU has computerized 70 per cent of its working and is in the process of further computerization. The Undertaking is also in the process of installing a Global Positioning System to monitor its fleet in a phased manner. The first phase of the ISBT Sector 43 has already started functioning and the second phase is scheduled for completion later this year.

RURAL DEVELOPMENT

In order to sensitize the poor and weaker sections of the society about the rights and different benefits being extended to them by the State Legal Services Authority, 14 legal awareness seminars have already been organized in different villages of the UT.

Cement concrete paving and underground drains in village Kajheri and Palsora have been completed. 70 per cent work in village Mauli Jagran has been completed.

SPORTS

The Administration has opened a Girls Hockey Academy in sector-18 and would shortly start two more girls academies — one for Cricket and another for Football. The Administration successfully organized a One-day International Cricket match between India and Australia on October 8, 2007 by upgrading the Cricket Stadium of Sector-16. Various facilities of international standards and latest ground equipments have been added. A new athletic-cum-Football stadium would be built with all state-of-art-facilities in Sector 56 with a seating capacity of 40,000 spectators, the process for which has already started. Indoor provisions for Basket Ball, Volley Ball, Judo and wrestling will also be provided in this stadium.

In the year 2007, the Chandigarh Sports Council had set up two more new in-house Academies, in Hockey and Cricket to churn out high class first rate players from the UT. All facilities including board and lodging, education, diet, sport gear etc. are being provided free-of-cost to the trainees in the academies.

INFORMATION TECHNOLOGY

Construction work of Chandigarh Administration's visionary project Rajiv Gandhi Chandigarh Technology Park (RGCTP) is in its full swing. Completion of Phase III will provide direct employment to 35000 professionals, thereby increasing the direct employment of RGCTP to 67,000 and would create 2,00,000 indirect jobs in Chandigarh. The Entrepreneur Development Centre at the RGCTP is being set up over an area of 1.5 acres approximately. The centre would become operational this year.

Chandigarh has become a role model in using information technology to provide fast and user friendly services for the masses. Under the E-Governance initiatives of the Department, seven more Gram Sampark Centres have been set up in the villages of Dhanas, Khudda Jassu, Kaimbwala, Raipur Khurd, Raipur Kalan, Makhan Majra and Bahlana in 2007. As many as seven more Gram Sampark Centres in villages Palsora, Dadu Majra, Hallo Majra, Khuda Alisher, Daria, Mauli Jagran and Maloya have been made operative.

In addition to the existing Centres some more Sampark Centres have been proposed and new services like payment of BSNL bills, power bills, water bills, payment of LIC premium, school fees collection and tubewell booking, especially for rural citizens , has also been incorporated or are being afoot.

The Administration is working on energy conservation. A Work order has been issued to the Tata BP Solar Ltd. for commissioning the State Level Energy Park at the Botanical Garden. Under the Solar Lighting initiative, all street lights in the villages would be replaced with solar based street lights.

SOCIAL WELFARE

Social Welfare has been a major focus of the Administration. Many people-friendly and innovative schemes for them have been launched by Administration. To wipe away the menace of casteism and encourage the people for inter-caste marriage, a sum of Rs. 5,000 is granted to the married couples provided that one of the spouses belongs to SC Community. The Administration has enhanced the amount to Rs. 50,000.

Under the Balika Samridhi Yojana, A sum of Rs. 500 is being given to the newly born girl child in the BPL families. The Chandigarh Administration has decided to set up a Preparatory School for Children with Special Needs (for 50 children) which will run in the premises of PRAYAS Building, Sector 38. An outlay of about Rs. 14 lakh has been proposed in the Annual Plan 2008-09 for purchase of equipments and other contingent expenditure.

The Vocational Training Centre for Street Children in Maloya with the capacity to provide training for 900 children is under construction. The Administration has set up a child help line.

HEALTH

Telemedicine Project has been launched with state-of-art facilities at Government Medical College and Hospital, Sector 32, Chandigarh aiming to help needy patients to avail the expert advice of the doctors of specialized fields in PGI and ensuring them high-quality medical services.

The Government Multi Speciality Hospital (GMSH), Sector 16 has been upgraded by adding a Trauma Unit having 28 beds with Emergency Operation Theaters.

The Administration has launched the project for improving the Monitorable Indicators of Reproductive and Child Health in UT at a cost of Rs. 5,273 per mother and her child.

Seven more "State of the art" operation theatres including pre-anesthesia, post-anesthesia rooms and a post operative ward has been commissioned in Government

Medical College and Hospital, Chandigarh. "SAMARTH" a residential house for mentally retarded individuals had also been set up in Sector 15, Chandigarh. A huge total of around 5.6 crore has been sanctioned for the Residential Accommodation of the eligible faculty staff of GMCH.

INDUSTRIES

The Administration is developing the Phase-III of the Industrial Area at the revenue estate of village Mauli Jagran. 152 acres of land have been acquired.

After a gap of 17 years, Chandigarh was awarded Silver Medal amongst all UTs for its excellent display at the recently held India International Trade Fair, 2007, New Delhi.

EDUCATION

Chandigarh Administration is coming up with its World Class Project, the multi institutional 'Chandigarh Education City' at Sarangpur with a total area of 130 acres.

Administration has enhanced the attendance scholarship being given to girl students of general category from Rs. 30 per month to Rs. 250 per month for a period for Class 1st to 5th. For ensuring enrolment and education among schedule caste boys and girls, Administration has also decided to increase the attendance scholarship being given to the Scheduled Castes students studying in Class 1st to 8th from Rs. 30 per month to Rs. 250 per month in the age group of 6 to 14 years.

It has been decided to increase the scholarship to the meritorious SC/ST students of Class 9th to 12th; it has been now increased to Rs. 300 per month whereas it was Rs. 20/- and 25/- earlier.

Chandigarh Administration has also decided to exempt the tuition fees of Muslims, Christians, Other Backward Classes, Handicapped, Ward of Freedom Fighters, Ex-serviceman, widows and divorcees having family income below Rs. 1.5 lakh per year. For the children belonging to low income groups and slum based families, it has decided to give incentive of Rs. 250 per month to rope in the children presently not enrolled in any school on their fresh enrolment.

TOURISM

Administration has taken many innovative and novel measures like Wedding Tourism. With the focus on extending efficient medical, educational and entertainment oriented facilities, Administration is promoting Cinematic Tourism, Sports Tourism and Medical Tourism in a big way. Chandigarh International Airport will prove to be a big leap for Tourism in the region.

HOUSING

Chandigarh Housing Board is working on various projects. CHB being a Nodal agency for the implementation of the 'Chandigarh Small Flats Scheme-2006' has during the year finalized the process for implementation of the construction of 25,728 One Room Tenement under the scheme in two phases. Construction of 1024 Flats in Sector 49 and 1120 Flats in Sector 38 (West) under the scheme has already commenced. Similarly, construction at the remaining six locations will commence in due course of time.

The Board during the year, has completed construction of 326 Prefab Shelters in Sector-56 for allotment to rag pickers of the City. Construction of 400 EWS houses in Sector-49 & 288 EWS houses in Sector-38 (W) under the scheme is in progress and is likely to be completed by February, 2009.

A special self-financing Housing Scheme has been launched by the Board for allotment of Dwelling Units to the employees of the Administration which will be constructed over 45.5 acres of land in Sectors-52 and 56. Reservation of 5 per cent in favour of employees retiring within three years and those who have retired in the last three years has been kept in the scheme. Reservation of 3% for physically challenged persons has also been made.

As a step towards utilization of land vacated by Slum Dwellers in Sector-26 (East) Madraasi Colony, CHB has commenced construction of 160 EWS houses in the area. The work is likely to be completed by March, 2009.

The construction of 256 one bedroom and 208 two-bedroom flats are in progress and are likely to be completed by June, 2008. The construction of 400 EWS and 288 EWS are likely to be completed by March, 2009.

POWER

Provisions of sufficient electricity to all the residents of UT is also getting attention of the Administration. To improve the voltage profile and to reduce the load on the power distribution network of UT, the Electricity Wing had planned to add 80 MVAR Automatic Capacitor Banks at various existing 66KV Grid Sub-Station located at different points in the periphery of UT.

Use of CFL has been made mandatory inside all government buildings. Similarly, all institutional buildings will have to provide solar lighting in their parking spaces within their complexes.

The Electricity Wing also achieved its target in reduction of transmission & distribution losses from 20.89% to 19.29%. The reduction is around 1.5%. Every effort is being made to reduce the losses further in the next year by another 1.5%.

MUNICIPAL CORPORATION

Municipal Corporation Chandigarh has upgraded the Sewage Treatment Plant at Diggian at a cost of Rs. 28 crore. MC also bagged the 1st prize both in water supply and sewage/drainage services from the Government of India, which was awarded by the Prime Minister of India.

A Supervisory Control and Data Acquisition System has been installed at a cost of Rs. 700 crore to keep surveillance and monitor the water supply. It will save power consumption, reduce operation and maintenance cost by approximately Rs. 3 crore annually.

To save portable water & provide additional water for landscaping, a project amounting to Rs. 36 crores has been taken up. This project will generate 10 MGD tertiary water. The existing Dhobi Ghat of Sector 15 has been converted into Automatic Laundry Marts, The first of its kind in India.

Adding another milestone to up-gradation of the environment in City Beautiful, The Municipal Corporation has set up a Solid Waste Processing Plant at Dadu Majra at a cost of Rs. 30.00 crores on 10 acres. The plant is one of its kinds in northern India.

GOVERNMENT

<i>Administrator</i> :	General (Retd.) S.F. Rodrigues	<i>Adviser to the Administrator</i> :	Lalit Sharma
		<i>Jurisdiction of High Court</i>	Falls under jurisdiction of Punjab and Haryana High Court

DADRA AND NAGAR HAVELI

<i>Area</i> :	491 sq km	<i>Population</i> :	2,20,490
<i>Capital</i> :	Silvassa	<i>Principal Languages</i> :	Gujarati, Hindi

HISTORY AND GEOGRAPHY

After prolonged skirmishes between the Portuguese and Marathas, on 17 December 1779, the Maratha Government assigned the aggregated revenue of Rs 12,000 in a few villages of this territory to the Portuguese as compensation to ensure their friendship. The Portuguese ruled this territory until its liberation by the people on 2 August 1954. From 1954 till 1961 the territory functioned almost independently by what was known as "Free Dadra and Nagar Haveli Administration". However, the territory was merged with the Indian Union on 11 August 1961 and since then is being administered by the Government of India as a Union Territory. After liberation of the territory from Portuguese rule, a *Varishtha Panchayat* was working as an advisory body of the Administration. This was dissolved in August 1989 and a Pradesh Council for Dadra and Nagar Haveli District Panchayat and 11 Village Panchayats were constituted as per constitutional amendments at All India level. The U.T. of Dadra and Nagar Haveli has an area of 491 sq km and it is surrounded by Gujarat and Maharashtra. It consists of two pockets, namely, Dadra and Nagar Haveli. The nearest railway station is at Vapi which is 18 km from Silvassa.

AGRICULTURE

Dadra and Nagar Haveli is a predominantly rural area with about 79 per cent tribal population. It has about 21,115 hectares under cultivation. Major crop is paddy (*Kharif*) while Nagli and other hillmillets are crops of the area. Among fruits Mango, Chiku and Banana, etc., are also produced. Forests cover 40 per cent of the total geographical area.

Sugarcane cultivation has also been taken up in a big way since the last few years. And efforts are afoot to adopt a multiple cropping system in assured irrigated areas. During 2006-07, 87 MT of H.Y.V. seeds, were distributed to 2211 farmers alongwith 1407 M.T. of chemical fertilizers to 6449 farmers. The organic farming scheme will shortly be implemented in Dudhani and Mandoni patelads. To this end, 60 Kisan Credit Cards have been issued.

The Wadi Development programme in the tribal area of both Dadra and Nagar Haveli is implemented by the N.G.O., B.A.I.F. with the financial allocation from NABARD, a total of 800 tribal and scheduled caste families will benefit.

INDUSTRY

Prior to 1965-66 there was no industry in the Union Territory. There were a few traditional craftsmen who used to make pots, leather items, viz., chappals, shoes and

some other items of bamboo. Industrial development started on a low-key during 1967-68 with the establishment of an industrial estate under the cooperative sector by Dan Udyog Sahakari Sangh Ltd. Thereafter, three Government Industrial Estates have been developed at Silvassa, Masat and Khadoli in the U.T. With the inception of the economic liberalization policy, a real boost in industrial development was seen. Presently i.e. in 2006-07 there are 1863 small sector industrial units and 430 MSI/LSI units the U.T. functioning in the U.T. providing gainful employment to over 46,000 people.

IRRIGATION AND POWER

Prior to liberation of the territory, there was no irrigation facility and cultivators had to fully depend upon rainfall. After the merger of the territory with the Indian Union, adequate steps were taken under minor irrigation sector. So far 128 lift irrigation schemes have been completed on irrigation wells, surface water sources like rivers, check dams at various places in the territory creating additional irrigation potential of 1,851 hectares. Under medium irrigation project viz., Damnganga Reservoir Project, about 115 km of minor canals and distributaries are falling in the area of this Union Territory. Development works have been completed in field channels in all respects in 4,300 hectares and testing is done in 4,049 hectares.

There was no rural electrification prior to liberation of this territory. The electricity was provided with only one DG Set which was installed and operated in Silvassa Town for VIPs at Circuit House.

After liberation, the UT Administration commenced rural electrification work with the co-operation of neighbouring State of Gujarat and completed electrification work in 25 villages by 1976. The power demand of the UT is met by Gujarat Electricity Board through a single Circuit from Vapi-Silvassa and distributed amongst limited number of consumers. The first 66 KV Sub-Station was established at Amla in 1979. With the commissioning of the said Sub-Station, the electricity department is in a position to provide electricity to all villages.

One more 220/66 KV, 2x160 MVA sub-station at village Khadoli has been approved by the Ministry of Power. The Power Grid Corporation of India will execute this work, which is likely to be completed within three years. In addition to this, a proposal for the establishment of various 66/11 KV sub-station at Vaghdhara, Athal, Piparia, Sayli, Velugam etc is in the pipeline.

The Power requirement of the territory is being met from Central Sector Power Generating Stations located in the western region. At present the power allocation from the Central Sector is 270 MW. The power demand has increased tremendously due to rapid industrialisation with the extension of Tax Holiday benefit to this UT by the Government of India.

TRANSPORT

The Union Territory depends heavily on Maharashtra and Gujarat road network as the territory can be accessed only after crossing these two States from Mumbai. At present road length is about 635 km. out of which 570 km. is surfaced. Almost all villages are connected with all weather roads. The rail route from Mumbai to

Ahmedabad links Vapi also. Mumbai is the nearest airport. Recently, the work of widening of roads in the Union Territory has been taken up to meet the requirement of increasing vehicular traffic.

To meet the need of rapid industrialisation, four laning work has been taken up in Silvassa and adjoining areas, besides other spillover works. Converting of two lane road to four lane road for a length of 17.69 kms has been completed. The Dadra — Tighra road is under progress and during the current financial year i.e. 2007-08, another 5.70 kms length of road connecting Silvassa and Naroli is likely to be converted into a four-lane drive.

TOURISM

Tourism sector has been assigned high priority keeping in view the dense forest area and favourable climate.

The prominent places of tourist interest are Tadekeshwar Shiva Mandir, Bindrabin, Deer Park at Khanvel, Vanganga lake and Island Garden, Dadra, Vanvihar Udhyan Mini Zoo, Bal Udhyan, Tribal Museum and Hirvavan Garden at Silvassa. The development of water sports at Dudhani has been completed. The construction of an Amphitheatre close to Yatri Niwas, Silvassa is under progress. To encourage tourism activities, some traditional and modern cultural activities like celebration of Tarpa Festival, Kite festival, World Tourism day, etc., are organised every year.

FESTIVALS

Normally all festivals of Hindus, Muslims and Christians are celebrated in the territory, while tribals celebrate their own festivals. Diwaso is celebrated by Dhodia and Varli tribes and Raksha Bandhan is celebrated by Dhodia tribe. Other festivals include Bhawada amongst Varlist, Koli tribes and Khali Puja by all tribes after harvesting of crops and Gram Devi before harvesting of crops.

DAMAN AND DIU

<i>Area</i>	: 112 sq km	<i>Population</i>	: 1,58,204
<i>Capital</i>	: Daman	<i>Principal Languages</i>	: Gujarati

HISTORY AND GEOGRAPHY

Daman and Diu along with Goa was a colony held by the Portuguese even after Independence. In 1961, it was made an integral part of India. After Goa was conferred with statehood, on 30 May 1987, Daman and Diu was made a separate Union Territory. Daman lies about 193 km away from Mumbai. It is bound on the east by Gujarat, on the west by the Arabian Sea, on the north by the Kolak river and on the south by Kalai river. The neighbouring district of Daman is Valsad in Gujarat. Diu is an island connected by two bridges. The neighbouring district of Diu is Junagadh of Gujarat.

AGRICULTURE AND IRRIGATION

Total irrigated area is 393.93 h.a. and un-irrigated area is 3304.73 hectares as per the Agricultural Census 2000-01. In 2000-01 the net area under cultivation was 3375.65 h.a. Important field and garden crops are paddy, ragi, bajra, jowar, groundnut, pulses and beans, wheat, banana, sapota, mango, chickoo, coconut and sugarcane. There are no major forests in the territory.

INDUSTRY AND POWER

There are 2930 small-scale and medium-scale industries in Daman and Diu. Two industrial areas have been developed by Omnibus Industrial Development Corporation at Daman. The other industrial areas are Dabhel, Bhimpore, Kachigam and Kadaiya.

All villages have been electrified. Daman and Diu have got adequate power allocation from Central sector power stations in western region.

TRANSPORT

Roads : The total length of roads in Daman and Diu are 191 km and 78 km respectively.

Railways : There is no railway link with Daman and Diu. The Nearest railway station from Daman is Vapi on western railway on Mumbai-Delhi route. The nearest railway station from Diu is Delvada on meter-gauge.

Aviation : There are airports both in Daman and Diu. Diu is connected by air and there is regular air service from Mumbai to Diu.

TOURIST PLACES

Important tourist places in Daman are as under : Bom Jesus Church, Our Lady of Sea Church; Our Lady of Remedios Church; Forts of Moti Daman and Nani Daman; Jampore and Devka Beaches; Public Garden at Nani Daman and Moti Daman Jetty, Pargola Garden, Moti Daman; Amusement Park, Devka; Damanganga Tourist Complex, Kachigam; Satya Sagar Udyan; Mirasol Garden; Mirasol Water Park.

In Diu, St. Paul's Church; Diu Fort and Panikota Fort; Nagoa and Chakratirth and Children's park at Ghoghla and Summer House.

GOVERNMENT

<i>Administrator</i>	:	R.K. Verma
<i>Development Commissioner</i>	:	Dharmendra
<i>Finance Secretary</i>	:	P.K. Gupta
<i>Collector, Daman</i>	:	Vikas Anand
<i>Collector, Diu</i>	:	J.B. Singh
<i>Jurisdiction of High Court</i>	:	Falls under Mumbai High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Daman	72	1,13,989	Daman
2.	Diu	40	44,215	Diu

DELHI

<i>Area</i>	:	1,483 sq km	<i>Population</i>	:	13.80 million
<i>Capital</i>	:	Delhi	<i>Principal Languages</i>	:	Hindi, Punjabi, Urdu & English

HISTORY AND GEOGRAPHY

Delhi finds prominent reference right from the times of the epic *Mahabharata*. Its control passed from one ruler/dynasty to another, beginning with the Mauryas,

Pallavas, Guptas of Central India and then going on to the Turks of Afghan during the 13th to 15th centuries, and finally to the Mughals in the 16th century. In the latter half of the 18th century and early 19th century, British rule was established in Delhi. In 1911, Delhi became the centre of all activities after the capital was shifted from Kolkata (Calcutta). It was made a Union Territory in 1956. Lying in the northern part of the country, Delhi is surrounded by Haryana on all sides except the east where it borders with Uttar Pradesh. The 69th Constitutional amendment is a milestone in Delhi's history as it got a Legislative Assembly with the enactment of the National Capital Territory Act, 1991.

AGRICULTURE

The principal food crops are wheat, *bajra*, *jowar*, gram and maize. However, emphasis has now shifted from food crops to vegetables and fruit crops, dairy and poultry farming, floriculture, etc., as these are more remunerative than food crops in the territory.

INDUSTRY

Delhi is not only the largest commercial centre in northern India, but also the largest centre of small industries. These units manufacture a wide variety of items like television, tape recorders, light engineering machines and automobile parts, sports goods, bicycles and PVC goods including footwear textiles, fertilizers, medicines, hosiery, leather goods, software, etc.

Delhi's new millennium industrial policy, emphasizes setting up of high-tech and sophisticated industries in electronics, telecommunications, software industries, IT enabling services, etc. The industries, which are non-polluting and encourage high value addition and depend largely on skilled manpower are being promoted. DSIDC is setting up a Training Institute for Gems and Jewellery and Assaying and Hallmarking Centre at Okhla in the building of Hitech Vocational Centre.

For the purpose of relocating industrial units functioning in residential non-conforming areas, the Government of NCT of Delhi took possession of 1900 acres of land at village Bawana, Holambi Kalan and Holambi Khurd for developing new industrial estates. Bawana Industrial area developed by DSIDC is the largest in Asia and is spread over 1900 acres of land. At Narela 900 plots have been developed and allotted and another 600 plots are being developed. Work of construction of 378 flatted factories at Jhilmil Industrial Area for relocation of smaller units has been completed. 450 acres of land have been taken for development at the Bhorgaah industrial estates. In addition to the above, 652 hectares of land is being acquired for development into a huge industrial area in Kanjhawala/Kerala.

IRRIGATION AND POWER

Due to fast urbanisation of the rural areas of Delhi, cultivable command area under irrigation is getting reduced day by day. Two schemes, namely, "Keshopur Effluent Irrigation Scheme Phase-III" and "Improvement and Extension of Effluent Irrigation System from Coronation Treatment Plant" are under execution. Irrigation of about 350 hectares with state tube-wells and 1,376 hectares from effluent water is being provided in the rural area of NCT of Delhi. In addition about 4,900 hectares of land is being irrigated from western Yamuna Canal network.

The firm availability of power for Delhi from its own generating units at Rajghat Power Houses, IP Station and Gas Turbines including Badarpur Thermal Station is of the order of 850-900 MW. The remaining power is drawn from Northern Regional

Grid. Delhi has also envisaged a number of generating projects to be taken up. Pragati Combined Cycle Power Project has been established at Indraprastha Estate. A 330 MW Pragati Power Project under construction is scheduled to be commissioned soon. The test run for its first phase of 100 MW has already started. The work of newly planned 330 MW gas based power plant under Pragati-II and 1000 MW power plant planned at Bawana is going on. Existing coal-based Indraprastha plant is being replaced by 1000 MW gas based plant.

To streamline the distribution of power, DVB has been privatised and Delhi is now served by the two of the best electric utilities in India, BSES and Tata Power (NDPL).

TRANSPORT

Delhi is well connected by roads, rail and air with all parts of India. It has three airports—Indira Gandhi International Airport for the international flights, Palam Airport for domestic air services and Safdarjung Airport for training purposes. It has three important railway stations — Delhi Junction, New Delhi Railway Station and Nizamuddin Railway Station. Delhi has three inter-state bus terminals at Kashmeri Gate, Sarai Kale Khan and Anand Vihar.

Keeping in view the rising vehicular pollution and chaotic traffic condition in the city of Delhi, it has been decided to start Mass Rapid Transit System (MRTS) in Delhi. The Project is under implementation and is uses the state-of-the-art modern technology. The metro rail project runs in Delhi. Now three metro corridors exist in phase-1 of Delhi Metro comprising of three corridors of total length of 65.1 Km have been completed and operational in record time with full commissioning of line from Shahdara to Rithala and Vishwa Vidyalaya to Central Secretariat. The third line from Barakamba road to Dwarka is also running to provide better connectivity to the commuters from NCR region.

FESTIVALS

Being a cosmopolitan city, all major festivals of India are celebrated here. Moreover, some tourism festivals have become regular annual events of Delhi. Delhi Tourism and Transportation Development Corporation organises Roshnara Festival, Shalimar Festival, Qutab Festival, Winter Carnival, Garden Tourism Festival, Jahan-e-Khusrao Festival and Mango Festival every year.

TOURIST PLACES

Important tourist places are Lal Quila (Red Fort), Jama Masjid, Qutab Minar, India Gate, Laxmi Narian Mandir (Birla Mandir), Humayun's tomb, Lotus Temple, etc. Delhi Tourism and Transportation Development Corporation Limited conducts city sight-seeing and excursion tours. The Corporation has also introduced adventure tourism activities such as para-sailing, rock-climbing and boating in Delhi. The Corporation has also developed DELHI HAAT, where beverages and food items of different states are available at one place. More such HAATs are planned in different parts of Delhi. The Corporation is also running Coffee Homes in different parts of Delhi. The "Garden of five Senses" has also been opened in the South District of Delhi, which attracts a lot of tourists visiting Delhi.

GOVERNMENT

<i>Lt. Governor</i>	: Tejinder Khanna	<i>Chief Secretary</i>	: Rakesh Mehta
<i>Chief Minister</i>	: Sheila Dikshit	<i>Jurisdiction of</i>	: Delhi
<i>Speaker</i>	: Dr. Yoganand Shastri	<i>High Court</i>	

LAKSHADWEEP

<i>Area</i>	: 32 sq km	<i>Population</i>	: 60,650
<i>Capital</i>	: Kavaratti	<i>Principal Language</i>	: Jeseri (Dweep Bhasha) and Mahal

HISTORY AND GEOGRAPHY

Not much is known of the early history of these islands. The islands supposed to have been inhabited first are Amini, Andrott, Kavaratti and Agatti. It was earlier believed that the islanders were originally Hindus and later converted to Islam under the influence of Arab traders sometime in the 14th century. But Archaeological evidences unearthed indicate that there were Buddhist settlements around the 6th or 7th century. Earliest Muslim converts or settlers pre-date the year 139 AH of the Hijra year (eighth century) of which period grave stones have recently been discovered in Agatti. This would tend to bear out the traditional belief that Islam was brought to the Island by Arab Saint, Ubaidulla in 41 AH.

Probably independent till 16th century the Islands were driven to seek the assistance of Raja of Chirakal to help them avert establishment of Portuguese domination. This enabled him to establish his authority and, later, the islands were transferred in jaggeer to Ali Raja, head of Moplah community in Cannanore, who later became an independent ruler himself. The Arakkal rule was not popular and in 1787, Tipu Sultan acceded to the petitions of the Northern islands to annex these islands. After the fall of Tipu Sultan, the Islands were passed to East India Company but continued to be ruled de facto by the rulers of Cannanore till their ultimate annexation by the British in the early 20th century. In 1956, the islands were constituted into a single territory, and since then, have been directly administered by the Union Government through an Administrator. The Laccadives, Minicoy and Amindivi group of islands were renamed as Lakshadweep in 1973. Lakshadweep, a group of coral islands consist of 12 atolls, three reefs and submerged sand banks. Of the 27 islands, only 11 are inhabited. These lie scattered in the Arabian Sea about 280 km to 480 km off Kerala coast between 8° and 12° 3' North Latitude and 71° and 74° East Longitude.

AGRICULTURE

Coconut is the only major crop with a production of 580 lakh nuts per year. The area under cultivation is about 2,598 hectares. Lakshadweep coconut is branded as an organic product. In India, Lakshadweep stands first in coconut production and productivity per hector is 22,310 per hector and average yield per palm per year is 97 nuts. The Lakshadweep coconuts are the highest oil content nuts in the world (72 per cent).

FISHERIES

Fishing is another major activity. The sea around the island is highly productive. The islands stand first in the country in per capita availability of fish. During 2009, 11,751 tonnes of fish have been landed in this U.T.

INDUSTRIES

Coconut fibre extraction and conversion into fibre products is the main industry in the islands. Under Government Sector, there are seven coir fibre factories, five coir

production cum demonstration centres and seven fibre curling units, functioning under coir sector. These units produced coir fibre and coir yarn in addition to other coir products like curled fibre, corridor mat, mat and mattings. A few coir twisting unit also function in private sector.

TRANSPORT

At present M.V. Kavaratti, M.V. Tipu Sultan, M.V. Bharat Seema, M.V. Minicoy, M.V. Amindivi and M.V. Dweep Setu are operating in the mainland-island sector. From 2008-09 onwards three 150 passenger high speed vessels HSC Valiyapani HSC Cheriapani and HSC Parali are doing service in Andrott/Kochi/Beypore sector as well as in Minicoy-Kavaratti Sectors. The other inter island ferries M.V. Khadeeja Beevi, M.V. Hameedath Bee, HSC Viringili, HSC Blue Marlin, HSC Black Marlin and HSC Skipjack provide connectivity between the islands except Minicoy and Bitra and Kavaratti. The Cargo traffic in this sector are handled with four cargo largest, namely M.V. Ubaidulla, M.V. Thinnakara, M.V. Laccadives and M.V. Cheriya. Further one oil barge M.V. Sukheli (60 MT) is being utilized for providing bunker to winter-Island ferries at Kavaratti. Two 10 Ton Bullard Tugs are also in operation for assisting berthing of smaller ships at Andrott breakwarer as well as for providing bunker for the speed vessels in the absence of Oil Barges at Andrott and Minicoy. Besides, the administration operates two helicopters for evacuation of serious patients from the islands to Kavaratti as well as to mainland. The second helicopter is used for meeting the requirement of emergency law and order situation and for inter-island connectivity during monsoon season. Helicopter connectivity between Kavaratti and Agatti/Bangaram is also provided for the passengers and tourists availing Indian Airlines and Kingfisher Airlines in Agatti-Kochi sector.

The 15 years Perspective Plan for shipping requirements in UTL are approved by Ministry of Shipping in December 2000. Among the 18 new ships recommended by the above plan, three 150 passenger high speed crafts and two 10 Ton Bullard Tugs have already been procured and inducted into service. One 15 passenger and three 50 passenger high speed vessels were also sanctioned by Government of India under PMGSY which has already been procured and inducted into service. Two 250 passenger cum 100 MT cargo ships are being constructed at Colombo Dockyard, Srilanka. The first ship is to be delivered in December 2009 and the second ship in June 2010. Six 200 passenger landing Barges are also being constructed at Vipul Shipyards, Goa. Apart from the above vessels, two landing Barges, one Oil Barge and one LPG Ships are also recommended by the committee for which tenders are being finalized by SCI. Proposal has also been submitted to Ministry of Shipping for approval of EFC for acquisition of one 400 passenger ship.

TOURIST CENTRES

Tourism is developing into an important industry. Important tourist places are Agatti, Bangaram, Kalpeni, Kadmat, Kavaratti and Minicoy, etc. 13,115 tourists visited this year 2008-09 of which 2,852 are foreign tourists.

GOVERNMENT

Administrator : J.K. Dadoo, IAS

Jurisdiction of High Court : Falls under jurisdiction of Kerala High Court

PUDUCHERRY

<i>Area</i>	: 479 sq km	<i>Population</i>	: 9,74,345
<i>Capital</i>	: Puducherry	<i>Principal Languages</i>	: Tamil, Telugu, Malayalam, English and French

HISTORY AND GEOGRAPHY

The territory of (Puducherry) comprises the former French establishment Puducherry, Karaikal, Mahe and Yanam, which lie scattered in South India. Puducherry, the capital of the territory was once the original headquarters of the French in India. It was under the French rule for 138 years and merged with the Indian Union on 1 November 1954. It is bounded on the east by the Bay of Bengal and on the three sides by Tamil Nadu. About 150 kms south of Puducherry on the East Coast lies Karaikal. Mahe is situated on the Malabar coast on the Western Ghats surrounded by Kerala. It can be reached from Calicut Airport, which is 70 kms from Mahe. Yanam is situated adjoining the East Godavari district of Andhra Pradesh and is about 200 kms from Visakhapatnam airport.

AGRICULTURE

Nearly 24.37 per cent of the population of the Union Territory is engaged in agriculture and allied pursuits. 80.7% of the cultivated area is irrigated. Paddy is the predominant crop (65%) followed by pulses. Mahe region contributes to the plantation wealth of this territory. Crops like coconut, areca nut, condiments and spices are grown here. Paddy crop is a major crop and pulses, groundnut and chillies are the other rainfed crops grown in Yanam.

INDUSTRY

7,982 Industrial Units in total with an aggregate investment of Rs 2,177.78 crores provided employment to 93,044 persons up to March 2008. The total value of production of these industrial units worked out to Rs 13,455.34 crores.

Further, during the financial year 2006-2007 (upto March 2007) the value of exports in respect of the various products manufactured by the export oriented units is Rs 901.06 crores.

IRRIGATION

Under the assistance from the European Union many tanks were rehabilitated. 8 bed dams have been constructed across the river Sankaraparani and Pennar at various places. In addition to the above, necessary proposal to construct bed dams for ground water recharges at Aratchikuppam, Pambaiyar confluence point at Sellipet, across Malatar in Vadukuppam at Puducherry and across Mullaiyar, Pravadayananar and Vanjiar at Karaikal and also the construction of a bridge-cum-barrage at Villanur are under progress.

POWER

The Power requirements of the Union Territory of Puducherry are met by availing share of power from the Central Generating Stations and by purchasing power from the neighbouring State Electricity Boards viz., Tamilnadu Electricity Board, Kerala State Electricity Board and from the Puducherry Power Corporation Limited. The total power available for Union Territory of Puducherry is 396 58 MW.

TRANSPORT

Roads nearly 677.525 km. of various category are being maintained by Roads Divisions of PWD Puducherry. Construction of bridges and improvement of roads are under progress.

TOURISM

Located about 160 Km South of Chennai, Puducherry (known in Tamil as Puddcherry), the former French Colony of the early 18th Century, is a charming Indian town with a few enduring pockets of French Culture, and an Ashram set beside the sea. Together with the othe former French enclaves of Karaikal (also in Tamil Nadu), Mahe (Kerala), Yanam (Andhra Pradesh), it now forms the Union, Territory of Puducherry. The uniqueness of this town invariably lies in skillful town planning and Franco Tamil architecture. The town is built on the model of "bastide", a fortified French coastal town of the late 18th Century.

Being the legendary abode of renowned saints, ancient trading settlement with Rome and Greece, once capital of French India, a spiritual Power house, Puducherry has touristic resources in the back waters, rivers, beaches and other areas developed as sustainable eco-tourist facilities. Influenced by East and West, Puducherry has unique handicrafts in leather pottery, hand made paper, incense and antique colonial furniture. Late Prime Minister Pandit Jawaharlal Nehru rightly described Puducherry as "the Window of French Culture".

Sri Aurobindo, the great seer, poet and prophet of Indian spirituality, preached his vision and ideals staying in Puducherry till his life. His Ashram is still an unique institution with its distinctive way of life attracting people from all over the world.

GOVERNMENT

<i>Lt. Governor</i>	: Govind Singh Gurjar	<i>Chief Secretary</i>	: Naini Jayaseelan, IAS
<i>Chief Minister</i>	: N. Rangasamy	<i>Jurisdiction of</i>	: Falls under jurisdiction
<i>Speaker</i>	: R. Radhakrishnan	<i>High Court</i>	Chennai, High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Puducherry	290	7,35,332	Puducherry
2.	Karaikal	161	1,70,791	Karaikal
3.	Mahe	9	36,828	Mahe
4.	Yanam	20	31,394	Yanam

31 Diary of National Events

(OCTOBER 2008—SEPTEMBER 2009)

OCTOBER 2008

- At least 187 persons killed and hundreds injured in a stampede at Chamunda Devi Temple in Rajasthan.
- Tata Group shifts Nano small car project from Singur in West Bengal.
- India and the US seal an unprecedented nuclear deal ending New Delhi's 34 years isolation.
- Election Commission announces one-day poll in Rajasthan, Madhya Pradesh, Delhi, Mizoram and two-day poll in Chhattisgarh.
- Election Commission announces seven phase election in Jammu & Kashmir from November 17, 2008.
- India joins the global club of six moon-faring nations as it launches its maiden unmanned moon mission *Chandrayaan-I*

NOVEMBER 2008

- The fifth and final orbit raising manoeuvre of *Chandrayaan-I* carried out placing the spacecraft in the Lunar Transfer Trajectory.
- The number of cases pending before the Supreme Court reach to 47,855 during the period April-June 2008.
- Former Union Minister and one of founder members of the Trinamool Congress, Ajit Panja passed away at the age of 72.
- The US-hosts G-20 Summit, agrees on a greater role for emerging economies like India, China and Brazil in the proposed restructuring of the international financial system following the economic meltdown.
- The Government and the Reserve Bank open a special Rs. 20,000 crore refinance window to boost growth of small and medium enterprises (SMEs).
- Terrorists strike at important points in Mumbai on November 26, 2008. Maharashtra Anti-terrorism Squad (ATS) Chief Hemant Karkare, Additional Commissioner of Police (North-East) Ashok Kamte and encounter specialist Vijay Salaskar among the 14 police personnel killed in attacks.
- Operations against terrorists hiding at different locations in Mumbai continue for the next two days. The attacks leave 155 dead and 327 injured.
- Pakistan Government repatriates 101 Indians through the Attari border in Punjab.
- Former Prime Minister V.P. Singh passes away at the age of 77.

DECEMBER 2008

- Supreme Court holds that retirement benefits like pension and gratuity cannot be attached by authorities for recovery of dues.

- RBI announces measures, including a one percentage point cut in the short term rates at which it lends and borrows from banks. Also pumps in Rs. 11,000 crore in Small Industries Development Bank of India and National Housing Bank. The short-term lending rate (repo) fall to 6.5 per cent and borrowing (reverse repo) rate to 5 per cent.
- India and Russia sign a deal worth over one billion dollars for 80 MI-17 helicopters for the IAF.
- Government announces Rs. 20,000 crore additional non-plan expenditure as part of a package to stimulate the economy.
- A package set rolling by Prime Minister Manmohan Singh targets power, exports, housing, auto, small and medium industries and infrastructure sectors through additional funding and guarantees an amount totalling to Rs 35,000 crore.
- Congress wins Assembly elections in Delhi, Rajasthan and Mizoram.
- BJP's wins Assembly elections in Madhya Pradesh and Chhattisgarh.
- India raises the Mumbai terror attack at the UN and demands that the world body ban Pak-based Jamaat-ud-Dawa, the front organisations with effective sanctions.
- About 2.52 crore cases are pending in the subordinate courts in the country, says the Law Ministry.
- Parliament passes a Bill aimed at ensuring social security and welfare of the workers in the unorganised sector.
- Minister of Minority Affairs, A. R. Antulay resigns.
- India successfully tests a supersonic cruise missile.
- India hands over to Pakistan a letter written by the lone surviving terrorist of the Mumbai attacks, Ajmal Amir Kasab, confirming the nationality of the attackers and his as Pakistanis.
- World Bank bars India's Satyam Computer Services from providing software services to the bank offices for eight years following alleged malpractices.

JANUARY 2009

- RBI cuts Cash Reserve Ratio by 0.50 percent to 5 per cent, also cuts repo and reverse repo rate by 100 basis points each to 5.5 per cent and 4 per cent rate respectively.
- Two US-based law firms file suits against Satyam Computer Services on behalf of shareholders.
- Andhra Pradesh police arrests disgraced former founder-chairman of Satyam Computer, B. Ramalinga Raju and his brother and former company managing director B. Rama Raju.
- India assumes the chairmanship of the Afro-Asian Rural Development Organisation (AARDO).
- Government constitutes a three-member board comprising noted banker Deepak Parekh, IT expert Kiran Karnik and ex-SEBI member C. Achutan for Satyam Computers.

- Jharkhand Chief Minister Shibu Soren resigns following defeat in Tamar Assembly bypoll.
- The Centre approves a 300 crore rupee plan for setting up of a chain of forensic laboratories and upgrading the existing ones across the country for better investigation of criminal and terrorism-related cases.
- Indian-American lawyer Preeta Bansal joins as General Counsel and Senior Policy Advisor at the White House Office of Management and Budget.
- Another Indian-American Lawyer Neal Kumar Katyal joins the Obama Administration as the Principal Deputy Solicitor General.
- Prime Minister Manmohan Singh operated upon for a heart ailment at the All India Institute of Medical Sciences (AIIMS) by a team of doctors from the Asian Cardiology Institute (ACI), led by Dr. Ramakanta Panda.
- India's rich cultural heritage and military might showcased on the Rajpath, in the National Capital on its 60th Republic Day. Kazakh President Nursultan Nazarbayev, Chief Guest on the occasion.
- Former President R. Venkataraman passes away.

FEBRUARY 2009

- In tennis, Yuki Bhambri wins the junior boys singles title while Sania Mirza-Mahesh Bhupathi duo lift the mixed doubles title at Australian Open.
- India signs a key safeguards agreement with IAEA to allow inspection of additional civilian reactors.
- Government changes FDI policy and excludes indirect investment through domestic companies from overall sectoral ceilings.
- Musician A.R. Rahman becomes the first Indian to win two Oscars for his music in the film 'Slumdog Millionaire' which sweeps eight Academy Awards.

MARCH 2009

- Election Commission announces Lok Sabha elections in five phases from April 16 to May 13.
- Reliance Industries Chairman Mukesh Ambani and NRI steel baron Lakshmi Mittal lead the pack of 24 Indians in the Forbes' list of world's richest people.
- US Administration approves a 2.1 billion dollar deal for the supply of eight Boeing P-81 maritime patrol aircraft to India.
- Tata Motors commercially launches its people's car, 'Nano' with a 1 lakh rupee price tag.
- Obama Administration calls upon India to help strengthen Non-Proliferation Treaty (NPT) and foster safe and affordable nuclear power.
- India and Israel sign a Rs. 8,000 crore defence deal for the purchase and development of medium range surface to air missiles.

APRIL 2009

- CBI gives clean chit to former Union Minister Jagdish Tytler in the 1984 anti-Sikh riots case.

- Seven persons killed and sixty-three injured in terrorist attacks in Assam.
- India win a test series against New Zealand (1-0) after 41 years.
- India and Israel ink a Rs. 1,200 crore deal to revive ammunition production in Nalanda, Bihar.
- After a six-week long probe into Satyam scam, CBI files a 300 page chargesheet in the case.
- India and Kuwait sign three pacts for strengthening cooperation in science and technology, education and culture.
- Noted Hindi filmmaker Shakti Samanta passes away at the age of 83.
- Forty seven Indian companies including State Bank of India and Reliance Industries make to the list of world's biggest 2,000 companies.
- India regain Azlan Shah hockey title after 13-years, defeating Malaysia in the finals of the five nations tournament.
- Indigenously developed nuclear capable surface-to-surface ballistic missile Prithivi-II successfully testfired.
- Shri. Navin Chawla takes charge as the Chief Election Commissioner.
- Government issues a travel advisory for travellers to countries affected by A (H1N1) influenza and puts in place a screening system for incoming passengers.
- Bollywood actor Feroz Khan passes away.

MAY 2009

- Supreme Court lifts the stay on trial of 2002 Gujarat riots cases and directs setting up of fast track courts.
- A Special Court frames as many as 86 charges against Pakistani gunman and prime accused Ajmal Kasab and two others involved in the 26/11 Mumbai attacks.
- The Indian Air Force seeks assistance of Russia to carry out checks on the entire fleet of the SU-30 MKI Fighter jet following a crash.
- Former naval chief, Admiral S.M. Nanda, a veteran of the 1971 Indo-Pak war passes away.
- Congress powers the UPA for another term in office in the Lok Sabha elections. BJP concedes defeat and says the party had performed below expectation and the mandate of the people was in favour of the Congress-led UPA alliance.
- India successfully test-fires its nuclear-capable 'Agni-II' missile with a strike range of upto 3,000 kms.
- Shri Manmohan Singh appointed Prime Minister for second consecutive term.
- Cyclone 'Aila' hits 13 West Bengal districts and claims 81 lives.
- The Union Council of Ministers expanded with the induction of 59 ministers, including three former chief ministers. With this, the strength of the Union Council of Ministers goes up to 79, including the Prime Minister.

JUNE 2009

- India expresses displeasure at the release of Jamaat-ud-Dawa (JuD) chief Hafiz Mohammed Saeed, and says it raises serious doubts about Pakistan's commitment to probe the Mumbai attacks.
- Smt. Meira Kumar becomes the first woman Speaker of the Lok Sabha.
- Prime Minister Manmohan Singh declares his Government's 'zero tolerance' for terror but expresses readiness to make peace with Pakistan if its leadership takes 'strong and effective' steps to prevent terrorism directed against India.
- Gopal Subramaniam becomes the new Solicitor General of India.
- Centre bans the CPI (Maoist) under the Unlawful Activities (Prevention) Act.
- The Ministry of Information & Broadcasting grants clearance to 22 new TV channels. With this, India would now have more than 450 TV channels beaming into the households.
- The Liberhan Commission that probed the 1992 demolition of Babri Masjid in Ayodhya submits its report to Prime Minister Manmohan Singh.
- India's first open sea bridge, a 5.6-km cable-held engineering marvel inaugurated in Mumbai.

JULY 2009

- Railway Minister Ms. Mamata Banerjee presents the Railway Budget. The Minister announces setting up of a new coach factory at Kanchrapara-Halisahar Railway Complex in West Bengal, proposes introduction of "Only Ladies" EMU trains in Delhi, Chennai and Kolkata suburban during office rush hours and low cost air-conditioned seated accommodation 'Yuva Trains' for youth and low-income groups.
- The Economic Survey tabled in Parliament. The Survey favours 100 per cent FDI on a case-by-case basis in high technology, strategic defence goods, services and systems.
- Union Finance Minister Shri Pranab Mukherji presents the Budget-2009 in Parliament on July 6, 2009.
- At least 113 people killed in a hooch tragedy in Ahmedabad, Gujarat.
- Indian origin Indra Nooyi is among the 13 women who are at the helm of companies featured in Fortune 500 list.
- Prime Minister Manmohan Singh underlines India's commitment to strengthening the Non-Aligned Movement (NAM) and its desire to strengthen strategic partnership with France in all areas, including civil, nuclear cooperation and defence.
- Prime Minister Manmohan Singh and French President Nicolas Sarkozy discuss cooperation in atomic energy, defence, space and agree to work together to fight terrorism.

- A 14-member Indian crew on board a country-made vessel hijacked by Somali pirates in the Gulf of Aden, rescued in a joint operation by Indian and French naval warships.
- Gayatri Devi, from the royal family of Jaipur dies at the age of 90.

AUGUST 2009

- Nirupama Rao takes over as Foreign Secretary.
- Gujarat Governor D.N. Dwivedi passes away at the age of 74.
- On India's 63rd Independence Day, Prime Minister Manmohan Singh asserts that Indians had immense faith and confidence in themselves and the world's largest democracy was headed to a "new glory".
- BJP expels veteran leader Jaswant Singh for showering praise on Mohammad Ali Jinnah in his book-*Jinnah—India, Partition, Independence*.
- Haryana assembly dissolved months ahead of its term.

SEPTEMBER 2009

- India beat Syria 6-5. via tie-breaker to win the Nehru Cup International Football Tournament.
- Oscar-winning musician A.R. Rahman wins 'Grassroot Grammy' held in the US.
- Andhra Pradesh Chief Minister Y.S. Rajasekhara Reddy and four other killed in a helicopter crash.
- India's Pankaj Advani wins his maiden World Professional Billiards title.
- India's Ramesh Kumar creates history by winning the bronze medal in the freestyle 74kg category at the World Wrestling Championship, Denmark.
- The World Bank approves \$4.3 billion in loans for India to bolster its economic stimulus programme and finance infrastructure projects.

32 General Information

PRESIDENTS OF INDIA

Name	Tenure
Dr Rajendra Prasad (1884-1963)	26 January 1950-13 May 1962
Dr Sarvepalli Radhakrishnan (1888-1975)	13 May 1962-13 May 1967
Dr Zakir Hussain (1897-1969)	13 May 1967-3 May 1969
Varahagiri Venkatagiri (1884-1980)	3 May 1969-20 July 1969 (Acting)
Justice Mohammad Hidayatullah (1905-1992)	20 July 1969-24 August 1969 (Acting)
Varahagiri Venkatagiri (1884-1980)	24 August 1969-24 August 1974
Fakhruddin Ali Ahmed (1905-1977)	24 August 1974-11 February 1977
B.D. Jatti (1913-2002)	11 February 1977-25 July 1977 (Acting)
Neelam Sanjiva Reddy (1913-1996)	25 July 1977-25 July 1982
Giani Zail Singh (1916-1994)	25 July 1982-25 July 1987
R. Venkataraman (b-1910)	25 July 1987-25 July 1992
Dr Shankar Dayal Sharma (1918-1999)	25 July 1992-25 July 1997
K.R. Narayanan (1920-1925)	25 July 1997-25 July 2002
Dr. A.P.J. Abdul Kalam (b-1931)	25 July 2002-25 July 2007
Smt. Pratibha Patil (b-1934)	25 July 2007-till date

VICE-PRESIDENTS OF INDIA

Name	Tenure
Dr Sarvepalli Radhakrishnan (1888-1975)	1952-1962
Dr Zakir Hussain (1897-1969)	1962-1967
Varahagiri Venkatagiri (1884-1980)	1967-1969
Gopal Swarup Pathak (1896-1982)	1969-1974
B.D. Jatti (1913-2002)	1974-1979
Justice Mohammad Hidayatullah (1905-1992)	1979-1984
R. Venkataraman (b-1910)	1984-1987
Dr Shankar Dayal Sharma (1918-1999)	1987-1992
K.R. Narayanan (1920-1925)	1992-1997
Krishan Kant (1927-2002)	1997-2002
Bhairon Singh Shekhawat(b-1923)	2002-2007
Mohammed Hamid Ansari(b-1937)	2007-till date

PRIME MINISTERS OF INDIA

Name	Tenure
Jawaharlal Nehru (1889-1964)	15 August 1947-27 May 1964
Gulzari Lal Nanda (1898-1997)	27 May 1964-9 June 1964 (Acting)
Lal Bahadur Shastri (1904-1966)	9 June 1964-11 January 1966
Gulzari Lal Nanda (1898-1997)	11 January 1966-24 January 1966 (Acting)
Indira Gandhi (1917-1984)	24 January 1966-24 March 1977
Morarji Desai (1896-1995)	24 March 1977-28 July 1979
Charan Singh (1902-1987)	28 July 1979-14 January 1980
Indira Gandhi (1917-1984)	14 January 1980-31 October 1984
Rajiv Gandhi (1944-1991)	31 October 1984-1 December 1989
Vishwanath Pratap Singh (b-1931)	2 December 1989-10 November 1990
Chandra Shekhar (b-1927)	10 November 1990-21 June 1991
P.V. Narasimha Rao (1921-2004)	21 June 1991-16 May 1996
Atal Bihari Vajpayee (b-1926)	16 May 1996-01 June 1996
H.D. Deve Gowda (b-1933)	01 June 1996-21 April 1997
I.K. Gujral (b-1933)	21 April 1997-18 March 1998
Atal Bihari Vajpayee (b-1926)	19 March 1998 -13 October 1999
Atal Bihari Vajpayee (b-1926)	13 October 1999 - 22 May 2004
Dr. Manmohan Singh (b-1932)	22 May 2004 - till date

CHIEF JUSTICES OF INDIA

Name	Tenure
Harilal J. Kania	26 January 1950—6 November 1951
M. Patanjali Sastri	7 November 1951—3 January 1954
Mehar Chand Mahajan	4 January 1954—22 December 1954
B.K. Mukherjea	23 December 1954—31 January 1956
S.R. Das	1 February 1956—30 September 1959
Bhuvaneshwar Prasad Sinha	1 October 1959—31 January 1964
P.B. Gajendragadkar	1 February 1964—15 March 1966
A.K. Sarkar	16 March 1966—29 June 1966
K. Subba Rao	30 June 1966—11 April 1967
K.N. Wanchoo	12 April 1967—24 February 1968
M. Hidayatullah	25 February 1968—16 December 1970
I.C. Shah	17 December 1970—21 January 1971
S.M. Sikri	22 January 1971—25 April 1973
A.N. Ray	26 April 1973—27 January 1977
M.H. Beg	28 January 1977—21 February 1978
Y.V. Chandrachud	22 February 1978—11 July 1985

Prafullachandra	12 July 1985—20 December 1986
Natvarlal Bhagwati	
R.S. Pathak	21 December 1986—18 June 1989
E.S. Venkataramaiah	19 June 1989—17 December 1989
S. Mukherjee	18 December 1989—25 September 1990
Ranganath Mishra	26 September 1990—24 November 1991
K.N. Singh	25 November 1991—12 December 1991
M.H. Kania	13 December 1991—17 November 1992
I.M. Sharma	18 November 1992—11 February 1993
M.N. Venkatachalaiah	12 February 1993—24 October 1994
A.M. Ahmadi	25 October 1994—24 March 1997
J.S. Verma	25 March 1997—17 January 1998
M.M. Punchhi	18 January 1998—9 October 1998
A.S. Anand	10 October 1998—31 October 2001
S.P. Bharucha	1 November 2001—5 May 2002
B.N. Kirpal	6 May 2002—7 November 2002
G.B. Pattanaik	8 November 2002—18 December 2002
V.N. Khare	19 December 2002—1 May 2004
S. Rajendra Babu	02 May 2004—31 May 2004
R.C. Lahoti	01 June 2004—31 October 2005
Y.K. Sabharwal	01 November 2005—31 December 2006
K.G. Balakrishnan	14 January 2007—till date

CHIEF ELECTION COMMISSIONERS OF INDIA

Name	Tenure
Sukumar Sen	21 March 1950-19 December 1958
K.V.K. Sundaram	20 December 1958-30 September 1967
S.P. Sen Verma	1 October 1967-30 September 1972
Dr Nagendra Singh	1 October 1972-6 February 1973
T. Swaminathan	7 February 1973-17 June 1977
S.L. Shaktihar	18 June 1977-17 June 1982
R.K. Trivedi	18 June 1982-31 December 1985
R.V.S. Peri Sastri	1 January 1986-25 November 1990
Smt V.S. Rama Devi	26 November 1990-11 December 1990
T.N. Seshan	12 December 1990-11 December 1996
M.S. Gill	12 December 1996-13 June 2001
J.M. Lyngdoh	14 June 2001 - 7 February 2004
T.S. Krishna Murthy	8 February 2004 - 15 May 2005
B.B. Tandon	16 May 2005 - 29 June 2006
N. Gopalswamy	30 June 2006 - 20 April 2009
Navin Chawla	21 April 2009

CHAIRMEN OF UPSC

Name	Tenure
Sir Ross Barker	1926-1932
Sir David Petrie	August 1932-1936
Sir Eyre Gordon	1937-1942
Sir F.W. Robertson	1942-1947
Sh. H.K. Kripalani	1 April 1947-13 January 1949
Sh. R.N. Banerjee	14 January 1949-9 May 1955
Sh. N. Govindarajan	10 May 1955-9 December 1955
Sh. V.S. Hejmadi	10 December 1955-9 December 1961
Sh. B.N. Jha	11 December 1961-22 February 1967
Sh. K.R. Damle	18 April 1967-2 March 1971
Sh. R.C.S. Sarkar	11 May 1971-1 February 1973
Dr. A.R. Kidwai	5 February 1973-4 February 1979
Dr. M.L. Shahare	16 February 1979-16 February 1985
Sh. H.K.L. Capoor	18 February 1985-5 March 1990
Sh. J.P. Gupta	5 March 1990-2 June 1992
Smt. R.M. Bathew (Kharbuli)	23 September 1992-23 August 1996
Sh. S.J.S. Chhatwal	23 August 1996-30 September 1996
Sh. J.M. Qureshi	30 September 1996-11 December 1998
Lt. Gen. (Retd.) Surinder Nath	11 December 1998-25 June 2002
Sh. P.C. Hota	25 June 2002-8 September 2003
Sh. Mata Prasad	8 September 2003-04 January 2005
Dr. S.R. Hashim	04 January 2005-01 April 2006
Sh. Gurbachan Jagat	01 April 2006-30 June 2007
Prof. D.P. Agarwal	As on date

CHAIRMAN AND MEMBERS OF THE UPSC
(As on 25 October 2006)

CHAIRMAN

PROF. D. P. AGARWAL

MEMBERS

MS. PARVEEN TALHA

SH. K. ROY PAUL

PROF. K.S. CHALAM

PFOF. E. BALAGURUSAMY

SMT. SHASHI UBAN TRIPATHI

PROF. PURUSHOTTAM AGARWAL

DR. K.K. PAUL

LT. GEN (RETD.) NIRBHAY SHARMA

SH. I.M.G. KHAN

SHRI PRASHANTA KUMAR MISHRA

CIVILIAN AWARDS

- Bharat Ratna* : The award is given for exceptional service towards the advancement of Art, Literature and Science and in recognition of public service of the highest order.
- Padma Vibhushan* : The award is given for exceptional and distinguished service in any field including service rendered by the Government servants.
- Padma Bhushan* : The award is given for distinguished service of high order in any field including service rendered by the Government servants.
- Padma Shri* : The award is given for distinguished service in any field including service rendered by the Government servants.

In pursuance of the Supreme Court's Judgement, the Government had constituted a High Level Review Committee chaired by the Vice-President of India, to go into the guidelines for the *Padma* Awards and certain other aspects. The Review Committee submitted its report in November 1996 and the same has been accepted by the Government. The institution of these awards has been revived since 1997.

RECIPIENTS OF BHARAT RATNA

Name	Awarded in
Chakravarti Rajagopalachari (1878-1972)	1954
Dr Sarvepalli Radhakrishnan (1888-1975)	1954
Dr Chandrasekhar Venkat Raman (1888-1970)	1954
Dr Bhagwan Das (1869-1958)	1955
Dr Mokshagundam Visvesvaraya (1861-1962)	1955
Jawaharlal Nehru (1889-1964)	1955
Govind Ballabh Pant (1887-1961)	1957
Dr Dhondo Keshave Karve (1858-1962)	1958
Dr Bidhan Chandra Roy (1882-1962)	1961
Purushottam Das Tandon (1882-1962)	1961
Dr Rajendra Prasad (1884-1963)	1962
Dr Zakir Hussain (1897-1969)	1963
Dr Pandurang Vaman Kane (1880-1972)	1963
Lal Bahadur Shastri (Posthumous) (1904-1966)	1966
Indira Gandhi (1917-1984)	1971
Varahagiri Venkatagiri (1884-1980)	1975
Kumaraswami Kamraj (Posthumous) (1903-1975)	1976

Mary Teresa Bojaxhiu (Mother Teresa) (1910-1997)	1980
Acharya Vinobha Bhave (Posthumous) (1895-1982)	1983
Khan Abdul Ghaffar Khan (1890-1988)	1987
Marudu Gopalan Ramachandran (Posthumous) (1917-1987)	1988
Dr Bhim Rao Ramji Ambedkar (Posthumous) (1891-1956)	1990
Dr Nelson Rolihlahla Mandela (b-1918)	1990
Rajiv Gandhi (Posthumous) (1944-1991)	1991
Sardar Vallabhbhai Patel (Posthumous) (1875-1950)	1991
Morarji Ranchhodji Desai (1896-1995)	1991
Maulana Abul Kalam Azad (Posthumous) (1888-1958)	1992
Jehangir Ratanji Dadabhai Tata (1904-1993)	1992
Satyajit Ray (Posthumous) (1922-1992)	1992
Aruna Asaf Ali (Posthumous) (1909-1996)	1997
Gulzari Lal Nanda (Posthumous) (1898-1997)	1997
Dr Avul Pakir Jainulabdeen Abdul Kalam (b-1931)	1997
Madurai Shanmukhavadiyu Subbalakshmi (1916-2004)	1998
Chidambaram Subramaniam (1910-2000)	1998
Loknayak Jayaprakash Narayan (Posthumous) (1902-1979)	1999
Professor Amartya Sen (b-1933)	1999
Lokpriya Gopinath Bordoloi (Posthumous) (1890-1950)	1999
Pandit Ravi Shankar (b-1920)	1999
Sushri Lata Dinanath Mangeshkar (b-1929)	2001
Ustad Bismillah Khan (1916-2006)	2001

Padma Awards : Padma awards are amongst the highest civilian awards of the country. There are three categories of Padma Awards - 'Padma Vibhushan', 'Padma Bhushan' and 'Padma Shri'. These are given for distinguished service in any field including Art, Literature and Education, Science and Engineering, Sports, Medicine, etc. Padma Awards are announced on the eve of the Republic Day every year.

PADMA AWARDS CONFERRED ON REPUBLIC DAY 2007

Padma Vibhushan Recipients	:	Prof. Balu Sankaran
		Prof. Ennackal Chandy George Sudarshan
		Shri Fali Sam Nariman
		Shri Khushwant Singh
		Shri Naresh Chandra
		Shri Narinder Nath Vohra
		Justice Prafulla Chandra Bhagwati
		Prof. Raja Rao (Posthumous)
		Dr. Raja Jesudoss Chelliah
		Dr. V. Krishnamurthy

- Padma Bhushan Recipients** :
- Prof. Bhikhu Parekh
 - Shri Chandra Prasad Saikia (Posthumous)
 - Ms. Ela Gandhi
 - Father Gabriel Chiramel C.M.I.
 - Dr. Gopaldas Neeraj
 - Dr. Gurcharan Singh Kalkat
 - Mrs. Indra K. Nooyi
 - Dr. Jamshed J. Irani
 - Shri Javed Akhtar
 - Prof. Jeffrey D. Sachs
 - Justice K.T. Thomas
 - Shri Kavalam Narayana Panikkar
 - Capt. L.Z. Sailo
 - Dr. (Smt.) Manju Sharma
 - Dr. N. Mahalingam
 - Mr. Osamu Suzuki
 - Dr. Prithipal Singh Maini
 - Pandit Rajan Misra
 - Shri Ramankutty Nair
 - Pandit Sajan Misra
 - Dr. Saroj Ghose
 - Shri Sayed Haider Raza
 - Prof. (Dr.) Shiv Kumar Sarin
 - Prof. (Vaidya) Shriram Sharma
 - Prof. Somnath Hore (Posthumous)
 - Shri Sunil Bharati Mittal
 - Hakim Syed Mohammad Sharfuddin Quadri
 - Prof. Tapan Kumar Raychaudhuri
 - Prof. Thirukodikaval Nilakanta Srinivasan
 - Shri Tyeb Mehta
 - Dr. (Smt.) V. Mohini Giri
 - Dr. Vilayanur Subramanian Ramachandran
- Padma Shri Recipients** :
- Prof. (Dr.) Adya Prasad Mishra
 - Shri Amitav Ghosh

Prof. Ananda Mohan Chakrabarty
Dr. (Smt.) Ananda Shankar Jayant
Shri Anantharamakrishnan Sivasailam
Dr. Anoop Misra
Prof. (Dr.) Ashok Kumar Hemal
Shri Astad Aderbad Deboo
Prof. (Dr.) Atul Kumar
Dr. B. Paul Thaliath
Dr. Bakul Harshadrai Dholakia
Dr. Balbir Singh
Dr. Baldev Raj
Shri Chiranjeev Milkha Singh
Prof. Deveindra Rahinwal (Postumous)
Prof. Dilip Biswas
Pandit Gajendra Narayan Singh
Smt. Geeta Chandran
Dr. Giriraj Kishore
Rajmata Goverdan Kumari
Prof. (Dr.) Harpinder Singh Chawla
Prof. Kallipatti Ramasamy Palaniswamy
Prof. (Dr.) Khadg Singh Valdiya
Shri Khalid Zaheer
Shri Kiran Sharadchandra Karnik
Ms. Koneru Humpy
Dr. Lalit Pande
Shri Lama Thupten Phuntsok
Sister M. Cyril Mooney
Dr. M. Mohan Babu
Dr. Mahadev Prasad Pandey
Dr. Mahipal Singh Sachdev
Dr. Manjunath Cholenahally Nanjappa
Prof. Mayil Vahanan Natarajan
Dr. (Ms.) Meenakshi Gopinath
Ms. Mira Salganik Alias Mariam L'vovna Salganik

Dr. Mohsin Wali
Shri Mujtaba Hussain
Prof. Mushirul Hasan
Mrs. Naina Lal Kidwai
Smt. Naorem Ongbi Neelamani Devi
Prof. (Dr.) Narmada Prasad Gupta
Shri P. Gopinathan
Dr. P. Namperumalsamy
Smt. P.R. Thilagam
Shri Pannuru Sripathy
Dr. (Smt.) Pratibha Ray
Smt. Pushpa Hans
Dr. Rabi Narayan Bastia
Shri Rabinder Gokaldas Ahuja
Shri Rajinder Gupta
Shri Ravindra Dayal (Postumous)
Shri Remo Fernandes
Ms. Runa Banerjee
Prof. Rybakov Rostislav
Shri S. Dakshinamurthy Pillai
Shri S. Balachandra Menon
Smt. Shanti Hiranand
Smt. Shashikala Jawalkar
Prof. (Dr.) Shekhar Pathak
Dr. Sheo Bhagwan Tibrewal
Shri Sonam Skalzang
Shri Sonam Tshering Lepcha
Prof. Sudhir Kumar Sopory
Shri Sushil Gupta
Dr. (Ms.) Syeda Saiyidain Hameed
Shri T.S. Rangarajan Alias Kavignar Vaalee
Smt. Tarla Dalal
Ms. Teesta Setalvad
Prof. (Ms.) Temsula Ao
Prof. Thanu Padmanabhan
Dr. Thekkethil Kochandy Alex
Shri Thingbaijam Babu Singh

Shri Valayapatti A.R. Subramaniam
 Shri Vijai Dan Detha
 Shri Vikram Seth
 Shri Waman Thakre
 Dr. Yusufkhan Mohamadkhan Pathan

JEEVAN RAKSHA PADAK SERIES OF AWARDS

The Jeevan Raksha Padak series of awards are given for courage and promptitude under circumstances of great danger to the life or bodily injury of the rescuer, displayed in an act or a series of acts of humane nature, in saving the life of a person from drowning, fire, rescue operations in mines, etc. There are three categories of Jeevan Raksha Padak awards viz. Sarvottam Jeevan Raksha Padak, Uttam Jeevan Raksha Padak and Jeevan Raksha Padak. Recommendations for Jeevan Raksha Padak series of awards are received from the State Governments/Union Territory Administrations and Ministries/Departments of the Government of India. On the basis of the recommendations of the Awards Committee, the President approved the award of Uttam Jeevan Raksha Padak to three persons and Jeevan Raksha Padak to 38 persons for the year 2006. No Sarvottam Jeevan Raksha Padak award was announced this year.

SAHITYA AKADEMI AWARDS 2005

Language	Title and Genre	Author
Assamese	Mouna Ounth Mukhar Hriday (Novel)	Yeshe Dorje Thongchi
Bengali	Haspatale Lekha Kbitaguchha (Poetry)	Binoy Mazumdar
Bodo	Jiuni Mwgthang Bisombi Arw Aroj (Poetry)	Mangalsingh Hazowary
Dogri	Dhaldi Dhuppe Da Sek (Short Stories)	Krishan Sharma
Gujarati	Akhand Zalar Vage (Poetry)	Suresh Dalal
Hindi	Kyap (Novel)	Manohar Shyam Joshi
Kannada	Teru (Novel)	Raghavendra Patil
Kashmiri	Yath Miani Joye (Poetry)	Hamidi Kashmiri
Konkani	Bhaangarsaall (Short Stories)	N. Shivdas
Maithili	Chanan Ghan Gachchiya (Poetry)	Vivekanand Thakur
Malayalam	Jappana Pukayila (Short Stories)	G.V. Kakkanadan
Manipuri	Pangal Shonbi Eishe Adomgeeni (Short Stories)	M. Nabakishore Singh
Marathi	Bhijaki Vahi (Poetry)	Arun Kolatkar
Nepali	Jeevan Goreto Ma (Novel)	Krishna Singh Moktan
Oriya	Gopapura (Short Stories)	Ramachandra Behera
Punjabi	Agni-Kalas (Short Stories)	Gurbachan Singh Bhullar
Rajasthani	Kisturi Mirag (Short Stories)	Chetan Swami
Sanskrit	Sri Bhargave-Raghaviyam (Epic)	Swami Rambhadracharya

Santhali	Bhabna (Poetry)	Jadumani Besra
Sindhi	Andhero Roshan Thiye	Dholan 'Rahi'
Tamil	Kalmaram (Novel)	G. Thilakavathi
Telugu	Tana Margam (Short Stories)	Abburi Chayadevi
Urdu	Ret Per Khema (Memoirs)	Jabir Husain

NOBEL LAUREATES

AMARTYA SEN (b-1933) : Prof. Amartya Sen is the recipient of the Nobel Prize for Economics for the year 1998, becoming the first Asian to have been honoured with the award. The Santiniketan-born economist who is a pioneer in Welfare Economics has to his credit several books and papers on aspects of welfare and development. An economist with a difference, Prof. Sen is a humanist. He has distinguished himself with his outstanding writings on famine, poverty, democracy, gender and social issues. The 'impossibility theorem' suggested earlier by Kenneth Arrow states that it was not possible to aggregate individual choices into a satisfactory choice for society as a whole. Prof. Sen showed mathematically that societies could find ways to alleviate such a poor outcome.

SUBRAMANIAN CHANDRASHEKHAR (1910-1995) : The Nobel Prize for Physics in 1983 was awarded to Dr S. Chandrashekhhar, an Indian-born astrophysicist. Educated in Presidency College, Chennai, Dr Chandrashekhhar happened to be the nephew of his Nobel forbear, Sir C.V. Raman. He later migrated to the United States where he authored several books on Astrophysics and Stellar Dynamics. He developed a theory on white dwarf stars which posts a limit of mass of dwarf stars known also as Chandrashekhhar Limit. His theory explains the final stages of stellar evolution.

MOTHER TERESA (1910-1997) : The Nobel Peace Prize was awarded to Mother Teresa in 1979. Albanian parentage, Agnes Gonxha Bojaxhiu was born at Skopje, now in Yugoslavia. She joined the Irish order of the Sisters of Loretto at Dublin in 1928 and came to Kolkata in 1929 as a missionary, only to find the misery of the abandoned and the destitute. Concern for the poor and the sick prompted her to found a new congregation, Missionaries of Charity. Having become an Indian citizen, Mother Teresa served the cause of dying destitutes, lepers and drug addicts, through *Nirmal Hriday* (meaning Pure Heart), the main centre of her activity. Her selfless service and unique devotion, not only to helpless fellow-Indians but also to the cause of world peace, earned her and India the first Nobel Peace Prize.

HARGOBIND KHORANA (b. 1922) : Hargobind Khorana was awarded the Nobel Prize for Medicine in 1968. Of Indian origin, Dr Khorana was born in Raipur, Punjab (now in Pakistan). He took his doctoral degree in Chemistry from Liverpool University and joined the University of Wisconsin as a Faculty Member in 1960. His major breakthrough in the field of Medicine —interpreting the genetic code and analysing its function in protein synthesis — fetched him the Nobel Prize.

CHANDRASHEKHAR VENKATARAMAN (1888-1970) : India's first Nobel Prize for Physics was claimed in 1930 by the renowned physicist Sir C.V. Raman. Born at Thiruvanaikkaval near Tiruchirapalli in Tamilnadu, Raman studied at Presidency College, Chennai. Later, he served as Professor of Physics at Calcutta University. Recipient of many honours and awards, including the title of 'Sir', Sir C.V. Raman received the Nobel Prize for an important optics research, in which he discovered that diffused light contained rays of other wavelengths—what is now popularly known as Raman Effect. His theory discovered in 1928 explains the change in the frequency of light passing through a transparent medium.

RABINDRANATH TAGORE (1861-1941) : Rabindranath Tagore was the first Indian ever to receive a Nobel Prize. Popularly known as *Gurudev*, India's Poet Laureate Tagore was born on 7th May 1861 in Kolkata. He was awarded the Nobel Prize for Literature in recognition of his work *Geetanjali*, a collection of poems, in 1913. Tagore wrote many love lyrics. *Geetanjali* and *Sadhana* are among his important works. The poet, dramatist and novelist is also the author of India's National Anthem. In 1901 he founded the famous Santiniketan which later came to be known as Vishwabharati University.

COMMANDERS-IN-CHIEF

Name	Tenure
General Sir Roy Bucher	1 January 1948-14 January 1949
General (later Field Marshal) K.M. Cariappa	15 January 1949-14 January 1953
General Maharaj Rajendra Sinhji.....	15 January 1953-31 March 1955

CHIEFS OF ARMY STAFF

Name	Tenure
General Maharaj Rajendra Sinhji	1 April 1955-14 May 1955
General S.M. Srinagesh	15 May 1955-7 May 1957
General K.S. Thimayya	8 May 1957-7 May 1961
General R.N. Thapar	8 May 1961-19 November 1962
General J.N. Choudhuri	20 November 1962-7 June 1966
General P.P. Kumaramangalam	8 June 1966-7 June 1969
General S.H.F.J. Manekshaw	8 June 1969-31 December 1972
Field Marshal S.H.F.J. Manekshaw	1 January 1973-14 January 1973
General G.G. Bewoor	15 January 1973-31 May 1975
General T.N. Raina	1 June 1975-31 May 1978
General O.P. Malhotra	1 June 1978-31 May 1981
General K.V. Krishna Rao	1 June 1981-31 July 1983
General A.S. Vaidya	1 August 1983-31 January 1986
General K. Sunderji	1 February 1986-30 April 1988
General V.N. Sharma	1 May 1988-30 June 1990
General S.F. Rodrigues	1 July 1990-30 June 1993
General B.C. Joshi	1 July 1993-18 November 1994
General S. Roychowdhury	22 November 1994-30 September 1997
General V.P. Malik	1 October 1997-30 September 2000
General S. Padmanabhan	30 September 2000-31 December 2002
General J.J. Singh	1 February 2005 - 30 September 2007
General Deepak Kapoor	30 September 2007 - till date

CHIEFS OF NAVAL STAFF

Name	Tenure
Rear Admiral J.T.S. Hall	15 August 1947-14 August 1948
Admiral Sir Edward Parry	15 August 1948-13 October 1951
Admiral Sir Mark Pizey	14 October 1951-21 July 1955

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Vice Admiral Sir Stephen Carlill	22 July 1955-21 April 1958
Vice Admiral R.D. Katari	22 April 1958-4 June 1962
Vice Admiral B.S. Soman	5 June 1962-3 March 1966
Admiral A.K. Chatterjee	4 March 1966-27 February 1970
Admiral S.M. Nanda	28 February 1970-28 February 1973
Admiral S.N. Kohli	1 March 1973-28 February 1976
Admiral J.L. Cursetji	1 March 1976-28 February 1979
Admiral R.L. Pereira	1 March 1979-28 February 1982
Admiral O.S. Dawson	1 March 1982-30 November 1984
Admiral R.H. Tahiliani	1 December 1984-30 November 1987
Admiral J.G. Nadkarni	1 December 1987-30 November 1990
Admiral Ramdas	1 December 1990-30 September 1993
Admiral V.S. Shekhawat	1 October 1993-30 September 1996
Admiral Vishnu Bhagwat	1 October 1996-30 December 1998
Admiral Sushil Kumar	31 December 1998 - 29 December 2001
Admiral Madhvendra Singh	29 December 2001 - 31 July 2004
Admiral Arun Prakash	1 August 2004 - 30 October 2006
Admiral Sureesh Mehta	30 October 2006 - 31 August 2009
Admiral Nirmal Verma	1 September 2009-till date

CHIEFS OF AIR STAFF

Name	Tenure
Air Marshal Sir Thomas Elmhirst	15 August 1947-21 February 1950
Air Marshal Sir Ronald Chapman	22 February 1950-9 December 1951
Air Marshal Sir Gerald Gibbs	10 December 1951-31 March 1954
Air Marshal S. Mukherjee	1 April 1954-8 November 1960
Air Marshal A.M. Engineer	1 December 1960-31 July 1964
Air Chief Marshal Arjan Singh	1 August 1964-15 July 1969
Air Chief Marshal P.C. Lal	16 July 1969-15 January 1973
Air Chief Marshal O.P. Mehra	16 January 1973-31 January 1976
Air Chief Marshal H. Moolgavkar	1 February 1976-31 August 1978
Air Chief Marshal I.H. Latif	1 September 1978-31 August 1981
Air Chief Marshal Dilbagh Singh	1 September 1981-4 September 1984
Air Chief Marshal L.M. Katre	5 September 1984-1 July 1985
Air Chief Marshal D.A. La Fontaine	3 July 1985-31 July 1988
Air Chief Marshal S.K. Mehra	1 August 1988-31 July 1991

Air Chief Marshal N.C. Suri	1 August 1991-31 July 1993
Air Chief Marshal S.K. Kaul	1 August 1993-31 December 1995
Air Chief Marshal S.K. Sareen	1 January 1996-31 December 1998
Air Chief Marshal A.Y. Tipnis	1 January 1999-31 December 2001
Air Chief Marshal S. Krishnaswamys	31 December 2001-31 December 2004
Air Chief Marshal S. P. Tyagi	31 December 2004-31 March 2007
Air Chief Marshal M.F. Major	31 March 2007-31 August 2009
Air Chief Marshal Pradeep Vasant Naik	1 June 2009-till date

WINNERS OF PARAM VIR CHAKRA

Major Somnath Sharma, Kumaon Regiment
Posthumous-November 1947 (Kashmir Operations 1947-48)

2nd Lt. R.R. Rane, Corps of Engineers
April 1948 (Kashmir Operations 1947-48)

Company Havaldar Major Piru Singh, Rajputana Rifles
Posthumous-July 1948 (Kashmir Operations 1947-48)

L/NK Karam Singh, Sikh Regiment
October 1948 (Kashmir Operations 1947-48)

Naik Jadunath Singh, Rajput Regiment
Posthumous-December 1948 (Kashmir Operations 1947-48)

Captain Gurbachan Singh Salaria, Gorkha Rifles
Posthumous-December 1961 (Congo)

Major Dhan Singh Thapa, Gorkha Rifles
October 1962 (Ladakh)

Subedar Joginder Singh, Sikh Regiment
Posthumous-October 1962 (NEFA)

Major Shaitan Singh, Kumaon Regiment
Posthumous-November 1962 (Ladakh)

CQMH Abdul Hamid, Grenadiers
Posthumous-September 1965 (Operation against Pakistan)

Lt. Col. A.B. Tarapore, Poona Horse
Posthumous-September 1965 (Operation against Pakistan)

Flg. Officer Nirmal Jit Singh Sekhon, Flg. Pilot
Posthumous-December 1971 (Indo-Pakistan conflict)

Major Hoshiar Singh, Grenadiers
December 1971 (Indo-Pakistan conflict)

2nd Lt. Arun Khetarpal, 17 Poona Horse
Posthumous-December 1971 (Indo-Pakistan conflict)

L/NK Albert Ekka, Brigade of Guards
Posthumous-December 1971 (Indo-Pakistan conflict)

Naib Subedar Bana Singh, J & K Light Infantry
June 1987 (Operations in Siachen Glacier)

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Major Ramaswamy Parameswaran, Mahar Regiment,
Posthumous-November 1987 (IPKF Operations in Sri Lanka)

Capt Vikram Batra, 13 JAK Rif
Posthumous-June 1999 (OP Vijay in Kargil)

Lt Manoj Kumar Pandey, 1/11 GR
Posthumous-June 1999 (OP Vijay in Kargil)

Rifleman Sanjay Kumar, 13 JAK Rif
June 1999 (OP Vijay in Kargil)

Gdr Yogender Singh Yadav, 18 GDRS
June 1999 (OP Vijay in Kargil)

GALLANTRY AWARDS

The following Gallantry Awards were announced on the Independence Day, 2009:

Award	Total	Posthumous
<i>Ashok Chakra</i>	9	9
<i>Kirti Chakra</i>	13	6
<i>Shaurya Chakra</i>	20	9
<i>Bar to Sena Medal (G)</i>	2	-
<i>Sena Medal (G)</i>	99	10
<i>Nao Sena Medal (G)</i>	4	-
<i>Vayu Sena Medal (G)</i>	6	-

The following Gallantry Awards were announced on the Republic Day, 2008

Award	Total	Posthumous
<i>Ashok Chakra</i>	1	1
<i>Kirti Chakra</i>	4	2
<i>Bar to Shaurya Chakra</i>	1	1
<i>Shaurya Chakra</i>	30	8
<i>Bar to Sena Medal/Nao Sena Medal/ Yayu Sena Medal (Gallantry)</i>	2	-
<i>Sena Medal/Nao Sena Medal/ Yayu Sena Medal (Gallantry)</i>	99	14
<i>Param Vishisht Seva Medal</i>	29	-
<i>Bar to Ati Vishisht Seva Medal</i>	1	-
<i>Ati Vishisht Seva Medal</i>	50	-
<i>Uttam Yudh Seva Medal</i>	2	-
<i>Yudh Seva Medal</i>	5	-
<i>Bar to Vishisht Seva Medal</i>	2	-

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<i>Vishisht Seva Medal</i>	122	-
<i>Bar to Sena Medal (Devotion to duty)</i>	1	-
<i>Sena Medal/Nao Sena Medal/ Vayu Sena Medal (Devotion to duty)</i>	62	1

The following Gallantry Awards were announced on the Independence Day, 2009 :

Award	Total	Posthumous
<i>Ashok Chakra</i>	2	-
<i>Kirti Chakra</i>	4	-
<i>Shaurya Chakra</i>	26	-
<i>Bar to Sena Medal/Nao Sena Medal/(Gallantry)</i>	2	-
<i>Sena Medal/Nao Sena Medal/Vayu Sena Medal (Gallantry)</i>	109	-
Total	143	

In addition to above, 37 Mention-in-Despatches awards to the Army officers/personnel have also been announced on 15th August, 2009.

LIST OF STATE-WISE NATIONAL HIGHWAYS IN THE COUNTRY

Sl. No.	Name of State	National Highway No.	Total Length (in km)
1	Andhra Pradesh	4, 5, 7, 9, 16, 18, 43, 63, 202, 205, 214, 214A, 219, 221 & 222	4472
2	Arunachal Pradesh	52, 52A & 153	392
3	Assam	31, 31B, 31C, 36, 37, 37A, 38, 39, 44, 51, 52, 52A, 52B, 53, 54, 61, 62, 151, 152, 153 & 154	2836
4	Bihar	2, 2C, 19, 28, 28A, 28B, 30, 30A, 31, 57, 57A, 77, 80, 81, 82, 83, 83, 84, 85, 98, 99, 101, 102, 103, 104, 105, 106, 107 & 110	3642
5	Chandigarh	21	24
6	Chhattisgarh	6, 12A, 16, 43, 78, 200, 202, 216, 217, 111, & 221	2184
7	Delhi	1, 2, 8, 10 & 24	72
8	Goa	4A, 17, 17A & 17B	269
9	Gujarat	NE-I, 6, 8, 8A, 8B, 8C, 8D, 8E, 14, 15, 59, 113 & 228	3245
10	Haryana	1, 2, 8, 10, 21A, 22, 64, 65, 71, 71A, 72, 73, 73A, 71B & NE-III1512	1512
11	Himachal Pradesh	1A, 20, 21, 21A, 22, 70, 72, 88 & 73A	1208
12	Jammu & Kashmir	1A, 1B, 1C & 1D	1245
13	Jharkhand	2, 6, 23, 31, 32, 33, 75, 78, 80, 98, 99 & 100	1805
14	Karnataka	4, 4A, 7, 9, 13, 17, 48, 63, 67, 206, 207, 209, 212 & 218	3843
15	Kerala	17, 47, 47A, 49, 208, 212, 213, & 220	1440
16	Madhya Pradesh	3, 7, 12, 12A, 25, 26, 26A, 27, 59, 59A, 69, 75, 76, 78, 86 & 92	4670
17	Maharashtra	3, 4, 4B, 4C, 6, 7, 8, 9, 13, 16, 17, 50, 69, 204, 211 & 222	4176
18	Manipur	39, 53, 150 & 155	959
19	Meghalaya	40, 44, 51 & 62	810

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20	Mizoram 44A, 54, 54A, 54B, 150 & 154	927
21	Nagaland 36, 39, 61, 150 & 155	494
22	Orissa 5, 5A, 6, 23, 42, 43, 60, 75, 200, 201, 203, 203A, 215, 217 & 2243704	3704
23	Puducherry 45A & 66	53
24	Punjab 1, 1A, 10, 15, 20, 21, 22, 64, 70, 71, 72 & 95	1557
25	Rajasthan 3, 8, 11, 11A, 11B, 12, 14, 15, 65, 71B, 76, 79, 79A, 89, 5585, 90, 113, 112, 114 & 116	
26	Sikkim 31A	62
27	Tamilnadu 4, 5, 7, 7A, 45, 45A, 45B, 45C, 46, 47, 47B, 49, 66, 67, 68, 205, 207, 208, 209, 210, 219, 220, 226 & 227	4462
28	Tripura 44 & 44A	400
29	Uttaranchal 58, 72, 72A, 73, 74, 87, 94, 108, 109, 123, 119, 121, 87 Ext. & 125	1991
30	Uttar Pradesh 2, 2A, 3, 7, 11, 12A, 19, 24, 24A, 24B, 25, 25A, 26, 27, 28, 28B, 28C, 29, 56, 56A, 56B, 58, 72A, 73, 74, 75, 76, 86, 87, 91, 91A, 92, 93, 96, 97, 119 & NE-II	5874
31	West Bengal 2, 2B, 6, 31, 31A, 31C, 32, 34, 35, 41, 55, 60, 60A, 80, 81 & 117	2377
32	Andaman & Nicobar 223	300
	Total	66590

LENGTH OF SOME IMPORTANT INDIAN RIVERS

River	Length (km)
1. Indus	2,900
2. Brahmaputra	2,900
3. Ganga	2,510
4. Godavari	1,450
5. Narmada	1,290
6. Krishna	1,290
7. Mahanadi	890
8. Kaveri	760

AMENDMENTS TO THE CONSTITUTION

1. *The Constitution (First Amendment) Act, 1950*—This amendment provided for several new grounds of restrictions to the right to freedom of speech and expression and the right to practise any profession or to carry on any trade or business as contained in Article 19 of the Constitution. These restrictions related to public order, friendly relations with foreign States or incitement to an offence in relation to the right to freedom of speech, and to the prescribing of professional or technical qualifications or the carrying on by the State, etc., of any trade, business, industry or service in relation to the right to carry on any trade or business. The amendment also inserted two new Articles, 31A and 31B and the Ninth Schedule to give protection from challenge to land reform laws.
2. *The Constitution (Second Amendment) Act, 1952*—By this amendment, the scale or representation for election to the Lok Sabha was readjusted.
3. *The Constitution (Third Amendment) Act, 1954*—This amendment substituted entry 33 of List III (Concurrent List) of the Seventh Schedule to make it correspond to Article 369.

4. *The Constitution (Fourth Amendment) Act, 1955*—Article 31 (2) of the Constitution was amended to re-state more precisely the State's power of compulsory acquisition and requisitioning of private property and distinguish it from cases where the operation of regulatory or prohibitory laws of the States results in "deprivation of property". Article 31A of the Constitution was also amended to extend its scope to cover categories of essential welfare legislation like abolition of zamindaris, proper planning of urban and rural areas and for effecting a full control over the mineral and oil resources of the country, etc. Six Acts were also included in the Ninth Schedule. Article 305 was also amended to save certain laws providing of State Monopolies.
5. *The Constitution (Fifth Amendment) Act, 1955*—This amendment made a change in Article 3 so as to empower President to specify a time limit for state legislatures to convey their views on the proposed Central laws affecting areas, boundaries, etc., of their states.
6. *The Constitution (Sixth Amendment) Act, 1956*—This amendment made some changes in Articles 269 and 286 relating to taxes on sale and purchase of goods in the course of inter-state trade and commerce. A new entry 92 A was added to the Union List of the Seventh Schedule to the Constitution.
7. *The Constitution (Seventh Amendment) Act, 1956*—This amendment Act purported to give effect to the recommendations of the State Reorganisation Commission and the necessary consequential changes. Broadly, the then existing states and territories were changed to have two-fold classification of states and union territories. The amendment also provided for composition of the House of the People, re-adjustment after every census, provisions regarding the establishment of new High Courts, High Court Judges, etc.
8. *The Constitution (Eighth Amendment) Act, 1960*—Article 334 was amended with a view to extending the period of reservation of seats for Scheduled Castes and Scheduled Tribes and to the Anglo-Indian community by nomination in Parliament and in the State Legislatures for a further period of ten years.
9. *The Constitution (Ninth Amendment) Act, 1960*—The purpose of this amendment is to give effect to the transfer of certain territories to Pakistan in pursuance of the agreement extended into between Governments of India and Pakistan. This amendment was necessitated in view of the Judgement of Supreme Court in *In Re Berubari Union* by which it was held that any agreement to cede a territory to another country could not be implemented by a law made under Article 3 but would only be implemented by an amendment of the Constitution.
10. *The Constitution (Tenth Amendment) Act, 1961*—This Act amended Article 240 and the First Schedule in order to include areas of Dadra and Nagar Haveli as a Union Territory and to provide for its administration under the regulation making powers of President.
11. *The Constitution (Eleventh Amendment) Act, 1961*—The purpose of this amendment was to amend Articles 66 and 71 of the Constitution to provide that the election of President or Vice President could not be challenged on the ground of any vacancy in the appropriate electoral college.
12. *The Constitution (Twelfth Amendment) Act, 1962*—This amendment sought to include Goa, Daman and Diu as a Union Territory and to amend Article 240 for the purpose.
13. *The Constitution (Thirteenth Amendment) Act, 1962*—By this amendment, a new Article 371A was added to make special provisions with respect to state of Nagaland in pursuance of an agreement between Government of India and Naga People's Convention.
14. *The Constitution (Fourteenth Amendment) Act, 1962*—By this Act, Pondicherry was included in the First Schedule as a Union Territory, and this Act has also enabled the creation of Legislature by Parliamentary law for Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu and Pondicherry.
15. *The Constitution (Fifteenth Amendment) Act, 1963*—This amendment provided for increase in the age of retirement of High Court Judge and for the provision of compensatory allowance to judges who are transferred from one High Court to another. The Act also provided for appointment of retired judges to act as judges of High Court. Article 226 was also enlarged to empower High Court to issue direction, orders or writs to any Government authority, etc., if the cause of action for the exercise of such power arose in the territories wherein the High Court exercise jurisdiction notwithstanding that seat of such Government authority is not within those territories. The Act also

provided for the exercise of powers of Chairman of the Service Commissions, in their absence, by one of their Members.

16. *The Constitution (Sixteenth Amendment) Act, 1963*—Article 19 was amended by this Act to impose further restriction on the rights to freedom of speech and expression, to assemble peaceably and without arms and to form associations in the interests of sovereignty and integrity of India. The oath of affirmation to be subscribed by candidates seeking election to Parliament and State Legislatures have been amended to include as one of the conditions that they will uphold the sovereignty and integrity of India. The amendments are intended to promote national integration.

17. *The Constitution (Seventeenth Amendment) Act, 1964*—Article 31A was further amended to prohibit the acquisition of land under personal cultivation unless the market value of the land is paid as compensation and the definition of “estate” as contained in that Article had also been enlarged with retrospective effect. The Ninth Schedule had also been amended to include 44 more Acts.

18. *The Constitution (Eighteenth Amendment) Act, 1966*—Article 3 was amended by this Act to specify that the expression “State” will include a union territory also and to make it clear that the power to form a new state under this Article includes a power to form a new state or union territory by uniting a part of a state or a union territory to another state or union territory.

19. *The Constitution (Nineteenth Amendment) Act, 1966*—Article 324 was amended to effect a consequential change as a result of the decision to abolish Election Tribunals and to hear election petitions by High Courts.

20. *The Constitution (Twentieth Amendment) Act, 1966*—This amendment was necessitated by the decision of the Supreme Courts in Chandramohan vs. State of Uttar Pradesh in which certain appointments of District Judges in State of Uttar Pradesh were declared void by Supreme Court. A new Article 233A was added and the appointments made by Governor were validated.

21. *The Constitution (Twenty-first Amendment) Act, 1967*—By this amendment, Sindhi Language was included in the Eighth Schedule.

22. *The Constitution (Twenty-second Amendment) Act, 1969*—This act was enacted to facilitate the formation of a new autonomous state of Meghalaya within state of Assam.

23. *The Constitution (Twenty-third Amendment) Act, 1969*—Article 334 was amended so as to extend the safeguards in respect of reservation of seats in Parliament and State Legislatures for Schedules Castes and Scheduled Tribes as well as for Anglo-Indians for a further period of ten years.

24. *The Constitution (Twenty-fourth Amendment) Act, 1971*—This amendment was passed in the context of a situation that emerged with the verdict in Golaknath’s case by Supreme Court. Accordingly, this Act amended Article 13 and Article 368 to remove all doubts regarding the power of Parliament to amend the Constitution including the Fundamental Rights.

25. *The Constitution (Twenty-fifth Amendment) Act, 1971*—This amendment further amended Article 31 in the wake of the Bank Nationalisation case. The word ‘amount’ was substituted in place of ‘compensation’ in the light of the judicial interpretation of the word ‘compensation’ meaning ‘adequate compensation’.

26. *The Constitution (Twenty-sixth Amendment) Act, 1971*—By this amendment, the privy and privileges of the former rulers of Indian states were abolished. This amendment was passed as a result of Supreme Court decision in Madhav Rao’s case.

27. *The Constitution (Twenty-seventh Amendment) Act, 1971*—This amendment was passed to provide for certain matters necessitated by the reorganisation of north-eastern states. A new Article 239B was inserted which enabled the promulgation of Ordinances by Administrators of certain union territories.

28. *The Constitution (Twenty-eighth Amendment) Act, 1972*—The amendment was enacted to abolish the special privileges of the members of Indian Civil Services in matters of leave, pension and rights as regard to disciplinary matters.

29. *The Constitution (Twenty-ninth Amendment) Act, 1972*—The Ninth Schedule to the Constitution was amended to include therein two Kerala Acts on land reforms.

30. *The Constitution (Thirtieth Amendment) Act, 1972*—The purpose of the amendment was to amend Article 133 in order to do away with the valuation test of Rs 20,000 as fixed therein, and to

provide instead for an appeal to Supreme Court in Civil proceedings only on a certificate issued by High Court that the case involves a substantial question of law of general importance and that in opinion of High Court, the question needs to be decided by Supreme Court.

31. *The Constitution (Thirty-first Amendment) Act, 1973*—This Act *inter alia* raises the upper limit for the representation of states in the Lok Sabha from 500 to 525 and reducing the upper limit for the representation of union territories from 25 members to 20.

32. *The Constitution (Thirty-second Amendment) Act, 1973*—This Act provided the necessary constitutional authority for giving effect to the provision of equal opportunities to different areas of the State of Andhra Pradesh and for the constitution of an Administrative Tribunal with jurisdiction to deal with grievances relating to public services. It also empowered Parliament to legislate for the establishment of a Central University in the State.

33. *The Constitution (Thirty-third Amendment) Act, 1974*—By this amendment, Articles 101 and 190 were amended in order to streamline the procedure for resignation of Members of Parliament and State Legislatures.

34. *The Constitution (Thirty-fourth Amendment) Act, 1974*—By this Act, twenty more land tenure and land reforms laws enacted by various State Legislatures were included in the Ninth Schedule.

35. *The Constitution (Thirty-fifth Amendment) Act, 1974*—By this Act a new Article 2A was added thereby conferring on Sikkim the status of an associate State of Indian Union. Consequent amendments were made to Articles 80 and 81. A new schedule, *i.e.*, Tenth Schedule, was added laying down terms and conditions of association of Sikkim with the Union.

36. *The Constitution (Thirty-sixth Amendment) Act, 1975*—This was enacted to make Sikkim a full-fledged State of Indian Union and to include it in the First Schedule to the Constitution and to allot to Sikkim one seat each in the Council of States and in the House of the People. Article 2A and the Tenth Schedule inserted by the Constitution (Thirty-fifth Amendment) Act were omitted and Articles 80 and 81 were suitably amended.

37. *The Constitution (Thirty-seventh Amendment) Act, 1975*—By this Act, Union Territory of Arunachal Pradesh was provided with a Legislative Assembly. Article 240 of the Constitution was also amended to provide that as in the case of other union territories with Legislatures, the power of President to make regulations for the Union Territory of Arunachal Pradesh may be exercised only when the assembly is either dissolved or its functions remain suspended.

38. *The Constitution (Thirty-eighth Amendment) Act, 1975*—This Act amended Articles 123, 213 and 352 of the Constitution to provide that the satisfaction of President or Governor contained in these Articles would be called in question in any court of law.

39. *The Constitution (Thirty-ninth Amendment) Act, 1975*—By this Act, disputes relating to the election of President, Vice-President, Prime Minister and Speaker are to be determined by such authority as may be determined by Parliamentary Law. Certain Central enactments were also included in the Ninth Schedule by this Act.

40. *The Constitution (Fortieth Amendment) Act, 1976*—This act provided for vesting in the Union of all mines, minerals and other things of value lying in the ocean within the territorial waters or the continental shelf or the exclusive economic zone of India. It further provided that all other resources of the exclusive economic zone of India shall also vest in the Union. This act also provided that the limits of the territorial waters, the continental shelf, the exclusive economic zone and the maritime zones of India shall be as specified from time to time by or under any law made by Parliament. Also some more Acts were added to the Ninth Scheme.

41. *The Constitution (Forty-first Amendment) Act, 1976*—By this Act, Article 316 was amended to raise the retirement age of Members of State Public Service Commissions and Joint Public Service Commissions from 60 to 62 years.

42. *The Constitution (Forty-second Amendment) Act, 1976*—This act made a number of important amendments in the Constitution. These amendments were mainly for purpose of giving effect to the recommendations of Swaran Singh Committee.

Some of the important amendments made are for the purpose of spelling out expressly the high ideals of socialism, secularism and the integrity of the nation, to make the Directive Principles

more comprehensive and giving them precedence over those Fundamental Rights which have been allowed to be relied upon to frustrate socio-economic reforms. The amendment Act also inserted a new chapter on the Fundamental Duties of citizens and made special provisions for dealing with anti-national activities, whether by individuals or by associations. The judiciary provisions were also amended by providing for a requirement as to the minimum number of judges for determining question as to the constitutional validity of law and for a special majority of not less than two-third for declaring any law to be constitutionally invalid.

To reduce the mounting arrears in High Courts and to secure the speedy disposal of service matters, revenue matters and certain other matters of special importance in the context of socio-economic development and progress, this amendment Act provided for the creation of Administrative and other tribunals for dealing with such matters while preserving the jurisdiction of the Supreme Court in regard to such matters under Article 136 of the Constitution. Certain modifications in the writ jurisdiction of High Courts under Article 226 were also made.

43. *The Constitution (Forty-third Amendment) Act, 1977*—This Act *inter alia* provided for the restoration of the jurisdiction of the Supreme Court and High Courts, curtailed by the enactment of the Constitution (Forty-second Amendment) Act, 1976 and accordingly Articles 32A, 131A, 144A, 226A and 228A included in the Constitution by the said amendment, were omitted by this Act. The Act also provided for the omission of Article 31 which conferred special powers on Parliament to enact certain laws in respect of anti-national activities.

44. *The Constitution (Forty-fourth Amendment) Act, 1978*—The right to property which had been the occasion for more than one amendment of Constitution was omitted as a Fundamental Right and it was made only as a legal right. It was, however, ensured that the removal of the right to property from the list of Fundamental Rights would not affect the right of minorities to establish and administer educational institutions of their choice. Article 352 of the Constitution was amended to provide “armed rebellion” as one of the circumstances for declaration of emergency. Internal disturbance not amounting to armed rebellion would not be a ground for the issuance of a Proclamation. The right to personal liberty as contained in Articles 21 and 22 is further strengthened by the provision that a law for preventive detention cannot authorise, in any case, detention for a longer period than two months unless an Advisory Board has reported that there is sufficient cause for such detention. The additional safeguard has also been provided by the requirements that Chairman of an Advisory Board shall be a serving Judge of the appropriate High Court and that the Board shall be constituted in accordance with the recommendations of the Chief Justice of that High Court.

With a view to avoid delays, Articles 132 and 134 were amended and a new Article 134A was inserted to provide that a High Court should consider the question of granting a certificate for appeal to Supreme Court immediately after the delivery of the judgement, final order or sentence concerned on the basis of an oral application by a party or, if the High Court deems it so to do, on its own. The other amendments made by the Act are mainly for removing or correcting the distortions which came into the Constitution by reason of the amendment initiated during the period of internal emergency.

45. *The Constitution (Forty-fifth Amendment) Act, 1980*—This was passed to extend safeguards in respect of reservation of seats in Parliament and State Assemblies for Scheduled Castes, Scheduled Tribes as well as for Anglo-Indians for a further period of ten years.

46. *The Constitution (Forty-sixth Amendment) Act, 1982*—Article 269 was amended so that the tax levied on the consignment of goods in the course of inter-state or commerce shall be assigned to the states. This Article was also amended to enable Parliament to formulate by law principle for determining when a consignment of goods takes place in the course of inter-state trade or commerce. A new entry 92B was also inserted in the Union List to enable the levy of tax on the consignment of goods where such consignment takes place in the course of inter-state trade or commerce.

Clause (3) of Article 286 was amended to enable Parliament to specify, by law, restrictions and conditions in regard to the system of levy rates and other incidence of tax on the transfer of goods involved in the execution of a works contract, on the delivery of goods on hire-purchase or any system of payment of instalments, etc.

Article 366 was also suitably amended to insert a definition of “tax on the sale or purchase of goods” to include transfer for consideration of controlled commodities, transfer of property in

goods involved in the execution of a works contract, delivery of goods on hire-purchase or any system of payment by instalments, etc.

47. *The Constitution (Forty-seventh Amendment) Act, 1984*—This amendment is intended to provide for the inclusion of certain land Reforms Acts in the Ninth Schedule to the Constitution with a view to obviating the scope of litigation hampering the implementation process of those Acts.

48. *The Constitution (Forty-eighth Amendment) Act, 1984*—The Proclamation issued by President under Article 356 of the Constitution with respect to the State of Punjab cannot be continued in force for more than one year unless the special conditions mentioned in clause (5) of the said Article are satisfied. As it is felt that the continued force of the said Proclamation is necessary, therefore, the present amendment had been effected so as to make the conditions mentioned in clause (5) of Article 356 inapplicable in the instant case.

49. *The Constitution (Forty-ninth Amendment) Act, 1984*—Tripura Government recommended that the provisions of the Sixth Schedule to the Constitution may be made applicable to tribal areas of that State. The amendment involved in this Act is intended to give a constitutional security to the autonomous District Council functioning in the State.

50. *The Constitution (Fiftieth Amendment) Act, 1984*—by Article 33 of the constitution, Parliament is empowered to enact laws determining to what extent any of the rights conferred by Part III of the constitution shall, in their application to the members of the armed forces or the forces charged with the maintenance of public order, be restricted or abrogated so as to ensure proper discharge of their duties and maintenance of discipline among them.

It was proposed to amend Article 33 so as to bring within its ambit:

(i) the members of the Force charged with the protection of property belonging to or in the charge or possession of the state; or

(ii) persons employed in any bureau or other organisation established by the state for purposes of intelligence or counter-intelligence; or

(iii) persons employed in or in connection with the telecommunication systems set up for the purposes of any Force, bureau or organisation.

Experience has revealed that the need for ensuring proper discharge of their duties and maintenance of discipline among them is of paramount importance in the national interest.

51. *The Constitution (Fifty-first Amendment) Act, 1984*—Article 330 has been amended by this Act for providing reservation of seats for Scheduled Tribes in Meghalaya, Nagaland, Arunachal Pradesh and Mizoram in Parliament and Article 332 has been amended to provide similar reservation in the Legislative Assemblies of Nagaland and Meghalaya to meet the aspirations of local tribal population.

52. *The Constitution (Fifty-second Amendment) Act, 1985*—It amends the Constitution to provide that a Member of Parliament or a State Legislature who defects or is expelled from the party which set him up as a candidate in the election or if an independent member of the House joins a political party after expiry of six months from the date on which he takes seat in the House shall be disqualified to remain a member of the House. The Act also makes suitable provisions with respect to splits in and merger of political parties.

53. *The Constitution (Fifty-third Amendment) Act, 1986*—This has been enacted to give effect to the Memorandum of Settlement of Mizoram which was signed by Government of India and Mizoram Government with Mizoram National Front on 30th June 1986. For this purpose, a new Article 371G has been inserted in the Constitution *inter alia* preventing application of any Act of Parliament in Mizoram in respect of religious or social practices of Mizos, Mizos' customary law and procedure, administration of civil and criminal practice involving decisions according to Mizos' customary law and ownership and transfer of land unless a resolution is passed in the Legislative Assembly to that effect. This, however, will not apply to any Central Act already in force in Mizoram before the commencement of this amendment. The new Article also provides that the Legislative Assembly of Mizoram shall consist of not less than 40 members.

54. *The Constitution (Fifty-fourth Amendment) Act, 1986*—This Act increases the salaries of Supreme Court and High Court judges as follows :

Chief Justice of India	Rs 10,000 per month
Judges of Supreme Court	Rs 9,000 per month
Chief Justice of High Court	Rs 9,000 per month
Judges of High Court	Rs 8,000 per month

This Act amended Part 'D' of the Second Schedule to the Constitution to give effect to the above increases in the salaries of judges and to make an enabling provision in Articles 125 and 221 to provide for changes in the salaries of judges in future by Parliament by law.

55. *The Constitution (Fifty-fifth Amendment) Act, 1986*—This Act seeks to give effects to the proposal of Government of India to confer statehood on the Union Territory of Arunachal Pradesh and for this purpose, a new Article 371H has been inserted which, *inter alia*, confers, having regard to the sensitive location of Arunachal Pradesh to vest special responsibility on Governor of the new State of Arunachal Pradesh with respect to law and order in the State and in the discharge of his functions, the Governor shall after consulting the Council of Ministers, exercise his individual judgement, as to the action to be taken and this responsibility shall cease when President so directs. The new Article also provides that the new Legislative Assembly of the new State of Arunachal Pradesh, shall consist of not less than thirty members.

56. *The Constitution (Fifty-sixth Amendment) Act, 1987*—Government of India has proposed to constitute the territories comprised in Goa District of the Union Territory of Goa, Daman and Diu as the State of Goa and the territories comprised in Daman and Diu districts of that Union Territory as a new Union Territory of Daman and Diu. In this context, it was proposed that the Legislative Assembly of the new State of Goa shall consist of 40 members. The existing Legislative Assembly of the Union Territory of Goa, Daman and Diu has 30 elected members and three nominated members. It was intended to make this Assembly with the exclusion of two members representing Daman and Diu districts the provisional Legislative Assembly for the new State of Goa until elections are held on the expiry of the five year terms of the existing Assembly. It was, therefore, decided to provide that the Legislative Assembly of the new State of Goa shall consist of not less than 30 members. The special provision required to be made to give effect to this proposal is carried out by this amendment.

57. *The Constitution (Fifty-seventh amendment) Act, 1987*—The Constitution (Fifty-first Amendment) Act, 1984 was enacted to provide for reservation of seats in the house of the people for scheduled tribes in Nagaland, Meghalaya, Mizoram and Arunachal Pradesh and also for reservation of seats for scheduled tribes in the legislative assemblies of Nagaland and Meghalaya by suitably amending articles 330 and 332. Even though these states are predominantly tribal, the underlying objective of the aforesaid act was to ensure that the members of scheduled tribes in these areas do not fail to secure a minimal representation because of their inability to compete with the advanced sections of the people. The Constitution (fifty-first amendment) act, though formally enforced, could not be fully implemented unless parallel action is taken to determine the seats which are to be reserved for Scheduled tribes in these areas. The number of seats reserved for Schedule Castes and Schedule Tribes in the Legislative Assembly of any State under article 332 of the constitution will have to be determined having regard to the provisions of article 332 (3) of the Constitution. However, in view of the historical background with respect to the areas comprised in north-eastern states, the circumstances obtaining in these areas in the State of development of Scheduled Tribes and other relevant considerations, it was considered necessary to provide for special arrangements with regard to the reservation for Scheduled Tribes in these areas for a temporary period so as to facilitate easy transition of these areas to the normal arrangements as envisaged in the Constitution. Article 332 of the Constitution was further amended for making a temporary provision, until the re-adjustment of seats on the basis of first census after the year 2000 under article 170 of the Constitution for these states, for the determination of the number of seats reserved for Scheduled Tribes. This amendment seeks to provide that if all the seats in the Legislative Assembly of such States in existence on the date of coming into force of this constitution amendment act are held by the members of Scheduled Tribes, all the seats except one shall be reserved for scheduled tribes and in any other case such number of seats as bears to the total number of seats a proportion not less than the number of members belonging to Scheduled Tribes in the existing assembly bears to the total number of seats in the existing assembly. The act achieves these objectives.

58. *The Constitution (Fifty-eighth Amendment) Act, 1987*—There has been general demand for the publication of authoritative text of the Constitution in Hindi. It is imperative to have an authoritative text of the Constitution for facilitating its use in the legal process. Any Hindi version of the Constitution should not only conform to the Hindi translation published by the Constituent Assembly, but should be in conformity, with the language style and terminology adopted in the authoritative texts of Central Acts in Hindi. The Constitution has been amended to empower President of India to publish under his authority the translation of the Constitution in Hindi signed by the Members of the Constituent Assembly with such modification as may be necessary to bring it in conformity with the language, style and terminology adopted in the authoritative texts of Central Acts in Hindi language. President has also been authorised to publish the translation in Hindi of every amendment of the Constitution made in English.

59. *The Constitution (Fifty-ninth Amendment) Act, 1988*—The Act amends Article 365 (5) of the Constitution so as to facilitate the extension of a Presidential Proclamation issued under clause (1) of Article 356 beyond a period of one year, if necessary upto a period of three years, as permissible under clause (4) of Article 356 with respect to the State of Punjab because of the continued disturbed situation there. The Act also amends Article 352 of the Constitution pertaining to the Proclamation of Emergency in its application to the State of Punjab and includes internal disturbance as one of the grounds for making a Proclamation in respect of the State of Punjab only. As a consequence of amendment in Article 352, Articles 358 and 359 in relation to the State of Punjab will be operative only for a period of two years from 30 March 1988, which is the date of commencement of the amendment.

60. *The Constitution (Sixtieth Amendment) Act, 1988*—The Act amends clause (2) of Article 276 of the Constitution so as to increase the ceiling of taxes on professions, trades, callings and employment from Rs 250 per annum to Rs 2,500 per annum. The upward revision of this tax will help state governments in raising additional resources. The proviso to clause (2) has been omitted.

61. *The Constitution (Sixty-first Amendment) Act, 1989*—The Act provides for reducing voting age from 21 to 18 years by amending Article 326 of the Constitution to provide to the unrepresented youth of the country an opportunity to give vent to their feelings and help them become a part of political process.

62. *The Constitution (Sixty-second Amendment) Act, 1989*—Article 334 of the Constitution lays down that the provisions of the Constitution relating to the reservation of seats for the Scheduled Castes and the Scheduled Tribes and the representation of the Anglo-Indian community by nomination in the Lok Sabha and in the Legislative Assemblies of the States shall cease to have effect on the expiry of a period of 40 years from the commencement of the Constitution. Although the Scheduled Castes and the Scheduled Tribes have made considerable progress in the last 40 years, the reasons which weighed with the Constituent Assembly in making provisions with regard to the aforesaid reservation of seats and nomination of members, have not ceased to exist. The Act amends Article 334 of the Constitution to continue the reservation for the Scheduled Castes and the Scheduled Tribes and the representation of the Anglo-Indians by nomination for a further period of 10 years.

63. *The Constitution (Sixty-third Amendment) Act, 1989*—The Constitution (Fifty-ninth Amendment) Act, 1988 was enacted in March 1988 making certain changes in regard to making a Proclamation of Emergency in Punjab and to the duration of President's rule in State. On reconsideration, the Government decided that the special powers in regard to the Proclamation of Emergency in Punjab as envisaged in the said amendment is no longer required. Accordingly the provision to clause (5) of Article 356 and Article 359A of the Constitution have been omitted.

64. *The Constitution (Sixty-fourth Amendment) Act, 1990*—This Act amends clauses (4) and (5) of Article 356 of the Constitution with a view to facilitate the extension of the proclamation issued under clause (1) of Article 356 of the Constitution on 11th May 1987 upto a total period of three years and six months in relation to the State of Punjab.

65. *The Constitution (Sixty-fifth Amendment) Act, 1990*—Article 338 of the Constitution provides for a Special Officer for the Scheduled Castes and Scheduled Tribes to investigate all matters relating to the safeguards provided for the Scheduled Castes and Scheduled Tribes under the Constitution and to report to the President on their working. The Article has been amended for the constitution of a National Commission for Scheduled Castes and Scheduled Tribes consisting of a Chairperson, Vice Chairperson and five other Members who shall be appointed by the President by

warrant under his hand and seal. The amended Article elaborates the duties of the said Commission and covers measures that should be taken by the Union or any state for the effective implementation of the reports presented by the Commission. It also provides that the Commission shall, while investigating any matter or inquiring into any complaint have all the powers of a Civil Court trying a suit and the reports of the said Commission shall be laid before Parliament and the Legislature of the states.

66. *The Constitution (Sixty-sixth Amendment) Act, 1990*—The Act protects 55 State Acts relating to land reforms and ceiling on agricultural land holdings enacted by States of Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttar Pradesh, West Bengal and administration of the Union Territory of Puducherry, from challenge in courts, by including them in the Ninth Schedule to the Constitution.

67. *The Constitution (Sixty-seventh Amendment) Act, 1990*—The three year period in the case of proclamation issued on 11th May 1987 with respect to the State of Punjab was extended to three years and six months by the Constitution (Sixty-fourth Amendment) Act, 1990. This Act further amends clause (4) of Article 356 so as to further extend the period upto a total period of four years.

68. *The Constitution (Sixty-eighth Amendment) Act, 1991*—The three year period in the case of proclamation issued on 17th May 1987 with respect to the State of Punjab was earlier extended to four years by the Constitution (sixty-seventh Amendment) Act, 1990. This Act further amends clause (4) of Article 356 so as to further extend the period upto a total period of five years.

69. *The Constitution (Sixty-ninth Amendment) Act, 1991*—The Government of India appointed on 24th December 1987 a Committee to go into various issues connected with the administration of Delhi and to recommend measures, *inter alia* for the streamlining of the administrative set up. After detailed inquiry and examination, it recommended that Delhi should continue to be a union territory and may be provided with a Legislative Assembly and a Council of Ministers responsible to such assembly with appropriate powers to deal with matters of concern to the common man. The Committee also recommended that with a view to ensuring stability and permanence, arrangements should be incorporated in the constitution to give the national capital a special status among the union territories. This act has been passed to give effect to the above recommendations.

70. *The Constitution (Seventieth Amendment) Act, 1992*—While considering the (Seventy-fourth Amendment) Bill, 1991 and the Government of National Capital Territory Bill, 1991 views were expressed in both the Houses of Parliament in favour of including also the elected members of the legislative assemblies of union territories in the electoral college for the election of the President under Article 54 of the Constitution.

At present Article 54 relating to the election of the President provides for an electoral college consisting of only the elected Members of Parliament as well as the legislative assemblies of the states (not of union territories). Similarly, Article 55 providing for the manner of such election also speaks of legislative assemblies of states.

Accordingly, an Explanation was inserted in Article 54 to provide that reference to 'State' in Article 54 and 55 would include the National Capital Territory of Delhi and the Union Territory of Puducherry for constituting the electoral college for election of the President. This would enable the elected members of the Legislative Assembly created for the Union Territory of Puducherry under the provisions of Article 239A and of the proposed Legislative Assembly of the National Capital Territory of Delhi under Article 239AA to be included in the electoral college.

71. *The Constitution (Seventy-first Amendment) Act, 1992*—There have been demands for inclusion of certain languages in the Eighth Schedule to the Constitution. This Act amends the Eighth Schedule to the Constitution to include Konkani, Manipuri and Nepali languages in the Eighth Schedule to the Constitution.

72. *The Constitution (Seventy-second Amendment) Act, 1992*—For restoring peace and harmony in the areas of the State of Tripura where disturbed conditions prevailed, a Memorandum of Settlement was signed by the Government of India with Tripura National Volunteers on 12 August 1988.

In order to implement the said Memorandum, Article 332 of the Constitution has been amended by the Constitution (Seventy-second Amendment) Act, 1992 for making a temporary

provision for the determination of the number of seats reserved for the Scheduled Tribes in the State Assembly of Tripura, until the re-adjustment of seats is made on the basis of the first Census after the year 2000 under Article 170 of the Constitution.

73. *The Constitution (Seventy-third Amendment) Act, 1993*—Article 40 of the Constitution which enshrines one of the Directive Principles of State Policy lays down that the State shall take steps to organise village *panchayats* and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.

In the light of the above, a new Part IX relating to the Panchayats has been inserted in the Constitution to provide for among other things, *Gram Sabha* in a village or group of villages; constitution of *Panchayats* at village and other level or levels; direct elections to all seats in Panchayats at the village and intermediate level, if any and to the offices of Chairpersons of Panchayats at such levels; reservation of seats for the Scheduled Castes and Scheduled Tribes in proportion to their population for membership of Panchayats and office of Chairpersons in Panchayats at each level; reservation of not less than one-third of the seats for women; fixing tenure of five years for Panchayats and holding elections within a period of six months in the event of supersession of any Panchayat.

74. *The Constitution (Seventy-fourth Amendment) Act, 1993*—In many states local bodies have become weak and ineffective on account of a variety of reasons, including the failure to hold regular elections, prolonged supersession and inadequate devolutions of powers and functions. As a result, Urban Local Bodies are not able to perform effectively as vibrant democratic units of self-government.

Having regard to these inadequacies a new part IX-A relating to the Municipalities has been incorporated in the Constitution to provide for among other things, constitution of three types of Municipalities, *i.e.*, *Nagar Panchayats* for areas in transition from a rural area to urban area, Municipal Councils for smaller urban areas and Municipal Corporations for larger urban areas.

75. *The Constitution (Seventy-fifth Amendment) Act, 1994*—The operation of the Rent Control Legislations, as are today in various states, suffers from major weaknesses and has led to various unintended consequences. Some of the deleterious legal consequences include mounting and mending litigation, inability of the courts to provide timely justice, evolution of practices and systems to bypass the operations of rent legislations and steady shrinkage of rental housing market.

The Supreme Court taking note of the precarious state of rent litigation in the country in case of Prabhakaran Nair and others vs. State of Tamilnadu (Civil Writ Petition 506 of 1986) and other writs observed that the Supreme Court and the High Courts should be relieved of the heavy burden of rent litigation. Tiers of appeals should be curtailed. Laws should be simple, rational and clear, litigations must come to end quickly.

Therefore, this Act amends Article 323B in Part XIVA of the Constitution so as to give timely relief to the rent litigants by providing for setting up of state-level Rent Tribunals in order to reduce the tiers of appeals and to exclude the jurisdiction of all courts, except that of the Supreme Court, under Article 136 of the Constitution.

76. *The Constitution (Seventy-sixth Amendment) Act, 1994*—The policy of reservation of seats in educational institutions and reservation of appointments or posts in public services for Backward Classes, Scheduled Castes and Scheduled Tribes has had a long history in Tamilnadu dating back to the year 1921. The extent of reservation has been increased by the State Government from time to time, consistent with the needs of the majority of the people and it has now reached the level of 69 per cent (18 per cent Scheduled Castes, one per cent Scheduled Tribes and 50 per cent Other Backward Classes).

The Supreme Court in Indira Sawhney and others vs. Union of India and others (AIR, 1993 SC 477) on 16th November 1992 ruled that the total reservations under Article 16(4) should not exceed 50 per cent.

The Tamilnadu Government enacted a legislation, namely, Tamilnadu Backward Classes, Scheduled Castes and Scheduled Tribes (Reservation of Seats in Educational Institution and of appointments or posts in the Services under the State) Bill, 1993 and forwarded it to the Government of India for consideration of the President of India in terms of Article 31-C of the Constitution. The Government of India supported the provision of the State legislation by giving the President's assent to the Tamilnadu Bill. As a corollary to this decision, it was necessary that the Tamilnadu Act 45 of 1994 was brought within the purview of the Ninth Schedule to the Constitution so that it could get protection under Article 31B of the Constitution with regard to the judicial review.

77. *The Constitution (Seventy-seventh Amendment) Act, 1995*—The Schedule Castes and the scheduled tribes have been enjoying the facility of reservation in promotion since 1955. The Supreme Court in its judgment dated 16th November 1992 in the case of Indira Sawhney and others vs. Union of India and others, however, observed that reservation of appointments or posts under Article 16(4) of the Constitution is confined to initial appointment and cannot extend to reservation in the matter of promotion. This ruling of the Supreme Court will adversely affect the interests of the Scheduled Castes and the Scheduled Tribes. Since the representation of the Scheduled Castes and the Scheduled Tribes in services in the States have not reached the required level, it is necessary to continue the existing dispensation of providing reservation in promotion in the case of the Scheduled Castes and the Scheduled Tribes. In view of the commitment of the Government to protect the interests of the Scheduled Castes and the Scheduled Tribes, the Government have decided to continue the existing policy of reservation in promotion for the Scheduled Castes and the Scheduled Tribes. To carry out this, it was necessary to amend Article 16 of the Constitution by inserting a new clause (4A) in the said Article to provide for reservation in promotion for the Scheduled Castes and the Scheduled Tribes.

78. *The Constitution (Seventy-eighth Amendment) Act, 1995*—Article 31B of the Constitution confers on the enactments included in the Ninth Schedule to the Constitution immunity from legal challenge on the ground that they violate the fundamental rights enshrined in Part III of the Constitution. The Schedule consists of list of laws enacted by various State Governments and Central Government which *inter alia* affect rights and interest in property including land.

In the past, whenever, it was found that progressive legislation conceived in the interest of the public was imperilled by litigation, recourse was taken to the Ninth Schedule. Accordingly, several State enactments relating to land reforms and ceiling on agricultural land holdings have already been included in the Ninth Schedule. Since, the Government is committed to give importance to land reforms, it was decided to include land reform laws in the Ninth Schedule so that they are not challenged before the courts. The State Governments of Bihar, Karnataka, Kerala, Orissa, Rajasthan, Tamilnadu and West Bengal had suggested the inclusion of some of their Acts relating to land reforms in the Ninth Schedule.

Since the amendment to Acts which are already placed in the Ninth Schedule are not automatically immunised from legal challenge, a number of amending Acts along with a few principal Acts have been included in the Ninth Schedule so as to ensure that implementation of these Acts is not adversely affected by litigation.

79. *The Constitution (Seventy-ninth Amendment) Act, 1999*—By this Act the Government has extended the reservations of seats for the Scheduled Castes and the Scheduled Tribes as well as for the Anglo-Indians in the House of the People and in the Legislative Assemblies of the States for another ten years.

80. *The Constitution (Eightieth Amendment) Act, 2000*—Based on the recommendations of the Tenth Finance Commission, an alternative scheme for sharing taxes between the Union and the States has been enacted by the Constitution (Eightieth Amendment) Act 2000. Under the new scheme of devolution of revenue between Union and the States, 26 per cent out of gross proceeds of Union taxes and duties is to be assigned to the States in lieu of their existing share in the income-tax, excise duties, special excise duties and grants in lieu of tax on railway passenger fares.

81. *The Constitution (Eighty-first Amendment) Act, 2000*—By this amendment the unfilled vacancies of a year which were reserved for the Scheduled Castes and the Scheduled Tribes for being filled up in that year in accordance with any provision for reservations made under Article 16 of the Constitution, shall be considered as a separate class of vacancies to be filled up in any succeeding year or years, and such class of vacancies shall not be considered together with the vacancies of the year in which they were filled up for determining the ceiling of fifty per cent reservation against total number of vacancies of that year.

82. *The Constitution (Eighty-second Amendment) Act, 2000*—The amendment provides that nothing in Article 335 shall prevent the State from making any provision in favour of the members of the Scheduled Castes and the Scheduled Tribes for relaxation in qualifying marks in any examination or

lowering the standards of evaluation for reservation in matters of promotion to any class or classes of services or posts in connection with affairs of the Union or of a State.

83. *The Constitution (Eighty-third Amendment) Act, 2000*—The Act amended Article 243M of the Constitution to provide that no reservation in Panchayats need be made in favour of the Scheduled Castes in Arunachal Pradesh wholly inhabited by tribal population.

84. *The Constitution (Eighty-fourth Amendment) Act, 2001*—The Act amended provisos to articles 82 and 170(3) of the Constitution to readjust and rationalise the territorial constituencies in the States, without altering the number of seats allotted to each State in House of People and Legislative Assemblies of the States, including the Scheduled Castes and Scheduled Tribes constituencies, on the basis of the population ascertained at the census for the year 1991 so as to remove the imbalance caused due to uneven growth of population/electorate in different constituencies. It is also to re-fix the number of seats reserved for the Scheduled Castes and the Scheduled Tribes in the House of the People and the Legislative Assemblies of the States on the basis of the population ascertained at the census for the year 1991 so as to remove the imbalance caused due to uneven growth of population/electorate in different constituencies. It is also to re-fix the number of seats reserved for Scheduled Castes and the Scheduled Tribes in the House of the People and the Legislative Assemblies of the States on the basis of the population ascertained at the census for the year 1991.

85. *The Constitution (Eighty-fifth Amendment) Act, 2001*—This Act amended article 16(4A) of the Constitution to provide for consequential seniority in the case of promotion by virtue of rule of reservation for the Government servants belonging to the Scheduled Castes and the Scheduled Tribes. It also provides retrospective effect from 17th day of June 1995.

86. *The Constitution (Eighty-sixth Amendment) Act, 2002*—The Act deals with insertion of a new article 21A after article 21. The new article 21A deals with Right to Education—“The State shall provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may, by law, determine”.

Substitution of new Article for Article 45. For Article 45 of the Constitution, the following article shall be substituted, namely, Provision for early childhood care and education to children below the age of six years. Article 45: “The State shall endeavour to provide early childhood care and education for all children until they complete the age of six years.”

Article 51A of the Constitution was amended and a new clause (k) was added after clause (j), namely, “(k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.”

87. *The Constitution (Eighty-seventh Amendment) Act, 2003* - In Article 81 of the Constitution, in clause (3), in the proviso, in clause (ii), for the figures “1991”, the figures “2001” shall be substituted.

In Article 82 of the Constitution, in the third proviso, in clause (ii), for the figures “1991”, the figures “2001” shall be substituted.

In Article 170 of the Constitution, - (i) in clause (2), in the Explanation, in the proviso, for the figures “1991”, the figures “2001” shall be substituted; (ii) in clause (3), in the Explanation, in the third proviso, for the figures “1991”, the figures “2001” shall be substituted.

In Article 330 of the Constitution, in the Explanation, in the proviso, for the figures “1991”, the figures “2001” shall be substituted.

88. *The Constitution (Eighty-eighth Amendment) Act, 2003* - It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

After Article 268 of the Constitution, the following article shall be inserted, namely :

“268A. (1) Taxes on services shall be levied by the Government of India and such tax shall be collected and appropriated by the Government of India and the States in the manner provided in clause (2).

(2) The proceeds in any financial year of any such tax levied in accordance with the provisions of clause (1) shall be - (a) collected by the Government of India and the States; (b) appropriated by the

Government of India and the States, in accordance with such principles of collection and appropriation as may be formulated by Parliament by law”.

In Article 270 of the constitution, in clause(1), for the words and figures "Article 268 and 269", the words, figures and letter "Articles 268, 268A and 269" shall be substituted.

In the Seventh Schedule to the Constitution, in **List I-Union List**, after entry 9.2B, the following entry shall be inserted, namely : “92C. Taxes on services”.

89 *The Constitution (Eighty-ninth Amendment) Act, 2003*-It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

In Article 338 of the Constitution, - (a) for the marginal heading, the following marginal heading shall be substituted, namely :

“National Commission for : Scheduled Castes”;

(b) for clauses (1) and (2), the following clauses shall be substituted, namely:

“(1) There shall be a Commission for the Scheduled Castes to be known as the National Commission for the Scheduled Castes.

(2) Subject to the provisions of any law made in this behalf by Parliament, the Commission shall consist of a Chairperson, Vice-Chairperson and three other Members and the conditions of service and tenure of office of the Chairperson, Vice-Chairperson and other Members so appointed shall be such as the President may by rule determine”;

(c) in clauses (5), (9) and (10), the words “and Scheduled Tribes”, wherever they occur, shall be omitted.

After Article 338 of the Constitution, the following article shall be inserted, namely:

“338A. (1) There shall be a Commission for the Scheduled Tribes to be known as the National Commission for the Scheduled Tribes.

(2) Subject to the provisions of any law made in this behalf by Parliament, the Commission shall consist of a Chairperson, Vice-Chairperson and three other Members and the conditions of service and tenure of office of the Chairperson, Vice-Chairperson and other Members so appointed shall be such as the President may by rule determine.

(3) The Chairperson, Vice-Chairperson and other Members of the Commission shall be appointed by the President by warrant under his hand and seal.

(4) The Commission shall have the power to regulate its own procedure.

(5) It shall be the duty of the Commission - (a) to investigate and monitor all matters relating to the safeguards provided for the Scheduled Tribes under this Constitution or under any other law for the time being in force or under any order of the Government and to evaluate the working of such safeguards; (b) to inquire into specific complaints with respect to the deprivation of rights and safeguards of the Scheduled Tribes; (c) to participate and advise on the planning process of socio-economic development of the Scheduled Tribes and to evaluate the progress of their development under the Union and any State; (d) to present to the President, annually and at such other times as the Commission may deem fit, reports upon the working of those safeguards; (e) to make in such reports recommendations as to the measures that should be taken by the Union or any State for the effective implementation of those safeguards and other measures for the protection, welfare and socio-economic development of the Scheduled Tribes; and (f) to discharge such other functions in relation to the protection, welfare and development and advancement of the Scheduled Tribes as the President may, subject to the provisions of any law made by Parliament, by rule specify.

(6) The President shall cause all such reports to be laid before each House of Parliament along with a memorandum explaining the action taken or proposed to be taken on the recommendations relating to the Union and the reasons for the non-acceptance, if any, of any of such recommendations.

(7) Where any such report, or any part thereof, relates to any matter with which any State Government is concerned, a copy of such report shall be forwarded to the Governor of the State who shall cause it to be laid before the Legislature of the State along with a memorandum explaining the action taken or proposed to be taken on the recommendations relating to the State and reasons for the non-acceptance, if any, of any of such recommendations.

(8) The Commission shall, while investigating any matter referred to in sub-clause(a) or inquiring into any complaint referred to in sub-clause (b) of clause (5), have all the powers of a civil

court trying a suit and in particular in respect of the following matters, namely:

(a) summoning and enforcing the attendance of any person from any part of India and examining him on oath; (b) requiring the discovery and production of any document; (c) receiving evidence on affidavits; (d) requisitioning any public record or copy thereof from any court or office; (e) issuing commissions for the examination of witnesses and documents; (f) any other matter which the President may, by rule, determine.

(9) The Union and every State Government shall consult the Commission on all major policy matters affecting Scheduled Tribes”.

90. *The Constitution (Ninetyth Amendment) Act, 2003*-In Article 332 of the Constitution, in clause (6), the following proviso shall be inserted, namely :

“Provided that for elections to the Legislative Assembly of the State of Assam, the representation of the Scheduled Tribes and non-Scheduled Tribes in the constituencies included in the Bodoland Territorial Areas District, so notified, and existing prior to the constitution of the Bodoland Territorial Areas District, shall be maintained”.

91. *The Constitution (Ninety-first Amendment), Act, 2003* - In Article 75 of the Constitution, after clause (1), the following clauses shall be inserted, namely :

“(1A) The total number of Ministers, including the Prime Minister, in the Council of Ministers shall not exceed fifteen per cent of the total number of members of the House of the People.

(1B) A member of either House of Parliament belonging to any political party who is disqualified for being a member of that House under paragraph 2 of the Tenth Schedule shall also be disqualified to be appointed as a Minister under clause (1) for duration of the period commencing from the date of his disqualification till the date on which the term of his office as such member would expire or where he contests any election to either House of Parliament before the expiry of such period, till the date on which he is declared elected, whichever is earlier”

In Article 164 of the Constitution, after clause (i), the following clauses shall be inserted, namely:

“(1A) the total number of Ministers, including the Chief Minister, in the Council of Ministers in a State shall not exceed fifteen per cent of the total number of members of the Legislative Assembly of that State :

Provided that the number of Ministers, including the Chief Minister, in a State shall not be less than twelve:

Provided further that where the total number of Ministers, including the Chief Minister, in the Council of Ministers in any State at the commencement of the Constitution (Ninety-first Amendment) Act, 2003 exceeds the said fifteen per cent or the number specified in the first proviso, as the case may be, then, the total number of Ministers in that State shall be brought in conformity with the provisions of this clause within six months from such date as the President may by public notification appoint.

(1B) A member of the Legislative Assembly of a State or either House of the Legislature of a State having Legislative Council belonging to any political party who is disqualified for being a member of that House under paragraph 2 of the Tenth Schedule shall also be disqualified to be appointed as a Minister under clause (1) for duration of the period commencing from the date of his disqualification till the date on which the term of his office as such member would expire or where he contests any election to the Legislative Assembly of a State or either House of the Legislature of a State having Legislative Council, as the case may be, before the expiry of such period, till the date on which he is declared elected, whichever is earlier”

After Article 361A of the Constitution, the following article shall be inserted, namely :

316B. A member of a House belonging to any political party who is disqualified for being a member of the House under paragraph 2 of the Tenth Schedule shall also be disqualified to hold any remunerative political post for duration of the period commencing from the date of his disqualification till the date on which the term of his office as such member would expire or till the date on which he contests an election to a House and is declared elected, whichever is earlier.

Explanation : For the purposes of this Article,—

(a) the expression "House" has the meaning assigned to it in clause (a) of paragraph 1 of the Tenth Schedule :

(b) the expression "remunerative political post" means any office—(i) under the Government of India or the Government of a State where the salary or remuneration for such office is paid out of

the public revenue of the Government of India or the Government of the State, as the case may be, or (ii) under a body, whether incorporated or not, which is wholly or partially owned by the Government of India or the Government of a State and the salary or remuneration for such office is paid by such body, except where such salary or remuneration paid is compensatory in nature'.

In the Tenth Schedule to the Constitution,—(a) in paragraph, 1, in clause (b), the words and figure "paragraph 3 or, as the case may be," shall be omitted; (b) in paragraph 2, in sub-paragraph (1), for the words and figures "paragraphs 3, 4 and 5", the words and figures "paragraphs 4 and 5" shall be substituted; (c) paragraph 3 shall be omitted.

92. *The Constitution (Ninety-second Amendment) Act, 2003*—In the Eighth Schedule to the Constitution,—(a) existing entry 3 shall be re-numbered as entry 5, and before entry 5 as so re-numbered, the following entries shall be inserted, namely:

"3. Bodo;

4. Dogri".

(b) existing 4 to 7 shall respectively be re-numbered as entries 6 to 9; (c) existing entry 8 shall be re-numbered as entry 11 and before entry 11 as so renumbered, the following entry shall be inserted, namely:

"10. Maithili".

(d) existing entries 9 to 14 shall respectively be re-numbered as entries 12 to 17;

(e) existing entry 15 shall be re-numbered as entry 19 and before entry 19 as so re-numbered, the following entry shall be inserted, namely :

"18. Santhali".

(f) existing entries 16 to 18 shall respectively be re-numbered as entries 20 to 22.

93. *The Constitution (Ninety-third amendment) Act, 2006* - Greater access to higher education including professional education, is of great importance to a large number of students belonging to the Scheduled Castes, the Scheduled Tribes and other socially and educationally backward classes of citizens. The reservation of seats for the Scheduled Castes, the Scheduled Tribes and the Other Backward Classes of citizens in admission to educational institution is derived from the provisions of clause (4) of articles 15 of the constitution. At present, the number of seats available in aided or State maintained institutions, particularly in respect of professional education, is limited, in comparison to those in private unaided institutions.

Clause (i) of article 30 of the Constitution provides the right to all minorities to establish and administer educational institutions of their choice. It is essential that the rights available to minorities are protected in regard to institutions established and administered by them. Accordingly, institutions declared by the State to be minority institutions under clause (1) of article 30 are excluded from the operation of this enactment.

To promote the educational advancement of the socially and educationally backward classes of citizens, i.e., the Other Backward Classes or of the Scheduled Castes and the Scheduled Tribes in matters of admission of students belonging to these categories in unaided educational institutions, other than the minority educational institutions referred to in clause (1) of article 30, the provisions of article 15 were amplified. The new clause (5) of said article 15 shall enable the Parliament as well as the State Legislatures to make appropriate laws for the above mentioned purpose.

Appendices

GOVERNMENT OF INDIA

Smt. Pratibha Devisingh Patil — President

Mohammed Hamid Ansari — Vice-President

CABINET MINISTERS

(As on 14.06.2009)

Dr. Manmohan Singh	Prime Minister and also in-charge of the Ministries/ Departments not specifically allocated to the charge of any Minister, viz., Ministry of Personnel, Public Grievances & Pensions; Ministry of Planning; Department of Atomic Energy; Department of Space; and Ministry of Culture;
Shri Pranab Mukherjee	Minister of Finance
Shri Sharad Pawar	Minister of Agriculture; Minister of Consumer Affairs, Food and Public Distribution
Shri A.K. Antony	Minister of Defence
Shri P. Chidambaram	Minister of Home Affairs
Km. Mamata Banerjee	Minister of Railways
Shri S. M. Krishna	Minister of External Affairs
Shri Virbhadra Singh	Minister of Steel
Shri Vilasrao Deshmukh	Minister of Heavy Industries & Public Enterprises
Shri Ghulam Nabi Azad	Minister of Health & Family Welfare
Shri Sushilkumar Shinde	Minister of Power
Shri M. Veerappa Moily	Minister of Law and Justice
Shri Farooq Abdullah	Minister of New and Renewable Energy
Shri S. Jaipal Reddy	Minister of Urban Development
Shri Kamal Nath	Minister of Road Transport and Highways
Shri Vayalar Ravi	Minister of Overseas Indian Affairs
Shri Dayanidhi Maran	Minister of Textiles
Shri A. Raja	Minister of Communications and Information Technology
Shri Murli Deora	Minister of Petroleum and Natural Gas
Smt. Ambika Soni	Minister of Information and Broadcasting
Shri Mallikarjun Kharge	Minister of Labour and Employment
Shri Kapil Sibal	Minister of Human Resource Development
Shri B. K. Handique	Minister of Mines and Minister of Development of North Eastern Region

Shri Anand Sharma	Minister of Commerce and Industry
Shri C. P. Joshi	Minister of Rural Development and Minister of Panchayati Raj
Kumari Sailja	Minister of Housing and Urban Poverty Alleviation and Minister of Tourism
Shri Subodh Kant Sahay	Minister of Food Processing Industries
Dr. M. S. Gill	Minister of Youth Affairs and Sports
Shri G. K. Vasani	Minister of Shipping
Shri Pawan Kumar Bansal	Minister of Parliamentary Affairs and Minister of Water Resources
Shri Mukul Wasnik	Minister of Social Justice and Empowerment
Shri Kantilal Bhuria	Minister of Tribal Affairs
Shri M. K. Alagiri	Minister of Chemicals and Fertilizers.

MINISTERS OF STATE (Independent Charge)

Shri Praful Patel	Minister of State (Independent Charge) of the Ministry of Civil Aviation
Shri Prithviraj Chavan	Minister of State (Independent Charge) of the Ministry of Science and Technology; Minister of State in the Earth Science; Minister of State in the Prime Minister's Office; Minister of State in the Ministry of Personnel, Public Grievances and Pensions; and Minister of State in the Ministry of Parliamentary Affairs
Shri Shriparkash Jaiswal	Minister of State (Independent Charge) of the Ministry of Coal and Minister of State (Independent Charge) of the Ministry of Statistics and Programme Implementation
Smt Salman Khursheed	Minister of State (Independent Charge) of the Ministry of Corporate Affairs and Minister of State (Independent Charge) of the Ministry of Minority Affairs
Shri Dinsha J. Patel	Minister of State (Independent Charge) of the Ministry of Micro, Small and Medium Enterprises
Smt. Krishna Tirath	Minister of State (Independent Charge) of the Ministry of Women and Child Development
Shri Jairam Ramesh	Minister of State (Independent Charge) of the Ministry of Environment and Forests

MINISTERS OF STATE (MoS)

Shri Shrikant Jena	MoS in the Ministry of Chemicals and Fertilizers
Shri E. Ahammed	MoS in the Ministry of Railways
Shri Mullappally Ramachandran	MoS in the Ministry of Home Affairs
Shri V. Narayanasamy	MoS in the Ministry of Planning and MoS in the Ministry of Parliamentary Affairs

Shri Jyotiraditya Madhavrao Scindia	MoS in Ministry of Commerce and Industry
Smt. D. Purandeswari	MoS in the Ministry of Human Resource Development
Shri K. H. Muniappa	MoS in the Ministry of Railways
Shri Ajay Maken	MoS in the Ministry of Home Affairs
Smt. Panabaka Lakshmi	MoS in the Ministry of Textiles
Shri Namu Narain Meena	MoS in the Ministry of Finance
Shri M. M. Pallam Raju	MoS in the Ministry of Defence
Shri Saugata Ray	MoS in the Ministry of Urban Development
Shri S. S. Palanimanickam	MoS in the Ministry of Finance
Shri Jitin Prasada	MoS in the Ministry of Petroleum and Gas
Shri A. Sai Prathap	MoS in the Ministry of Steel
Smt. Preneet Kaur	MoS in the Ministry of External Affairs
Shri Gurudas Kamat	MoS in the Ministry of Communication and Information Technology
Shri Harish Rawat	MoS in the Ministry of Labour and Employment
Prov. K. V. Thomas	MoS in the Ministry of Agriculture and Consumer Affairs, Food and Public Distribution
Shri Bharatsinh Solanki	MoS in the Ministry of Power
Shri Mahedev S. Khandela	MoS in the Ministry of Road Transport and Highways
Shri Dinesh Trivedi	MoS in the Ministry of Health and Family Welfare
Shri Sisir Adhikari	MoS in the Ministry of Rural Development
Shri Sultan Ahmed	MoS in the Ministry of Tourism
Shri Mukul Roy	MoS in the Ministry of Shipping
Shri Choudhury Mohan Jatua	MoS in the Ministry of Information and Broadcasting
Shri D. Napoleon	MoS in the Ministry of Social Justice and Empowerment
Dr. S. Jagathrakshakan	MoS in the Ministry of Information and Broadcasting
Shri S. Gandhiselvan	MoS in the Ministry of Health and Family Welfare
Shri Tusharbhai Chaudhary	MoS in the Ministry of Tribal Affairs
Shri Sachin Pilot	MoS in the Ministry of Communications and Information Technology
Shri Arun Yadav	MoS in the Ministry of Heavy Industries and Public Enterprises
Smt Pratik Prakashbapu Patil	MoS in the Ministry of Youth Affairs and Sports
Shri R. P. N. Singh	MoS in the Ministry of Road Transport and Highways
Shri Shashi Tharoor	MoS in the Ministry of External Affairs

Shri Vincent Pala	MoS in the Ministry of Water Resources
Shri Pradeep Jain	MoS in the Ministry of Rural Development
Ms. Agatha Sangma	MoS in the Ministry of Rural Development

MEMBERS OF PARLIAMENT

RAJYA SABHA

Chairman	Shri Mohmmmed Hamid Ansari
Deputy Chairman	Shri K. Rahman Khan

Name	Party/Group
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STATES

ANDHRA PRADESH (18)

1.	Raashid Alvi	INC
2.	Mohd. Ali Khan	INC
3.	Penumalli Madhu	CPI(M)
4.	Harikrishna Nandamuri	TDP
5.	Yellaiah Nandi	INC
6.	Syed Azeez Pasha	CPI
7.	Jairam Ramesh	INC
8.	Dr. Dasari Narayana Rao	INC
9.	Dr. K. Keshava Rao	INC
10.	K. V. P. Ramachandra Rao	INC
11.	V. Hanumantha Rao	INC
12.	Smt. T. Ratnabai	INC
13.	G. Sanjeeva Reddy	INC
14.	M.V.Mysura Reddy	TDP
15.	Dr. N. Janardhana Reddy	INC
16.	Dr. T. Subbarami Reddy	INC
17.	Gireesh Kumar Sanghi	INC
18.	Jesudasu Seelam	INC

ARUNACHAL PRADESH -1

19.	Mithi Mukut	INC
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ASSAM - 7

20.	Birendra Prasad Baishya	AGP
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21.	Silvius Condpan	INC
22.	Biswajit Daimary	O
23.	Kumar Deepak Das	AGP
24.	Bhubaneshwar Kalita	INC
25.	Dr. Manmohan Singh	INC
26.	Smt. Syeda Anwara Taimur	INC

BIHAR – 16

27.	Dr. Ejaj Ali	JD(U)
28.	Sabir Ali	O
29.	Anwar Ali	JD(U)
30.	R. K. Dhawan	INC
31.	George Fernandes	JD(U)
32.	Prem Chand Gupta	RJD
33.	Jabir Husain	RJD
34.	Dr. Mahendra Prasad	JD(U)
35.	Rajniti Prasad	RJD
36.	Ravi Shankar Prasad	BJP
37.	Rajiv Pratap Rudy	BJP
38.	Mahendra Sahni	JD (U)
39.	N. K. Singh	JD(U)
40.	Dr. C. P. Thakur	BJP
41.	Shivanand Tiwari	JD(U)
42.	Subhash Prasad Yadav	RJD

CHHATTISGARH – 5

43.	Smt. Mohsina Kidwai	INC
44.	Nand Kumar Sai	BJP
45.	Shivpratap Singh	BJP
46.	Motilal Vora	INC
47.	Shrigopal Vyas	BJP

GOA – 1

48.	Shantaram Laxman Naik	INC
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GUJARAT – 11

49.	Suryakantbhai Acharya	BJP
50.	Arun Jaitley	BJP

Appendices

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51.	Prof. Alka Balram Kshatriya	BJP
52.	Prabhatsinh Bhatratsinh Parmar	INC
53.	Ahmed Patel	INC
54.	Kanjibhai Maganbhai Patel	BJP
55.	Surendra Motilal Patel	BJP
56.	Pravinchandra Somabhai Rashtrapal	INC
57.	Khodabhai Rupala Parshottam	BJP
58.	Vijaykumar Ramniklal Rupani	BJP
59.	Natuji Halaji Thakor	BJP

HARYANA – 5

60.	Shadi Lal Batra	INC
61.	Ajay Singh Chautala	INLD
62.	Dr. Ram Parkash	INC
63.	Ishwar Singh	INC
64.	Tarlochan Singh	IND.

HIMACHAL PRADESH – 3

65.	Anand Sharma	INC
66.	Shanta Kumar	BJP
67.	Smt. Viplove Thakur	INC

JAMMU & KASHMIR – 4

68.	Ghulam Nabi Azad	INC
69.	G. N. Ratanpuri	J&KNC
70.	Mohammad Shafi	J&KNC
71.	Prof. Saif-ud-Din Soz	INC

JHARKHAND – 6

72.	S.S. Ahluwalia	BJP
73.	Parimal Nathwani	IND
74.	Ms. Mabel Rebello	INC
75.	Dhiraj Prasad Sahu	INC
76.	Jai Prakash Narayan Singh	BJP
77.	Hemant Soren	JMM

KARNATAKA – 12

78.	Rajeev Chandrasekhar	IND
79.	Oscar Fernandes	INC

80.	B.K. Hariprasad	INC
81.	M. Rama Jois	BJP
82.	K. Rahman Khan	INC
83.	Dr. Prabhakar Kore	BJP
84.	S. M. Krishna	INC
85.	Anil H. Lad	INC
86.	M. Rajasekara Murthy	JD(S)
87.	M. Venkaiah Naidu	BJP
88.	Dr. M.A.M. Ramaswamy	JD(S)
89.	K.B. Shanappa	BJP

KERALA - 9

90.	Abdul Wahab Peevee	ML
91.	M. P. Achuthaan	CPI
92.	A.K. Antony	INC
93.	K.E. Ismail	CPI
94.	Prof. P. J. Kurian	INC
95.	P. R. Rajan	CPI(M)
96.	P. Rajeeve	CPI(M)
97.	Vayalar Ravi	INC
98.	A. Vijayaraghavan	CPI(M)

MADHYA PRADESH - 11

99.	Anil Madhav Dave	BJP
100.	Prabhat Jha	BJP
101.	Narayan Singh Kesari	BJP
102.	Pyarelal Khandelwal	BJP
103.	Raghunandan Sharma	BJP
104.	Arjun Singh	INC
105.	Smt. Maya Singh	BJP
106.	Kaptan Singh Solanki	BJP
107.	Su. Thirunavukkarasar	BJP
108.	Ms. Anusuiya Uike	BJP
109.	Vikram Verma	BJP

MAHARASHTRA - 19

110.	Govindrao Wamanrao Adik	NCP
111.	Balavant alias Bal Apte	BJP

112.	Rahul Bajaj	IND.
113.	Prithviraj Chavan	INC
114.	Vijay J. Darda	INC
115.	Murli Deora	INC
116.	Vilasrao Dagadojirao Deshmukh	INC
117.	Rajkumar Dhoot	SS
118.	Prakash Keshav Javadekar	BJP
119.	Manohar Gajanan Joshi	SS
120.	Sharad Anantrao Joshi	SBP
121.	Ranjitsinh Vijaysinh Mohitepatil	NCP
122.	Shivraj Vishwanath Patil	INC
123.	Bharatkumar Bhavanishankar Raut	SS
124.	Sanjay Raut	SS
125.	Rajeev Shukla	INC
126.	Tariq Anwar	NCP
127.	Yogendra Premkrishna Trivedi	NCP
128.	Janardhan Madhavrao Waghmare	NCP

MANIPUR – 1

129.	Rishang Keishing	INC
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MEGHALAYA – 1

130.	Thomas Sangma	NCP
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MIZORAM – 1

131.	Lalhming Liana	MNF
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NAGALAND – 1

132.	Khekiho Zhimomi	NPF
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ORISSA – 10

133.	Ramachandra Khuntia	INC
134.	Bhagirathi Majhi	BJP
135.	Mangala Kisan	BJD
136.	Kishore Kumar Mohanty	BJD
137.	Pyarimohan Mohapatra	BJD
138.	Dr. Radhakant Nayak	INC
139.	Rudra Narayan Pany	BJP

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|------|-----------------------|-----|
| 140. | Smt. Renubala Pradhan | BJD |
| 141. | Balbir Punj | BJP |
| 142. | Ms. Sushila Tiriya | INC |

PUNJAB – 7

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|------|----------------------------|-----|
| 143. | Ashwani Kumar | INC |
| 144. | Varinder Singh Bajwa | SAD |
| 145. | Dr. M.S. Gill | INC |
| 146. | Naresh Gujral | SAD |
| 147. | Raj Mohinder Singh Majitha | SAD |
| 148. | Dharam Pal Sabharwal | INC |
| 149. | Smt. Ambika Soni | INC |

RAJASTHAN – 10

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|------|-------------------------------|-----|
| 150. | Ramdas Agarwal | BJP |
| 151. | Santosh Bagrodia | INC |
| 152. | Krishan Lal Balmiki | BJP |
| 153. | Narendra Budania | INC |
| 154. | Lalit Kishore Chaturvedi | BJP |
| 155. | Dr. (Smt.) Najma A. Heptullah | BJP |
| 156. | Om Parkash Mathur | BJP |
| 157. | Dr. Gyan Parkash Pilonia | BJP |
| 158. | Dr. Abhishek Manu Singhvi | INC |
| 159. | Dr. Prabha Thakur | INC |

SIKKIM – 1

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|------|-------------|-----|
| 160. | O.T. Lepcha | SDF |
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TAMILNADU – 18

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|------|--------------------|--------|
| 161. | S. Anbalagan | AIADMK |
| 162. | N. Balaganga | AIADMK |
| 163. | T.T.V. Dhinakaran | AIADMK |
| 164. | A. Elavarasan | AIADMK |
| 165. | B. S. Gnanadesikan | INC |
| 166. | N. R. Govindarajar | AIADMK |
| 167. | S. Amir Ali Jinnah | DMK |
| 168. | Smt. Kanimozhi | DMK |
| 169. | Dr. V. Maitreyan | AIADMK |

170.	Dr. K. Malaisamy	AIADMK
171.	Smt. Jayanthi Natarajan	INC
172.	E.M. Sudarsana Natchiappan	INC
173.	D. Raja	CPI
174.	Dr. Anbumani Ramadoss	PMK
175.	T. K. Rangarajan	CPI(M)
176.	Tiruchi Siva	DMK
177.	Smt. Vasanthi Stanley	DMK
178.	G.K. Vasan	INC

TRIPURA - 1

179.	Matilal Sarkar	CPI(M)
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UTTAR PRADESH - 31

180.	Mohammad Adeeb	IND.
181.	Kamal Akhtar	SP
182.	Munquad Ali	BSP
183.	Smt Jaya Bachchan	SP
184.	Virendra Bhatia	SP
185.	Charan Ganga	BSP
186.	Dr. Akhilesh Das Gupta	BSP
187.	Avtar Singh Karimpuri	BSP
188.	Vinay Katiyar	BSP
189.	Brijlal Khabri	BSP
190.	Amir Alam Khan	SP
191.	Mahmood A. Madani	RLD
192.	Mahendra Mohan	SP
193.	Janeshwar Mishra	SP
194.	Kalraj Mishra	BJP
195.	Satish Chandra Misra	BSP
196.	Shriram Pal	BSP
197.	Brajesh Pathak	BSP
198.	Prakash Jai	BSP
199.	Smt. Kusum Raj	BJP
200.	Ambeth Rajan	BSP
201.	Rajaram	BSP
202.	Ram Narayan Sahu	SP
203.	Arun Shourie	BJP

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204.	Amar Singh	SP
205.	Bhagwati Singh	SP
206.	Veer Singh	BSP
207.	Brij Bhushan Tiwari	SP
208.	Nand Kishore Yadav	SP
209.	Prof Ram Gopal Yadav	SP
210.	Veerpal Singh Yadav	SP

UTTARAKHAND – 3

211.	Satyavrat Chaturvedi	INC
212.	Bhagat Singh Koshyari	BJP
213.	Satish Kumar Sharma	INC

WEST BENGAL – 16

214.	Mohammad Amin	CPI(M)
215.	Swapan Sadhan Bose	AITC
216.	Shyamal Chakraborty	CPI(M)
217.	Prasanta Chatterjee	CPI(M)
218.	Smt. Brinda Karat	CPI(M)
219.	Ahmad Sayeed Malihabadi	IND.
220.	Moinul Hassan Ahamed	CPI(M)
221.	Barun Mukherjee	(AIFB)
222.	Saman Pathak	CPI(M)
223.	Abani Roy	RSP
224.	Mukul Roy	AITC
225.	Tarini Kanta Roy	CPI(M)
226.	Tapan Kumar Sen	CPI(M)
227.	Arjun Kumar Sengupta	IND.
228.	Ram Chandra Singh	CPI
229.	Sitaram Yechury	CPI(M)

UNION TERRITORIES

NATIONAL CAPITAL TERRITORY OF DELHI – 3

230.	Janardan Dwivedi	INC
231.	Parvez Hashmi	INC
232.	Dr. Karan Singh	INC

PUDUCHERRY - 1

233.

NOMINATED - 12 (VACANT-8)

234. Shyam Benegal NOM.
 235. Smt. Shobhana Bhartia NOM.
 236. Prof. M. S. Swaminathan NOM.
 237. Dr. (Smt.) Kapila Vatsyayan NOM.

LOK SABHA**Speaker** : Smt. Meira Kumar

State/Constituency	Name of the Member	Party/Group
ANDHRA PRADESH (42)		
1 Adilabad	Ramesh Rathod	TDP
2 Peddapalle	Dr. G. Vivekanand	INC
3 Karimnagar	Poonam Prabhakar	INC
4 Nizamabad	Yakshi Madhu Goud	INC
5 Zahirabad	Suresh Kumar Shetkar	INC
6 Medak	Vijaya Shanthi M	TRS
7 Malkajgiri	Sarvey Sathyanarayana	INC
8 Secundrabad	Anjan Kumar Yadav M	INC
9 Hyderabad	Asaduddin Owaisi	AIMEIM
10 Chelvella	Jaipal Reddy Sudini	INC
11 Mahbubnagar	K. Chandrashekhara Rao	TRS
12 Nagarkurnool	Dr. Manda Jagannath	INC
13 Nalgonda	Gutha Sukender Reddy	INC
14 Bhongir	Komatireddy Raj Gopal Reddy	INC
15 Warangal	Rajaiah Siricilla	INC
16 Mahbubabad	P. Balram	INC
17 Khammam	Nama Nageshwara Rao	TDP
18 Araku	Deo, V. Kishore Chandra S.	INC
19 Srikakulam	Dr. (Smt.) Kruparani killi	INC
20 Vizianagram	Jhansi Lakshmi Botcha	INC
21 Visakhapatnam	Daggubati Purandeshwari	INC
22 Anakapalli	Sabbam Hari	INC
23 Kakinada	M. M. Pallamraju	INC
24 Amalapuram	G. V. Harsha Kumar	INC

25	Rajahmundry	Aruna Kumar Vundavalli	INC
26	Narsapuram	Bapiraju Kanumuru	INC
27	Eluru	Kavuri Sambasiva Rao	INC
28	Machilipatnam	Konakalla Narayana Rao	TDP
29	Vijayawada	Lagadapati Raja Gopal	INC
30	Guntur	Rayapati Sambasiva Rao	INC
31	Narasaraopet	Modugula Venugopala Reddy	TDP
32	Bapatia	Panabaka Lakshmi	INC
33	Ongole	Magunta Srinivasulu Reddy	INC
34	Nandyal	S. P. Y. Reddy	INC
35	Kurnool	Kotla Jaya Surya Prakash Reddy	INC
36	Anantapur	Anantha Venkata Rami Reddy	INC
37	Hindupur	Kristappa Nimmala	TDP
38	Kadapa	Y. S. Jagan Mohan Reddy	INC
39	Nellore	Mekapati Rajamohan Reddy	INC
40	Tirupati	Chinta Mohan	INC
41	Rajampet	Annayyagari Sai Prathap	INC
42	Chittoor	Naramalli Sivaprasad	TDP
ARUNACHAL PRADESH (2)			
43	Arunachal West	Takam Sanjoy	INC
44	Arunachal East	Ninong Ering	INC
ASSAM (14)			
45	Karimganj	Lalit Mohan Suklabaidya	INC
46	Silchar	Kabindra Purkayastha	BJP
47	Autonomous District	Biren Singh Engti	INC
48	Dhubri	Badruddin Ajmal	AUDF
49	Kokrajhar	Sansuma Khunggur Bwiswmuthiary	BPF
50	Barpeta	Ismail Hussain	INC
51	Guwahati	Bijoya Chakravarty	BJP
52	Mangaldoi	Ramen Deka	BJP
53	Tezpur	Joseph Toppo	AGP
54	Nowgong	Rajen Gohain	BJP
55	Kaliabor	Dip Gogoi	INC
56	Jorhat	Bijoy Krishna Handique	INC
57	Dibrugarh	Paban Singh Ghatowar	INC
58	Lakhimpur	Ranee Narah	INC
BIHAR (40)			
59	Valmiki Nagar	Baidyanath Prasad Mahto	JD(U)
60	Pachim Champaran	Dr. Sanjay Jaiswal	BJP

61	Purvi Champaran	Radha Mohan Singh	BJP
62	Sheohar	Rama Devi	BJP
63	Sitamarhi	Arjum Roy	JD(U)
64	Madhubani	Hukumdeo Narayan Yadav	BJP
65	Jhanjharpur	Mangani Lal Mandal	JD(U)
66	Supaul	Vishwa Mohan Kumar	JD(U)
67	Araria	Pradeep Kumar Singh	BJP
68	Kishanganj	Mohammad Asrarul Haque	INC
69	Katihar	Nikhil Kumar Choudhary	BJP
70	Purnia	Uday Singh alias Pappu Singh	BJP
71	Madhepura	Sharad Yadav	JD(U)
72	Darbhanga	Kirti Azad	BJP
73	Muzaffarpur	Captain Jai Narayan Prasad Nishad	JD(U)
74	Vaishali	Raghuvansh Prasad Singh	RJD
75	Gopalganj	Purnmasi Ram	JD(U)
76	Siwan	Om Parkash Yadav	IND.
77	Maharajganj	Uma Shankar Singh	RJD
78	Saran	Lalu Prasad	RJD
79	Hajipur	Ram Sundar Das	JD(U)
80	Ujjarpur	Aswamedh Devi	JD(U)
81	Samastipur	Maheshwar Hazari	JD(U)
82	Begusarai	Dr. Monazir Hassan	JD(U)
83	Khagaria	Dinesh Chandra Yadav	JD(U)
84	Bhagalpur	Syed Shahnawaz Hussain	BJP
85	Banka	Digvijay Singh	IND.
86	Munger	Rajiv Ranjan Singh	JD(U)
87	Nalanda	Kaushalendra Kumar	JD(U)
88	Patna Sahib	Shatrughan Sinha	BJP
89	Pataliputra	Ranjan Prasad Yadav	JD(U) 90
Arrah	Meena Singh	JD(U)	
91	Buxar	Jagada Nand Singh	RJD
92	Sasaram	Meira Kumar	INC
93	Karakat	Mahabali Singh	JD(U)
94	Jahanabad	Jagdish Sharma	JD(U)
95	Aurangabad	Sushil Kumar Singh	JD(U)
96	Gaya	Hari Manjhi	BJP
97	Nawada	Bhola Singh	BJP
98	Jamui	Bhudeo Choudhary	JD(U)
CHHATTISGARH (11)			
99	Surguja	Murarilal Singh	BJP
100	Raigarh	Vishnu Deo Sai	BJP

101	Janjgir-Chanpa	Smt. Kamala Devi Patle	BJP
102	Korba	Charan Das Mahant	INC
103	Bilaspur	Dilip Singh Judev	BJP
104	Rajnandgaon	Madhusudan Yadav	BJP
105	Durg	Saroj Pandey	BJP
106	Raipur	Ramesh Bais	BJP
107	Mahasamund	Chandulal Sahu	BJP
108	Bastar	Baliram Kashyap	BJP
109	Kanker	Sohan Potai	BJP

GOA (2)

110	North Goa	Shripad Yesso Naik	BJP
111	South Goa	Cosme Francisco Caitano Sardinha	INC

GUJARAT (26)

112	Kachchh	Jat Poonamben Veljibhai	BJP
113	Banaskantha	Gadhvi Mukeshkumar Bheiravdanji	INC
114	Patan	Jagdish Thakor	INC
115	Mahesana	Smt. Jayshreeben Patel	BJP
116	Sabarkantha	Mahendersinh Chauhan	BJP
117	Gandhinagar	L.K. Advani	BJP
118	Ahmedabad East	Harin Pathak	BJP
119	Ahmedabad West	Dr. Kirit Premjibhai Solanki	BJP
120	Surendranagar	Koli Patel Somabhai Gandlal	INC
121	Rajkot	Kuvarjibhai Mohanbhai Bavalia	INC
122	Porbandar	Radadiya Vithalbhai Hansrajibhai	INC
123	Jamnagar	Ahir Vikrambhai Arjanbhai Madam	INC
124	Junagarh	Solanki Dinubhai Boghabhai	BJP
125	Amreli	Kachhadia Naranbhai	BJP
126	Bhavnagar	Rajendrasinh Ghanshyamsinh Rana	BJP
127	Anand	Bharatbhai Madhavsinh Solanki	INC
128	Kheda	Dinsha Patel	INC
129	Panchmahal	Prabhatsinh Pratapsinh Chauhan	BJP
130	Dahod	Dr. Prabha Kishor Taviad	INC
131	Vadodara	Balkrishna Khanderao Shukla	BJP
132	Chhota Udaipur	Rathwa Ramsingbhai Patalbhai	BJP
133	Bharuch	Mansukhbhai Dhanjibhai Vasava	BJP
134	Bardoli	Chaudhari Tusharbhai Amrasinhbhai	INC
135	Surat	Smt. Darshna Vikram Jardosh	BJP
136	Navsari	C. R. Patil	BJP
137	Valsad	Kishanbhai Vestabhai Patel	INC

HARYANA (10)

138	Ambala (SC)	Seja	INC
139	Kurukshetra	Naveen Jindal	INC
140	Sirsa	Ashok Tanwar	INC
141	Hisar	Bhajan Lal	HJC(BL)
142	Kamal	Arvind Kumar Sharma	INC
143	Sonapat	Jitender Singh Malik	INC
144	Rohtak	Deepender Singh	INC
145	Bhiwani-Mahendragarh	Shruti Choudhry	INC
146	Gurgaon	Inderjit Singh	INC
147	Faridabad	Avtar Singh Bhadana	INC

HIMACHAL PRADESH (4)

148	Kangra	Dr. Rajan Sushant	BJP
149	Mandi	Virbhadra Singh	INC
150	Hamirpur	Anurag Singh Thakur	BJP
151	Shimla	Virender Kashyap	BJP

JAMMU & KASHMIR (6)

152	Baramulla	Sharief Ud Din Shaariq	J&KNC
153	Srinagar	Farooq Abdullah	J&KNC
154	Anantnag	Mirza Mehboob Beg	J&KPDP
155	Laddakh	Hassan Khan	IND
156	Udhampur	Ch. Lal Singh	INC
157	Jammu	Madan Lal Sharma	INC

JHARKHAND (14)

158	Rajmahal	Devidhan Besra	BJP
159	Dumka	Shibu Soren	JMM
160	Godda	Nishikant Dubey	BJP
161	Chatra	Inder Singh Namdhari	IND.
162	Kodarma	Babulal Marandi	JVM (Prajatantrik)
163	Giridih	Ravinder Kumar Pandey	BJP
164	Dhanbad	Pashupati Nath Singh	BJP
165	Ranchi	Subodh Kant Sahay	INC
166	Jamshedpur	Arjum Munda	BJP
167	Singhbhum	Madhu Kora	IND.
168	Khunti	Karia Munda	BJP
169	Lohardaga	Sudarshan Bhagat	BJP
170	Palamu	Kameshwar Baitha	JMM
171	Hazaribagh	Yashwant Sinha	BJP

KARNATAKA (28)

172	Chikkodi	Katti Ramesh Vishwanath	BJP
173	Belgaum	Angadi Suresh Channabasappa	BJP
174	Bagalkot	Gaddigoudar P. C.	BJP
175	Bijapur	Ramesh Chandappa Jigajinagi	BJP
176	Gulbarga	Mallikarjun Kharge	INC
177	Raichur	Pakkirappa. S.	BJP
178	Bidar	N. Dharam Singh	INC
179	Koppal	Shivaramagouda Shivanagouda	BJP
180	Bellary	J. Shantha	BJP
181	Haveri	Udasi Shivkumar Chanabasappa	BJP
182	Dharwad	Prahlad Joshi	BJP
183	Uttara	Kannada Anantkumar Hegde	BJP
184	Davanagere	Siddeswara G. M.	BJP
185	Shimoga	B. Y. Raghvendra	BJP
186	Udupi	Chikmagalur D. V. Sadananda Gowda	BJP
187	Hassan	H. D Devegowda	JD(S)
188	Dakshina	Kannada Nalin Kumar Kateel	BJP
189	Chitradurga	Janardhana Swamy	BJP
190	Tumkur	G. S. Basavraj	BJP
191	Mandya	N. Cheluvarya Swamy	JD(S)
192	Mysore	Adugar H Vishwanath	INC
193	Chamarajanagar	R. Dhruvanarayana	INC
194	Bangaluru Rural	H. D. Kumarswamy	JD(S)
195	Bangaluru North	D. B. Chandre Gowda	BJP
196	Bangaluru Central	P. C. Mohan	BJP
197	Bangaluru South	Ananth Kumar	BJP
198	Chikkballapur	M. Veerappa Moily	INC
199	Kolar	K. H. Muniyappa	INC

KERALA (20)

200	Kasaragod	P. Karunakaran	CPI(M)
201	Kannur	K. Sudhakaran	CPI(M)
202	Vadakara	Mullapally Ramachandran	INC
203	Wayanad	M.I. Shanavas	INC
204	Kozhikode	M. K. Raghavan	INC
205	Malappuram	E. Ahamed	MLKSC
206	Ponnani	E. T. Muhammed Basheer	MLKSC
207	Palakkad	M. B. Rajesh	CPI(M)
208	Alathur	P. K. Biju	CPI(M)
209	Thrissur	P. C. Chacko	INC
210	Chalakydy	K. P. Dhanaplan	INC

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211	Ernakulam	Prof. K. V. Thomas	INC
212	Idukki	Adv. P. T. Thomas	INC
213	Kottayam	Jose K Mani (Karingozheckal)	KEC(M)
214	Alappuzha	K. C. Venugopal	INC
215	Mavelikkara	Kodikkunnil Suresh	INC
216	Pathanamthitta	Anto Antony Punnathaniyil	INC
217	Kollam	Kurup N. Peethambara	INC
218	Attingal	Adv. A Sampath	CPI(M)
219	Thiruvananthapuram	Shashi Tharoor	INC

MADHYA PRADESH (29)

220	Morena	Narendra Singh Tomar	BJP
221	Bhind	Ashok Argal	BJP
222	Gwalior	Yashodhara Raje Scindia	BJP
223	Guna	Jyotiraditya Madhavrao Scindia	INC
224	Sagar	Bhupendra Singh	BJP
225	Tikamgarh	Virendra Kumar	BJP
226	Damoh	Shivraj Bhaiya	BJP
227	Khajuraho	Jeetendra Singh Bundela	BJP
228	Satna	Ganesh Singh	BJP
229	Rewa	Deoraj Singh Patel	BSP
230	Sidhi	Govind Prasad Mishra	BJP
231	Shahdol	Rajesh Nandini Singh	INC
232	Jabalpur	Rakesh Singh	BJP
233	Mandla	Basori Singh Masram	INC
234	Balaghat	K. D. Deshmukh	BJP
235	Chhindwara	Kamalnath	INC
236	Hoshangabad	Uday Partap Singh	INC
237	Vidisha	Sushma Swaraj	BJP
238	Bhopal	Kailash Joshi	BJP
239	Rajgarh	Narayan Singh Amlabe	INC
240	Dewas	Sajjan Singh Verma	INC
241	Ujjain	Guddu Premchand	INC
242	Mandsour	Meenakshi Natrajan	INC
243	Ratlam	Kantilal Bhuria	INC
244	Dhar	Gajendra Singh Rajukhedi	INC
245	Indore	Sumitra Mahajan (Tai)	BJP
246	Khargone	Makhansingh Solanki	BJP
247	Khandwa	Arun Subhashchandra Yadav	INC
248	Betul	Jyoti Dhurve	BJP

MAHARASHTRA (48)

249	Nandurbar	Gavit Manikrao Hodlya	INC
250	Dhule	Sonawane Pratap Narayanrao	BJP
251	Jalgaon	A. T. Nana Patil	BJP
252	Raver	Haribhau Madhav Jawale	BJP
253	Buldhana	Jadhav Prataprao Ganpatrao	SS
254	Akola	Dhotre Sanjay Shamrao	BJP
255	Amravati	Adsul Anandrao Vithoba	SS
256	Wardha	Datta Meghe	INC
257	Ramtek	Wasnik Mukul Balkrishna	INC
258	Nagpur	Muttemwar Vilasrao Baburaoji	INC
259	Bhandara-Gondiya	Praful Manoharbai Patel	NCP
260	Gadchiroli-Chimur	Kowase Marotrao Sainuji	INC
261	Chandrapur	Ahir Hansaraj Gangaram	BJP
262	Yavatmal-Washim	Bhavana Gawali (Patil)	SS
263	Hingoli	Subhash Bapurao Wankhede	SS
264	Nanded	Khatgaonkar Patil Bhaskarrao Bapurao	INC
265	Parbhani	Dudhgaonkar Ganeshrao Nagorao	SS
266	Jalna	Danve Raosaheb Dadarao	BJP
267	Aurangabad	Chandrakant Khaire	SS
268	Dindori	Chavan Harishchandra Deoram	BJP
269	Nashik	Sameer Bhujbal	NCP
270	Palghar	Jadhav Baliram Sukur	BVA
271	Bhiwandi	Suresh Kashinath Taware	INC
272	Kalyan	Anand Prakash Paranjape	SS
273	Thane	Dr. Sanjeev Ganesh Naik	NCP
274	Mumbai North	Sanjay Brijkishorilal Nirupam	INC
275	Mumbai North West	Ad. Kamat Gurudas Vasant	INC
276	Mumbai North East	Sanjay Dina Patil	NCP
277	Mumbai North Central	Dutt Priya Sunil	INC
278	Mumbai South Central	Eknath M. Gaikwad	INC
279	Mumbai South	Milind Murali Deora	INC
280	Raigad	Anant Geete	SS
281	Maval	Babar Gajanan Dharmshi	SS
282	Pune	Kalmadi Suresh	INC
283	Baramati	Smt. Supriya Sadanand Sule	NCP
284	Shirur	Adhalrao Shivaji Dattaray	SS
285	Ahmadnagar	Gandhi Dilipkumar Mansukhlal	BJP
286	Shirdi	Wakchaure Bhausaheb Rajaram	SS
287	Beed	Gopinathrao Pandurang Munde	BJP

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288	Osmanabad	Padamsinha Bajirao Patil	NCP
289	Latur	Awale Jayant Gangaram	INC
290	Solapur	Sushilkumar Sambhajirao Shinde	INC
291	Madha	Sharadchandra Govindrao Pawar	NCP
292	Sangli	Pratik Prakashbapu Patil	INC
293	Satara	S C U Pratapsinhmaharaj	NCP
294	Ratnagiri-Sindhudurg	Dr. Nilesh Narayan Rane	INC
295	Kolhapur	Sadashivrao Dadoba Mandlik	IND
296	Hatkanangle	Shetti Raju Alias Devappa Anna	SWP
MANIPUR (2)			
297	Inner Manipur	Dr. Thokchom Meinya	INC
298	Outer Manipur	Thangso Baite	INC
MEGHALAYA (2)			
299	Shillong	Vincent H Pala	INC
300	Tura	Agatha K. Sangma	NCP
MIZORAM (1)			
301	Mizoram	C. L. Ruala	INC
NAGALAND (1)			
	Nagaland	C. M. Chang	NPF
ORISSA (21)			
303	Bargarh	Sanjay Bhoi	INC
304	Sundargarh	Hemanand Biswal	INC
305	Sambalpur	Amarnath Pradhan	INC
306	Keonjhar	Yashbant Narayan Singh Lagur	BJD
307	Mayurbhanj	Laxman Tudu	BJD
308	Balasore	Srikant Kumar Jena	INC
309	Bhadrak	Arjun Charan Sethi	BJD
310	Jaipur	Mohan Jena	BJD
311	Dhenkanal	Tathagata Satpathy	BJD
312	Bolangir	Kalikesh Narayan Singh Deo	BJD
313	Kalahandi	Bhakta Charan Das	INC
314	Nabarangpur	Pradeep Kumar Majhi	INC
315	Kandhamal	Rudramadhab Ray	BJD
316	Cuttack	Bhartruhari Mahtab	BJD
317	Kendrapara	Baijayant Panda	BJD
318	Jagatsinghpur	Bibhu Prasad Tarai	CPI
319	Puri	Pinaki Misra	BJD

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320	Bhubaneswar	Prasanna Kumar Patasani	BJD
321	Aska	Nityanand Pradhan	BJD
322	Berhampur	Sidhant Mohapatra	BJD
323	Koraput	Jayaram Pangi	BJD

PUNJAB (13)

324	Gurdaspur	Pratap Singh Bajwa	INC
325	Amritsar	Navjot Singh Sidhu	BJP
326	Khadoor Sahib	Dr. Rattan Singh Ajnala	SAD
327	Jalandhar	Mohinder Singh Kaypee	INC
328	Hoshiarpur	Santosh Choudhry	INC
329	Anandpur Sahib	Ravneet Singh	INC
330	Ludhiana	Manish Tiwari	INC
331	Fatehgarh Sahib	Sukhdev Singh	INC
332	Faridkot	Paramjit Kaur Gulshan	SAD
333	Ferozpur	Sher Singh Ghubaya	SAD
334	Bhatinda	Harsimrat kaur Badal	SAD
335	Sangrur	Vijay Inder Singla	INC
336	Patiala	Preneet Kaur	INC

RAJASTHAN (25)

337	Ganganagar	Bharat Ram Meghwal	INC
338	Bikaner	Arjum Ram Meghwal	BJP
339	Churu	Ramsingh Kaswan	BJP
340	Jhunjhunu	Sheesh Ram Ola	INC
341	Sikar	Mahadev Singh	INC
342	Jaipur Rural	Lal Chand Kataria	INC
343	Jaipur	Mahesh Joshi	INC
344	Alwar	Jitendra Singh	INC
345	Bharatpur	Ratan Singh	INC
346	Karauli-Dholpur	Khiladi Lal Bairwa	INC
347	Dausa	Dr. Kirodilal Meena	IND
348	Tonk-Sawai Madhopur	Namo Narain Meena	INC
349	Ajmer	Sachin Pilot	INC
350	Nagaur	Dr. Jyoti Mirdha	INC
351	Pali	Badri Ram Jakhar	INC
352	Jodhpur	Chandresh Kumari	INC
353	Barmer	Harish Choudhary	INC
354	Jalore	Devji Patel	BJP
355	Udaipur	Raghuvir Singh Meena	INC
356	Banswara	Tarachand Bhagora	INC

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357	Chittorgarh	Dr. Girija Vyas	INC
358	Rajsamand	Gopal Singh	INC
359	Bhilwara	Dr. C. P. Joshi	INC
360	Kota	Ijyaraj Singh	INC
361	Jhalawar Baran	Sushyant Singh	BJP

SIKKIM (1)

362	Sikkim	Prem Das Rai	SDF
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TAMILNADU (39)

363	Thiruvallur	Venugopal P	AIADMK
363	Chennai North	Elangovan T. K. S	DMK
364	Chennai South	Rajendran C	AIADMK
365	Chennai Central	Dayanidhi Maran	DMK
366	Sriperumbudur	T.R. Baalu	DMK
367	Kancheepuram	Vishwanathn P.	INC
368	Arakkonam	Jagathrakshakan	DMK
369	Vellore	Abdulrahman	DMK
370	Krishnagiri	Sugavanam E. G.	DMK
371	Dharamapuri	Thamaraiselvan. R	DMK
372	Tiruvannamalai	Venugopal. D	DMK
373	Arani	Krishnasamy M	INC
374	Viluppuram	Anandan M	AIADMK
375	Kallakurichi	Sankar Adhi	DMK
376	Salem	Semmalai. S	AIADMK
377	Namakkal	Gandhiselvan. S	DMK
378	Erode	Ganeshmurthi. A Marumalarchi	DMK
379	Tiruppur	Sivasami C	AIADMK
380	Nilgiris	Raja A	DMK
381	Coimbatore	Natarajan. P. R	CPI(M)
382	Pollachi	Sugumar K.	AIADMK
383	Dindigul	Chitthan N S V	INC
384	Karur	Tambidurai M.	AIADMK
385	Tiruchirappalli	Kumar P.	AIADMK
386	Perambalur	Napoleon D	DMK
387	Cuddalore	Alagiri S	INC
388	Chidambaram	Thirumaavalavan Thoi	VCK
389	Mayiladuturai	Manian O. S	AIADMK
390	Nagapattinam	Vijayan A K S	DMK
391	Thanjavur	Palanimanickam. S. S.	DMK
392	Sivaganga	Chidambaram P	INC
393	Madurai	Alagiri M K	DMK

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394	Theni	Aaron Rashid. J. M.	INC
395	Virudhunagar	Manicka Tagore	INC
396	Ramanathapuram	J. K. Ritheesh. K	DMK
397	Thoothukkudi	Jeyadurai. S. R.	DMK
398	Tenkasi	Lingam P	CPI
400	Tirunelveli	Ramasubbu S. S.	INC
401	Kanniyakumari	Helen Davidson	DMK

TRIPURA (2)

402	Tripura West	Khagen Das	CPI(M)
403	Tripura East	Baju Ban Riyan	CPI(M)

UTTARAKHAND (5)

404	Tehri Garhwal	Vijay Bhauguna	INC
405	Garhwal	Satpal Maharaj	INC
406	Almora	Pardeep Tamta	INC
407	Nainital-Udhamsingh Nagar	K.C. Singh Baba	INC
408	Haridwar	Harish Rawat	INC

UTTAR PRADESH (80)

409	Saharanpur	Jagdish Singh Rana	BSP
410	Kairana	Tabassum Begum	BSP
411	Muzaffarnagar	Kadir Rana	BSP
412	Bijnor	Sanjay Singh Chauhan	RLD
413	Nagina	Yashvir Singh	SP
414	Moradabad	Mohammed Azharuddin	INC
415	Rampur	Jaya Prada Nahata	SP
416	Sambhal	Dr. Shafiqur Rahman Barq	BSP
417	Amroha	Devendra Nagpal	RLD
418	Meerut	Rajendra Agarwal	BJP
419	Baghpat	Ajit Singh	RLD
420	Ghaziabad	Rajnath Singh	BJP
421	Gautam Budh Nagar	Surendra Singh Nagar	BSP
422	Bulandshahr	Kamlesh	SP
423	Aligarh	Raj Kumari Chauhan	BSP
424	Hathras	Sarika Singh	RLD
425	Mathura	Jayant Chaudhary	RLD
426	Agra	Dr. Ramshankar	BJP
427	Fatehpur Sikri	Seema Upadhyay	BSP
428	Firozabad	---	--
429	Mainpuri	Mulayam Singh Yadav	SP

430	Etah	Kalyan Singh	IND
431	Badaun	Darmendra Yadav	SP
432	Aonia	Menka Gandhi	BJP
433	Bareilly	Parveen Singh Aron	INC
434	Pilibhit	Feroze Varun Gandhi	BJP
435	Shahjahanpur	Mithlesh	SP
436	Kheri	Zafar Ali Naqvi	INC
437	Dhaurahra	Kunwar Jitin Prasada	INC
438	Sitapur	Kaisar Jahan	BSP
439	Hardoi	Usha Verma	SP
440	Misrikh	Ashok Kumar Rawat	BSP
441	Unnao	Annu Tandon	INC
442	Mohanlalganj	Sushila Saroj	SP
443	Luchnow	Lal Ji Tandon	BJP
444	Rae Bareli	Sonia Gandhi	INC
445	Amethi	Rahul Gandhi	INC
446	Sultanpur	Dr. Sanjay Singh	INC
447	Pratapgarh	Rajkumari Ratna Singh	INC
448	Farrukabad	Salman Khursheed	INC
449	Etawah	Premdas Katheria	SP
450	Kannauj	Akhilesh Yadav	SP
451	Kanpur	Prakash Jaiswal	INC
452	Akbarpur	Rajaram Pal	INC
453	Jalaun	Ghanshyam Anuragi	SP
454	Jhansi	Pradeep Kumar Jain (Aditya)	INC
455	Hamirpur	Vijay Bahadur Singh	BSP
456	Banda	R. K. Singh Patel	SP
457	Fatehpur	Rakesh Sachan	SP
458	Kaushambi	Shailendra Kumar	SP
459	Phulpur	Kapil Muni Karwariya	BSP
460	Allahabad	Kunwar Rewati Raman Singh	SP
461	Barabanki	P. L. Punia	INC
462	Faizabad	Nirmal Khatri	INC
463	Ambedkar Nagar	Rakesh Pandey	BSP
464	Bahraich	Kamal Kishore	INC
465	Kaiserganj	Brijbhushan Sharan Singh	SP
466	Shrawasti	Dr. Vinay Kumar Pandey	INC
467	Gonda	Beni Prasad Verma	INC
468	Domariyaganj	Jagdambika Pal	INC
469	Basti	Arvind Kumar Chaudhary	BSP
470	Sant Kabir Nagar	Bhisma Shankar Alias Kushal Tiwari	BSP
471	Maharajganj	Harsh Vardhan	INC
472	Gorakhpur	Adityanath Yogi	BJP

473	Kushi Nagar	Ratanjeet Pratap Narayan Singh	INC
474	Deoria	Gorakh Prasad Jaiswal	BSP
475	Bansgaon	Kamlesh Paswan	BJP
476	Lalganj	Dr. Baliram	BSP
477	Azamgarh	Ramakant Yadav	BJP
478	Ghosi	Dara Singh Chauhan	BSP
479	Salempur	Ramashankar Rajbhar	BSP
480	Ballia	Neeraj Shekhar	SP
481	Jaunpur	Dhananjay Singh	BSP
482	Machhlishahr	Tufani Saroj	SP
483	Ghazipur	Radhey Mohan Singh	SP
484	Varanasi	Dr. Murli Manohar Joshi	BJP
485	Bhadohi	Gorakhnath	BSP
486	Mirzapur	Bal Kumar Patel	SP
487	Robertsganj	Pakauri Lal	SP
488	Chandauli	Ramkishan	SP

WEST BENGAL (42)

489	Cooch Behar	Nripendra Nath Roy	AIFB
490	Alipurduars	Manohar Tirkey	RSP
491	Jalpaiguri	Mahendra Kumar Roy	CPI(M)
492	Darjeeling	Jaswant Singh	BJP
493	Raiganj	Deepa Dasmunsi	INC
494	Balurghat	Prasanta Kumar Majumdar	RSP
495	Maldaha Uttar	Masusam Noor	INC
496	Maldaha Dakshin	Abu Hasem Khan Choudhury	INC
497	Jangipur	Pranab Mukherjee	INC
498	Bahrampur	Adhir Ranjan Chowdhury	INC
499	Murshidabad	Abdul Mannan Hossain	INC
500	Krishnanagar	Tapas Pal	AITC
501	Ranaghat	Sucharu Ranjan Haldar	AITC
502	Bangaon	Gobinda Chandra Naskar	AITC
503	Barrackpore	Dinesh Trivedi	AITC
504	Dum Dum	Saugata Ray	AITC
505	Barasat	Kakali Ghoush Dastidar	AITC
506	Basirhat	S. K. Nurul Islam	AITC
507	Jaynagar	Dr. Tarun Mondal	IND
508	Mathurapur	Choudhury Mohan Jatua	AITC
509	Diamond Harbour	Somendra Nath Mitra	AITC
510	Jadhavpur	Kabir Suman	AITC
511	Kolkata Dakshin	Mamata Banerjee	AITC
512	Kolkata Uttar	Sudip Bandyopadhyay	AITC
513	Howrah	Ambica Banerjee	AITC

514	Uluberia	Sultan Ahmed	AITC
515	Srerampur	Kalyan Banerjee	AITC
516	Hooghly	Dr. Ratna De (Nag)	AITC
518	Arambagh	Malik Sakti Mohan	CPI(M)
519	Tamluk	Adhikari Suwendu	AITC
520	Kanthi	Adhikari Sisir Kumar	AITC
521	Ghatal	Gurudas Dasgupta	CPI
523	Jhargram	Pulin Bihari Baske	CPI(M)
524	Medinipur	Parbodh Panda	CPI
525	Purulia	Narahari Mahato	AIFB
527	Bankura	Acharya Basudeb	CPI(M)
528	Bishnupur	Susmita Bauri	CPI(M)
529	Bardhaman	Purba Anup Kumar Saha	CPI(M)
530	Burdwan-Durgapur	S. K. Saidul Haque	CPI(M)
530	Asansol	Bansagopal Chowdhury	CPI(M)
530	Bolpur	Dr. Ram Chandra Dome	CPI(M)
530	Birbhum	Satabdi Roy	AITC

ANDAMAN & NICOBAR ISLANDS (1)

531	Andaman & Nicobar Islands	Bishnu Pada Ray	BJP
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CHANDIGARH (1)

532	Chandigarh	Pawan Kumar Bansal	INC
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DADRA & NAGAR HAVELI (1)

533	Dadra & Nagar Haveli	Gomanbhai Nathubhai Patel	BJP
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DAMAN & DIU (1)

534	Daman and Diu	Lalubhai Patel	BJP
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NATIONAL CAPITAL TERRITORY OF DELHI (7)

535	Chandni Chowk	Kapil Sibal	INC
536	North East Delhi	Jai Parkash Aggarwal	INC
537	East Delhi	Sandeep Dikshit	INC
538	New Delhi	Ajay Makan	INC
539	North West Delhi	Krishna Tirath	INC
540	West Delhi	Mahabal Mishra	INC
541	South Delhi	Ramesh Kumar	INC

* Speaker of Lok Sabha

LAKSHADWEEP (1)

542	Lakshadweep	Muhammed Hamdulla Sayeed A. B	INC
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PUDUCHERRY (1)

543	Puducherry	Narayanasamy	INC
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Abbreviations used for Parties : All India Forward Bloc - AIFB; All India Majlis-e-Ittehadul Muslimeen - AIMEIM; All India Trinamool Congress -AITC; Asom Gana Parishad - AGP; Bahujan Samaj Party - BSP; Bharatiya Janata Party- BJP; Bharatiya Navshakti Party - BNP; Biju Janata Dal - BJD; Communist Party of India - CPI; Communist Party of India (Marxist) - CPI(M); Dravida Munnetra Kazhagam - DMK; Indian National Congress - INC; Jammu & Kashmir National Conference - J&KNC; Janata Dal (Secular) - JD (S); Janata Dal (United) - JD (U); Jharkhand Mukti Morcha - JMM; Kerala Congress - KC; Lok Jan Shakti Party - LJSP; Marumalarchi Dravida Munnetra Kazhagam - MDMK; Mizo National Front - MNF; Muslim League - ML; Nagaland Peoples Front - NPF; Nationalist Congress Party - NCP; Pattali Makkal Katchi - PMK; Jammu and Kashmir Peoples Democratic Party - J&K PDP; Rashtriya JanataDal - RJD; Rashtriya Lok Dal - RLD; Republican Party of India (A) - RPI (A); Revolutionary Socialist Party - RSP; Samajwadi Janata Party (Rashtriya) - SJP (R); Samajwadi Party - SP; Shiromani Akali Dal - SAD; Shiv Sena - SS; Sikkim Democratic Front - SDF; Telangana Rashtra Samithi - TRS; Telugu Desam Party - TDP; Independent-IND.

¹ Joined INC w.e.f. 8 December 2004

² Joined INC w.e.f. 9 December 2004