

# Human Development, Equity and Environment

## 12 CHAPTER

*The ultimate objective of development planning is human development or increased social welfare and well-being of the people. Increased social welfare of the people requires a more equitable distribution of development benefits along with better living environment. Development process therefore needs to continuously strive for broad-based improvement in the standard of living and quality of life of the people through an inclusive development strategy that focuses on both income and non-income dimensions. The challenge is to formulate inclusive plans to bridge regional, social and economic disparities. The Eleventh Five Year Plan sought to address this challenge by providing a comprehensive strategy for inclusive development, building on the growing strength of the economy.*

12.2 This chapter focuses on issues related to 'inclusive development' in India and uses both international as well as inter-State comparisons to shed light on the subject. Apart from highlighting the international position of India vis-à-vis other emerging market economies and similarly placed countries in terms of the human development index (HDI), an attempt has been made to examine the interrelations between different parameters of the HDI. From the domestic angle, the chapter focuses on trends in social-sector spending both at the centre and the state levels. It looks at social-sector policies implemented by the Government, particularly poverty alleviation and employment generation, health, education, rural infrastructure, development of the weaker sections of society, women and child development, and social security. It also discusses climate change and its impact on development in the context of intergenerational equity.

### HUMAN DEVELOPMENT AND GENDER

12.3 The HDI reported in the Human Development Report (HDR) published by the United Nations Development Programme (UNDP) is an alternative to the more standard method of measuring growth using gross domestic product (GDP). It captures progress in terms of three basic capabilities: to live

a long and healthy life, to be educated and knowledgeable, and to enjoy a decent economic standard of life. According to HDR 2010, the HDI for India was 0.519 in 2010 with an overall global ranking of 119 (out of the 169 countries) compared to 134 (out of 182 countries) in 2007 (HDR, 2009). However, a comparable analysis of the trends during 1980-2010 (Table 12.1) shows that although lower in HDI ranking, India has performed better than most (including very high and high human development) countries in terms of average annual HDI growth rate. India with an HDI improvement rank of 6 (1980-2010) has performed much better than most comparable countries except China (Table 12.1).

12.4 However, there should be no room for complacency as India is still in the medium human development category with countries like China, Sri Lanka, Thailand, Philippines, Egypt, Indonesia, and South Africa having better overall HDI ranking within the same category. The existing gap in health and education indicators as compared to developed countries and also many of the developing countries indicates a need for much faster and wider spread of basic health and education. Life expectancy at birth in India was 64.4 years in 2010 as against 81 years in Norway, 81.9 years in Australia, 74.4 years in Sri Lanka, and 73.5 years in China (Table 12.2).

Table 12.1 : Trends in the HDI 1980-2010

HDI	Country	1980	1990	1995	2000	2005	2009	2010	Avg. Annual HDI Growth Rate (percent)			HDI Improvement Rank
									1980-2010	1990-2010	2000-2010	1980-2010*
1	Norway	0.788	0.838	0.869	0.906	0.932	0.937	0.938	0.58	0.56	0.34	34
2.	Australia	0.791	0.819	0.887	0.914	0.925	0.935	0.937	0.57	0.67	0.25	35
41	Poland	—	0.683	0.710	0.753	0.775	0.791	0.795	—	0.76	0.54	—
57	Malaysia	0.541	0.616	0.659	0.691	0.726	0.739	0.744	1.06	0.94	0.73	19
65	Russia	—	0.692	0.644	0.662	0.693	0.714	0.719	—	0.19	0.82	—
73	Brazil	—	—	—	0.649	0.678	0.693	0.699	—	—	0.73	—
83	Turkey	0.467	0.552	0.583	0.629	0.656	0.674	0.679	1.24	1.03	0.76	14
89	China	0.368	0.460	0.518	0.567	0.616	0.655	0.663	1.96	1.83	1.57	2
91	Sri Lanka	0.513	0.558	0.584	—	0.635	0.653	0.658	0.83	0.82	—	51
92	Thailand	0.483	0.546	0.581	0.600	0.631	0.648	0.654	1.01	0.90	0.86	29
97	Philippines	0.523	0.552	0.569	0.597	0.619	0.635	0.638	0.66	0.72	0.67	78
101	Egypt	0.393	0.484	0.523	0.566	0.587	0.614	0.620	1.52	1.23	0.90	8
108	Indonesia	0.390	0.458	0.508	0.500	0.561	0.593	0.600	1.43	1.35	1.82	12
110	South Africa	—	0.601	0.634	—	0.587	0.594	0.597	—	-0.03	—	—
113	Vietnam		0.407	0.457	0.505	0.540	0.566	0.572	—	1.70	1.24	—
<b>119</b>	<b>India</b>	<b>0.320</b>	<b>0.389</b>	<b>0.415</b>	<b>0.440</b>	<b>0.482</b>	<b>0.512</b>	<b>0.519</b>	<b>1.61</b>	<b>1.44</b>	<b>1.66</b>	<b>6</b>
125	Pakistan	0.311	0.359	0.389	0.416	0.468	0.487	0.490	1.52	1.55	1.64	10
128	Kenya	0.404	0.437	0.435	0.424	0.443	0.464	0.470	0.50	0.37	1.03	87
129	Bangladesh	0.259	0.313	0.350	0.390	0.432	0.463	0.469	1.99	2.03	1.86	3
	<b>World</b>	<b>0.455</b>	<b>0.526</b>	<b>0.554</b>	<b>0.570</b>	<b>0.598</b>	<b>0.619</b>	<b>0.624</b>	<b>1.05</b>	<b>0.85</b>	<b>0.89</b>	

Source : HDR 2010.

\* Measured using deviation from fit. Lower the number, faster the improvement.

Table 12.2 : India's Global Position in Human Development 2010

Country	HDI 2010	GNI per capita (PPP2008 US \$) 2010	Life Expectancy at birth(yrs) 2010	Mean Yrs of Schooling 2010	Expected Yrs of Schooling 2010*
Norway	0.938(1)	58,810	81.0	12.6	17.3
Australia	0.937(2)	38,692	81.9	12.0	20.5
Poland	0.795 (41)	17,803	76	10.0	15.2
Malaysia	0.744 (57)	13,927	74.7	9.5	12.5
Russia	0.719 (65)	15,258	67.2	8.8	14.1
Brazil	0.699 (73)	10,607	72.9	7.2	13.8
Turkey	0.679 (83)	13,359	72.2	6.5	11.8
China	0.663 (89)	7258	73.5	7.5	11.4
Sri Lanka	0.658 (91)	4486	74.4	8.2	12.0
Thailand	0.654 (92)	8001	69.3	6.6	13.5
Philippines	0.638 (97)	4002	72.3	8.7	11.5
Egypt	0.620 (101)	5889	70.5	6.5	11.0
Indonesia	0.600 (108)	3957	71.5	5.7	12.7
South Africa	0.597 (110)	9812	52.0	8.2	13.4
Vietnam	0.572 (113)	2995	74.9	5.5	10.4
<b>India</b>	<b>0.519 (119)</b>	<b>3337</b>	<b>64.4</b>	<b>4.4</b>	<b>10.3</b>
Pakistan	0.490(125)	2678	67.2	4.9	6.8
Kenya	0.470(128)	1,628	55.6	7.0	9.6
Bangladesh	0.469(129)	1587	66.9	4.8	8.1
<b>World</b>	<b>0.624</b>	<b>10,631</b>	<b>69.3</b>	<b>7.4</b>	<b>12.3</b>

Source: HDR 2010

Note: \* Refers to an earlier year than specified.

Figures in parentheses in Column 2 give ranking among 169 countries.

It is less than the global average of 69.3 years. Similarly, the performance of India in terms of mean years of schooling is not only much below that of countries like Sri Lanka, China, Egypt, and Vietnam, but also lower than the global average.

12.5 In terms of gender equality index (GEI), India with an index value of 0.748 ranks 122 out of a total of 168 countries in 2008. The GEI captures the loss in achievement due to gender disparities in the areas of reproductive health, empowerment, and labour force participation with values ranging from 0 (perfect equality) to 1 (total inequality). The GEI index value of 0.748 indicates a higher degree of gender discrimination in India compared to countries like China (0.405) and Sri Lanka (0.599).

### Trends in India's social-sector expenditures

12.6 The Central Government expenditure on social services and rural development (Plan and non-Plan) which contributes to human development has gone up consistently over the years (Table 12.3). It has increased from 13.75 per cent in 2005-06 to 19.27 per cent in 2010-11. The Central support for social programmes has continued to expand in various forms although most social-sector subjects fall within

the purview of the States. Major programme-specific funding is available to the States through Centrally Sponsored Schemes.

12.7 Expenditure on social services (which include education, medical and public health, family welfare, water supply and sanitation, welfare of Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Classes (OBCs), labour and labour welfare, social security, nutrition, and relief for natural calamities, etc.) by the General Government (Centre and States combined) has also shown increase in recent years (Table 12.4) reflecting the higher priority given to this sector. Expenditure on social services as a proportion of total expenditure increased from 21.1 per cent in 2005-06 to 23.8 per cent in 2008-09 and further to 25.2 per cent in 2010-11 (BE). As a proportion of GDP, its share increased from 5.49 per cent in 2005-06 to 6.63 per cent in 2010-11 (BE). Expenditure on education as a proportion of total expenditure has increased marginally from 10 per cent in 2005-06 to 11.3 per cent in 2010-11 (BE). While the expenditure on health as a proportion of the GDP has increased from 1.23 per cent in 2005-06 to 1.27 per cent in 2010-11 (BE), its share in total expenditure has increased marginally from 4.7 per cent in 2005-06 to 4.8 per cent in 2010-11 (BE).

**Table 12.3 : Central Government Expenditure (Plan and non-Plan) on Social Services and Development**

ITEM	(as Per Cent of total expenditure)					
	2005-06 Actual	2006-07 Actual	2007-08 Actual	2008-09* Actual	2009-10 RE	2010-11 BE
1. Social Service						
a. Education, Sports, Youth Affairs	3.71	4.28	4.02	4.04	3.96	4.46
b. Health & Family Welfare	1.89	1.87	2.05	1.91	1.90	2.03
c. Water Supply, Housing, etc.	2.08	1.72	2.02	2.31	2.20	2.27
d. Information & Broadcasting	0.30	0.25	0.22	0.22	0.20	0.22
e. Welfare of SC/ST and OBC	0.33	0.34	0.36	0.35	0.41	0.63
f. Labour & Employment	0.25	0.32	0.27	0.27	0.22	0.25
g. Social Welfare & Nutrition	0.84	0.85	0.82	0.72	0.79	1.06
h. North-eastern Areas	0.00	0.00	0.00	1.56	1.50	1.75
i. Other Social Services	0.40	-0.17	1.29	1.55	1.87	1.34
<b>Total</b>	<b>9.79</b>	<b>9.47</b>	<b>11.06</b>	<b>12.94</b>	<b>13.06</b>	<b>14.02</b>
2. Rural Development	3.12	2.84	2.80	4.50	4.27	4.17
3. Pradhan Mantri Gram Sadak Yojana (PMGSY)	0.83	1.08	0.91	0.88	1.11	1.08
4. Social Services, Rural Development, and PMGSY	<b>13.75</b>	<b>13.38</b>	<b>14.77</b>	<b>18.32</b>	<b>18.44</b>	<b>19.27</b>
5. Total Central Government Expenditure	100.00	100.00	100.00	100.00	100.00	100.00

Source : Budget Documents and Ministry of Rural Development

Note: SC-Scheduled Caste; ST-Scheduled Tribe; OBC-Other Backward Class; PMGSY-Pradhan Mantri Gram Sadak Yojana; RE-revised estimate.

\* Provisional.

**Table 12.4 : Trends in Social Services Expenditure by General Government  
(Central and State Governments combined)**

(₹ crore)						
Items	2005-06 Actual	2006-07 Actual	2007-08 Actual	2008-09 Actual	2009-10 (RE)	2010-11 (BE)
Total Expenditure	9,59,855	11,09,174	13,16,246	15,95,110	19,09,380	20,71,147
Expenditure on Social Services	2,02,672	2,39,340	2,94,584	3,80,269	4,76,351	5,22,492
of which:						
i) Education	96,365	1,14,744	1,29,366	1,61,360	2,04,986	2,35,035
ii) Health	45,428	52,126	63,226	73,898	90,700	99,738
iii) Others	60,879	72,470	1,01,992	1,45,011	1,80,665	1,87,719
<b>As Per Cent of GDP</b>						
Total Expenditure	25.99	25.83	26.40	28.57	29.15	26.29
Expenditure on Social Services	5.49	5.57	5.91	6.81	7.27	6.63
of which:						
i) Education	2.61	2.67	2.59	2.89	3.13	2.98
ii) Health	1.23	1.21	1.27	1.32	1.38	1.27
iii) Others	1.65	1.69	2.05	2.60	2.76	2.38
<b>As Per Cent of Total Expenditure</b>						
Expenditure on Social Services	21.1	21.6	22.4	23.8	24.9	25.2
of which:						
i) Education	10.0	10.3	9.8	10.1	10.7	11.3
ii) Health	4.7	4.7	4.8	4.6	4.8	4.8
iii) Others	6.3	6.5	7.7	9.1	9.5	9.1
<b>As Per Cent of Social Services Expenditure</b>						
i) Education	47.5	47.9	43.9	42.4	43.0	45.0
ii) Health	22.4	21.8	21.5	19.4	19.0	19.1
iii) Others	30.0	30.3	34.6	38.1	37.9	35.9

Source : RBI as obtained from Budget Documents of Union and State Governments.

BE: budget estimates; RE: revised estimates.

## Inclusive Development

12.8 This section and the one that follows on social sector initiatives, examines the major dimensions of inclusive development like poverty alleviation, employment generation, health, education, and social welfare besides giving the progress of important Government programmes in those sectors.

12.9 Inclusive development can be seen in terms of progress in social inclusion and financial inclusion. Despite more than six decades of planned economic development, a large part of the population, particularly segments like landless agricultural labourers, marginal farmers, SCs, STs, and OBCs, suffers social and financial exclusion. Accordingly, the Government's policies are directed towards economic and social upliftment of these segments so as to enable everyone to reap the benefits of growth.

12.10 There is a close connection between social inclusion and financial inclusion. Accordingly, the Government has devised many schemes for financial inclusion of the socially excluded like SCs, STs, OBCs, and the disabled. The details of some of these are given in Table 12.5. A major financial inclusion initiative was formally launched as "Swabhimaan" on 10 February, 2011 which aims at providing branchless banking through the use of technology. Banks will provide basic services like deposits, withdrawal and remittances using the services of Business Correspondents (Banks Saathi). The initiative enables Government subsidies and social security benefits to be directly credited to the accounts of the beneficiaries, enabling them to draw the money from the Business correspondents in their village itself.

**Table 12.5 : Details of the Loan Disbursed/Beneficiaries covered under the NSCFDC, NSKFDC, NBCFDC, and NHFDC**

Sl. No.	Corporation	Amount of Loan Disbursed (₹ crore)				No. of Beneficiaries			
		Term Loan	Micro-finance	Others	Total	Term Loan	Micro-finance	Others	Total
1	NSFDC	79.94	41.12	-	121.06	9,597	21,897	2,165	33,659
2	NSKFDC	36.67	10.53	17.79	64.99	3,525	4,525	7,371	15,421
3	NBCFDC	62.27	44.50	-	106.77	31,489	49,171	-	80,660
4	NHFDC	17.63	2.15	0.08	19.86	3,438	1,070	3	4,511*
<b>Total</b>		<b>196.51</b>	<b>98.3</b>	<b>17.87</b>	<b>312.68</b>	<b>48,049</b>	<b>76,663</b>	<b>9,539</b>	<b>1,34,251</b>

Source: Ministry of Social Justice & Empowerment.

Notes: \* including estimated number of beneficiaries on average loan basis against released advance funds to State Channalising Agencies (SCAs).

NSCFDC—National Scheduled Caste Finance and Development Corporation;

NSKFDC—National Safai Karamcharis Finance Development Corporation;

NBCFDC—National Backward Classes Finance Development Corporation;

NHFDC—National Handicapped Finance and Development Corporation.

12.11 Special efforts are being made by the Government of India for the social and economic upliftment of the north-east region. While in terms of some parameters like gross state domestic product (GSDP) growth and literacy rate the north-eastern

states are doing comparatively better, they are still lagging behind in terms of financial inclusion. The tribal population which constitutes a major chunk of the population is very much distanced from the socio-economic development visible in the rest of

### Box 12.1 : North-Eastern States and Financial Inclusion

In terms of financial inclusion the north-east region lags behind the rest of the nation. Banks have entered the north-eastern states very late. Among north eastern states, only Assam, Meghalaya, Tripura and Sikkim have had local banks operating for the last few decades. Private-sector banks are conspicuous by their low presence in these states. If the gross inadequacy of the branch network is one of the factors hindering financial inclusion, political disturbances resulting in the non-functioning of some of the existing branches is another. For extending credit, some banks have liberally issued Kisan Credit Cards to farmers. Self-help groups are also being promoted in large numbers for providing micro-finance to the poor. Yet, the number of those who remain beyond the reach of banks is more than those who have been covered by bank branches.

The banking penetration ratio (defined as the proportion of the households availing banking facilities) is very low in the north-east region. According to the Analytical Report on Household Assets, Census of India 2001, the banking penetration ratio in almost all states except Arunachal Pradesh is lower than the national average, with Manipur having the lowest ratio (see Table).

Table

(in per cent)

State	Banking Penetration Ratio	State	Banking Penetration Ratio
Manipur	8.7	Nagaland	15.9
Assam	20.5	Meghalaya	20.8
Tripura	26.5	Sikkim	29.7
Mizoram	31.8	Arunachal Pradesh	37.5
National Average	35.8		

The National Sample Survey (NSS) data of 59th Round (2003), reveal that the proportion of farm households excluded from accessing credit from institutional sources to total farm households is as high as 96 in the north eastern States. Thus banking development indicators show the poor state of banking and resultant low level of financial outreach in these states.

The Central Government's "New Initiatives for North Eastern Regions" announced in 1996 proposed a number of measures including setting up of the North Eastern Development Finance Corporation Ltd. for integrated development of the region. The RBI has also set up a committee for a financial-sector plan for the north-east region in 2006. To improve banking penetration in the north-east, the RBI has asked the state governments in the region as well as banks to identify centres where there is a need for setting up branches or banking facilities. RBI would bear the one time capital cost and recurring cost per annum for a limited period of 5 years under the Viability Gap Funding scheme for the north-east region. RBI has also permitted banks to open branches in rural, semi urban and urban centers in north-eastern states without its permission subject to reporting. Awareness programme for educating the uninitiated rural population are being organized by all banks with the active support of the RBI. However, a lot more needs to be done for financial inclusion of the north-east region.

the country. Moreover, each of the eight north-eastern states has its own ethnic and socio-economic problems for which there is no uniform solution, making the implementation of policy measures difficult. Added to this are inherent problems of lower growth rate, low population density, lack of infrastructure development, and insurgency. Social inclusion in the north-east is closely linked to financial inclusion and corrective steps are needed in this direction (Box 12.1). Recognizing this reality, the Eleventh Five Year Plan aimed at faster and more inclusive growth by restructuring policies with special focus on this region. Within this policy paradigm, the Reserve Bank of India (RBI) has also launched a comprehensive programme with financial inclusion as a goal of the banking system.

## POVERTY AND INCLUSIVE GROWTH

12.12 The HDR 2010 measures poverty in terms of a new parameter, namely multidimensional poverty index (MPI), which replaced the human poverty index

(HPI) used since 1997. The MPI indicates the share of the population that is multidimensionally poor adjusted by the intensity of deprivation in terms of living standards, health, and education. According to this parameter, India with a poverty index of 0.296 and poverty ratios of 41.6 per cent (in terms of PPP \$ 1.25 a day ) and 28.6 per cent (national poverty line) is not favourably placed when compared with countries like China and Sri Lanka. In fact, the difference in population below the poverty line (BPL) widens substantially in case of India when this indicator is used instead of the national poverty line indicator, while for other countries, there is less of a difference and in some cases even a fall (Table 12.6).

12.13 The Planning Commission which is the nodal agency for estimating the number and proportion of people living below the poverty line at national and State levels, separately for rural and urban areas, makes poverty estimates based on a large sample survey of household consumption expenditure carried out by the National Sample Survey Organization (NSSO) after an interval of

**Table 12.6 : Multidimensional Poverty Index**

Country	Multidimensional Poverty Index* 2000-2008**	Population below Income Poverty Line	
		PPP \$1.25 a day 2000-2008**	National Poverty Line 2000-2008**
Poland	— (41)	Less than 2	14.8
Malaysia	—(57)	Less than 2	12.8
Russia	0.005 (65)	Less than 2	19.6
Brazil	0.039 (73)	5.2	21.5
Turkey	0.039 (83)	2.6	27
China	0.056 (89)	15.9	2.8
Sri Lanka	0.021 (91)	14	22.7
Thailand	0.006 (92)	Less than 2	—
Philippines	0.067 (97)	22.6	—
Egypt	0.026 (101)	Less than 2	16.7
Indonesia	0.095 (108)	29.4	16.7
South Africa	0.014(110)	26.2	22.0
Vietnam	0.075(113)	21.5	28.9
<b>India</b>	<b>0.296 (119)</b>	<b>41.6</b>	<b>28.6</b>
Pakistan	0.275(125)	<b>22.6</b>	—
Kenya	0.302(128)	19.7	46.6
Bangladesh	0.291(129)	49.6	40.0

Source: HDR 2010.

Note: \* Not all indicators were available for all countries; Caution should thus be used in cross-country comparisons.

\*\* Data refer to the most recent year available during the period specified. Figures in parentheses in Column 2 give ranking among 169 countries.

**Table 12.7: Poverty Ratios by URP and MRP (per cent)**

Sl. No.	Category	Years	
		1993-94	2004-05
<b>By URP Method</b>			
1.	Rural	37.3	28.3
2.	Urban	32.4	25.7
3.	All India	36.0	27.5
<b>By MRP Method</b>			
4.	Rural	27.1	21.8
5.	Urban	23.6	21.7
6.	All India	26.1	21.8

Source: Planning Commission.

approximately five years. The Commission has been estimating the poverty line and poverty ratio since 1997 on the basis of the methodology spelt out in the report of the Expert Group on 'Estimation of Number and Proportion of Poor' (known as Lakdawala Committee Report). On the basis of NSS 61st Round (July 2004 to June 2005) consumer expenditure data, the poverty ratio is estimated at 28.3 per cent in rural areas, 25.7 per cent in urban areas, and 27.5 per cent for the country as a whole in 2004-05 using uniform recall period (URP). In URP, consumer expenditure data for all the items are collected for a 30-day recall period. Based on mixed recall period (MRP) for the same period, the poverty ratios are 21.8 per cent in rural areas, 21.7 per cent in urban areas, and 21.8 per cent for the country as a whole. In MRP, consumer expenditure data for five non-food items, namely clothing, footwear, durable goods, education, and institutional medical expenses, are collected for a 365-day recall period and the consumption data for the remaining items are collected for a 30-day recall period. The poverty estimate in 2004-05 based on URP consumption (27.5) is comparable to that of 1993-94 (36). The poverty estimates in 2004-05 based on MRP consumption (about 21.8) is roughly (but not strictly) comparable to that of 1999-2000 (26.1). Table 12.7 shows the comparable poverty estimates based on the URP and MRP methods.

### Methodology for Estimation of Poverty and BPL Households

12.14 While the estimation of poverty at national and State levels, separately for rural and urban areas, is done by the Planning Commission, the Ministry of Rural Development has been conducting the BPL census to identify individual households below the

poverty line in rural areas while ensuring that the total number of such households corresponds to the Planning Commission estimates. The methodology of estimating poverty and the identification of BPL households have been a matter of debate. Two committees under the chairmanship of Prof. Suresh D. Tendulkar and Dr. N.C. Saxena have submitted their reports on methodology for estimation of poverty and methodology for conducting BPL census in Rural areas, respectively. Further, an expert Group under the chairmanship of Prof. S.R. Hasim has been set up to recommend methodology for identification of BPL families in urban areas (Box.12.2).

### Inequality

12.15 According to HDR 2010, inequality in India for the period 2000-10 in terms of the income Gini coefficient was 36.8. India's Gini index was more favourable than those of comparable countries like South Africa (57.8), Brazil (55), Thailand (42.5), Turkey (41.2), China (41.5), Sri Lanka (41.1), Malaysia (37.9), Vietnam (37.8), Indonesia (37.6), and even the USA (40.8), Singapore (42.5), Hong Kong (43.4), Portugal (38.5), and Poland (34.9) which are otherwise ranked very high in human development.

12.16 Inter-State inequality as reflected in the Lorenz ratio, estimated by the NSSO based on household consumer expenditure for 2004-05, for rural India and urban India for total consumption expenditure was 0.30 and 0.37 respectively. This indicates, higher relative inequality in urban areas. Lower inequality was seen in rural areas of Assam (0.197), Meghalaya (0.155), and Manipur (0.158) than in Kerala (0.341), Haryana (0.323), Tamil Nadu (0.315), and Maharashtra (0.310). Similarly, lower inequality was seen in urban areas of Arunachal Pradesh (0.243), Jammu & Kashmir (0.244), Meghalaya (0.258), and Manipur (0.175) than in Chattisgarh (0.439), Goa (0.405), Kerala (0.400), and Madhya Pradesh (0.397). Disparities in cereal consumption are less marked than disparities in total consumption expenditure, whereas greater disparities exist in consumption of durable goods than in total consumption.

### Employment

12.17 The key strategy for achieving inclusive growth in the Eleventh Plan has been generation of productive and gainful employment, with decent working conditions, on a sufficient scale to absorb the growing labour force. The Eleventh Plan

## Box 12.2 : Expert Groups for Estimating Poverty and BPL Families

### I. Tendulkar Committee Report to Review the Methodology for Estimation of Poverty

The Planning Commission constituted an Expert Group in December 2005 under the chairmanship of Professor Suresh D. Tendulkar to review the methodology for estimation of poverty. The Expert Group submitted its report in December 2009. While acknowledging the multidimensional nature of poverty, the Expert Group recommended moving away from anchoring poverty lines to the calorie - intake norm to adopting MRP based estimates of consumption expenditure as the basis for future poverty lines and MRP equivalent of the urban poverty line basket (PLB) corresponding to 25.7 per cent urban headcount ratio as the new reference PLB for rural areas. On the basis of the above methodology, the all-India rural poverty headcount ratio for 2004-05 was estimated at 41.8 per cent, urban at 25.7 per cent, and all-India at 37.2 per cent. It may, however, be mentioned that the Tendulkar Committee's estimates are not strictly comparable to the official poverty estimates because of different methodologies. The relevant estimates for 1993-94 and 2004-05 are shown in the Table.

Year	Poverty Ratios					
	1993-94			2004-05		
	Rural	Urban	Total	Rural	Urban	Total
Planning Commission (URP)	37.3	32.4	36.0	28.3	25.7	27.5
Tendulkar Estimates (2004-05) (MRP)	50.1	31.8	45.3	41.8	25.7	37.2

As has been indicated in the Mid Term Appraisal of the Eleventh Five Year Plan, the revised poverty lines for 2004-05 as recommended by the Tendulkar Committee have been accepted by the Planning Commission. The Tendulkar Committee has specifically pointed out that the upward revision in the percentage of rural poverty in 2004-05, resulting from the application of a new rural poverty line should not be interpreted as implying that the extent of poverty has increased over time. These estimates, as reported by the Committee, clearly show that whether we use the old method or the new, the percentage of BPL population has declined by about the same magnitude.

### II. Saxena Committee Report to Review the Methodology for Conducting BPL Census in Rural Areas

An Expert Group headed by Dr N.C. Saxena was constituted by the Ministry of Rural Development to recommend a suitable methodology for identification of BPL families in rural areas. The Expert Group submitted its report in August 2009 and recommended doing away with score-based ranking of rural households followed for the BPL census 2002. The Committee has recommended automatic exclusion of some privileged sections and automatic inclusion of certain deprived and vulnerable sections of society, and a survey for the remaining population to rank them on a scale of 10.

#### Automatic Exclusion

Households that fulfil any of the following conditions will not be surveyed for BPL census:

- Families who own double the land of the district average of agricultural land per agricultural household if partially or wholly irrigated (three times if completely unirrigated).
- Families that have three or four wheeled motorized vehicles, such as, jeeps and SUVs.
- Families that have at least one mechanized farm equipment, such as, tractors, power tillers, threshers, and harvesters.
- Families that have any person who is drawing a salary of over ₹ 10,000 per month in a non-government/ private organization or is employed in government on a regular basis with pensionary or equivalent benefits.
- Income tax payers.

#### Automatic Inclusion

The following would be compulsorily included in the BPL list:

- Designated primitive tribal groups.
- Designated most discriminated against SC groups, called Maha Dalit groups.
- Single women-headed households.
- Households with a disabled person as breadwinner.
- Households headed by a minor.
- Destitute households which are dependent predominantly on alms for survival.
- Homeless households.
- Households that have a bonded labourer as member.

Survey of the remaining rural households is to be conducted and scores given depending upon the different socio-economic parameters recommended by the committee. The Ministry of Rural Development is in the process of conducting the pilot studies and participatory rural appraisal (PRA) exercises to fine tune the methodology.

### III. Expert Group (S.R. Hashim Committee) on the Methodology for Identification of BPL Families in Urban Areas.

The Ministry of Housing and Urban Poverty Alleviation (HUPA) is the nodal Ministry for issue of guidelines to identify BPL families in urban areas. Till now, no uniform methodology was being followed by the States/UTs to identify the urban poor. An Expert Group under the Chairmanship of Professor S.R. Hashim has been constituted by the Planning Commission to recommend the methodology for identification of BPL families in urban areas. The Expert Group is expected to submit its report shortly.

(2007-12) aims at generation of 58 million work opportunities in twenty-one high growth sectors so that the unemployment rate falls to 4.83 per cent by the end of the Plan. The 64th round (2007-08) of NSSO survey on employment-unemployment indicates creation of 4 million work opportunities between 2004-05 and 2007-08.

12.18 As highlighted in Economic Surveys of previous years based on NSSO data, employment on a current daily status (CDS) basis during 1999-2000 to 2004-05 had accelerated significantly as compared to the growth witnessed during 1993-94 to 1999-2000. During 1999-2000 to 2004-05, about 47 million work opportunities were created compared to only 24 million in the period between 1993-94 and 1999-2000 and employment growth accelerated from 1.25 per cent per annum to 2.62 per cent per annum. However, since the labour force grew at a faster rate of 2.84 per cent than the workforce, unemployment also rose. The incidence of unemployment on CDS basis increased from 7.31 per cent in 1999-2000 to 8.28 per cent in 2004-05.

## Unemployment

12.19 The next quinquennial round of survey i.e. the 66th NSS round for estimating unemployment rates is under way with fieldwork undertaken during 2009-10. The updated information based on this round is awaited. However, an estimate of unemployment rates based on the 64th round is shown in Table 12.8. A comparative study of different estimates of unemployment during 2007-08 indicates that the CDS estimate of unemployment rate being the broadest is the highest. The higher unemployment rates according to the CDS approach vis-a-vis weekly and usual status approaches indicate a high degree of intermittent unemployment.

**Table 12.8 : All-India Rural and Urban Unemployment Rates\* from the NSS 64<sup>th</sup> Round 2007-08: Different Estimates**

Sl. No.	Estimate	Rural	Urban
1	UPS	2.2	4.5
2	US(adj.)	1.6	4.1
3	CWS	3.9	5.0
4	CDS	8.4	7.4

Notes:\* As per cent of labour force.

UPS– usual principal status; US (adj.)–usually unemployed excluding subsidiary status workers; CWS–current weekly status.

Source: NSS Report No. 531(64/10.2/1).

The CDS captures the unemployed days of the chronically unemployed, the unemployed days of the usually employed who become intermittently unemployed during the reference week, and unemployed days of those classified as employed according to the current weekly status criterion.

## Employment in the Organized Sector

12.20 Employment growth in the organized sector, public and private combined, increased during the period 1994- 2008. This has primarily been due to employment growth in the private sector. Employment in establishments covered by the Employment Market Information System of the Ministry of Labour and Employment grew at 1.20 per cent per annum during 1983-94 but the growth decelerated to 0.05 per cent per annum during 1994-2008. This decline was mainly due to a decrease in employment growth in public-sector establishments from 1.53 per cent per annum in the earlier period to (-)0.65 per cent per annum in the later period. The private sector, on the other hand, showed accelerated growth from 0.44 per cent to 1.75 per cent per annum (Table 12.9).

**Table 12.9 : Rate of Growth of Employment in the Organized Sector**

	(per cent per annum)	
	1983-94	1994-2008
Public Sector	1.53	-0.65
Private Sector	0.44	1.75
Total Organized	1.20	0.05

Source: Planning Commission and Directorate General of Employment and Training (DGET), Ministry of Labour and Employment.

## Effect of Global Financial Crisis and Economic Slowdown

12.21 The global financial crisis of 2008 lowered the growth rate for 2008-09 to 6.8 per cent from over 9.0 per cent during each of the previous three years. As the Government was concerned about the possible fallouts of the global slowdown on the Indian economy, including job loss and on creation of additional employment, financial and fiscal stimulus packages were announced. As a result, the Indian economy started to recover robustly, climbing back to near pre-crisis levels, and recording one of the fastest growth rates in the world. The Government has been continuously monitoring the effect of the

### Box 12.3 : Eighth Quarterly Survey Report on Effect of Economic Slowdown on Employment in India July to September 2010

The Labour Bureau conducted eight quarterly quick employment surveys to assess the impact of the economic slowdown on employment in India. The results for selected sectors, i.e. textiles including apparel, leather, metals, automobiles, gems and jewellery, transport, information technology (IT)/business process outsourcing (BPO) and handloom / powerloom are briefly summarized as follows:-

- While comparing the results of the last four quarterly surveys, i.e. September 2010 over September 2009, overall employment has increased by 12.96 lakh, with the highest increase of 9.36 lakh in IT/BPO followed by 0.79 lakh in textiles, 0.99 lakh in metals, 1.15 lakh in automobiles, and 0.39 lakh in gems and jewellery.
- An upward trend in employment has been continuously observed since July 2009. During the quarter July to September 2010, employment has increased in respect of all eight sectors and overall employment by 4.35 lakh. At sectoral level, the maximum increase of 2.45 lakh during the period is in textiles including apparel, followed by 1.08 lakh in IT/BPO, 0.29 lakh in automobiles, and 0.27 lakh in metals.
- In export-oriented units, overall employment has increased by 3.05 lakh whereas in non-exporting units, it has increased by 1.30 lakh during the period September 2010 over June 2010.

global financial crisis and economic slowdown on employment in India. The Quarterly Quick Employment Surveys conducted by the Labour Bureau indicate that the upward trend in employment since July 2009 has been maintained (Box.12.3).

### Socio- Economic Development: Inter State comparison

12.22 Inclusive development also includes the objective of reduction of inter-State and inter-regional disparities. The national Human Development Report 2001 of the Planning Commission had made detailed comparisons in this respect using development indicators. No such major official exercise has since been carried out, though there are many studies by different organizations. The Economic Survey 2007-08 had also made inter-State comparisons based on socio-economic indicators. The inter-State comparisons of socio-economic development of selected states based on the available indicators given in Table 12.10 show some interesting results

(Box 12.4). However, a word of caution is needed as the latest data for many of the important indicators are not available at national level.

12.23 The socio-economic performance of States has been varied. While developed states like Gujarat, Maharashtra, Karnataka, Haryana, Kerala, and Tamil Nadu have performed well in terms of many indicators, many hitherto backward states like Bihar, Orissa, and Uttarakhand are showing good growth performance and many of the backward states like Rajasthan, Uttar Pradesh, Madhya Pradesh, and Bihar are benefiting from poverty-alleviation employment schemes like the MGNREGS and NRHM.

### Poverty-alleviation and employment-generation programmes

12.24 With a view to achieving inclusive development, several poverty-alleviation and employment-generation programmes are being implemented by the Government of India. Some of the important schemes are as follows:

#### (i) *The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS):*

12.25 This flagship programme of the Government of India touches the lives of the rural poor and promotes inclusive growth. The MGNREGS 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. It also mandates 33 per cent participation for women. The primary objective of the Scheme is to augment wage employment. This is to be done while also focussing on strengthening natural resource management through works that address causes of chronic poverty like drought, deforestation, and soil erosion and thus encourage sustainable development. The MGNREG Act was notified in 200 districts in the first phase with effect from 2 February 2006 and then extended to an additional 130 districts in the financial year 2007-08. The Act has been notified throughout the country with effect from 1 April 2008. During 2009-10, 5.26 crore households were provided employment under this scheme as against more than 4.51 crore during 2008-09. During 2010-11, the budget estimate for the MGNREGS is ₹ 40,100 crore out of which ₹ 29,822.59 crore have been released to the States/ UTs till February 10, 2010.

**Box 12.4 : Socio-economic Development in Indian States****Growth related**

- The best performer in terms of growth during 2002-03 to 2008-09 was Gujarat, followed by Bihar, Orissa, Haryana, and Uttarakhand. States like Madhya Pradesh, Assam, Punjab, and Uttar Pradesh registered a relatively lower growth rate. Interestingly, the best performer in 2008-09 was Bihar with a growth rate of 16.59 per cent. While the good growth performance of some of the hitherto backward states like Bihar and Orissa is a welcome sign, this may also be partially due to the low base effect because of the growth deficit in earlier years. In fact, many states like Bihar, Chhattisgarh, Orissa, and Uttarakhand that showed high growth in 2002-03 to 2008-09, had witnessed low growth in 1994-95 to 2001-02.

**Poverty Related**

- The percentage of people below the poverty line is very high in states like Orissa, Bihar, Chhattisgarh, Jharkhand, Uttarakhand, and Madhya Pradesh, both in terms of URP and MRP. Punjab is the best performing state in terms of this indicator.
- Income inequality measured by the Gini coefficient (in rural areas) is highest in Haryana followed by Kerala, Maharashtra, Punjab, Tamil Nadu, and West Bengal. Though inequality is lowest in rural areas of Bihar and Assam, this may mean greater equality at low levels of income.
- In urban areas, income inequality is highest in Madhya Pradesh followed by West Bengal, Haryana, Karnataka, Kerala, Maharashtra, and Chhattisgarh.

**Health Related**

- Infant mortality rates (IMR) i.e. the number of infant deaths (one year of age or younger) per 1000 live births, for which relatively recent data are available, were highest in Madhya Pradesh, Orissa, Uttar Pradesh, Assam, Rajasthan, Chhattisgarh, and Bihar. Kerala was by far the best performing State, way above Tamil Nadu and Maharashtra.
- Birth rates in 2008 were lowest in Kerala, while UP had the highest rates, followed by Bihar, Madhya Pradesh, and Rajasthan.
- While death rates do not show large variation across States, the worst performer in this regard was Orissa, followed by Madhya Pradesh, Assam, and Uttar Pradesh.

**Education Related**

- Interestingly, the best performer in terms of gross enrolment ratio (GER) for elementary education was Jharkhand, followed by Madhya Pradesh, Chhattisgarh, and Gujarat and the worst performers were Haryana, Kerala, and Punjab which were the best performers in many other areas. This may be due to overage children studying in primary schools in backwards states and double entry of data in some states. GER for secondary education was highest in Himachal Pradesh, Tamil Nadu, Kerala, and Madhya Pradesh while Bihar was the worst performing State.

**MGNREGS**

- Under the Mahatma Gandhi National Rural Employment Guarantee Schemes (MGNREGS), maximum employment during 2009-10 was provided in Rajasthan followed by Andhra Pradesh, Uttar Pradesh, Madhya Pradesh, Tamil Nadu and Bihar.
- In terms of share in person days under the MGNREGS, the share of SCs was highest in Punjab followed by Tamil Nadu, Uttar Pradesh, Haryana, and Bihar, while the share of STs was highest in Madhya Pradesh followed by Jharkhand, Gujarat, and Chhattisgarh. The share of women was highest in Kerala followed by Tamil Nadu, Rajasthan, and Andhra Pradesh.

**NRHM**

- Under the National Rural Health Mission (NRHM), the maximum number of primary health centres were operating in Tamil Nadu, followed by Karnataka, Andhra Pradesh, Maharashtra, Uttar Pradesh and Bihar.

About 4.10 crore households have been provided employment during 2010-11 till December 2010. Out of the 145 crore person days created under the scheme during this period, 23 per cent and 17 per cent were accounted for by SC and ST population respectively and 50 per cent by women. Many initiatives are being taken for better and more effective implementation of the MGNREGS (Box 12.5). However, there is scope for improvements like shifting to permanent asset creation and

infrastructure building activities, reducing transaction costs, better monitoring, and extension to urban areas.

**(ii) Swarnjayanti Gram Swarozgar Yojana (SGSY)**

12.26 The SGSY is a major ongoing scheme launched in April 1999 to help poor rural families (Swarozgaris) cross the poverty line by assisting them to take up income-generating economic

Table 12.10 : Socio Economic Profile of Major States of India

Socio Economic Indicators/Items	Andhra Pradesh	Assam	Bihar	Chhattisgarh	Gujarat	Haryana	H.P.
<b>Projected Population as on 01.10. 2010 (persons in '000)</b>	84,426	30,413	97,192	24,124	58,702	25,270	6,767
<b>Growth Related (real growth rates of States-GSDP percentage at constant prices as on 26 April 2010)</b>							
2008-09	5.04	6.17	16.59	6.81	7.21***	7.92	7.44
Average 1994-95 to 2001-02	5.70	2.21	4.94	3.16	6.45	6.47	6.81
Average 2002-03 to 2008-09	8.20	5.51	9.80	9.28	11.19	9.28	7.77
<b>Poverty Related (% of population below poverty line)</b>							
*URP(2004-05)	15.8	19.7	41.4	40.9	16.8	14	10.0
*MRP(2004-05)	11.1	15	32.5	32.0	12.5	9.9	6.7
<b>Gini Coefficient(MRP-2004-05)*</b>							
Rural	0.24	0.17	0.17	0.24	0.25	0.31	0.26
Urban	0.34	0.30	0.31	0.35	0.32	0.36	0.26
<b>Health Related (Life Expectancy at Birth) (2002-06)**</b>							
Male	62.9	58.6	62.2	**	62.9	65.9	66.5
Female	65.5	59.3	60.4	**	65.2	66.3	67.3
Infant Mortality Rates (per 1000 live births) 2009	49.0	61.0	52.0	54.0	48.0	51.0	45.0
Birth Rate (per 1000) 2009	18.3	23.6	28.5	25.7	22.3	22.7	17.2
Death Rate (per 1000) 2009	7.6	8.4	7.0	8.1	6.9	6.6	7.2
<b>Education Related</b>							
GER(6-10 years) (2007-08) Total	95.5	106.1	104.4	125.5	123.0	90.4	111.7
GER(11-13 years) (2007-08) Total	77.3	91.3	46.2	89.8	78.2	75.7	114.3
GER(6-13 years) (2007-08) Total	88.3	100.4	82.6	112.2	106.0	84.8	112.7
Pupil-Teacher Ratio (2007-08) (6-10 years)	32	38	68	43	30	53	18
<b>Basic Amenities:</b>							
Percentage Share in Total Energy Consumption (GWh) by Ultimate Consumers in 2007-2008	9.73	0.51	0.88	2.11	8.81	3.64	1.00
Progress under NRHM 24 x 7 (Primary Health Centres as on 31.01.2010)	800	343	533	418	331	318	95
<b>Social Sector Schemes Related</b>							
Percentage Share in HH Provided Employment during 2009-10	11.71	4.06	7.85	3.85	3.04	0.30	0.95
Percentage Share in Employment during 2009-10 under MGNREGS of							
SCs	24.68	12.15	45.3	15.32	14.87	53.59	33.36
STs	14.71	31.02	2.16	38.2	39.46	0.01	8.70
Women	58.10	27.70	30.04	49.21	47.55	34.81	46.09

Source : Planning Commission, Office of Registrar General of India (RGI), Ministry of Human Resource Development (HRD), Ministry of Health and Family Welfare

\* MRP—Mixed recall period, \*URP—Uniform recall period, HH—household.

\*\*Data relating to Bihar, MP, and UP include Jharkhand, Chattisgarh, and Uttarakhand respectively.

activities through a mix of bank credit and government subsidy. The scheme involves selection of key activities, planning of activity clusters, organization of the poor into self-help groups (SHGs), and building of their capacities through training and skill development, creation of infrastructure, and technological and marketing support. The SGSY specially focuses on vulnerable sections among the rural poor with SCs/STs to account for at least 50

per cent and women 40 per cent of the swarozgaris. The share of minorities and disabled persons will be 15 per cent and 3 per cent respectively. Also, 15 per cent of the SGSY allocation is set apart for special projects that are implemented with different models of self-employment generation and to enhance the income-generating capacity of the rural poor. Since its inception, up to December 2010, 40.04 lakh SHGs have been formed under the SGSY, with women

Jharkhand	Karnataka	Kerala	Madhya Pradesh	Maharashtra	Orissa	Punjab	Rajasthan	Tamil Nadu	Uttar Pradesh	Uttarakhand	West Bengal	All-India
31,293	59,170	34,467	71,732	112,042	40,603	27,556	67,401	67,273	1,99,347	9,885	89,158	1,186,146
5.52	5.08	6.98	NA	NA	6.65	6.40	6.57	4.55	6.46	8.67	6.34	6.7
3.62	6.27	5.33	4.73	4.97	3.90	4.23	7.36	5.54	4.09	4.61	6.73	6.16
7.54	8.10	8.73	4.51	8.70	9.34	5.56	7.60	7.33	5.78	9.15	6.66	7.83
40.3	25	15	38.3	30.7	46.4	8.4	22.1	22.5	32.8	39.6	24.7	27.5
34.8	17.4	11.4	32.4	25.2	39.9	5.2	17.5	17.8	25.5	31.8	20.6	21.8
0.20	0.23	0.29	0.24	0.27	0.25	0.26	0.20	0.26	0.23	0.22	0.24	0.25
0.33	0.36	0.35	0.37	0.35	0.33	0.32	0.30	0.34	0.34	0.30	0.36	0.35
**	63.6	71.4	58.1	66	59.5	68.4	61.5	65.0	60.3	**	64.1	62.6
**	67.1	76.3	57.9	68.4	59.6	70.4	62.3	67.4	59.5	**	65.8	64.2
44.0	41.0	12.0	67.0	31.0	65.0	38.0	59.0	28.0	63.0	41.0	33.0	50.0
25.6	19.5	14.7	27.7	17.6	21.0	17.0	27.2	16.3	28.7	19.7	17.2	22.5
7.0	7.2	6.8	8.5	6.7	8.8	7.0	6.6	7.6	8.2	6.5	6.2	7.3
153.9	106.1	92.3	153.4	101.8	117.0	92.8	118.3	116.1	113.7	119.4	112.9	114.0
62.2	90.2	100.1	100	86.8	80.1	69.1	81.4	112.7	67.8	92.8	71.2	78.1
119.1	100	95.2	133.5	96.1	102.7	83.6	104.4	114.8	96.4	109.3	96.7	100.3
73	23	28	41	34	42	53	43	44	76	25	51	47
2.27	6.82	2.35	4.70	13.53	2.25	5.95	4.71	10.55	7.48	0.94	5.23	100
194	940	178	212	663	64	182	500	1215	648	94	168	8324
3.24	6.72	1.82	8.97	1.12	2.66	0.52	12.40	8.32	10.43	0.99	6.62	100
16.04	16.70	16.77	18.48	25.61	19.16	78.92	26.53	59.07	56.41	26.04	36.86	30.48
42.99	8.57	5.33	45.34	33.16	36.26	0.00	22.50	2.50	1.48	4.04	14.38	20.71
34.25	36.79	88.19	44.23	39.65	36.25	26.28	66.89	82.91	21.67	40.28	33.42	48.10

\*\*\* Quick estimates given in Key Statistics of Gujarat State, 2009-10, Directorate of Economics and Statistics, Government of Gujarat.

SHGs accounting for about 68 per cent of the total. During this period, a total of about 154.87 lakh swarojgaris have been assisted with bank credit and subsidy. The total investment under the SGSY is ₹ 37,927 crore, including ₹ 25,743.29 crore credit and ₹ 12,183.58 crore subsidy. Under the Special Project component of the SGSY, a placement-linked skill development programme has been taken up with the objective of helping a specific number of BPL

families cross the poverty line through regular wage employment. About 9.00 lakh rural BPL beneficiaries are to be covered through 116 projects sanctioned / approved so far with an outlay of about ₹ 1200 crore. About 2.25 lakh youth have already been trained / are under training and 1.75 lakh placed so far. A new initiative has also been taken up for setting up a Rural Self Employment Training Institute(RSETI) in each district of the country for basic and skill

### Box 12.5 : MGNREGS : Major Initiatives for Effective Implementation

Major initiatives for effective implementation of the MGNREGS are as follows:

(a) Increasing Transparency and Public Accountability:

- Social Audits: States have reported that social audits have been conducted in 93 per cent of the Districts . Around 2.41 lakh social audit reports have been uploaded on the MGNREGS website indicating verification of 45,428 lakh documents in 2009-10.
- A new scheme for monitoring by eminent citizens has been introduced whereby 61 eminent citizens have been engaged. Each has been assigned one district to provide first- hand feed-back on the implementation of the MGNREGS.
- An ombudsman has been instituted in each district for effective grievance redressal.

(b) Effective Administrative and Financial Management of the MGNREGS:

- Labour Budget: Under Section 14(6) of the NREGA, District Programme Coordinators are required to prepare labour budgets in the month of December for the next financial year containing the details of anticipated demand of unskilled manual work. The procedures and principles for labour budget have been put in place and operationalized in 2010-11. The labour budget principle ensures smooth fund flow on rational basis to the districts for implementation of the MGNREGS scheme.
- State Employment Guarantee Fund: Under Section 21(1) of the NREGA, States have been instructed to establish State Employment Guarantee Funds. The State Funds will give greater flexibility to the States in fund management for implementation of the MGNREGS. State Funds have been set up in eleven States, namely Rajasthan, Andhra Pradesh, Karnataka, Himachal Pradesh, Orissa, West Bengal, Madhya Pradesh, Uttar Pradesh, Tamil Nadu, Punjab, and Gujarat. The Central fund for the MGNREGS has been directly released to State Fund accounts of the respective States.
- Strengthening administrative support systems: Permission is given for the use of 6 per cent of the budget available for administrative expenses by the State. The Central Government has recommended for the recruitment of one Gram Rozgar Sewak Sahayak in every panchayat, one technical assistant for every five gram panchayats, at least one computer assistant per block, and one full-time dedicated programme officer in every block. This issue has been constantly monitored with States.
- Pilot Initiatives: To build on the current programme implementation and to leverage the MGNREGS for sustainable development, the Central Government has started pilot projects in Rajasthan. These initiatives include training and skill building for MGNREGS workers, basic literacy, computer and financial literacy, and facilitating wage payment through the business correspondent mode.
- Convergence: In view of the inter-sectoral linkages of the MGNREGS, the need to create durable assets, improve livelihood security, facilitate more flexibility in choice of works to suit the specific conditions of States and serve better the common target groups of certain development programmes with the MGNREGS, the Central Government has developed and disseminated convergence guidelines with different schemes and specific programmes, namely the Indian Council of Agricultural Research, National Aforestation Programme, and other schemes of the Ministry of Forest and Environment, Schemes of the Ministry of Water Resources, the PMGSY (Department of Rural Development), Swarnjayanti Gram Swarozgar Yojana (SGSY) (Department of Rural Development), Watershed Development Programmes (Department of Land Resources, Ministry of Rural Development) , Ministry of Agriculture and Fisheries, and schemes of the Ministry of Agriculture. Convergence pilot projects have been taken up in 115 districts and 23 States across India. State-level reviews and field visits are being undertaken to monitor these initiatives. The National Institute of Rural Development (NIRD) and independent agencies are closely monitoring the convergence projects.

development training of rural BPL youth to enable them to undertake micro-enterprises and wage employment. The Government has approved 215 RSETIs out of which funds have been released to 149. During 2009-10, approximately 77,000 rural youth (including 54,000 BPL youth) were trained in 99 RSETIs functioning in the country

#### *(iii) Swarna Jayanti Shahari Rozgar Yojana (SJSRY)*

12.27 The SJSRY launched by the Government of India in December 1997 has been revamped with effect from April 2009. The scheme provides gainful

employment to the urban unemployed and underemployed through encouraging the setting up of self-employment ventures or provision of wage employment. The revamped scheme has the following five components: (i) Urban Self Employment Programme (USEP) (ii) Urban Women Self-help Programme (UWSP) (iii) Skill Training for Employment Promotion amongst Urban Poor (STEP-UP) (iv) Urban Wage Employment Programme (UWEP), and (v) Urban Community Development Network (UCDN). The annual budgetary provision under the SJSRY for the year 2010-11 is ₹ 589.68 crore of which ₹ 427.91 crore had been released by

31 December 2010. A total of 6,80,325 beneficiaries have been benefited upto 31 December 2010.

### Social Protection Programmes

12.28 Keeping in view the importance of the informal sector's share in the total work-force, the Government has been focusing on expanding the coverage of social security schemes so as to provide a minimum level of social protection to workers in the unorganized sector and to ensure inclusive development (Box. 12.6).

### Rural Infrastructure and Development

12.29 The Government of India has accorded highest priority to building rural infrastructure with the objective of facilitating a higher degree of rural-urban integration and for achieving an even pattern of growth for the poor and disadvantaged sections of society. Some of the initiatives taken by the Government to facilitate building of rural infrastructure and development include the PMGSY, Bharat Nirman, Total Sanitation Campaign, and NRHM.

### Bharat Nirman

12.30 This programme, launched in 2005-06 for building infrastructure and basic amenities in rural

areas, has six components, namely rural housing, irrigation potential, drinking water, rural roads, electrification, and rural telephony. It is an important initiative for reducing the gap between rural and urban areas and improving the quality of life of people in rural areas.

12.31 Rural Roads have been identified as one of the six components of Bharat Nirman and a goal has been set to provide connectivity to all villages with a population of 1000 (500 in hilly or tribal areas) with all-weather roads. New connectivity is proposed to be provided to a total of 54,648 habitations under Bharat Nirman. This will involve construction of 1,46,184 km of rural roads. In addition to new connectivity, Bharat Nirman envisages upgradation /renewal of 1,94,130 km of existing rural roads. Under the rural roads component of Bharat Nirman, 38,575 habitations have been provided all-weather road connectivity up to December 2010 and projects for connecting 14,995 habitations are at different stages of implementation. During 2010-11, over 28,963 km of all-weather roads has been completed up to December 2010. New connectivity has been provided to nearly 3949 habitations with an expenditure of ₹ 9677 crore under PMGSY.

### Box 12.6 : Some Important Social Protection measures taken by the Government

**Aam Admi Bima Yojana (AABY):** Under this scheme launched on 2 October 2007, insurance is provided against natural as well as accidental and partial /permanent disability of the head of the family of rural landless households in the country. Up to July 2010, the scheme has covered 1.45 crore lives.

**Rashtriya Swasthya Bima Yojana (RSBY):** The RSBY was launched on 1 October 2007 to provide smart card-based cashless health insurance cover of ₹ 30,000 per family per annum to BPL families (a unit of five) in the unorganized sector. The scheme became operational from 1 April 2008. The premium is shared on 75:25 basis by the Centre and State Governments. In the case of States of the north-east region and Jammu and Kashmir, the premium is shared on 90:10 basis. The scheme provides for smart card portability by splitting the card value for migrant workers. Till 31 January 2011, 27 States and Union Territories have initiated the process of implementing the scheme. Out of these 27 States/UTs, 25 States/UTs have started issuing smart cards and more than 2.26 crore smart cards have been issued.

**The Unorganized Workers' Social Security Act 2008:** The Act came into force from 16 May 2009 with the objective of providing social security to unorganized workers. The Unorganized Workers' Social Security Rules, 2009 have also been framed. The Act provides for constitution of the National Social Security Board and State Social Security Boards which will recommend social security schemes for unorganized workers. The National Social Security Board has since been constituted. As part of its mandate, the National Social Security Board constituted a Sub-Committee of the Board to explore the extension of social security schemes to unorganized workers. Subsequently, the Board recommended that social security schemes, namely the RSBY providing health insurance, Janashree Bima Yojana (JBY) providing death and disability cover, and Indira Gandhi National Old Age Pension Scheme (IGNOAPS) providing old age pension, may be extended to building and other construction workers, MGNREGA workers, Asha workers, Anganwadi workers and helpers, porters/coolies/gangmen, and casual and daily wagers.

**Bilateral Social Security Agreements:** Bilateral social security agreements have been signed with Belgium, Switzerland, the Netherlands, and Denmark to protect the interests of expatriate workers and companies on a reciprocal basis. Negotiations for a similar agreement have been completed with Norway. These agreements help workers by providing exemption from social security contribution in case of posting, totalization of contribution period, and exportability of pension in case of relocation to the home country or any third country.

## Rural Drinking Water

12.32 Supply of safe drinking water in uncovered, slipped back and quality-affected habitations is one of the components of Bharat Nirman. Habitations with arsenic and fluoride content in water have been accorded highest priority followed by those with iron, salt, and nitrate content. Expenditure for drinking water supply during the Bharat Nirman period increased considerably from ₹ 4098 crore in 2005-06 to ₹ 7989.72 crore in 2009-10. In order to give effect to the policy initiatives mentioned in the Eleventh Five Year Plan document, the guidelines for the rural water supply programme have been revised. The revised programme called the National Rural Drinking Water Programme (NRDWP) has a budgetary provision of ₹ 9000 crore for 2010-11 against which ₹ 7103.56 crore has been utilized so far. Considering the importance of the Bharat Nirman Programme and its implementation status at the end of 2008-09, the Government has extended Phase II of the programme up to 2012. The implementation status of the NRDWP under Bharat Nirman Phase II shows that against a physical target of 76,316 habitations to be covered up to 2010-11, a total of 43,193 habitations have been covered as on 31 December 2010 (Table 12.11). All the uncovered and quality-affected habitations that may still be uncovered by the end of 2010-11 are targeted to be covered during 2011-12.

## Rural Sanitation: Total Sanitation Campaign (TSC)

12.33 The TSC is one of the flagship programmes of the Government of India. The TSC follows a community-led and people-centred approach. It places emphasis on information, education, and communication (IEC) for demand generation for sanitation facilities. It also places emphasis on school sanitation and hygiene education (SSHE)

for changing the behaviour of people from a young age. The components of the TSC include start-up activities, IEC, individual household latrines (IHHL), community sanitary complexes (CSC), SSHE, Anganwadi toilets, alternate delivery mechanism, in the form of rural sanitary marts (RSMs) and production centres (PCs), and administrative charges. The component of solid/liquid waste disposal in villages was included in TSC projects in 2006, providing up to 10 per cent of each district project cost. A total of 607 TSC projects have been sanctioned so far in rural districts of the country at a total outlay of ₹ 20,024 crore, with a Central share of ₹ 13,026 crore. The annual budgetary support for the TSC has gradually been increased from ₹ 202 crore in 2003-04 to ₹ 1580 crore in 2010-11. With the scaling up of the TSC, combined with higher resource allocation, the implementation of the programme has resulted in substantial increase in rural sanitation coverage from 21.9 per cent in 2001 to about 67.86 per cent as on November 2010.

12.34 The Nirmal Gram Puraskar (NGP) incentive scheme has been launched to encourage Panchayati Raj institutions (PRIs) to take up sanitation promotion. The award is given to those PRIs which attain 100 per cent 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 sanitation to pick up. Each gram panchayat getting the NGP has a ripple effect on the surrounding villages, a movement sustained by active people's participation. The Nirmal Gram Puraskar has ignited the imagination of Panchayat leaders throughout the country and made them champions of sanitation. Under the NGP, a total of 22,443 gram panchayats, 165 intermediate panchayats, and 10 district panchayats have received the award in the last five

**12.11 : Status of NRDWP under Bharat Nirman Phase II as on December 31, 2010**

Components	Total Rural Habitations	Balance Remaining as on 1 April	Target (2009-10 and 2010-11)	Cumulative Achievement during Bharat Nirman Phase II (2009-10 and 2010-11 (till 31 Dec. 2010)
Uncovered habitations		627	627	544
Quality affected habitations		1,79,999	75,689	43,193
<b>Total</b>	<b>16,61,073</b>	<b>1,80,626</b>	<b>76,316</b>	<b>43,737</b>

years. Sikkim has become the first 'Nirmal State' in the country.

### Urban Infrastructure, Housing, and Sanitation

12.35 The Government of India is playing an important role in shaping policies and programmes related to urban infrastructure, housing, and sanitation in the country as a whole. Apart from deciding national policy issues, the Central Government is also allocating resources to State Governments through various centrally sponsored schemes and providing finances through national financial institutions in the country as a whole. Some of the initiatives taken by the Government in this area are as follows:

#### *Jawahar Lal Nehru National Urban Renewal Mission (JNNURM)*

12.36 The JNNURM, a seven year programme launched in December 2005, provides financial assistance to cities for infrastructure, housing development, and capacity development. Two of its four components-Basic Services to the Urban Poor (BSUP) for 65 select cities and Integrated Housing and Slum Development Programme (IHSDP) for other cities and towns--are devoted to shelter and basic service needs of the poor. The JNNURM also emphasizes the implementation of the following three mandatory pro-poor key reforms to enhance the capacity of urban local bodies (ULBs) - (i) internal earmarking within local body budgets for basic services to the urban poor;(ii) earmarking at least 20-25 per cent of developed land in all housing projects (both public and private agencies) for the economically weaker section (EWS)/lower income group (LIG) category; (iii) implementation of seven-point charter for provision of seven basic entitlements/services. As the first national flagship programme for urbanization, the JNNURM has significantly triggered the creation of many innovative ideas in States that will increase their ability to maintain the momentum of the urban transformation they have initiated. More than 1.5 million houses have been sanctioned by 8 February 2011 and 1456 projects with an outlay of more than ₹ 37,771.30 crore have been approved with a committed Central share of ₹ 20,787.90 crore (89.6 per cent of seven-year allocation for 2005-12). Additional Central assistance of ₹ 10,013.37 crore has been released. While all States are covered under the BSUP, all States and UTs except Goa and UT of Lakshadweep have been covered under the IHSDP.

### Affordable Housing in Partnership (AHIP)

12.37 The Government has launched the AHIP scheme with an outlay of ₹ 5000 crore for construction of one million houses for the EWS/LIG/ middle income group (MIG) with at least 25 per cent for the EWS category. The scheme aims at partnership between various agencies/ Government/ parastatals/ ULBs/ developers for realizing the goal of affordable housing for all.

### Rajiv Awas Yojana (RAY)

12.38 The Government has announced the vision of a 'slum-free India' through a new scheme, the Rajiv Awas Yojana. Subsequent to this announcement, extensive consultations have been held with various Ministries, experts, state Governments, non-governmental organizations (NGOs), financial and urban experts, and private industry to frame the guidelines. These draft guidelines have been critically appraised by an expert committee. The preparatory phase of RAY, called the Slum Free City Planning Scheme has been implemented. Under this scheme an amount of ₹ 60 crore has been released to States for undertaking slum surveys, mapping of slums, developing slum information systems, undertaking community mobilization, preparation of slum-free city/ State plans, etc. before seeking support under RAY. A budgetary allocation of ₹ 1270 crore has been made for the preparatory phase of RAY for the year 2010-11.

### Skill Development

12.39 As mentioned in the Economic Survey 2009-10, a three-tier structure for coordinated action on skill development has been set up. The three-tier structure consists of (i) the Prime Minister's National Council on Skill Development, (ii) the National Skill Development Coordination Board (NSDCB), and (iii) the National Skill Development Corporation (NSDC). The Prime Minister's National Council has outlined the core operating principles which, inter alia, advocate the need for co-created solutions for skill development based on partnerships between States, civil society, and community leaders. The emphasis is on making skills bankable for all sections of society including the poorest of the poor. The issue of optimum utilization of existing infrastructure available in the States and using the same for skill training is also emphasized. By the end December 2010, 28 States and five Union Territories had set up Skill Development Missions. As a next step, all these States/UTs need to assess the skill gaps in the major

sectors and formulate action plans for bridging them. The NSDC, set up on 31 July 2008 as a non-profit public-private partnership (PPP) in skill development for co-coordinating/ stimulating private-sector initiatives, has been mandated to achieve the target of creation of skilled workforce of 150 million persons by 2022 under the National Skill Development Policy. As a first step towards achieving the target, a comprehensive skill gap study for 21 high-growth sectors has been completed in order to build a baseline for formulation of a comprehensive strategy. This has generated a lot of interest in private sector in investing in skill development. The corporation has developed a strong governance structure for the disbursement of funds. So far 22 projects have been approved by the NSDC. This will result in creation of 38.59 million skilled workforce over a period of 10 years. The contribution of the NSDC in the form of equity/loan/grant for the 22 projects is ₹ 607.56 crore. Out of the 22 projects, two that had the mandate to create a skilled workforce of 1.018 million over 10 years were approved in 2009-10 with a total contribution of ₹ 35.68 crore from the NSDC.

### Unique Identification Authority of India (UIDAI)

12.40 Significant progress has been made since the UIDAI was created through a notification issued by the Government in January 2009. Phase II of the UIDAI now referred to as the Aadhaar programme has commenced with an allocation of ₹ 3023.01 crore in July 2010 for enrolling 10 crore residents through multiple registrars and for setting up of other infrastructural requirements for the project phase of five years ending March 2014. The scheme was formally launched on 29 September 2010 at Thembali village of Nandurbar district in Maharashtra when all the residents in the village were enrolled making it the first 'Aadhaar Gaon'. All the 35 States and UTs have signed a memorandum of understanding (MoU) with the UIDAI. MoUs have also been signed with the Ministry of Human Resource Development, Ministry of Rural Development, Ministry of Petroleum and Natural Gas, Department of Posts, 23 public-sector banks, the Life Insurance Corporation of India, Indira Gandhi National Open University, and the National Coalition of Organizations for Security of Migrant workers.

12.41 The UIDAI is partnering with financial institutions to both augment enrolments through them and to provide bank accounts to residents during Aadhaar enrolment. Enrolment statistics indicate that

about 80 per cent of residents have given consent for opening bank accounts during enrolment. In order to simplify the process of opening Aadhaar-enabled bank accounts for the marginalized population, the Aadhaar-based Know Your Resident (KYR) leading to issue of Aadhaar numbers has been accepted as equivalent to banks' Know Your Customer (KYC) norms. Further, the Aadhaar letter has been declared an officially valid document for opening of bank accounts by the Government in December 2010. The UIDAI is also working towards linking MNREGS payments with the Aadhaar number of the resident and routing the payments through his/her Aadhaar-enabled bank account. The stage is now set for realizing the service-delivery potential of Aadhaar. In addition to help in cleaning up databases by ensuring that there are no duplicates and fakes, Aadhaar can help in better targeting and delivery of services and reducing the cost of delivery. Transformation in the delivery of services is expected through the use of Aadhaar authentication services.

### Education

12.42 India is a nation of young people. Out of a population of above 1.1 billion, 672 million people are in the age group 15 to 59 years, which is usually treated as the 'working-age population'. It is predicted that India will see a sharp decline in the dependency ratio over the next 30 years, which will constitute a major 'demographic dividend' for India. But this advantage can only be realized if it is supplemented with skill enhancement of the young through the medium of education. In the year 2001, 11 per cent of the population of the country was in age group 18-24 years and this is expected to rise to 12 per cent by the end of the Eleventh Five Year Plan. This young population should be considered as a valuable asset which, if well equipped with education and skills, can contribute effectively to the development of the national as well as global economy.

### Right of Children to Free and Compulsory Education Act 2009 (RTE Act)

12.43 Free education for all children between the age of 6 and 14 years has been made a fundamental right under the RTE Act 2009. While the RTE Act was notified on 27 August 2009 for general information, the notification for enforcing the provisions of the Act with effect from 1 April 2010 was issued on 16 February 2010. The Ministry of HRD had set up a committee to identify Sarva Shiksha Abhiyan (SSA) norms that require to be brought in conformity with RTE norms and standards,

including, for example, pupil-teacher ratio and teacher-classroom ratio. On the basis of the recommendation of this committee, SSA norms have been modified to align them with the requirement of the RTE Act 2009. The main changes made in the norms relate to opening of new primary and upper primary schools as per neighborhood norms, upgradation of all alternate schooling facilities provided through centres under the Education Guarantee Scheme (EGS), revised pupil-teacher ratio (PTR) norms, provision of special training for out-of-school and drop-out children to facilitate age-appropriate admission, provision of grant and teaching learning equipment to facilitate States to merge Classes V and VIII in primary and upper primary cycle stage and approval of additional 1073 Kasturba Gandhi Balika Vidyalayas (KGBVs) for educationally backward blocks (EBBs).

### Elementary and Secondary Education Schemes

12.44 Several initiatives have been undertaken by the Government in the field of elementary and secondary education in recent years. Some of the important schemes are as follows:

- **The Sarva Shiksha Abhiyan SSA :** The programme is being implemented in partnership with the States to address the needs of children in the age group of 6-14. The goals of the SSA inter alia include enrolment of all children in school, education guarantee centres (EGCs), alternate schools, 'back-to-school' camp, retention of all children till the upper primary stage by 2010, bridging of gender and social category gaps in enrolment with retention and learning, and ensuring that there is significant enhancement in the learning achievement levels of children at the primary and upper primary stages. The achievements under the SSA till September 2010 include opening of 309,727 new schools, construction of 254,935 school buildings, construction of 1,166,868 additional classrooms, 190,961 drinking water facilities, construction of 347,857 toilets, supply of free textbooks to 8.70 crore children, and appointment of 11.13 lakh teachers. Moreover, around 14.02 lakh teachers have received in-service training under this programme. There has been significant reduction in the number of out-of-school children on account of SSA interventions. An independent study states that the number of out-of-school children has come
- down from 134.6 lakh in 2005 to 81.5 lakh in 2009.
- **Kasturba Gandhi Balika Vidyalayas (KGBVs):** The KGBV is a scheme for setting up residential schools at upper primary level for girls belonging predominantly to the SC/ ST, OBC, and minority communities. The scheme is being implemented in the EBBs where rural female literacy is below 30 per cent and in select urban areas where female literacy is below the national average. The KGBV scheme was merged with the (SSA) with effect from 1 April 2007. The scheme provides for minimum reservation of 75 per cent of the seats for girls belonging to SCs, STs, OBCs or minority communities and priority for the remaining 25 per cent to girls from BPL families. The scheme is being implemented in 27 States. The Government of India has sanctioned 2573 KGBVs up to 31 March 2010 and 2565 KGBVs are reported to be functional in the states. A total of 2,38,600 girls were enrolled in KGBVs with SC and ST girls accounting for 27.14 per cent and 28.67 per cent respectively. While the shares of OBC girls and BPL girls stood at 26.84 per cent and 9.19 per cent respectively, minority girls accounted for 8.17 per cent.
- **National Programme for Education of Girls at Elementary Level (NPEGEL):** The NPEGEL, is a focused intervention of the Government of India to reach the 'Hardest to Reach' girls. It is an important component of the SSA, which provides additional support for enhancing girl's education over and above the normal SSA interventions. The programme provides for setting up of a 'model school' in every cluster with more intense community mobilization and supervision of girls' enrolment in schools. Gender sensitisation of teachers, development of gender-sensitive learning materials, and provision of need-based incentives like escorts, stationery, workbooks, and uniforms are some of the endeavours under the programme. The scheme is being implemented in the EBBs where the level of rural female literacy is less than the national average and gender gap is above the national average; in blocks of districts which are not covered under EBBs but where at least 5 per cent of population is SC/ST and where SC/ST female literacy is below 10 per cent; and also in select urban slums. About 3286 educationally backward blocks are

covered under the scheme in 25 eligible States.

- **National Programme of Midday Meals in schools:** Under the National Programme of Midday Meals in schools, cooked mid-day meal is provided to all the children attending Classes I-VIII in Government, local body, Government-aided and National Child Labour Project schools. EGCs/alternate and innovative education centres including madaras/maqtabs supported under the SSA across the country are also covered under this programme. At present the cooked midday meal provides an energy content of 450 calories and protein content of 12 grams at primary stage and an energy content of 700 calories and protein content of 20 grams at upper primary stage. Adequate quantity of micro-nutrients like iron, folic acid and vitamin A are also recommended for convergence with the NRHM. During 2009-10, the budget allocation under this program was ₹ 7359.15 crore against which the total expenditure incurred was ₹ 6937.79 crore. A total number of 11.04 crore children (7.85 crore in primary and 3.19 crore in upper primary stages) have been benefitted under the programme during 2009-10.
- **Rashtriya Madhyamik Shiksha Abhiyan (RMSA):** The RMSA was launched in March 2009 with the objective of enhancing access to secondary education and improving its quality. The implementation of the scheme started from 2009-10. It envisages raising the enrolment rate at secondary stage from 52.26 per cent in 2005-06 to 75 per cent within five years by providing a secondary school within reasonable distance of any habitation. The other objectives include improving quality of education imparted at secondary level by ensuring that all secondary schools conform to prescribed norms, removing gender, socio-economic and disability barriers, providing universal access to secondary-level education by 2017, i.e. by the end of the Twelfth Five Year Plan, and achieving universal retention by 2020. The Central Government and State Government bear 75 per cent and 25 per cent of the project expenditure respectively during the Eleventh Five Year Plan. The funding pattern is in the ratio of 90:10 for the north-eastern States.
- **Inclusive Education for the Disabled at Secondary Stage (IEDSS):** The IEDSS scheme was launched in 2009-10 replacing the earlier

scheme of Integrated Education for Disabled Children (IEDC). It provides 100 per cent Central assistance for inclusive education of disabled children studying in Classes IX-XII in Government, local body, and Government-aided schools. The aim of the scheme is to facilitate continuation of education of children with special needs up to higher secondary level. The scheme provides for personal requirements of the children in the form of assistive devices, helpers, transport, hostel, learning material, scholarship for the girl child, etc up to ₹ 3000 per disabled child per annum. A budget of ₹ 70.00 crore was allocated for this scheme during 2010-11. Over 1.30 lakh disabled children are proposed to be covered with the assistance of 3000 teachers in 20,000 Government secondary and higher secondary schools in 2010-11. The scheme is extremely important as a natural corollary to the success achieved in enrolment and retention of children at elementary stage (SSA).

- **Saakshar Bharat :** In the context of the Government's overall policy aimed at empowerment of women and in recognition of the fact that literacy is a prerequisite for socio-economic development, the National Literacy Mission has been recast as 'Saakshar Bharat' with prime focus on female literacy. This flagship programme of the Government will cover all adults in the age group of 15 and above though its primary focus will be on women. Several new features have been added to the scheme and basic literacy, post literacy, and continuing education programmes, will now form a continuum, rather than sequential segments under this programme. Besides the volunteer-based mass campaign approach, provision has been made for alternative approaches to adult education. The Jan Shiksha Kendras (adult education centres-AECs) will be set up to coordinate and manage all programmes within their territorial jurisdiction. The state governments, as against the districts in the earlier versions, and Panchyati Raj institutions, along with communities, will be the valued stakeholders. The budgetary support has also been substantially enhanced. To minimize regional, social, and gender disparities, the programme in its first phase, that is during the Eleventh Plan period will remain confined to 365 districts with female adult literacy rates of 50 per cent or below as per the 2001 census.

**Box 12.7 : Main Findings of ASER 2010**

- **Enrolment :** In 2010, 96.5 per cent of children in the 6 to 14 age group in rural India are enrolled in school. While 71.1 per cent of these children are enrolled in government schools, 24.3 per cent are enrolled in private schools.
- **Out of school girls:** In 2010, 5.9 per cent of girls in the 11-14 age group are still out of school. However, this percentage has gone down as compared to 6.8 per cent in 2009. In states like Rajasthan and Uttar Pradesh this percentage remains high and shows little change since 2009 whereas in Bihar, the percentage of out of school girls and boys in all age groups has been declining steadily since 2005.
- **Rise in private school enrolment:** Enrolment in private schools in rural India increased from 21.8 per cent in 2009 to 24.3 per cent in 2010. This number has risen steadily since 2005 when it was 16.3 per cent nationally. Between 2009 and 2010, the southern states have shown a substantial increase in private school enrolments. While the percentage of children in private schools increased in southern states like Andhra Pradesh, Tamil Nadu, Karnataka and Kerala and in northern states like Punjab, enrolment remained low in Bihar, West Bengal, Jharkhand, Orissa and Tripura.
- **Increasing numbers of five year olds enrolled in school:** The percentage of five year olds enrolled in schools increased from 54.6 per cent in 2009 to 62.8 per cent in 2010. The highest increase was observed in Karnataka. Enrolment of five year olds increased substantially between 2009 and 2010 in several other states such as Punjab, Haryana, Rajasthan, Uttar Pradesh and Assam.
- **Nationally, not much change in reading ability, except in some states:** Even after five years in school, close to half of all children are not even at the level expected of them after two years in school. Only 53.4 per cent children in Std V could read a Std II level text. However, Andhra Pradesh, Gujarat, Haryana and Rajasthan saw an increase in the proportion of children in Std I who were able to recognize letters. There was also an increase in the proportion of children in Std V who could read Std II level text in Andhra Pradesh, Gujarat, Assam, Himachal Pradesh, Punjab, Uttar Pradesh and West Bengal.
- **Maths ability shows a declining trend:** On an average, there has been a decrease in children's ability to do simple mathematics. The proportion of Std I children who could recognize numbers from 1-9 declined from 69.3 per cent in 2009 to 65.8 per cent in 2010. Similarly, the proportion of children in Std III who could solve two digit subtraction problems decreased from 39 per cent to 36.5 per cent in the same period. Children in Std V who could do simple division problems also dropped from 38 per cent in 2009 to 35.9 per cent in 2010. Contrary to this trend, Punjab's performance in basic arithmetic has improved over the last few years.
- **Middle school children weak in everyday calculations:** About two thirds of all children could answer questions based on a calendar and only half could do the calculations related to area. The questions related to area seemed to be the most difficult for children to solve, even though such problems are usually found in textbooks in Std IV or V. Children in Std VIII in Kerala and Bihar solved the area related questions the best.
- **Tuition going down for private school children:** A clear decrease is seen in the incidence of tuition among children enrolled in private schools across all classes up to Std VIII. This proportion has not changed much among children enrolled in government schools, although in states like Bihar, West Bengal and Orissa, where private school enrolment is low, the proportion of children in Std V enrolled in government schools who take tuition classes is high.
- **RTE compliance:** Over 60 per cent of the 13,000 schools visited satisfied the infrastructure norms specified by the RTE. However, more than half of these schools will need more teachers. A third will need more classrooms. The all India percentage of primary schools (Std 1-4/5) with all teachers present on the day of the visit shows a consistent decrease over three years, falling from 73.7 per cent in 2007 to 69.2 per cent in 2009 and 63.4 per cent in 2010. For rural India as a whole, children's attendance shows no change over the period 2007- 2010. Attendance remained at around 73 per cent during this period. But there is considerable variation across states.

Source: ASER 2010, Press Release Dated 14 January 2010, website [http://images2.asercentre.org/aserreports/ASER\\_2010\\_PRESS\\_RELEASE.pdf](http://images2.asercentre.org/aserreports/ASER_2010_PRESS_RELEASE.pdf)

Besides, 33 districts affected by left wing extremism will also be covered, irrespective of the existing literacy rate in those districts.

12.45 The Annual Status of Education Report (ASER) by Pratham, an NGO, is an annual survey of rural children since 2005. In 2010, which is its sixth year, the ASER was conducted in 522 districts, over 14,000 villages, 300,000 households, and almost

700,000 children. Over six years, the ASER has observed a clear rise in enrolment (Box 12.7).

### Higher and Technical Education

12.46 Higher Education is of vital importance for the country, as it is a powerful tool to build a knowledge-based twenty-first century society. Improvement of access along with equity and

excellence, adoption of State-specific strategies, enhancement of the relevance of higher education through curriculum reforms, vocationalization, networking and information technology (IT), and distance education are some of the main policy initiatives in the higher education sector. The other important policy initiatives in higher education are programmes for general development of universities and colleges; special grants for the construction of hostels for women; scholarships to students; scheme to provide interest subsidy on educational loans for professional courses to ensure that nobody is denied professional education because he or she is poor; and making interventions to attract and retain teaching talent in higher and technical education. Emphasis has been laid on expansion with equity, use of information and communication technology (ICT), and promotion of quality education. Some of the major initiatives taken during the Eleventh Plan for promoting higher and technical education are as follows:

- Scheme for incentivising States for establishing new higher educational institutions/expanding existing ones: A new Scheme has been envisaged in the Eleventh Plan for providing Central assistance to State Governments in the ratio of 1:2 (1:1 for special category States) for establishing new higher educational institutions/expanding existing ones. The scheme will be taken up on a pilot basis for the remaining duration the Eleventh Plan. The physical targets for this scheme are (i) 8 new universities (including 2 in special category States), (ii) 83 new colleges, (iii) 10 new engineering colleges, and (iv) Expansion of colleges so as to achieve additional enrolment of 100,000 (one lakh) students. Priority will be given for setting up of institutions in locations predominantly inhabited by SCs/STs/ educationally backward minorities so as to address equity concerns.
  - Scheme of setting up of 374 Model Colleges: In order to remove regional imbalance, the Government has planned to set up 374 Model Degree Colleges one each in identified educationally backward districts where the GER is less than the national average. Under this scheme, the Central Government shall provide assistance to the extent of one-third of the capital cost for establishment of each college, with a limit of ₹ 2.67 crore. For special category States, the Centre's share shall be 50 per cent of the capital cost, with a limit of ₹ 4.00 crore.
- During the current financial year, 14 proposals have so far been approved and 18 are in the pipeline.
- Setting up of new Indian Institutes of Information Technology (IIITs): To address the increasing skill challenges of the Indian IT industry, the Government has approved setting up of twenty new IIITs on a PPP basis. The partners in setting up the IIITs would be the HRD Ministry, Governments of the respective States where each IIIT will be established, and industry, with the capital cost of ₹128 crore for each IIIT to be contributed in the ratio of 50:35:15 by the three partners respectively. In the north-eastern States, industry participation for capital expenditure will be kept at 7.5 per cent whereas Central and State Government participation will be 57.50 per cent and 35 per cent respectively. During the first four years of setting up of each IIIT, the Central Government will provide assistance towards recurring expenditure to the extent of ₹ 10 crore, year-wise requirement of which will vary depending on the growth of institutes and requirement of funds. The project is targeted to be completed in nine years from 2011-12 to 2019-20. In the first year, 5-10 new IIITs would be set up depending upon the response of the State Governments and private partners.
  - Establishment of institutions : The Government has approved setting up of ten new National Institutes of Technologies (NITs) in Arunachal Pradesh, Sikkim, Meghalaya, Nagaland, Manipur, Mizoram, Goa, Delhi, Uttarakhand, and Pudduchery. The Government of India has set up five Indian Institute of Science Education and Research (IISERs) at Pune, Kolkata, Mohali, Bhopal, and Thiruvananthapuram. The IISERs are envisaged to carry out research in frontier areas of science and to provide quality science education at undergraduate and postgraduate levels. All the five new IISERs have become functional. During the first four years of the Eleventh Plan, five new Indian Institutes of Management (IIMs) have already become operational and the remaining two will become operational in 2011-12. Eight new Indian Institute of Technology (IITs) and two new School of Planning and Architecture (SPAs) have also been opened in the first four years of the Eleventh Plan.
  - Reform measures in the higher and technical education Sector: The Department of Higher

**Box : 12.8 Reform Initiatives in the Higher and Technical Education Sector**

An important challenge in the higher education sector is to bring about reforms not only in the institutions of higher learning but also in the regulatory structures of the higher education system. There are also the challenges of maintaining quality and excellence while ensuring rapid expansion and attracting and retaining good faculty in adequate numbers to meet the demands of the rapidly expanding sector. The Government has accordingly taken a number of steps for reforms in the regulatory and governance structures of the higher education system. A few of these reform initiatives are as under:

- Proposal to establish an autonomous overarching authority for prescribing standards and laying down policy for higher education and research to subsume the University Grants Commission (UGC), All India Council for Technical Education (AICTE), National Council for Teacher Education (NCTE), and academic functions of other regulatory bodies in higher education.
- Proposal for prohibition and punishment of unfair practices in technical educational institutions, medical educational institutions and universities.
- Proposal for mandatory assessment and accreditation in higher education including institutions and programmes and creation of an institutional structure for the same.
- Qualifying the National Eligibility Test (NET) has been made mandatory for appointment as teacher in universities and colleges with exemption provided to those who have obtained PhD degree in accordance with the standards specified by the regulation.
- Review of performance of deserving institutions like research councils, deemed universities.

Education has initiated a number of steps for educational reforms including in regulatory and governance structures in the higher education system (Box. 12.8).

**Health**

12.47 An analysis of the performance of health delivery facilities in terms of selected indicators

suggests that significant progress has been made over the last three decades (Table 12.12).

12.48 However, despite this progress, as per HDR 2010, India fares poorly when compared to countries like China and Sri Lanka in terms of parameters like per capita expenditure on health, number of physicians/hospital beds (per 10,000 persons), and IMR. In addition, within the country, the improvement has been quite uneven across

**Table 12.12 : India — Selected health indicators**

Sl. No.	Parameter	1981	1991	Current level
1.	Crude Birth Rate (CBR) (per 1000 population)	33.9	29.5	22.5 (2009*)
2.	Crude Death Rate (CDR)(per 1000 population)	12.5	9.8	7.3 (2009*)
3.	Total Fertility Rate (TFR)(per woman)	4.5	3.6	2.6 (2008*)
4.	Maternal Mortality Rate (MMR) (per 100,000 live births)	NA	NA	254 (2004-06*)
5.	Infant Mortality Rate (IMR)(per 1000 live births):	110	80	50 (2009*)
	Male			49
	Female			52
6.	Child (0-4 years) Mortality Rate ( per 1000 children)	41.2	26.5	15.2 (2008*)
7.	Life Expectancy at Birth:	(1981-85)	(1989-93)	(2002-06)**
	Total	55.4	59.4	63.5
	Male	55.4	59.0	62.6
	Female	55.7	59.7	64.2

Source: Ministry of Health and Family Welfare.

\*Sample Registration Survey (SRS).

\*\* Abridged Life Table 2002-06, RGI India.

regions/States, gender, rural/urban areas, etc. The health system in India is a mix of the public and private sectors, with the NGO sector playing a small role. Over the last six decades, a large number of health institutions catering to the health needs of the people at primary, secondary, and tertiary levels have been set up. The country has developed a well-structured three-tier public health infrastructure, comprising community health centres (CHCs), primary health centres (PHCs), and sub-centres spread across rural and semi-urban areas as well as tertiary medical care comprising multispecialty hospitals and medical colleges located almost exclusively in the urban areas. However, the inadequate health-related infrastructure, including shortages of doctors and paramedical professionals has severely restricted the delivery of health services, particularly in rural areas. In order to bridge the gap in existing health infrastructure and to provide accessible, affordable, and equitable health care, the Government of India has launched a large number of programmes and schemes as follows:

- National Rural Health Mission (NRHM): The NRHM was launched in 2005 to provide accessible, affordable, and accountable quality health services to rural areas with emphasis on poor persons and remote areas. It is being operationalized throughout the country, with special focus on 18 states, which include 8 empowered action group States (Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Uttar Pradesh, Uttarakhand, Orissa, and Rajasthan), 8 north-eastern States, Himachal Pradesh, and Jammu and Kashmir. The NRHM aims to provide an overarching umbrella to the existing programmes of Health and Family Welfare including the Reproductive Child Health Project (RCH-II) and Malaria, Blindness, Iodine Deficiency, Filaria, Kala Azar, T.B., Leprosy and Integrated Disease Surveillance programmes by strengthening the public health delivery system at all levels. The Sub-centres, PHCs, and CHCs are being revitalized through better human resource management, including provision of additional manpower, clear quality standards, revamping of existing medical infrastructure, better community support, and through untied funds to facilitate local planning and action. Flexible, decentralized planning is the pivot on which the Mission rotates. Further, the Mission addresses the issue of health in the context of a sector-wide approach addressing sanitation and hygiene, nutrition, and safe drinking water as the basic determinants of good health. Keeping this in view, it seeks greater convergence among the related social-sector departments, namely AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homoeopathy), Women & Child Development, Sanitation, Elementary Education, Panchayati Raj, and Rural Development. The achievements under the NRHM as on September 2010 are as follows:
  - ASHAs/Link Workers: So far 8.33 lakh accredited social health activists (ASHAs) have been selected. Of these, 7.82 lakh have received training in at least the first module and 5.7 lakh have been provided with drug kits in their respective villages.
  - Addition of Human Resources: Under the NRHM 1572 specialists, 8284 MBBS doctors, 26,734 staff nurses, 53,552 auxiliary nurse midwives (ANMs), 18,272 paramedics have been employed on contract.
  - Conversion of Health Facilities into 24 X 7: A total of 16,338 additional primary health centres (APHCs), PHCs, CHCs, and other sub-district facilities are functional on 24 x 7 basis.
  - Janani Suraksha Yojana (JSY) Beneficiaries: Over 3.4 crore women have so far been covered under the JSY.
  - Rogi Kalyan Samitis (RKSSs): Around 599 district hospitals (DHs), 4210 CHCs, 1136 other than CHC hospitals, and 17,097 PHCs have their own RKSSs with untied funds for improving quality of health services.
  - Village Health and Sanitation Committees: So far, 4.98 lakh villages (78 per cent) have their own Village Health and Sanitation Committees and each of them has been provided ₹10,000 as untied grant per year.
  - Village Health and Nutrition Days (VH& NDs): Thirty-five lakh VH& NDs in 2006-07, 49 lakh in 2007-08, 58 lakh in 2008-09, 58.7 lakh in 2009-10, and 34.6 lakh so far in 2010-11 have been observed to reach basic health services to rural areas.
  - Mobile Medical Units (MMUs): About 381 MMUs are functional under the NRHM so far.
  - AYUSH: AYUSH services have been co-located in 14,766 health facilities and 9578 AYUSH doctors and 3911 AYUSH paramedics have been added to the system.

**Table 12.13: Health Care Infrastructure**

Facilities	No.
Sub-centre /PHC/CHC*(2009)	1,73,795
Dispensaries and Hospitals (all) **	35,071
Nursing personnel (2009)**	16,52,161
Doctors (modern system) (2009)**	7,57,377

Sources:\* RHS: Rural Health Statistics in India 2009.

\*\* National Health Profile, 2009.

- Programme Management Units: Under the NRHM, 627 district programme managers, 618 district accounts managers, 539 district data managers, 635 district programme management units (DPMUs), 3529 block managers, 3261 accountants, and 3529 Block PMUs have been added.
- Strengthening of primary health infrastructure and improving service delivery: There has been a steady increase in health care infrastructure available over the Plan period ( Table 12.13). However, there is still shortage of 20,486 sub-centres, 4477 PHCs, and 2337 CHCs as per 2001 population norms. Further, almost 40 per cent of the existing health infrastructure is in rented buildings or rent-free panchayat /voluntary society buildings. Poor upkeep and maintenance and high absenteeism in rural areas are the main problems in the public-sector health delivery system. The NRHM seeks to strengthen the public health delivery system at all levels.
- Janani Suraksha Yojana (JSY): The JSY was launched with focus on demand promotion for institutional deliveries in States and regions where these are low and integrates cash assistance with delivery and post-delivery care. It targets lowering of the maternal mortality rate (MMR) by ensuring that deliveries are conducted by skilled birth attendants. The JSY scheme has shown rapid growth in the last three years, with the number of beneficiaries reaching 100.78 lakh in 2009-10. The strengthening of infrastructure, coupled with improvement in manpower and training, has resulted in significant improvement of institutional deliveries in all major states. A mid-term evaluation of the RCH II programme also confirmed the increase in the number of JSY beneficiaries. The issues of governance, transparency, and grievance redressal mechanisms are now the thrust areas for the JSY.
- Pradhan Mantri Swasthya Suraksha Yojana (PMSSY): The PMSSY has been launched with the objectives of correcting regional imbalances in the availability of affordable/reliable tertiary healthcare services and augmenting facilities for quality medical education in the country. The PMSSY has two components in its first phase. The first is the setting up of six All India Institute of Medical Sciences (AIIMS)-like institutions. The civil works related to the construction of medical colleges and hostels have commenced in all sites. The construction of residential complexes in Rishikesh and Patna is expected to be completed by March 2011 whereas in Bhopal and Bhubaneswar, it is likely to be completed by June 2011 and August 2011 respectively. As regards the work on hospital complexes, lay-out work is under way for all the institutions. The second component of the PMSSY is the upgradation of 13 existing Government medical college institutions. Civil works under this component have been completed in the medical colleges in Trivandrum, Salem, Bangalore, and Lucknow, are on the verge of completion in Hyderabad, Kolkata, Jammu, Tirupati, and Mumbai, and in Varanasi, Srinagar, Ahmadabad, and Ranchi are likely to be completed by mid-2011. In the second phase of the PMSSY, two more AIIMS-like institutions will be set up and upgradation of six more medical colleges is being taken up.
- National AIDS Control: According to recent HIV estimates based on HIV Sentinel Surveillance 2008-09, the number of people living with HIV in India in 2009 was 23.9 lakh, with an adult HIV prevalence of 0.31 per cent. The estimates highlight an overall reduction in adult HIV prevalence and HIV incidence (new infections) in India. Adult HIV prevalence at national level has declined from 0.41 per cent in 2000 to 0.31 per cent in 2009. The estimated number of new annual HIV infections has declined by more than 50 per cent over the past decade from 2.7 lakh in 2000 to 1.2 lakh in 2009. The epidemic is concentrated with high prevalence among the high risk groups (HRGs), injecting drug users (IDUs) (9.2 per cent), men who have sex with men (MSMs) (7.3 per cent), females sex workers (FSWs) (4.9 per cent), and sexually transmitted infection (STI) clinic attendees (2.5 per cent). Based on sentinel surveillance, 156 districts have been identified as category 'A' districts where prevalence of HIV among antenatal clinic attendees (proxy for general population) is more than 1 per cent; and

39 districts as category 'B' districts where prevalence amongst high risk population is greater than 5 per cent. These districts are given high priority in the implementation of the programme. The National AIDS Control Programme Phase-III (NACP-III) is being implemented for the period 2007-12 with a total outlay of ₹ 11,585 crore.

- Others : Others programmes like the Revised National TB Control Programme (RNTCP), National Vector Borne Diseases Control Programme (NVBDCP), National Programme for Control of Blindness (NPCB), and National Leprosy Eradication Programme have also been strengthened and are being implemented in a time-bound and focused manner. The Integrated Disease Surveillance Project (IDSP) has been launched with the objective of detecting and responding to early warning signals of disease outbreaks. Surveillance units have been established at all State and district headquarters. The Central Surveillance Unit of the IDSP presently receives weekly disease surveillance data from 85 per cent districts in the country, Of these, 55 per cent districts report data through portal also which is for data entry, view reports, outbreak reporting, data analysis, training modules, and resources related to disease surveillance. A total of 553 outbreaks were reported and responded to by States in 2008, 799 in 2009 and 938 in 2010 (up to December 2010).
- Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH): Mainstreaming of AYUSH in national health care delivery is an important goal under the NRHM, for which the Government has sanctioned ₹ 165.70 crore in the current financial year upto 31 January, 2011. In September 2009 a new component 'Upgradation of AYUSH Hospitals' in the States was incorporated in the existing Centrally Sponsored Scheme of Development of AYUSH Hospitals and Dispensaries. Further, in July 2010 'Upgradation of AYUSH Dispensaries' in the States has been incorporated as a new component in the existing Centrally Sponsored Scheme of development of AYUSH Hospitals and Dispensaries. The Government has already recognized Ayurveda, Yoga and Naturopathy, Unani, and Siddha as official Indian Systems of medicine. It is implementing the National Mission on Medicinal Plants which is aimed at supporting market-driven medicinal plant cultivation on private land with backward linkages for establishment of nurseries and supply of quality planting material, and forward

linkages for post-harvest management, marketing, infrastructure, certification, and crop insurance in a Mission mode. During the current financial year, 26 States have been covered and financial support of ₹ 46.41 crore was released for undertaking different activities under the scheme including cultivation of important medicinal plant species in over 24,214 hectare of land.

12.49 The demand for health services is likely to rise considerably in the future with increase in health-seeking behaviour resulting from better levels of education, income status, and urbanization. The role of the Government is critical for meeting the health-care needs of major sections of the population and to control escalation of cost of health care, while private-sector investment is crucial for satisfying the increasing demand for health services. The private sector plays a dominant role the delivery of health services in the country. The sector is predominant in medical education, training, diagnostics and technology, manufacture of pharmaceuticals, hospitals design, and construction and management of ancillary services. As per the National Commission on Macroeconomics and Health (NCMH) 2005, around 70 per cent of all hospitals and 37 per cent of total beds in the country are in the private sector.

12.50 Another important development in the Indian health-care sector has been the growing use of telemedicine. In 2001, the Indian Space Research Organization (ISRO) launched a pilot project that connects 78 hospitals in remote areas to super specialty hospitals in the cities. Telemedicine has opened up possibilities of professionals providing expert healthcare service in remote rural areas from their locations in cities. It has also opened up the possibility of patients in India availing of professional advice from physicians in the developed countries.

12.51 Human resources are the critical variable for effective provision of health care to the population. To increase human resources in medical education, the Central Government has revised the teacher-student ratio from 1:1 to 1:2 which has resulted in approximately 4000 additional postgraduate seats in various disciplines in Government medical colleges from the academic year 2010-11. Further, in order to increase the number of medical colleges and specialists, the Central Government has also relaxed the norms in respect of land requirement, bed strength, bed occupancy, maximum admission capacity, and age of teaching faculty . Besides, the

Central Government also provides financial assistance to State Government medical colleges for increasing the postgraduate seats to strengthen the existing public health delivery system. Thirty-four Government medical colleges have been approved for Central assistance during 2010-11. With the implementation of the scheme by 2011-12, approximately 4000 additional postgraduate seats would be available.

## Women and Child Development

12.52 The Government has started several schemes and initiated many new policy initiatives for the welfare and development of women and children. These include initiatives for economic and social empowerment of women and for securing gender equality in various aspects of social, economic, and political life. The scope and coverage of the schemes for women and child development has been expanding, as is reflected in the progressive increase of expenditure incurred under various plan schemes by the Government. Some of the important schemes of the Ministry are as follows:

- Integrated Child Development Services (ICDS) Scheme: This was launched in 1975 for holistic development of children below 6 years of age and for proper nutrition and health education of pregnant and lactating mothers with 33 projects and 4891 anganwadi centres (AWCs). It has been continuously expanded to uncovered areas and has now been universalized with the Government of India cumulatively approving 7076 projects and 14 lakh AWCs including 20,000 anganwadis 'on-demand'. Apart from universalizing the ICDS Scheme, the Government has taken various steps, such as revision in financial norms of existing interventions including the Supplementary Nutrition Programme (SNP), revision in nutritional and feeding norms of supplementary nutrition, and introduction of new WHO growth standards. In addition, the Government of India also introduced cost-sharing between the Centre and States from 2009-10 in the ratio of 90:10 for all components including the SNP for the north-east. This ratio will be 50:50 for the SNP and 90:10 for all other components for all States other than north-east. Alongside gradual expansion of the scheme, its budgetary allocation has also increased. The Annual Plan outlay for 2010-11 for the ICDS was ₹ 8700 crore against which an amount of ₹ 6988.88 crore has been released to States/UTs up to 31 December 2010. Of the total 7073 sanctioned ICDS projects, 6719 were operational as on 31 December 2010. Of the total 13.67 lakh sanctioned AWCs, 12.42 lakh were operational as on 31 December 2010.
- Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (RGSEAG): This scheme was launched on 19 November 2010 with the objective of empowering adolescent girls in the age group 11-18 years by bringing improvement in their nutritional and health status and upgrading various skills like home skills, life skills, and vocational skills. To start with, it will be implemented in 200 selected districts across the country on a pilot basis. RGSEAG would be implemented through State Governments / UT Administrations with 100 per cent financial assistance from the Central Government for all inputs other than nutrition provision for which 50 per cent Central assistance to states/UTs would be provided. Anganwadi centres will be the focal points for delivery of services. Nearly 100 lakh adolescent girls in 200 districts are expected to be benefited per annum under the scheme. In these 200 districts, Kishori Shakti Yojna (KSY) and the Nutrition Programme for Adolescent Girls (NPAG) have been merged in the RGSEAG. In the remaining districts, the KSY will continue as before.
- The Rajiv Gandhi National Creche Scheme for Children of Working Mothers: This scheme provides for day-care facilities to 0-6 year-old children of working mothers by opening crèches and development services, i.e., supplementary nutrition, health-care inputs like immunization, polio drops, basic health monitoring, and recreation. The combined monthly income of both the parents should not exceed ₹ 12000 for availing of the facilities. The scheme is presently being implemented through the Central Social Welfare Board (CSWB) and Indian Council for Child Welfare (ICCW). As of now 22,599 crèches are functional and the number of beneficiary children is 5,64,975. Under the revised scheme, an amount of ₹ 1.70 lakh per annum per crèche has been proposed against ₹ 42,384 per annum per crèche in the existing scheme. This will provide for better nutritional support as well as better services for children.
- Integrated Child Protection Scheme (ICPS): This scheme was launched in 2009-10 with the objective of providing a safe and secure

environment for comprehensive development of children in the country who are in need of care and protection as well as children in conflict with the law. The ICPS provides preventive and statutory care and rehabilitation services to any vulnerable child including, but not limited to, children of potentially vulnerable families and families at risk, children of socially excluded groups like migrant families, families living in extreme poverty, families subjected to or affected by discrimination and minorities, children infected and / or affected by HIV / AIDS, orphans, child drug abusers, children of substance abusers, child beggars, trafficked or sexually exploited children, children of prisoners, and street and working children. The allocation of funds under this scheme for 2010-11 is ₹ 300 crore. The Scheme is Centrally Sponsored and is being mainly implemented through State Governments / UT Administrations from 2009-10 and 33 states/UTs have signed the MOUs for implementation of this scheme. During 2010-11, ₹ 82.37 crore have been released under the scheme upto 11 February, 2011. Thirteen more States/ UTs have agreed to implement this it and are at various stage of preparation of plans including financial proposals.

- Support to Training and Employment Programme for Women (STEP) Scheme : This scheme seeks to provide updated skills and new knowledge to poor women in 10 traditional sectors for enhancing their productivity and income generation. It is being implemented through public-sector organizations, State corporations, cooperatives, federations, and registered voluntary organizations with minimum existence of three years. With a view to expanding the reach of the programme and further strengthening implementation and monitoring, the norms and parameters of this scheme have been revised in November 2009. The major changes in the norms relate to the number of beneficiaries to be covered, project duration, and per capita cost and the scheme now provides for introduction of locally appropriate sectors in consultation with State governments. The number of beneficiaries in each project may now vary from 200 to 10,000 with the funding ceiling at ₹ 16,000 per beneficiary up to a period of five years. During 2010-11, a total number of 91 STEP projects were ongoing and 196 more were under consideration at various stages as on 30 November 2010. A sum of ₹ 25 crore has been allocated in the financial year 2010-11 to achieve a target of 35,000 beneficiaries.
- Other Schemes : Some of the other schemes implemented by the Ministry of Women and Child Development, include: (i) Dhanlakshmi, which is a conditional cash transfer scheme for the girl child which was launched as a pilot project in March 2008. The objective is to encourage families to educate girl children and to prevent child marriage. The scheme provides for cash transfers to the family of a girl child on fulfilling certain specific conditionalities relating to birth and registration, immunization, and enrolment and retention in school up to Class VIII. The Scheme is being implemented in 11 blocks of seven States on pilot basis. The entire approved outlay of ₹ 5 crore for 2009-10 was released, benefiting 42,077 girls. During 2010-11, 10,384 families had been supported up to 30 September 2010. (ii) Scheme for the Welfare of Working Children in Need of Care and Protection providing for non-formal education, vocational training, etc. to working children to facilitate their entry/re-entry into mainstream education. There are 120 projects of 100 children each currently being funded under the Scheme. (iii) Bal Bandhu Scheme for protection of children in areas of civil unrest is being implemented through the National Commission for Protection of Child Rights (NCPCR) with the grant sanctioned from the Prime Minister's National Relief Fund. (iv) Swadhar scheme for providing temporary accommodation, maintenance, and rehabilitative services to women and girls rendered homeless and women in difficult circumstances (v) Short Stay Home (SSH) scheme being implemented by the Central Social Welfare Board with similar objectives/target group as in case of the Swadhar scheme. (vi) Ujjawala, a comprehensive scheme for prevention of trafficking with five specific components—prevention, rescue, rehabilitation, reintegration, and repatriation of victims—was launched on 4 December 2007. Under this scheme, 134 projects including 73 rehabilitation homes, spread over 16 States, have been sanctioned.
- Scheme for Gender Budgeting : This has been included in the Eleventh Plan. At present, 56 Ministries / Departments have set up gender budget cells and a number of Ministries / Departments have reflected allocation for women in the Gender Budget Statement of the Union Budget.
- National Mission for Empowerment of Women (NMEW) : This has been set up with a view to

empowering women socially, economically, and educationally. The Mission aims to achieve empowerment of women on all these fronts by securing convergence of schemes / programmes of different Ministries / Departments of the Government of India as well as State Governments. Alongside, the Mission shall monitor and review gender budgeting by Ministries / Departments as well as effective implementation of various laws concerning women.

- **Rashtriya Mahila Kosh (RMK) :** This was created in 1993 with a corpus fund of ₹ 31 crore. Since, its creation, the RMK has established itself as a premier micro-credit agency of the country, with its focus on poor women and their empowerment through the provision of credit for livelihood-related activities. The RMK provides micro-credit in a quasi-informal manner, lending to intermediate micro-credit organizations (IMOs) (for example NGOs/voluntary organizations, women development corporations, women's cooperative societies, and suitable Government / local bodies). The IMOs in turn lend to self-help groups (SHGs), which, in turn, lend to individual members at a rate not above the ceiling prescribed by the RMK, i.e. 18 per cent per annum on reducing balance method.

### Welfare and Development of SCs, STs, OBCs, and other weaker sections

12.53 As part of the strategy to achieve inclusive development, the Government is committed towards the economic and social empowerment and educational upliftment of socially disadvantaged groups and marginalized sections of society. Accordingly, a number of schemes and programmes are implemented by the Central Government through State Governments, UT Administrations, and NGOs. The PPP approach is also being explored for effective delivery of services with more accountability and transparency.

### Scheduled Castes (SCs)

12.54 A number of schemes are being implemented to encourage SC students to continue their studies from school to higher education level. During the year 2010-11, the physical target under the Scheme of Pre-Matric Scholarship for those students whose parents are engaged in unclean occupations was eight lakh beneficiaries/students. Against an allocation of ₹ 80 crore for 2010-11, an

amount of ₹ 51.26 crore has already been released to State Governments/UT Administrations for providing scholarships to an estimated 6.30 lakh beneficiaries up to 31 December 2010. The scheme of Post-Matric Scholarships for students belonging to SCs for studying in India has been revised with effect from 1 July 2010 so as to (i) raise the parental annual income ceiling for eligibility from ₹ one lakh to ₹ two lakh, (ii) rationalize the grouping of courses, and (iii) upwardly revise maintenance and other allowances by 60 per cent. Consequent upon the revision in the Scheme, an ad hoc Central assistance of ₹ 378 crore was released to nine States that had fulfilled the eligibility criteria up to December 2010. The number of beneficiaries during 2010-11 is estimated at 45 lakh. The Rajiv Gandhi National Fellowship Scheme was launched in 2006 to provide financial assistance to SC students pursuing M Phil and Ph D courses. The number of scholarships under the Scheme has been increased from 1333 to 2000 with effect from 1 April 2010. During 2010-11, an amount of ₹ 113 crore was released up to December 2010 against the revised allocation of ₹ 160 crore for 2000 new fellowships and 5332 renewals. The specified subjects under National Overseas Scholarships have been revised for the selection year 2010-11 and subjects, namely medicine, pure sciences, engineering, agricultural sciences and management, have been specified for providing financial assistance to pursue Masters-level courses and PhD/post-doctoral courses abroad. Thirty awards are given per year. During 2010-11, the amount released up to December 2010 was ₹ 1.92 crore against an allocation of ₹ 6 crore. The earlier Centrally sponsored scheme for hostels for SC boys and girls was revised and renamed Babu Jagjiwan Ram Chhatrawas Yojna with effect from 1 January 2008. As part of this revision, Central assistance for the construction of girls hostels was raised from 50 per cent to 100 per cent. During 2010-11, the physical target is to construct 49 hostels for girls and 59 for boys and ₹11.74 crore was released up to December 2010 against an allocation of ₹ 121 crore for construction of 12 hostels. Special Central assistance is given to the Scheduled Castes Sub Plan, a major scheme for economic advancement of SCs. During 2010-11, the physical target is to cover over 6 lakh beneficiaries. An amount of ₹ 518.69 crore was released to State Governments/UT Administrations against a revised allocation of ₹ 600 crore up to December 2010. During 2010-11, the National

Scheduled Castes Finance and Development Corporation (NSCFDC) has given concessional loans amounting to ₹ 121 crore to 33,659 beneficiaries as on 31 December 2010.

12.55 The Scheme of Top Class Education for SCs provides financial assistance for quality education to SC students up to degree/post-degree level. SC students, who secure admission in the notified institutions, are awarded scholarships. During 2010-11, the amount released up to December 2010 was ₹ 9.64 crore to assist 1036 SC students studying in institutions like IITs and IIMs against a budget allocation of ₹ 25 crore. Two new IITs (Indore and Mandi) and three new IIMs (Ranchi, Raipur, and Rohtak) have been added in the notified list of premier institutions under the Scheme with 12 scholarship slots per annum per institute, with effect from the current financial year.

### Scheduled Tribes (STs)

12.56 For the welfare and development of the STs, an outlay of ₹ 3206.50 crore has been provided in the Annual Plan for 2010-11. During 2010-11, ₹ 960.50 crore has been provided as Special Central Assistance (SCA) to the Tribal Sub-Plan (TSP), which includes ₹ 60.50 crore for development of forest villages. The SCA to TSP is a 100 per cent grant extended to States as additional funding to their TSP for family-oriented income-generating schemes, creation of incidental infrastructure, extending financial assistance to SHGs, community-based activities, and development of forest villages. The outlay for grants-in-aid under Article 275(1) during 2010-11 is ₹ 1046.00 crore. The funds are provided to States with the objectives of promoting the welfare of STs and improving administration to bring them on a par with the rest of the States and to enable them take up such special welfare and development programmes which are otherwise not included in the Plan programmes. Under the Scheme for Post-Matric Scholarships, 100 per cent financial assistance is provided to ST students whose family income is less than or equal to ₹ 1.45 lakh per annum to pursue post-matric-level education including professional and graduate and postgraduate courses in recognized institutions. The Scheme of Top Class Education for STs provides financial assistance for quality education to 625 ST students per annum to pursue studies at degree and post-degree level in any of 125 identified Institutes. The family income of the beneficiary ST student from all sources should not exceed ₹ 2 lakh per annum. Financial assistance is also provided to 15 eligible ST students for

pursuing higher studies abroad in specified fields at Masters and Ph D level under the National Overseas Scholarship Scheme.

12.57 The economic empowerment of STs by means of extension of financial support through the National Scheduled Tribes Finance and Development Corporation (NSTFDC) continued. Financial support is extended to ST beneficiaries/entrepreneurs in the form of loans and micro-credit at concessional rates of interest for income-generating activities. The Tribal Cooperative Marketing Development Federation of India Limited (TRIFED) is engaged in marketing development of tribal products and their retail marketing through its sales outlets. As per information collected from the States till 31 December 2010, more than 30,31,624 claims have been filed under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act and more than 11,06,541 titles have been distributed. Around 32,000 titles are ready for distribution. A scheme for Strengthening of Education among ST Girls in Low Literacy Districts to bridge the gap in literacy levels between the general female population and tribal women is being implemented.

### Minorities

12.58 Five communities-Muslims, Christians, Sikhs, Buddhists, and Parsis-were notified by the Government as minority communities under Section 2 (c) of the National Commission for Minorities Act 1992. As per the 2001 Census, minority communities constitute 18.42 per cent of total population. For the development of minorities, the plan outlay was raised from ₹ 1740 crore in 2009-10 to ₹ 2600 crore in 2010-11. Three scholarship schemes, namely Pre-Matric, Post-Matric, and Merit-cum-means-based, are being implemented exclusively for the minorities with the total provision enhanced from ₹ 450 crore in 2009-10 to ₹ 850 crore in 2010-11. A Multi-sectoral Development Programme to address the 'development deficits', especially in education, skill development, employment, health and sanitation, housing, and drinking water, in 90 minority concentration districts (MCDs) was launched in 2008-09. The outlay for this programme was enhanced from ₹ 990 crore in 2009-10 to ₹ 1400 crore in 2010-11. Work on implementation of this programme to improve the selected development indices in the MCDs has picked up momentum. The corpus of the Maulana Azad Education Foundation (MAEF) has been enhanced from ₹ 100 crore in 2005-06 to ₹ 550 crore in 2010-11 to expand its activities for implementation of educational schemes for

educationally backward minorities. The authorized share capital of the National Minorities Development and Finance Corporation (NMDFC) has been raised from ₹ 650 crore in 2006-07 to ₹ 1500 crore in 2010-11 for expanding its loan and micro-finance operations to promote self-employment and other economic ventures among backward sections of the minority communities. The progress of the Prime Minister's New 15 Point Programme for Welfare of Minorities is being reviewed once in six months by the Government. The programme has been enlarged by covering more schemes and its monitoring mechanism has been strengthened by including elected representatives of State Assemblies and Parliament. Two schemes, namely the (i) Maulana Azad National Fellowship for Minority Students with an allocation of ₹ 30 crore in 2010-11 and (ii) 'Computerization of Records of State Wakf Boards' with an allocation of ₹ 13 crore in 2010-11, has been under implementation since 2009-10. Another scheme, namely 'Leadership Development of Minority Women' launched in 2009-10 is also being implemented with an allocation of ₹15 crore for 2010-11. National Level Monitors have been deputed to monitor the progress of the schemes of the Ministry. Efforts are being made to improve the management of wakf properties and a scheme for the computerization of records of the Wakf Board is a step in this direction. The Wakf Amendment Bill 2010 was passed by the Lok Sabha on 7 May 2010. The Bill was referred to the Rajya Sabha on 18 May 2010. The Rajya Sabha has referred the matter to the Select Committee on 31 August 2010 to examine the Bill.

### Other Backward Classes (OBCs)

12.59 The Government provides Central Assistance to State Governments /UT Administrations for educational development of OBCs. During 2010-11, the Scheme of Pre-Matric Scholarships for OBC, proposes to provide scholarships to 14 lakh OBC students. An amount of ₹ 38.17 crore was released against an allocation of ₹ 50 crore to State Governments/UT Administrations up to December, 2010 during the year 2010-11. Under the Scheme of Post-Matric Scholarships for OBCs, it is proposed to provide scholarships to 15 lakh OBC students. An amount of ₹ 238.78 crore was released to State Governments/UT Administrations up to December 2010 against an allocation of ₹ 350 crore during the financial year 2010-11. In order to provide hostel facilities to OBC students studying in middle and secondary schools, colleges, and universities to

enable them to pursue higher studies, an amount of ₹ 7.83 crore was released up to December 2010 against an allocation of ₹ 45 crore for 5000 additional hostel seats. During 2010-11, the National Backward Class Finance and Development Corporation (NBCFDC) has given concessional loans amounting to ₹ 106 crore to 80,660 beneficiaries as on 31 December 2010.

12.60 The Central lists of backward classes have been amended vide Gazette Notification dated 18 August 2010:

- No lists had so far been notified for the States of Chhattisgarh and Jharkhand, which have been created in the year 2000. Lists have been notified for these two States for the first time, comprising 64 and 119 entries respectively.
- Twenty-six new entries have been added in the existing lists of Himachal Pradesh (2 entries) and Daman and Diu (24 entries), and
- Modifications/corrections in 26 existing entries pertaining to four States (Haryana, Himachal Pradesh, Karnataka, and Rajasthan) and one UT (Daman and Diu).

### Persons with Disabilities

12.61 A large number of programmes are implemented through national and apex institutes dealing with various categories of disabilities. These institutes conduct short- and long-term courses for various categories of personnel for providing rehabilitation services to those needing them. Under the Scheme of Assistance to the Disabled for Purchase/Fitting of Aids and Appliances (ADIP), approximately 2 lakh persons with disabilities are provided assistive devices every year. During 2010-11, ₹ 27.71 crore was released to implementing agencies up to December 2010 against a revised allocation of ₹ 90 crore under the scheme. The target is to cover 2 lakh persons with disabilities. Under the Deen Dayal Disabled Rehabilitation Scheme (DDRS), ₹ 37.64 crore has been released up to December 2010 against a revised allocation of ₹ 90 crore during 2010-11 to voluntary organizations for running special schools for children with hearing, visual, and mental disability and vocational rehabilitation centres for persons with various disabilities and for manpower development in the field of mental retardation and cerebral palsy. The targeted number of beneficiaries is 76,000. During 2010-11, the National Handicapped Finance and Development Corporation (NHFDC), has given

concessional loans amounting to ₹ 19.86 crore to 4 511 beneficiaries as on 31 December 2010.

12.62 The Scheme of Incentives to Employers in the Private Sector for Providing Employment to Persons with Disabilities was launched with effect from 1 April 2008. Under the Scheme, the Government will bear as an incentive the employer's contribution to the Employees Provident Fund and Employees State Insurance for the first three years for every employee with disabilities appointed on or after 1 April 2008 with monthly emoluments up to ₹ 25,000.

### Social Defence Sector

12.63 Under the Integrated Programme for Older Persons (IPOP) scheme, grants-in-aid are given to NGOs for running old age homes (OAH), day care centres (DCCs), and mobile medical units (MMUs). The Scheme has been revised with effect from 1 April 2008. Besides an increase in the amount of financial assistance for existing projects, several new projects have been made eligible for financial assistance under the scheme. During 2010-11, ₹ 10.18 crore was released up to December 2010 against the revised allocation of ₹ 30 crore. The scheme targets support to 0.45 lakh beneficiaries during the year. The Maintenance and Welfare of Parents and Senior Citizens Act 2007 was enacted in order to ensure need-based maintenance for parents and welfare measures for senior citizens. The Act has been notified by 22 States and all the UTs so far.

12.64 Grants-in-aid are provided to NGOs for running Integrated Rehabilitation Centres for Addicts,

Regional Resource and Training Centres, and other projects. During 2010-11, ₹ 13.50 crore has been released up to December 2010 against a revised allocation of ₹ 31 crore. The scheme aims to benefit 1.2 lakh persons. For effective implementation of social defence schemes, personnel engaged in delivery of services in this area are being trained under various programmes being organized by the National Institute of Social Defence (NISD). During 2010-11, an amount of ₹ 5 crore was released up to December 2010 to the NISD against a revised allocation of ₹ 7.50 crore.

### Environment and Climate change

12.65 Economic Development without environmental considerations can cause serious environmental damage, in turn impairing the quality of life of present and future generations. Such environmental degradation imposes a cost on the society and needs to be explicitly factored into economic planning, with necessary remedial measures incorporated. The challenge of sustainable development thus requires integration of the country's quest for economic development with its environmental concerns. Environment management in India has, over the years, recognized these sustainable development concerns. The National Environment Policy 2006 has attempted to mainstream environmental concerns in all our developmental activities. It underlines that 'while conservation of environmental resources is necessary to secure livelihoods and well being of all, the most secure basis for conservation is to ensure that people dependant on particular resources obtain better livelihoods from the fact of conservation, than from degradation of the resource'. The

#### Box : 12.9 Why Environment Matters to Achieve Sustainable Development in the Specific Context of India.

Our environmental standards are set through Government policies aimed at a development process that is environmentally sustainable and foregrounds well-being of the people. The broad objectives of our environmental policies and programmes are:

- Conservation of flora, fauna, forests, and wildlife;
- Prevention and control of pollution;
- Afforestation and regeneration of degraded areas;
- Protection of the environment.

As a country, India has been in the forefront of preserving biodiversity, sustainable management of forests, reducing emissions intensity of the economy, and following sustainable consumption and production patterns. Specifically, India has been following a development path that takes into consideration the needs of the present generation without compromising the ability of future generations to meet their needs. Suitable attention has been given to protecting and conserving critical ecological systems and resources and invaluable natural and man-made heritage, which are essential for life-support, livelihoods, economic growth, and a broad conception of human well-being. Moreover, the effort has been to ensure equitable access to environmental resources and quality for all sections of society, in particular to ensure that poor communities which are most dependent on environmental resources for their livelihoods are assured secure access to these resources.

Government of India, through its various policies, has been factoring ecological concerns into the development process so that economic development can be achieved without critically damaging the environment. The strong sustainable development agenda followed by India incorporates rigorous environmental safeguards for infrastructure projects, strengthening of the environmental governance system, revitalizing of regulatory institutions, focusing on river conservation, and efforts for improvements in air and water quality, on a continuous basis (Box 12.9).

### A few recent initiatives

12.66 The Ministry of Environment and Forests has notified the Wetlands (Conservation and Management) Rules 2010 in order to ensure that there is no further degradation of wetlands. The rules specify activities which are harmful to wetlands such as industrialization, construction, dumping of untreated waste and reclamation and prohibit these activities in the wetlands. Other activities such as harvesting and dredging may be carried out in the wetlands but only with prior permission from the concerned authorities. The National Green Tribunal (NGT) Act, 2010 came into force on 18th October, 2010. As per the provisions of the NGT Act 2010, the National Environment Appellate Authority (NEAA), established under the NEAA Act, 1997 stands dissolved and the cases pending before NEAA stand transferred to the NGT. The Act provides for the establishment of a NGT for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto. Coastal ecosystems are a critical reservoir of our biodiversity and provide protection from natural disasters such as floods and tsunamis and are a source of livelihood to hundreds of millions of families. Hence, as a major national initiative in this direction, the Coastal Regulation Zone Notification has been published in the gazette of India on 6th January, 2011. The Government of India and World Bank have signed a loan agreement for the implementation of an Integrated Coastal Zone Management Project, which will be implemented at a total cost of ₹ 1156 crore. The World Bank will contribute an amount of ₹ 897 crore (77.7 per cent), the Government of India ₹ 177 Crore (15.4 per cent), and the States ₹ 80 Crore (6.9 per cent). This project

is for a period of five years and it is estimated that it will benefit 3.56 crore people directly 6.30 crore indirectly. India has always maintained that economic and social development is its prime objective. At the same time, it has promoted clean energy solutions which include activities aimed at promotion of energy efficiency in industrial, residential and commercial use, solar power and projects that build fuel efficient transport infrastructure, clean energy hydro power plants, and efficient water supply and waste water systems. India also has programmes aimed at building a climate-resilient economy especially for helping farmers, fishing communities, and other vulnerable communities safeguard their livelihoods against the vagaries of a changing climate.

### Climate Change

12.67 Climate Change, as a global environmental problem has been receiving intense political attention at domestic and international levels. 'Climate change' means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods. Increasing levels of fossil fuel burning and land use changes have emitted, and are continuing to emit, greenhouse gases (mainly carbon dioxide [CO<sub>2</sub>], methane, and nitrous oxide) into the earth's atmosphere. This increasing level of emissions of greenhouse gases has caused a rise in the amount of heat from the sun trapped in the earth's atmosphere, heat that would normally be radiated back into space. This has led to the greenhouse effect, resulting in climate change. The major characteristics of climate change are rise in average global temperature, ice cap melting, changes in precipitation, and increase in ocean temperature. The efforts needed to address the climate change problem include mitigation of greenhouse gas emissions on the one hand and building of capacities to cope with the adverse impacts of climate change on various sectors of the society and economy on the other.

### Assessing the scale of the problem

12.68 According to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC 2007), over the century, atmospheric concentrations of carbon dioxide increased from a pre-industrial value of 278 parts per million to 379 parts per million in 2005, and the average global temperature rose by 0.740C. Projections indicate that global warming will continue and accelerate.

**Box 12.10 : World Greenhouse Gas Emissions**

While the worldwide emissions of GHGs have increased since 1945, with the largest increases taking place in carbon dioxide (CO<sub>2</sub>) emissions, scientists attribute the global problem of climate change not to the current GHG emissions but to the stock of historical GHG emissions.

Most of the countries, particularly the industrialized countries, having large current emissions, are also the largest historic emitters and the principal contributors to climate change.

A relatively small number of such countries are responsible for the largest chunk of the stock of global GHG emissions.

The industrialized countries with the largest total emissions also rank among those with the highest per capita emissions. Per capita emissions are generally higher in wealthier countries.

Thus climate change represents additional stress on ecological and socio-economic systems that are already facing tremendous pressure due to rapid economic development. With climate change, the type, frequency, and intensity of extreme events, floods, and droughts are expected to increase. Hence addressing climate change is a major challenge in terms of policies and resources needed to address it at domestic and international levels.

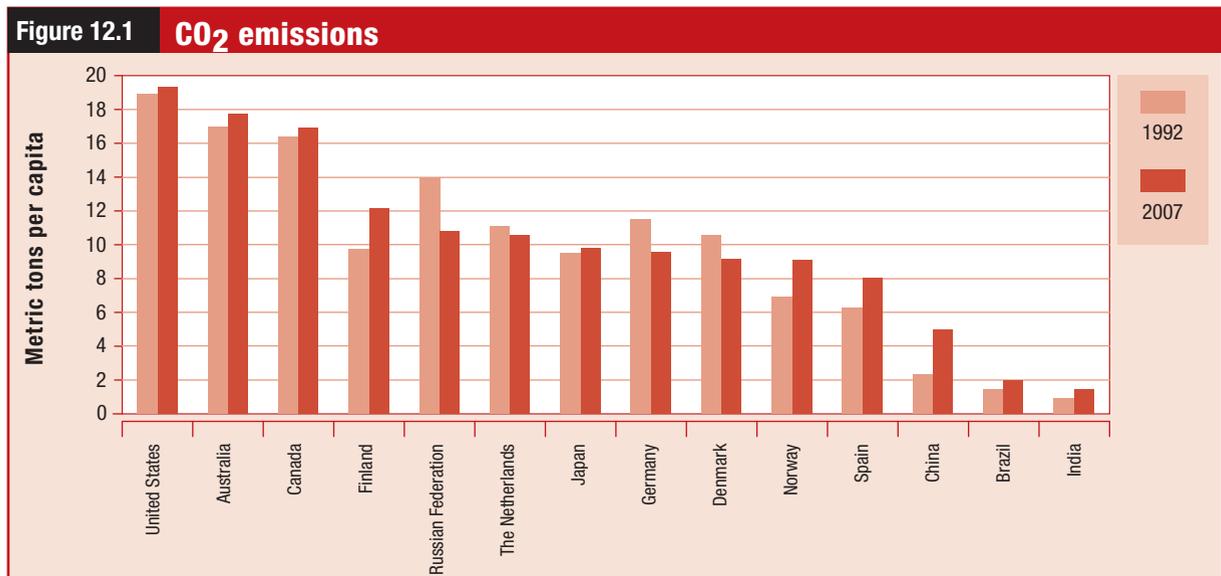
**Global Greenhouse Gas Emissions Trends**

12.69 Global Greenhouse Gas (GHG) emissions have risen sharply since 1945. As per a working paper published by the World Resources Institute, total GHGs were estimated at 44,153 MtCo<sub>2</sub> equivalents (million metric tons) in 2005. This is the most recent year for which comprehensive emissions data are available for every major gas

and sector (Box 12.10). Total global emissions grew by 12.7 per cent between 2000 and 2005, an annual average of 2.4 per cent. CO<sub>2</sub> is the predominant gas accounting for 77 per cent of world GHG emissions in 2005 followed by methane (15 per cent) and nitrous oxide (7 per cent). North America accounted for 18 per cent of world GHG emissions, China for 16 per cent, and the EU for 12 per cent in 2005. India's share stood at 4 per cent in 2005. Per capita CO<sub>2</sub> emissions of major countries are illustrated in Figure 12.1.

**International Response**

12.70 The issue of climate change is now placed firmly on national and international agendas, subject to scrutiny by public and media, and is even shaping the strategies of a number of businesses. Internationally, the United Nations Framework Convention on Climate Change (the Convention) was set up in 1992 and entered into force in 1994. This was a crucial step in putting in place the institutions and processes for the world's Governments to take coordinated and effective action. The Convention enjoins near universal membership. As on date, 194 countries are Parties to the Convention. The ultimate objective of the Convention is to stabilize the concentrations of GHGs in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. Although global in scope, it differentiated the commitments/



responsibilities of Parties on the basis of respective capabilities, economic structures, and resource bases and on the basis of the principle of 'equity' which is at the core of the climate change debate. Hence, any discussion on stabilization of the concentrations of GHGs in the atmosphere should be preceded by a paradigm for equitable access to global atmospheric resources that determines the development space of nations. The Convention lays down legally binding commitments for the developed countries, taking into account their historical responsibilities. These commitments are to be implemented in the form of reduction of GHG emissions by the developed countries with reference to 1990 levels and provision of support to developing countries in terms of finance and technology so as to enable them to take voluntary mitigation and adaptation measures. The Convention recognizes that economic and social development and poverty eradication are the 'first and overriding priorities' of the developing countries.

12.71 The Convention laid the groundwork for concerted international action, which in 1997 led to the adoption of the Kyoto Protocol containing a legally binding quantitative time-bound target for developed countries. The Kyoto Protocol set a target for developed countries (individually or jointly) to reduce overall emissions by at least 5 per cent below 1990 levels in the first commitment period, 2008 to 2012. Recognizing that relying on domestic measures alone to meet the target could be onerous, the Kyoto Protocol offers considerable flexibility through three mechanisms: Clean Development Mechanism (CDM), Joint Implementation (JI), and Emissions Trading (ET). Through the CDM, industrial countries can finance mitigation projects in developing countries contributing to their sustainable development. Credits received from such projects can be used to meet commitments under the Kyoto Protocol. Through JI, industrialized countries acquire emissions credit by financially supporting projects in other industrialized countries. ET allows countries that expect their emissions to be above target to buy unused quotas from other countries. All major countries except the USA have ratified the Kyoto Protocol.

12.72 The Conference of Parties (CoP), which is the supreme body of the Convention, meets annually. During the 13th CoP held at Bali, Indonesia, in December 2007, a comprehensive process called the Bali Action Plan to enable the full, effective, and sustained implementation of the Convention through Long Term Cooperative Action,

now, up to, and beyond 2012 was launched. Currently, international actions for addressing climate change are being pursued under the Bali Action Plan and the mandate of the Kyoto Protocol. The 15th CoP held at Copenhagen in December 2009 made some advance in the form of the 'Copenhagen Accord', which reflects the political understanding

#### Box 12.11 : Elements of the Cancun Agreements

- (i) Industrialized country targets are officially recognized under the multilateral process and these countries are to develop low-carbon development plans and strategies and assess how best to meet them, including through market mechanisms, and to report their inventories annually.
- (ii) Developing country actions to reduce emissions are officially recognized under the multilateral process. A registry is to be set up to record and match developing country mitigation actions to finance and technology support from by industrialized countries. Developing countries are to publish progress reports every two years.
- (iii) Parties meeting under the Kyoto Protocol agree to continue negotiations with the aim of completing their work and ensuring there is no gap between the first and second commitment periods of the treaty.
- (iv) The Kyoto Protocol's CDM has been strengthened to drive more major investments and technology into environmentally sound and sustainable emission reduction projects in the developing world.
- (v) Parties launched a set of initiatives and institutions to protect the vulnerable from climate change and to deploy the money and technology that developing countries need to plan and build their own sustainable futures.
- (vi) A total of \$30 billion in fast start finance from industrialized countries to support climate action in the developing world up to 2012 and the intention to raise \$100 billion in long-term funds by 2020 are included in the decisions.
- (vii) In the field of climate finance, a process to design a 'Green Climate Fund' under the Conference of the Parties, with a Board with equal representation from developed and developing countries, is established.
- (viii) A new Cancun Adaptation Framework is established to allow better planning and implementation of adaptation projects in developing countries through increased financial and technical support, including a clear process for continuing work on loss and damage.
- (ix) Governments agree to boost action to curb emissions from deforestation and forest degradation in developing countries with technological and financial support.
- (x) Parties have established a technology mechanism with a Technology Executive Committee and Climate Technology Centre and Network to increase technology cooperation to support action on adaptation and mitigation.

reached by a select group of countries. However, this was only 'noted' and not adopted by the Parties to the Convention. The recent negotiations held at Cancun during 29 November - 11 December 2010 have resulted in a set of decisions that cover various areas of action, for example mitigation, adaptation, technology and finance as outlined in the Bali Action Plan, while agreeing to work towards an ambitious target of emissions reduction under the Kyoto Protocol. The Cancun Agreements include decisions under both the Convention and Kyoto protocol negotiating tracks (Box 12.11). They are widely perceived as a modest, small step forward and a reaffirmation of faith in the multilateral process. As per the Cancun Agreements, all Parties to the Convention (including the developed and developing countries) have agreed to report their voluntary mitigation goals for implementation. These will be subject to measurement and verification or international consultation, as appropriate, in accordance with agreed international guidelines. Decisions were taken at Cancun to set up a Green Climate Fund, a Technology Mechanism, and an Adaptation Committee at global level to support developing country actions for adaptation and mitigation. These decisions are significant because they reflect, to a large degree, the political understanding that was reached by a select group of countries in the form of the Copenhagen Accord in December 2009.

**Table 12.14 : A Comparison of GHG Emissions by Sector between 1994 and 2007**

(in million tons of CO<sub>2</sub> equivalent)

	1994	2007	CAGR (per cent)
Electricity	355.03 (28.4)	719.30 (37.8)	5.6
Transport	80.28 (6.4)	142.04 (7.5)	4.5
Residential	78.89 (6.3)	137.84 (7.2)	4.4
Other Energy	78.93 (6.3)	100.87 (5.3)	1.9
Cement	60.87 (4.9)	129.92 (6.8)	6.0
Iron & Steel	90.53 (7.2)	117.32 (6.2)	2.0
Other Industry	125.41 (10.0)	165.31 (8.7)	2.2
Agriculture	344.48 (27.6)	334.41 (17.6)	-0.2
Waste	23.23 (1.9)	57.73 (3.0)	7.3
Total without LULUCF	1251.95	1904.73	3.3
LULUCF	14.29	-177.03	
<b>Total with LULUCF</b>	<b>1228.54</b>	<b>1727.71</b>	<b>2.9</b>

**Note:** Figures in brackets indicate percentage emissions from each sector with respect to total GHG emissions without LULUCF in 1994 and 2007 respectively.

## India's Greenhouse Emissions

12.73 Although India ranks in the top five in terms of GHG emissions, the per capita emissions are much lower compared to those of the developed countries, even if the historical emissions are excluded. Its high level of emissions is due to large populace, geographical size and large economy. The most recent data available for India are the assessment carried out by the Indian Network for Climate Change Assessment (INCCA) in May 2010. The key results of the assessment are that the total net GHG emissions from India in 2007 were 1727.71 million tons of CO<sub>2</sub> equivalent (eq.), of which carbon dioxide emissions were 1221.76 million tons; methane 20.56 million tons; and nitrous oxide 0.24 million tons. In 1994, the total net GHG emissions for India were 1228.54 million tons of CO<sub>2</sub> eq. This represents a compounded annual growth rate of 2.9 per cent during the period 1994 to 2007 (Table 12.14). GHG emissions from the energy, industry, agriculture, and waste sectors in 2007 constituted 58 per cent, 22 per cent, 17 per cent, and 3 per cent of the net CO<sub>2</sub> eq. emissions respectively. India's per capita CO<sub>2</sub> eq. emissions including land use, land use change, and forestry (LULUCF) were 1.5 tons per capita in 2007.

## Impacts of Climate Change in India

12.74 Climate change has enormous implications for the natural resources and livelihoods of the people. It will have wide-ranging effects on the environmental and socio-economic and related sectors. Various studies indicate that the key sectors

### Box 12.12 : Why India is concerned about climate change.

India is a country which will be severely impacted by climate change. This puts additional hurdles in its developmental path in addition to the challenges of poverty eradication and growing population. The projected impacts of climate change cut across various sectors, natural systems such as coastal areas, water resources, forests, agriculture, and health. With a large agrarian population, India is vulnerable to changes in weather parameters. Further, rainfall, variability and melting of glaciers will impact replenishment of rivers, thereby affecting availability of water in river basins and watersheds. In India, most of the rivers flowing in the northern regions are dependent on snow and glacial melt, thus climate change threatens the perennial nature of these rivers. This has huge implications for agriculture and allied activities and resultant livelihoods. This is a serious concern for an economy that is tied to its natural resource base along its developmental path.

in India such as the agriculture, water, natural ecosystem, biodiversity, and health are vulnerable to climate change (Box 12.12). This is happening precisely at a time when it is confronted with huge development imperatives. The Indian Network for Climate Change Assessment (INCCA) released a report in November 2010 on assessment of the impact of climate change on key sectors and regions of India in the 2030s. The assessment covers four key sectors of the Indian economy, namely agriculture, water, natural ecosystems and biodiversity, and health in four climate sensitive regions, namely the Himalayan region, the Western Ghats, the Coastal Area, and the North-east region. The report warns of impacts such as sea-level rise, increase in cyclonic intensity, reduced crop yield in rainfed crops, stress on livestock, reduction in milk productivity, increased flooding, and spread of malaria. This calls for urgency of action in reducing vulnerability to adverse impacts of climate change and enhancing adaptive capacity through sector-specific interventions and efforts.

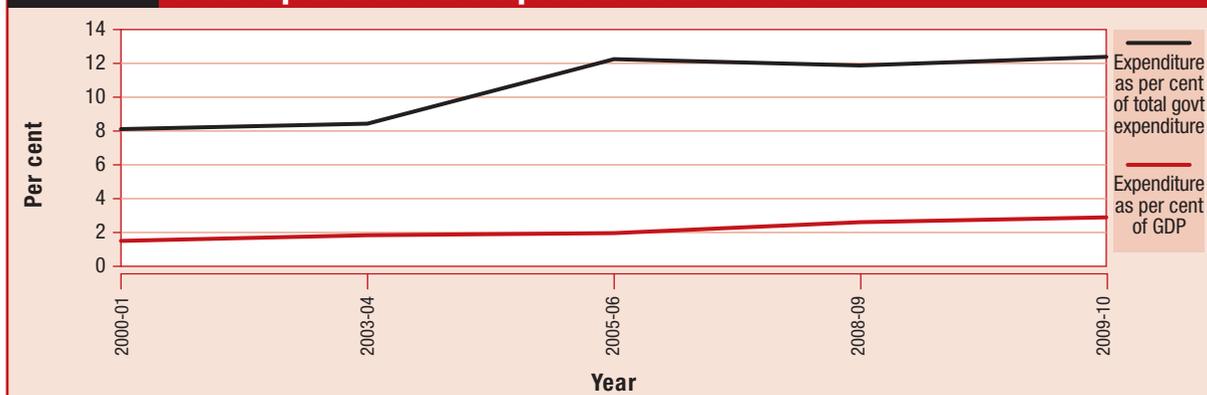
### India's Strategies

12.75 India's total CO<sub>2</sub> emissions are about 4 per cent of total global CO<sub>2</sub> emissions and the energy intensity of India's output has been falling with improvements in energy efficiency, autonomous technological changes, and economical use of energy. India's climate modeling studies show that even with 8-9 per cent gross domestic product (GDP) growth every year for the next decade or two, its per capita emissions will be around 3-3.5 tonnes of CO<sub>2</sub>eq. by 2030, as compared to the present 1-1.2 tonnes. These are well below developed country averages by any estimation. India's determination in addressing climate change is evident from the fact that an indicative target of increasing energy efficiency by 20 per cent by 2016-17 is already included in the Eleventh Five Year Plan. This has now been supplemented with the domestic mitigation goal of reducing emissions intensity of the GDP by 20-25 per cent of the 2005 level by 2020 through proactive policies. The resources for the measures required to achieve this objective will need to be mobilized from various sources including the national planning process. Studies in respect of a low carbon strategy for development aimed at ensuring inclusive growth are being conducted with the aim of including this as one of the key pillars in the Twelfth Five Year Plan. Second, India is taking conscious steps to diversify the energy fuel mix such as setting up of 20,000 MW of solar power-generating capacity by

2022, doubling the present share of 3 per cent of nuclear power in the energy mix over the next decade, putting in place a major market-based programme to stimulate energy efficiency, imposing clean energy cess on coal for funding research and development (R&D) of clean energy technologies even though coal will continue to play a key role in our future energy strategy, and aggressively expanding the use of natural gas in power production. Third, India has been pursuing aggressive strategies for forestry and coastal management to increase the quality and quantity of forest cover and has launched a major new programme on coastal zone management to address the adaptation challenges facing over 300 million people in our country who live in vulnerable areas near our coast.

12.76 As part of its international obligations under the United Nations Framework Convention on Climate Change (UNFCCC) India periodically prepares the National Communication (NATCOM) that gives an inventory of the GHG emissions in India, assesses the vulnerability and impacts, and makes appropriate recommendations regarding social, economic and technological measures for addressing climate change. The First NATCOM was presented to the UNFCCC in 2004. The Government is now engaged in preparing NATCOM II, which will be presented to the UNFCCC in 2011. Preparation of NATCOM is an exercise of high scientific rigour based on an extensive network of research and scientific institutions in India and draws upon expertise and excellence from different institutions. India has set up an elaborate Indian Network for Comprehensive Climate Change Assessment of some 250 scientists and 120 research institutions to assist in this work. This Network has already published India's GHG inventory for the year 2007 and a 4x4 assessment of climate change impacts on four key sectors and four key regions of the country for the 2030s, a time frame for which decisive interventions can be made now. This network is expected to put in place a programme for measuring, monitoring, and modeling the impact of black carbon which could have climate change and public health impacts.

12.77 India's strategy for enhancing its adaptive capacity to climate variability is reflected in many of its social and economic development programmes. For developing countries like India, adaptation ultimately boils down to assisting the vulnerable population during exigencies and empowering them to build their lives and cope with uncertainties in the long run. Several of India's social-sector schemes,

**Figure 12.2 Total expenditure on adaptation oriented schemes**

with their emphases on livelihood security and welfare of the weaker sections, aim to do just that. India implements a series of Central sector and centrally sponsored schemes under different Ministries/ Departments aimed at achieving social and economic development. Many of these schemes contain elements (objectives and targets) that are decidedly geared to adaptation. In other words, there is substantial adaptation orientation in many of the sectoral schemes currently under operation. An exercise has been carried out to measure the expenditure on adaptation-related programmes with critical adaptation components: (a) crop improvement and research, (b) poverty alleviation and livelihood preservation, (c) drought proofing and flood control, (d) risk financing, (e) forest conservation, (f) health, and (g) rural education and infrastructure. It has been found that India's expenditure on these adaptation-oriented schemes has increased from 1.45 per cent of GDP in the year 2000-01 to 2.84 per cent during 2009-10 (Figure 12.2). This is a fairly impressive level of spending and is an obvious reflection of the multiplicity of economic and social welfare

programmes under implementation in India (Table 12.15).

12.78 India has announced a National Action Plan on Climate Change (NAPCC) in June, 2008 which incorporates its vision of sustainable development and the steps it must take to realize it. The NAPCC is coordinated by the Ministry of Environment and Forests and implemented through the nodal Ministries and is aimed at advancing relevant actions in specific sectors/areas. Eight national missions in the areas of solar energy, enhanced energy efficiency, sustainable agriculture, sustainable habitat, water, Himalayan ecosystem, increasing the forest cover, and strategic knowledge for climate change form the core of NAPCC (Box 12.13). State Governments are also preparing, under the advice of the Central Government, State Action Plans aimed at creating institutional and programme-oriented capacities to address climate change. These, together with the National Missions, will enhance climate change-related actions in the public and private domains.

**Table 12.15 : Total Expenditure on Adaptation-oriented Schemes**

Year	GDP (Rs. crore)	Grand Total of Expenditure Budget (Rs. Crore)	Expenditure on Adaptation-oriented Programmes (Rs. Crore)	Expenditure on Adaptation oriented Programmes as per cent of total Expenditure Budget	Expenditure on Adaptation oriented Programmes as per cent of GDP
2000-01	1,864,301	335,523	27,028	8.06	1.45
2003-04	2,222,758	474,254	39,792	8.39	1.79
2005-06	3,254,216	508,705	62,071	12.20	1.91
2008-09	4,162,509	900,953	106,463	11.82	2.56
2009-10	4,493,743	1,021,546	126,028	12.34	2.84

## Box 12.13 : Eight National Missions

### Jawaharlal Nehru National Solar Mission (JNNSM)

The government has launched the JNNSM in January 2010 with a target of 20,000 MW grid solar power (based on solar thermal power- generating systems and solar photovoltaic [SPV] technologies), 2000 MW of off-grid capacity by 2022. The Mission will be implemented in three phases. The first phase will last three years (up to March 2013), the second till March 2017, and the third till March 2022. The Government has also approved the implementation of the first phase of the Mission (up to March 2013) and the target to set up 1100 MW grid-connected solar plants including 100 MW of rooftop and small solar plants and 200 MW capacity-equivalent off-grid solar applications and a 7 million sq.m solar thermal collector area in the first phase of the Mission, till 2012-13.

### Energy Conservation and Efficiency

The objective of the National Mission for Enhanced Energy Efficiency (NMEEE) is to achieve growth with ecological sustainability by devising cost-effective strategies for end- use demand-side management. The Ministry of Power and Bureau of Energy Efficiency have been entrusted with the task of preparing the implementation plan for the NMEEE and upscaling the efforts to create and sustain market for energy efficiency to unlock investment of around Rs 74,000 crore. The Mission is likely to achieve about 23 million tons oil-equivalent of fuel savings--in coal, gas, and petroleum products--by 2014-15, along with an expected avoided capacity addition of over 19,000 MW. The carbon dioxide emission reduction is estimated to be 98.55 million tons annually.

### National Mission on Strategic Knowledge for Climate Change (NMSKCC)

The NMSKCC has been launched with the broad objectives of mapping of the knowledge and data resources relevant to climate change and positioning of a data-sharing policy framework for building strategic knowledge among the various arms of the Government, identification of knowledge gaps, networking of knowledge institutions after investing critical mass of physical, intellectual, and policy infrastructure resources, creation of new dedicated centres within the existing institutional framework, building of international cooperation on science and technology for climate change agenda through strategic alliances and assistance for the formulation of policies for a sustained developmental agenda.

### National Mission for Sustaining Himalayan Ecosystem (NMSHE)

The broad objectives of the NMSHE include: understanding the complex processes affecting the Himalayan ecosystem and evolving suitable management and policy measures for sustaining and safeguarding it, creating and building capacities in different domains, networking of knowledge institutions engaged in research and development of a coherent data base on the Himalayan ecosystem, detecting and decoupling natural and anthropogenic-induced signals of global environmental changes in mountain ecosystems, studying traditional knowledge systems for community participation in adaptation, mitigation, and coping mechanisms inclusive of farming and traditional health care systems, and developing regional cooperation with neighbouring countries, to generate a strong data base through monitoring and analysis so as to eventually create a knowledge base for policy interventions.

### National Water Mission

The objectives of the National Water Mission are 'conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within States through integrated water resources management'. The goals of the Mission are a comprehensive water data base in the public domain, assessment of the impact of climate change on water resources, promotion of citizen and State actions for water conservation, augmentation and preservation, focused attention to overexploited areas, increasing water use efficiency by 20 per cent, and promotion of basin-level integrated water resources management.

### Green India Mission

The Mission aims at responding to climate change through a combination of adaptation and mitigation measures. These measures include enhancing carbon sinks in sustainably managed forests and other ecosystems, adaption of vulnerable species/ecosystems to the changing climate, and adaptation of forest-dependent communities. The objectives of the Mission are increased forest/ tree cover on 5 million ha of forest/ non-forest lands and improved quality of forest cover on another 5 million ha (a total of 10 million ha), improved ecosystem services including biodiversity, hydrological services, carbon sequestration as a result of treatment of 10 million ha), increased forest-based livelihood income for about 3 million households living in and around the forest, and enhanced annual CO<sub>2</sub> sequestration by 55 million tonnes in the year 2020.

### National Mission on Sustainable Habitat (NMSH)

The NMSH seeks to promote sustainability of habitats through improvements in energy efficiency in building and urban planning, improved management of solid and liquid waste including recycling and power generation, modal shift towards public transport, and conservation. It also seeks to improve ability of habitats to adapt to climate change by improving resilience of infrastructure, community- based disaster management, and measures for improving advance warning systems for extreme weather events.

### National Mission for Sustainable Agriculture

The National Mission for Sustainable Agriculture (NMSA) seeks to address issues regarding 'sustainable agriculture' in the context of risks associated with climate change by devising appropriate adaptation and mitigation strategies for ensuring food security, enhancing livelihood opportunities, and contributing to economic stability at national level. Under this Mission, the adaptation and mitigation measures would be mainstreamed in research and development activities, absorption of improved technology and best practices, creation of physical and financial infrastructure and institutional framework, facilitating access to information and promoting capacity building. While promotion of dryland agriculture would receive prime importance by way of developing suitable drought- and pest-resistant crop varieties and ensuring adequacy of institutional support, the Mission would also expand its coverage to rainfed areas for integrating farming systems with livestock and fisheries so that agriculture continues to grow in a sustainable manner.

## Climate Change Financing

12.79 Climate change is a complex policy issue with major implications in terms of finances for addressing mitigation of GHG emissions on the one hand and coping with the adverse impacts of climate change on the community and population, ecosystem, economy and livelihood on the other. All actions to address climate change ultimately involve costs. Funding is vital in order for countries like India to design and implement adaptation and mitigation plans and projects. The problem is more severe for developing countries like India, which would be one of the hardest hit by climate change and with very little capacity to adapt. Most countries do indeed treat climate change as a real threat and are striving to address it in a more comprehensive and integrated manner with the limited resources at their disposal. But financial ways and means must be found to enable developing countries to enhance their efforts to address climate change, especially enhancing their adaptive capacity. Thus climate change is both an environmental issue and an economic costs and development issue.

12.80 Lack of funding is a large impediment to implementing adaptation plans. Article 4 of the Convention states that developed countries shall provide financial resources to assist developing country Parties in addressing climate change. The funds that are currently available under the Convention and the Kyoto Protocol are small compared to the magnitude of the need assessed by many studies. The UNFCCC has estimated a requirement of US\$ 200-210 billion in additional investment in 2030 to return GHG emissions to current level. Further, additional investment needed worldwide for adaptation is estimated to be US\$ 60-182 billion in 2030 by UNFCCC, inclusive of an expenditure of US\$ 28-67 billion in developing countries. As various estimates point to the enormity of funds to address climate change, developing countries including India have been arguing that a global mechanism for generating and accounting for additional resources, mainly from public sources, is essential for meeting the long-term finance requirements for adaptation and mitigation. There should be a multilateral financial mechanism under the Convention that should be set up with resources provided by developed countries on the basis of assessed contributions.

12.81 One of the important outcomes of the Cancun Agreements from the finance point of view is the decisions on 'fast start finance, long-term finance, and Green Climate Fund'. At Cancun, it was decided

to set up a 'Green Climate Fund', to be designated as an operating entity of the Financial Mechanism of the Convention under Article 11. The Green Climate Fund is accountable to and functions under the guidance of the CoP. The Fund will be governed by a Board of 24 members chosen evenly from developed and developing nations. The Fund will support environment-related projects, programmes, policies, and other activities in developing countries. The concerns of different regions of the world need to be addressed by the Board having balanced representation from different UN regional groups. The Green Climate Fund will have a 'trustee' accountable to the Board for the performance of its fiduciary responsibilities. The World Bank has been invited to serve as the 'interim' trustee subject to a review three years after operationalization of the Fund. The operation of the Fund will be supported by an independent Secretariat and designed by a Transitional Committee with 40 members--15 from developed countries and 25 from developing countries. Further, a Standing Committee under the CoP was established for improving coherence and coordination in the delivery of climate change financing. In addition, the Cancun Agreement called upon developed countries to submit information on the resources provided to fulfil the commitment to 'fast start finance' approaching US\$30 billion for the period 2010-12. It also recognized the goal of jointly mobilizing US\$ 100 billion per year by 2020 as 'long-term finance' to address the needs of developing countries. The goal of US\$100 billion falls short of developing countries' call for assessed contributions of 1.5 per cent of developed countries' GDP. Further, developing countries had been insisting on public funds as the major source, whereas, the Cancun Agreement does not specify how the finances would be mobilized by the developed countries.

12.82 India's initiatives will succeed if the global framework of actions is effective and supportive. While the outcomes in Cancun on Climate Fund, Technology Mechanism, and Adaptation Framework and Forestry (REDD+) are welcome, further work is needed on strengthening of weak mitigation pledges by developed countries, preventing unilateral trade actions in the name of climate change, and continuing a dialogue on intellectual property rights as part of technology development and transfer efforts. Moreover, a successful global effort for addressing climate change must be built on sound principles of equity and common but differentiated responsibilities. Equity in terms of equitable access to global atmospheric resources should define the pathway to attainment of a long-term goal in line

with the broad findings of science. In future negotiations, developing countries need to ensure a space for them for equitable access to atmospheric resources. The continuation of the Kyoto Protocol in its second commitment period and adoption of robust mitigation commitments by developed country Parties in accordance with the principle of 'common but differentiated responsibilities' will be essential for maintaining the credibility of the multilateral process and for a science-based and adequate response of the global community to climate change. In other words, any solution to climate change, as a global problem, must be based on the participation of all countries, with reorganization of 'common but differentiated responsibilities' and the principle of 'equity'.

## OUTLOOK AND CHALLENGES

12.83 Post global crisis of 2008, the Indian economy has continued to recover robustly helped by the Government policies to counter the adverse impact of the crisis. On the employment front also, the Country has been able to withstand the adverse impact of the global crisis and generate employment since July 2009, as reported in the quarterly surveys conducted by the Labour Bureau. Unlike other developed countries, where the measures to counter job losses were ad hoc and contained elements of protectionism, in the Indian case, the programmes of employment generation were planned with a long-term outlook free of any elements of protectionism. The employment generation programmes of the Government like the MGNREGS have been instrumental in creating employment opportunities and placing additional income in the hands of the poor and the disadvantaged sections of society. Further improvements in the scheme like shifting to permanent asset building and infrastructure development activities, reducing transaction costs, better monitoring, and extension of the MGNREGS to urban areas can yield better results. It also needs to be ensured that implementation of the programme doesn't result in shortage of labour during the peak agricultural season. Since a number of programmes are being run concurrently by the Government to address the twin issues of unemployment and poverty alleviation, there is need for better convergence of the schemes to avoid duplication and leakages and to ensure that the fruits of the schemes reach the targeted beneficiaries. While the Government has consciously undertaken a large increase in budgetary allocations for anti-poverty programmes

and employment-generation schemes, policy structures need to be firmed up to facilitate effective implementation of these programmes and to ensure that allocation results in outputs and outcomes. Initiatives like the outcome budget and the setting up of the Unique Identification Authority of India by the Government are some steps in this direction.

12.84 Given the advantage of a young population, the realization of the democratic dividend is another factor that calls for some more reforms in the education system and health sector. While a skilled, trained and healthy young population with the right type of education is an asset, an uneducated or ill educated, unskilled, less healthy, and unemployed population could lead to a demographic disaster. Reaping the demographic dividend needs a vision, a long-term plan, and bold decisions. While the National Skill Development Mission is a step in the right direction, much more is required both in terms of achievements and speed. The RTE Act must face no implementation deficit for it to work towards realizing the demographic dividend. Similar reforms are needed in university and higher education and the demand-supply mismatch in the job market needs to be corrected. Mobilization of funds for higher education is indeed a challenge for the Government. The gap in available resources could possibly be met by a tailor-made Public-Private Partnership (PPP) mode of funding without diluting the regulatory oversight of the Government. Private-sector participation in social sectors, such as health and education, sometimes referred to as public-social-private partnership (PSPP), could be one of the possible alternatives for supplementing the ongoing efforts of the Government. However, in order to put in place such mechanisms, crucial issues such as risks and returns associated with such high cost projects need to be suitably addressed to ensure that there are enough takers for such PSPP projects in the market on a self-sustainable basis. While the potential of the demographic dividend is high, the effort to realize it also has to be in similar proportions.

12.85 Another challenge for the Government is proper balancing of the climate challenge and the growth challenge. The increasing importance of climate-related issues should not shake the foundations of our inclusive growth strategy. Careful planning and customized policies are needed to ensure that the green growth strategies do not result in a slow growth strategy.