Eleventh Five Year Plan 2007-12 VOLUME II

Eleventh Five Year Plan
2007-12

VOLUME II
SOCIAL SECTOR

Planning Commission
Government of India

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(2007–2012)

Social Sector

Volume II

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Acronyms

A&N Islands	Andaman and Nicobar Islands
AABY	Aam Admi Bima Yojana
AAY	Antyodaya Anna Yojana
AICTE	All India Council for Technical Education
AIDS	Acquired Immune Defficiency Syndrome
AIE	Alternative and Innovative Education
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
APL	Above Poverty Line
ARI	Acute Respiratory Infections
ARV	Antiretroviral
ARWSP	Accelerated Rural Water Supply Programme
ASCs	Academic Staff Colleges
ASHA	Accredited Social Health Activist
ASI	Archaeological Survey of India
ASU&H	Ayurveda, Siddha, Unani, and Homeopathy
AUWSP	Accelerated Urban Water Supply Programme
AVIs	Accredited Vocational Institutes
AWW	Anganwadi Worker
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy
BFC	Budget for Children
BITS	Birla Institute of Technology & Science
BMI	Body Mass Index
BPL	Below Poverty Line
BRCs	Block Resource Centres
CACP	Commission for Agricultural Costs and Prices
CBHI	Community Based Health Insurance
CBSE	Central Board of Secondary Education
CCIM	Central Council of Indian Medicine
CCRAS	Central Council for Research in Ayurveda & Siddha
CCRT	Centre for Cultural Resources and Training
CEC	Consortium for Educational Communication Centre
CEP	Continuing Education Programmes
CG	Commonwealth Games
CGHS	Central Government Health Scheme
CHCs	Community Health Centres
CICT	Central Institute of Classical Tamil
CIIL	Central Institute of Indian Languages
CIP	Central Issue Prices
CME	Continuing Medical Education
CP	Community Polytechnics
CRCs	Cluster Resource Centres
CS	Central sector scheme
CSIR	Council of Scientific and Industrial Research
CSO	Civil Society Organization
CSO	Central Statistical Organization
CSS	Centrally sponsored scheme
CSWB	Central Social Welfare Board
CTE	College of Teacher Education

CTSs	Central Tibetan Schools
CU	Central University
CVDs	Cardiovascular Diseases
CWSN	Children with Special Needs
CYG	Commonwealth Youth Games
CYP	Commonwealth Youth Programme
D&N Haveli	Dadra and Nagar Haveli
DAE	Department of Atomic Energy
DBT	Department of Biotechnology
DCPU	District Child Protection Unit
DDWS	Department of Drinking Water Supply
DIETs	District Institutes of Education and Training
DISE	District Information System for Education
DIT	Department of Information Technology
DLHS	District Level Health Surveys
DMHP	District Mental Health Programme
DOC	Department of Culture
DoT	Department of Telecommunications
DOTS	Directly Observed Treatment, Short Course
DPA	Dowry Prohibition Act
DPEP	District Primary Education Programme
DRC	District Resource Centre
DST	Department of Science and Technology
EBB	Educationally Backward Blocks
ECCE	Early Childhood Care and Education
ECG	Electrocardiogram
EDUSAT	Education Satellite
EFA	Education For All
EGS	Education Guarantee Scheme
EmOC	Emergency Obstetric Care
EPFO	Employees' Provident Fund Organization
ESIC	Employees State Insurance Corporation
FCI	Food Corporation of India
FPS	Fair Price Shop
FRUs	First Referral Units
GBS	Gross Budgetary Support
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GLV	Green Leafy Vegetables
GMP	Good Manufacturing Practices
GO	Government Organization
GoI	Government of India
HAMA	Hindu Adoption and Maintenance Act
HBNC	Home Based Newborn Care
HIV	Human Immunodeficiency Virus
HLC	High-level Committee
HMIS	Health Management Information System
IASE	Institute of Advanced Study in Education
ICAR	Indian Council of Agricultural Research
ICDS	Integrated Child Development Services
ICMR	Indian Council of Medical Research
ICPS	Integrated Child Protection Scheme
ICTs	Information and Communication Technologies
IDA	Iron Deficiency Anaemia
IDD	Iodine Deficiency Disorders
IDSP	Integrated Disease Surveillance Project
IEC	Information, Education, and Communication
IEDC	Integrated Education for the Disabled Children
IEDSS	Inclusive Education for the Disabled at Secondary Stage
IFA	Iron Folic Acid
IGNCA	Indira Gandhi National Centre for Arts
IGNOU	Indira Gandhi National Open University
IIIT	International Institute of Information Technology
IIM	Indian Institute of Management
IIPS	International Institute for Population Sciences
IISc	Indian Institute of Science
IISER	Indian Institute of Science Education and Research
IISFM	Integrated Information System for Foodgrains Management

IIT	Indian Institute of Technology
ILO	International Labour Organization
IMNCI	Integrated Management of Neonatal and Childhood Illness
IMR	Infant Mortality Rate
INDEST	Indian National Digital Library for Engineering Sciences and Technology
INFLIBNET	Information for Library Network
IOL	Intra Ocular Lens
IPERPO	Intellectual Property Education, Research, and Public Outreach
IPHS	Indian Public Health Service Standards
IPR	Intellectual Property Right
ISM	Indian Systems of Medicine
ISRO	Indian Space Research Organization
IT	Information Technology
ITPA	Immoral Traffic (Prevention) Act
J&K	Jammu and Kashmir
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
JRF	Junior Research Fellowship
JSK	Jansankhya Sthirata Kosh
JSS	Jan Shikshan Sansthan
JSS	Jan Swasthya Sahyog
JSY	Janani Suraksha Yojana
KGBVS	Kasturba Gandhi Balika Vidyalaya Scheme
KVs	Kendriya Vidyalayas
LBW	Low Birth Weight
LEAP	Lifelong Education and Awareness Programme
LF	Lymphatic Filariasis
LHVs	Lady Health Visitors
LKA	Lalit Kala Akademi
LNIPE	Laxmibai National Institute of Physical Education
LPCD	Litres Per Capita per Day
M/o WCD	Ministry of Women and Child Development
MASCs	Multi-Application Smart Cards
MBA	Master of Business Administration
MCA	Master of Computer Applications
MCH	Maternal and Child Health
MCI	Medical Council of India
MDA	Mass Drug Administration
MDGs	Millennium Development Goals
MDM	Mid-Day Meal
MDMS	Mid-Day Meal Scheme
ME	Monitoring and Evaluation
MHRD	Ministry of Human Resources Development
MIS	Management Information System
MLD	Million Litres per Day
MMR	Maternal Mortality Ratio
MOEF	Ministry of Environment and Forests
MoHFW	Ministry of Health and Family Welfare
MO	Medical Officers
MoRD	Ministry of Rural Development
MoU	Memorandum of Understanding
MP	Madhya Pradesh
MP	Member of Parliament
MPCC	Multipurpose Cultural Complexes
MPWs	Multipurpose Workers
MS	Mahila Samakhya
MSP	Minimum Support Price
MTP	Medical Termination of Pregnancy
NAAC	National Accreditation Assessment Council
NABH	National Accreditation Board for Hospitals and Health Care Providers
NACO	National AIDS Control Organization
NACP	National AIDS Control Programme
NAI	National Archives of India
NBA	National Board of Accreditation
NBE	National Board of Examinations
NBT	National Book Trust
NCCP	National Cancer Control Programme
NCDs	Non-communicable Diseases
NCDC	National Centre for Disease Control
NCERT	National Council of Educational Research and Training
NCEUS	National Commission for Enterprises in the Unorganized Sector
NCF	National Curriculum Framework
NCF	National Culture Fund
NCMH	National Commission on Macroeconomics and Health
NCMP	National Common Minimum Programme
NCSM	National Council of Science Museums
NCTE	National Council for Teacher Education

NCW	National Commission for Women
NDA	National Drug Authority
NE	North East, North Eastern
NER	North Eastern Region
NERIST	North Eastern Regional Institute of Science and Technology
NET	National Education Testing
NFHS	National Family Health Survey
NGCP	National Goitre Control Programme
NGO	Non-Governmental Organization
NHA	National Health Account
NIC	National Informatics Centre
NICD	National Institute of Communicable Diseases
NIDDCP	National Iodine Deficiency Disorders Control Programme
NIOS	National Institute of Open Schooling
NITs	National Institutes of Technology
NITTTRs	National Institutes of Technical Teachers Training and Research
NLM	National Literacy Mission
NLSI	New Linguistic Survey of India
NMBS	National Maternity Benefit Scheme
NMHP	National Mental Health Programme
NMPB	National Medicinal Plants Board
NNAP	National Nutritional Anaemia Prophylaxis
NNMB	National Nutrition Monitoring Bureau
NMR	Neonatal Mortality Rate
NOAPS	National Old Age Pension Scheme
NPE	National Policy of Education
NPEGEL	National Programme for Education of Girls at Elementary Level
NPTEL	National Programme on Technology Enhanced Learning
NREGA	National Rural Employment Guarantee Act
NREGP	National Rural Employment Guarantee Programme
NRHM	National Rural Health Mission
NSAP	National Social Assistance Programme
NSERB	National Science and Engineering Research Board
NSFs	National Sports Federations
NSS	National Service Scheme
NSS	National Sample Surveys
NSSO	National Sample Survey Organization
NSVS	National Service Volunteers Scheme
NUEPA	National University of Educational Planning Administration
NUHM	National Urban Health Mission
NVs	Navodaya Vidyalayas
NVQ	National Vocational Qualification
NYKS	Nehru Yuva Kendra Sangathan
O&M	Operation and Maintenance
OBC	Other Backward Classes
OPD	Out Patient Department
OP/IP	Out Patient/In Patient
ORS	Oral Rehydration Solution
OSC	Oversight Committee
PC&PNDT Act	Pre-Conception and Pre-Natal Diagnostic Techniques Act
PDS	Public Distribution System
PEM	Protein-Energy Malnutrition
PEO	Programme Evaluation Organization
Pf	*Plasmodium falciparum*
PFA	Prevention of Food Adulteration
PGDM	Post Graduate Diploma in Management
PHC	Primary Health Centre
PHFI	Public Health Foundation of India
PIP	Project Implementation Plan
PLP	Post Literacy Projects
PLWHA	People Living With HIV/AIDS
PMR	Physical Medicine and Rehabilitation
PMSSY	Pradhan Mantri Swasthya Suraksha Yojana
PPP	Public–Private Partnership
PRIs	Panchayati Raj Institutions
PSE	Pre-school Education
PTR	Pupil Teacher Ratio
PUB	Public Utilities Board
PWDVA	Protection of Women from Domestic Violence Act
PYKKA	Panchayat Yuva Krida Aur Khel Abhiyan
R&D	Research and Development
RCH	Reproductive and Child Health

RGNDWM	Rajiv Gandhi National Drinking Water Mission
RGNIYD	Rajiv Gandhi National Institute of Youth Development
RHP	Rural Health Practitioners
RMP	Registered Medical Practitioner
RNTCP	Revised National Tuberculosis Control Programme
RSY	Rashtriya Sadbhavana Yojana
RTI	Reproductive Tract Infections
RTE	Ready To Eat
S&T	Science and Technology
SA	Sahitya Akademi
SAI	Sports Authority of India
SBAs	Skilled Birth Attendants
SC	Sub-centre
SC	Scheduled Caste
SCERT	State Council for Educational Research and Training
SCSP	Scheduled Caste Sub-Plan
SDM	Skill Development Mission
SET	State Eligibility Test
SEWA	Self Employed Women's Association
SFDs	Special Focus Districts
SHGs	Self-help Groups
SIEs	State Institutes of Education
SLIET	Sant Longowal Institute of Engineering Technology
SNA	Sangeet Natak Akademi
SNP	Supplementary Nutrition Programme
SOS	State Open Schools
SOUs	State Open Universities
SRB	Sex Ratio at Birth
SRCs	State Resource Centres
SRS	Sample Registration System
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe
STD	Sexually Trasmitted Disease
STEP	Support to Training and Employment Programme
STI	Sexually Transmitted Infections
SUCCESS	Scheme for Universalization of Access and Improvement of Quality of Secondary Education
SWM	Solid Waste Management
TA	Technical Assistance
TBAs	Traditional Birth Attendants
TEQIP	Technical Education Quality Improvement Programme
TFC	Twelfth Finance Commission
TFR	Total Fertility Rate
THRs	Take Home Ration
TISS	Tata Institute of Social Sciences
TLC	Total Literacy Campaigns
TLE	Teaching Learning Equipment
TMSSML	Thanjavur Maharaja Serofji Saraswati Mahal Library
TPA	Third Party Administrator
TPDS	Targeted Public Distribution System
TSC	Total Sanitation Campaign
TSP	Tribal Sub Plan
TTIs	Teacher Training Institutions
UEE	Universalization of Elementary Education
UFW	Unaccounted For Water
UGC	University Grants Commission
UIDSSMT	Urban Infrastructure Development Scheme for Small and Medium Towns
UIT	Urban Improvement Trust
ULB	Urban Local Body
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
UP	Uttar Pradesh
UPS	Upper Primary Schools
UPS	Uninterrupted Power Supply
UT	Union Territory
VAD	Vitamin A Deficiency
VAW	Violence Against Women
VE	Vocational Education
VECs	Village Education Committees
VHSCs	Village Health and Sanitation Committees
VO	Voluntary Organization
WB	West Bengal
WCD	Women and Child Development
WCU	World Class Universities
WHO	World Health Organization
ZBB	Zero Based Budgeting
ZCCs	Zonal Cultural Centres

1

Education

1.1 ELEMENTARY EDUCATION AND LITERACY

1.1.1 The role of education in facilitating social and economic progress is well recognized. It opens up opportunities leading to both individual and group entitlements. Education, in its broadest sense of development of youth, is the most crucial input for empowering people with skills and knowledge and giving them access to productive employment in future. Improvements in education are not only expected to enhance efficiency but also augment the overall quality of life. The Eleventh Plan places the highest priority on education as a central instrument for achieving rapid and inclusive growth. It presents a comprehensive strategy for strengthening the education sector covering all segments of the education pyramid.

1.1.2 Elementary education, that is, classes I–VIII consisting of primary (I–V) and upper primary (VI–VIII) is the foundation of the pyramid in the education system and has received a major push in the Tenth Plan through the Sarva Shiksha Abhiyan (SSA).

1.1.3 In view of the demands of rapidly changing technology and the growth of knowledge economy, a mere eight years of elementary education would be grossly inadequate for our young children to acquire necessary skills to compete in the job market. Therefore, a Mission for Secondary Education is essential to consolidate the gains of SSA and to move forward in establishing a knowledge society.

1.1.4 The Eleventh Plan must also pay attention to the problems in the higher education sector, where there is a need to expand the system and also to improve quality.

1.1.5 The Eleventh Plan will also have to address major challenges including bridging regional, social, and gender gaps at all levels of education.

ELEMENTARY EDUCATION IN THE TENTH PLAN

Major Schemes in the Tenth Plan

1.1.6 The Tenth Plan laid emphasis on Universalization of Elementary Education (UEE) guided by five parameters: (i) Universal Access, (ii) Universal Enrolment, (iii) Universal Retention, (iv) Universal Achievement, and (v) Equity. The major schemes of elementary education sector during the Tenth Plan included SSA, District Primary Education Programme (DPEP), National Programme of Nutritional Support to Primary Education, commonly known as Mid-Day Meal Scheme (MDMS), Teacher Education Scheme, and Kasturba Gandhi Balika Vidyalaya Scheme (KGBVS). The schemes of Lok Jumbish and Shiksha Karmi were completed but DPEP will extend up to November 2008. KGBV has now been subsumed within SSA.

Sarva Shiksha Abhiyan (SSA)

1.1.7 SSA, the principal programme for UEE, is the culmination of all previous endeavours and experiences in implementing various education programmes.

While each of these programmes and projects had a specific focus—Operation Blackboard on improving physical infrastructure; DPEP on primary education; Shiksha Karmi Project on teacher absenteeism, and Lok Jumbish Project on girls' education—SSA has been the single largest holistic programme addressing all aspects of elementary education covering over one million elementary schools and Education Guarantee Centre (EGS)/Alternate and Innovative Education (AIE) Centres and about 20 crore children.

Performance of SSA and Related Schemes in Tenth Plan

1.1.8 The specific goals of SSA during the Tenth Plan period were as follows:

- All children to be in regular school, EGS, AIE, or 'Back-to-School' camp by 2005;
- Bridging all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010;
- Universal retention by 2010;
- Focus on elementary education of satisfactory quality with emphasis on education for life.

UNIVERSAL ACCESS

1.1.9 SSA has brought primary education to the doorstep of millions of children and enrolled them, including first generation learners, through successive fast track initiatives in hitherto unserved and underserved habitations. According to the VII Educational Survey (2002), the number of habitations that had a primary school within a distance of 1 km was 10.71 lakh (87%), the uncovered habitations numbered 1.61 lakh (13%), whereas, the number of habitations that had an upper primary school within a distance of 3 km was 9.61 lakh (78%). With the opening up of 1.32 lakh primary schools and 56000 EGS/AIE centres access to primary education is nearly achieved. About 0.89 lakh upper primary schools (UPS) have been provided up to 2006–07. At primary and at upper primary level the number of habitations remaining to be covered is estimated at almost 1 lakh.

1.1.10 The number of primary schools (PS) in the country increased from 6.64 lakh in 2001–02 to 7.68 lakh in 2004–05. In the same period, the number of UPS increased at a faster rate from 2.20 lakh to 2.75 lakh. The sanction of 2.23 lakh new PS/UPS, 1.88 lakh new school buildings, and 6.70 lakh additional classrooms has made a big dent in reducing the school infrastructure gap.

UNIVERSAL ENROLMENT

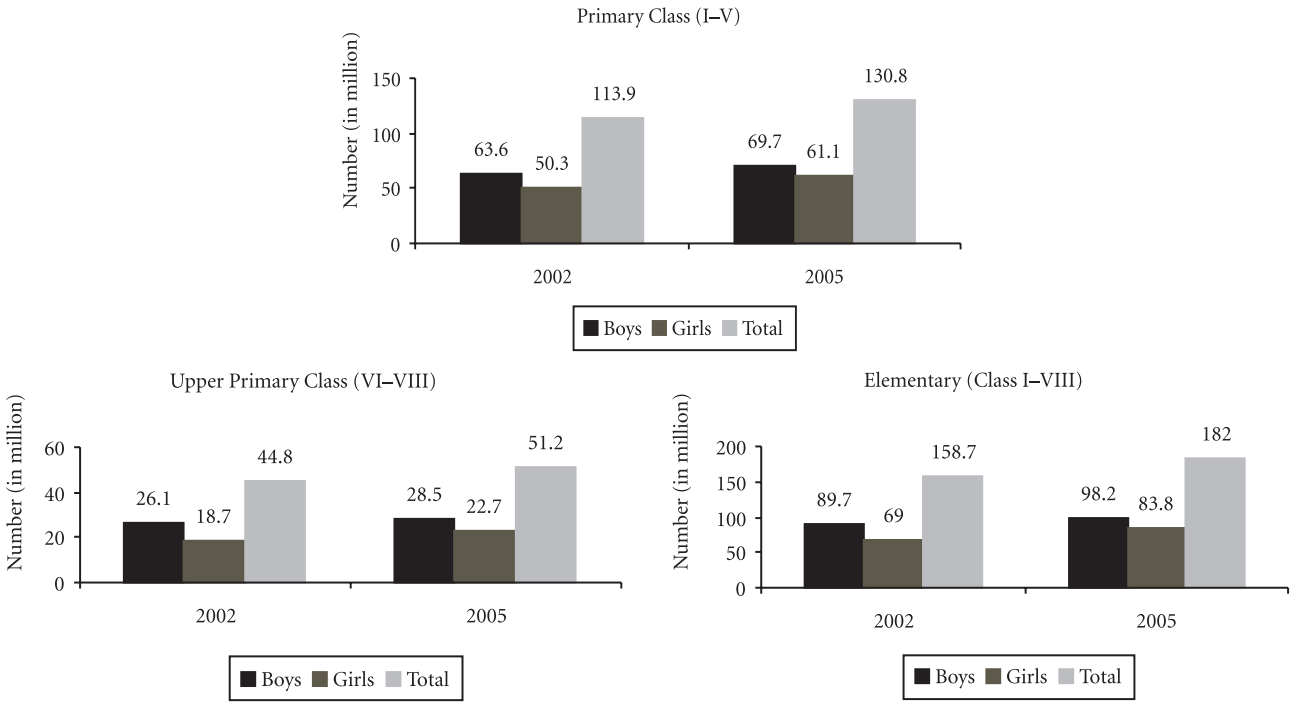
1.1.11 SSA had a sluggish start as States took considerable time to prepare district perspective plans. By the time the States realized the full potential of SSA, two and a half years had already rolled on. The urgency called for fast track initiatives. Household surveys, school mapping, constitution of Village Education Committees (VECs), setting up of Mother Teacher Associations and Parent Teacher Associations, and a series of campaigns for enrolment and context-specific strategies, all learnt from the experience of implementing DPEP, were used for good results in the next two and a half years. As a result, the second phase of enrolment drive by the States/union territories (UTs) was more systematic with household survey data reflecting substantially improved Gross Enrolment Ratio (GER) and a significant reduction in the number of out-of-school children. The strategy of providing AIE grants to Maktabs/Madarsas for introducing teaching of general subjects to minority children was also very fruitful.

1.1.12 Consequently, the total enrolment at elementary education level increased from 159 million in 2001–02 to 182 million in 2004–05, an increase of over 23 million (Figure 1.1.1).

1.1.13 The following Table 1.1.1 shows GER for primary, upper primary, and elementary level from 2001–02 to 2004–05.

1.1.14 Social and gender disparity, existing at both primary and upper primary education levels, continues to be an issue to be tackled with more concerted and sustained efforts, especially in Bihar, Rajasthan, Jharkhand, Madhya Pradesh (MP), Gujarat, and Uttar Pradesh (UP).

1.1.15 SSA interventions have brought down the number of out-of-school children from 32 million in 2001–02 to 7.0 million in 2006–07 (Figure 1.1.2). 48 districts in 10 States accounted for over 50000 out-of-school



Source: Selected Educational Statistics, 2004–05.

FIGURE 1.1.1: Enrolment in Elementary Education

TABLE 1.1.1
GER in Primary and Upper Primary Schools

Stages	Gross Enrolment Ratio				%age point increase
	2001–02	2002–03	2003–04	2004–05	
Primary (I–V)					
Boys	105.3	97.5	100.6	110.7	5.4
Girls	86.9	93.1	95.6	104.7	17.8
All	96.3	95.3	98.2	107.8	11.3
Upper Primary (VI–VIII)					
Boys	67.8	65.3	66.8	74.3	6.5
Girls	52.1	56.2	57.6	65.1	13.0
All	60.2	61.0	62.4	69.9	9.7
Elementary (I–VIII)					
Boys	90.7	85.4	87.9	96.9	6.2
Girls	73.6	79.3	81.4	89.9	16.3
All	82.4	82.5	84.8	93.5	11.1

Source: Selected Educational Statistics, 2004–05.

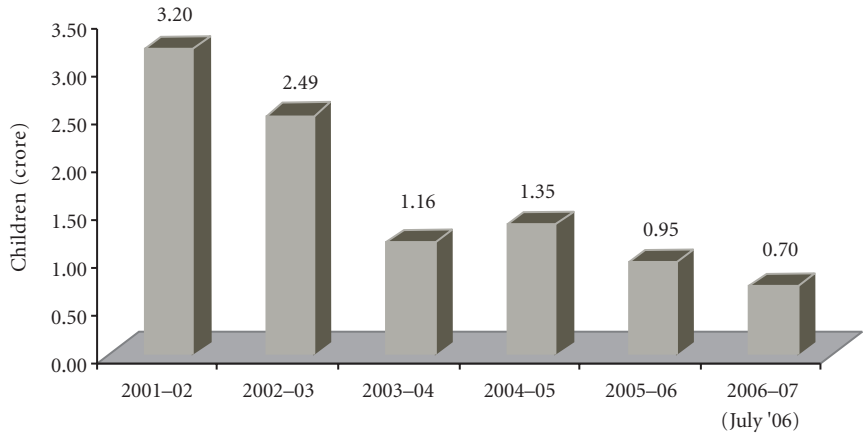
children, each. The number of such districts declined to 29 in 2005–06. An independent study[1] estimated that about 6.9% of the total children in the 6–13 age groups were out of school and of them 2.1% accounted for dropouts and 4.8% for never-enrolled children, a bulk of whom apparently belonged to the poorer segments of rural households.

1.1.16 The social composition of out-of-school children indicates that 9.97% of Muslim children, 9.54% of Scheduled Tribes (STs), 8.17% of Scheduled Castes (SCs), and 6.97% of Other Backward Class (OBC) children were out of school and an overwhelming majority (68.7%) was concentrated in five States, viz., Bihar (23.6%), UP (22.2%), West Bengal (WB) (9%), MP (8%), and Rajasthan (5.9%).

UNIVERSAL RETENTION

1.1.17 It is increasingly realized that retaining the disadvantaged children enrolled in schools is a far more challenging task than enrolling them into educational system. Around 22% children dropped out in classes I and II. Several factors, apart from their adverse socio-economic conditions are responsible for this. The opportunity cost of girl-child education is quite high in the rural set up and she is often a 'nowhere child',

[1] Social and Rural Research Institute (2005), New Delhi.



Source: Ministry of Human Resources Development (MHRD).

FIGURE 1.1.2: Reduction in Out-of-School Children

neither in the school nor in the labour force but doing domestic work, mostly sibling care. It is well documented that the presence of female teachers often serves as a role model for girls and positively influences their enrolment and attendance. But, then, in the educationally backward States, there are few women teachers to particularly attract girls to school and retain them.[2]

1.1.18 SSA stipulates that 50% of additionally recruited teachers should be women. Given the emphasis on improving girls' enrolment, which is critically dependent upon the presence of female teachers, there is a need to increase the proportion to 75% in the recruitment of female teachers in educationally fragile States.

1.1.19 The fact that children drop out of school early or fail to acquire basic literacy and numeracy skills partially reflects poor quality of education.[3] The average school attendance was around 70% of the enrolment in 2004–05. In States like UP and Bihar, the average attendance was as low as 57% and 42%, respectively. One-third of the teachers in MP, 25% in Bihar, and 20% in UP do not attend schools.[4] Besides, the repetition rates in such States are also very high, resulting in wastage of human and material resources. Teacher attendance, ability, and motivation appear to be the weakest links of elementary education programmes. Lack of universal pre-schooling (Early Childhood Care and Education, ECCE) and consequent poor vocabulary and poor conceptual development of mind makes even enrolled children less participative in the class, even for learning by rote.[5]

TABLE 1.1.2
Number of Female Teachers per 100 Male Teachers

States	High	States	Low
Goa	454	Bihar	24
Kerala	273	Jharkhand	26
Pondicherry	279	MP	36
Tamil Nadu	221	Rajasthan	38
Delhi	221	UP	40

Source: Selected Educational Statistics, 2004–05.

TABLE 1.1.3
Dropout Rates by Social Composition, 2004–05

Categories	Primary (I–V)			Elementary (I–VIII)		
	Boys	Girls	Total	Boys	Girls	Total
SCs	32.7	36.1	34.2	55.2	60.0	57.3
STs	42.6	42.0	42.3	65.0	67.1	65.9
All	31.8	25.4	29.0	50.5	51.3	50.8

Source: Selected Educational Statistics, 2004–05.

[2] UNESCO (2007), EFA-Global Monitoring Report.
[3] ibid.
[4] MHRD (2007), PPT Presentation in the Steering Committee meeting held in Planning Commission.
[5] Lynn Erickson (2007), *Concept Based Curriculum and Instruction for the Thinking Classroom*, Crowing Press, A Sage Publication Company, Thousand Oaks, California, chapter 5, p. 98.

1.1.20 The dropout rate in primary classes which has been decreasing at a very low average rate of 0.5% per annum since 1960s showed a steeper decline by 10.03% over the first three years of the Tenth Plan (29% in 2004–05 as compared to 39.03% in 2001–02). The dropout rate reduction has been faster for girls as compared to that for boys. However, the dropout rate at the elementary level (classes I–VIII) has remained very high at 50.8%.

1.1.21 The dropout rates at primary levels for SCs (34.2%) and STs (42.3%) are substantially higher than the national average (29%) (Table 1.1.3). The gap in respect of SCs is very wide in Goa, UP, Tamil Nadu, WB, Haryana, and Himachal Pradesh. The gap in respect of STs is very large in Maharashtra, Andhra Pradesh, Orissa, and Gujarat. The social gap in dropout rate is acute in respect of girls. Two-thirds of the tribal students just do not go beyond class VIII.

UNIVERSAL ACHIEVEMENT AND EQUITY

1.1.22 Two major issues yet to be addressed satisfactorily under UEE are quality and equity. The results of learning achievement surveys conducted by National Council for Education Research and Training (NCERT) (Table 1.1.4) and also by independent agencies (Annual Status of Education Report, 2005) highlight poor quality of learning.

TABLE 1.1.4
Learning Achievements at Elementary Level
(Percentage)

Stages of education	Math.	Language	EVS/ Science	Social Science
At the end of Class III	58.25	63.12	–	–
Class V	46.51	58.57	50.3	–
Class VII	29.87	53	35.98	32.96
Class VIII	38.47	52.45	40.54	45

Source: NCERT (2004–05).

1.1.23 SSA did attempt to strengthen a range of inputs that impact on quality, viz. recruitment of 7.95 lakh additional teachers to improve the pupil teacher ratio (PTR) from 44 to 40:1 at primary level, regular annual in-service training of teachers for a period of 20 days, curriculum renewal and textbook development, free distribution of textbooks for primary and upper primary classes to about 6.69 crore SCs, STs, and girl students, computer-aided learning in over 20000 schools, regular academic support to primary and UPS through 6746 Block Resource Centres (BRCs) and 70388 Cluster Resource Centres (CRCs), monitoring of performance of schools including the pass percentage at exit levels; at least 10% better achievement in pass percentage as in 2006–07 over the benchmarking level in 2005–06, and running of learning enhancement programmes especially for the early primary grades in 19 States. However, the impact has not been very encouraging.

1.1.24 314 Special Focus Districts (SFDs) have been identified for need-based interventions in resource allocation, micro-planning, and development. There is a focus on girls' education by targeting additional resources to Educationally Backward Blocks (EBBs) under National Programme for Education of Girls at Elementary Level (NPEGEL). Under KGBV scheme 2180 residential schools for girls belonging to SCs, STs, OBCs, minorities, and below poverty line (BPL) families were sanctioned in the EBBs.

Parameters for EBBs as per Census 2001

- Rural Female Literacy below the national average (46.13%);
- Gender gap in literacy more than the national average (21.59%).

1.1.25 Such EBBs total up to 3073. Another 212 Blocks with SC concentration, 142 Blocks with ST concentration, and 52 Blocks with minority concentration have been identified, making the total number of EBBs to 3479. NPEGEL has its own EBBs. There seem to be different criteria and definitions of EBBs. Relevant criteria would be framed in the Eleventh Plan and EBBs re-identified.

1.1.26 During the Tenth Plan, 11542 primary and UPS and 32250 EGS centres were sanctioned in the minority concentration districts. EGS and AIE centres enrolled 120.90 lakh and 11.3 lakh children, respectively. The Madarsas (8309) affiliated to the State Boards were assisted and 4867 Maktabs/Madarsas were taken up under EGS/AIE. Free textbooks are provided to all minority girls from classes I–VIII and Urdu textbooks are provided for Urdu medium schools. The number of KGBVs sanctioned in minority Blocks is 270.

1.1.27 The 86th Constitutional Amendment Act has given a new thrust to Children with Special Needs (CWSN). A multi-option model for educating CWSN is being adopted. The programme has been successful in enrolling 1.99 million out of the identified 2.4 million CWSN (81%) in schools.

1.1.28 Although SSA was launched in November 2000, only three States in the North East (NE) (Assam, Mizoram, and Nagaland) could start it in 2001–02; by 2004–05, Meghalaya, Sikkim, Tripura, Arunachal Pradesh, and Manipur had also started the programme. Lack of capacities to handle various components of SSA and default on States' share and its subsequent effect on the flow of funds from the Government of India (GoI) affected full utilization. A one-time special dispensation was provided for the years 2005–06 and 2006–07 to the NE States whereby Non Lapsable Central Pool of Resources provided three-fifth of the State share and the NE States contributed only two-fifth under SSA. Learning achievements of children in schools in North East Region (NER) are very low.

Outlay and Expenditure in SSA in the Tenth Plan

1.1.29 The Tenth Plan outlay for Elementary Education and Literacy was Rs 30000 crore. The actual expenditure has been Rs 48201 crore, out of which SSA (Rs 28077 crore) and MDMS (Rs 13827 crore) account for 88%. Prarambhik Shiksha Kosh, a non-lapsable fund for crediting the education cess proceeds, has been set up.

1.1.30 The States of UP (19%), MP (10%), Rajasthan and Bihar (7% each), Maharashtra and WB (6% each), Andhra Pradesh, Tamil Nadu, and Karnataka (5% each) accounted for 70% of the total expenditure incurred by the Central and State Governments under SSA during the Tenth Plan.

SECTORAL EXPENDITURE UNDER SSA

1.1.31 A pragmatic decision was taken to relax the civil works ceiling (33%) under SSA to accelerate bridging school infrastructure gaps in selected States. Consequently, the share of expenditure on civil works increased from 35.5% in 2003–04 to 46.2% in 2006–07 and that on teacher's salary from 15.7% to 20.8%. With EGS centres being converted into regular primary schools, their share has declined from 10.3% in 2003–04 to 6.8% in 2006–07 (see Table 1.1.5).

Table 1.1.5
Distribution of SSA

S. No.	Expenditure	Percentages		
		2003–04	2006–07	Tenth Plan
1	Civil Works	36	46	43.84
2	Teacher's Salary	16	21	19.37
3	EGS/AIE	10	7	5.00
4	Teacher's Training	5	3	2.92
5	Text Books	6	3	4.89
6	BRC/CRC	3	3	3.64
7	TLE	4	1	2.07
8	Management Cost	3	4	2.67
9	Innovative Activities	3	2	0.91
10	Others	14	10	14.69

Source: MHRD.

1.1.32 Low expenditures on components relating to quality dimensions of the programme, such as Teacher's Training, Teaching Learning Equipment (TLE) (including Information and Communication Technology, ICT) Innovative Activities, School/Teacher Grants etc., need to be sharply stepped up during the Eleventh Plan. Moreover, SSA should not fund teachers appointed in the Tenth Plan but pay only for the new teachers, with a view to addressing the serious problem of single-teacher and multi-grade teaching.

Kasturba Gandhi Balika Vidyalaya Scheme (KGBVS)

1.1.33 The KGBVS was launched in July 2004 for setting up of residential schools at upper primary level for girls, predominantly belonging to the SCs, STs, OBCs, and minorities in EBBs. A minimum of 75% of the enrolment in KGBVS is reserved for girls from the target groups and the remaining 25% is open for girls belonging to the BPL category. The Tenth Plan allocation for the scheme was Rs 427 crore.

1.1.34 As soon as the schools were sanctioned under KGBV, the States rented premises and sought funds without waiting for the buildings to come up. The targeted 750 schools (Model I—364 schools, Model II—117 schools, and Model III—269 schools) were sanctioned between December 2004 and May 2005. By December 2006, 1039 schools were operational with a total enrolment of 63921 girls. In February 2006, 430 schools and in March 2007 additional 1000 schools were sanctioned, raising the total to 2180 schools. The

allotments of KGBVs to States were not in proportion to the number of EBBs. The skewed distribution of KGBVs would be set right in the Eleventh Plan.

District Primary Education Programme (DPEP)

1.1.35 DPEP, an externally aided project, aimed at the holistic development of primary education, covering classes I to V. It has specific objectives of reducing the dropout rate to less than 10%, reducing disparities among gender and social groups in the enrolment to less than 5%, and improving the level of learning achievement compared to the baseline surveys. However, these ambitious targets could not be achieved.

1.1.36 Nevertheless, DPEP has brought a sea change in the implementation of school education programme with its decentralized approach and focus on community participation and provided complete wherewithal for handling ECCE, Non-formal Education Centres, BRCs, CRCs, out-of-school children, and education of girls. The success of SSA owes much to DPEP. Since its inception, external assistance of Rs 6938 crore—comprising Rs 5137 crore as credit from IDA and Rs 1801 crore from development partners, European Commission, Department for International Development, UNICEF, and Netherlands—has been tied up for DPEP. At its peak, DPEP covered 273 districts in 17 States. Now it continues in only 17 districts of Orissa and Rajasthan where it would be completed in 2008.

Mahila Samakhya (MS)

1.1.37 MS, an externally aided project for women's empowerment, was started with Dutch assistance in 1989. Since 2005–06 it is being funded by GoI. The programme endeavours to create an environment for women to learn at their own pace, set their own priorities, and seek knowledge and information to make informed choices. It has strengthened women's abilities to effectively participate in village level education programmes. The programme is implemented in 9 States covering 83 districts, 339 blocks, including 233 EBBs, and 20380 villages. The States of MP and Chhattisgarh have registered MS societies through which the programme is initiated. It provides for vocational and skill development as well as educational development of adolescent girls and women in rural areas. MS runs residential schools, bridge courses, viz., Jagjagi and Mahila Shikshan Kendras.

Mid-Day Meal Scheme (MDMS)

1.1.38 MDMS was launched in 1995 to enhance enrolment, retention, and participation of children in primary schools, simultaneously improving their nutritional status.

1.1.39 The MDMS was revised and universalized in September 2004 and central assistance was provided at the rate of Re. 1.00 per child per school day for converting food grains into hot cooked meals for children in classes I–V in government, local body, and government-aided schools, and EGS and AIE centres. MDMS provided nutritional support to students in drought-affected areas during summer vacation. The maximum permissible transport subsidy was revised for Special Category States from Rs 50 to Rs 100 per quintal and for other States to Rs 75 per quintal.

1.1.40 The scheme was further revised in June 2006 to enhance the minimum cooking cost to Rs 2.00 per child per school day to provide 450 calories and 12 grams of protein. The revised scheme also provided assistance for construction of kitchen-cum-stores at the rate of Rs 60000 per unit in a phased manner in primary schools and procurement of kitchen devices (utensils, etc.) at the rate of Rs 5000 per school. Besides providing free foodgrains, cooking cost, transport subsidy, and Management Monitoring and Evaluation, 94500 schools were also sanctioned kitchen sheds and 2.6 lakh schools were sanctioned kitchen equipment.

1.1.41 The number of children covered under the programme has risen from 3.34 crore in 3.22 lakh schools in 1995 to 12 crore in 9.5 lakh primary schools/EGS centres in 2006–07.

1.1.42 A review of MDMS indicates absence of proper management structure in many States. Even the reported average number of school days on which meals are provided varied widely. National University of Educational Planning Administration (NUEPA) reports 209 days per annum, while Ministry of Human Resource Development (MHRD) reports 230 days at the national level. Steering Committees at State/

Box 1.1.1
Best Practices under MDMS

In Tamil Nadu, Health Cards are issued to all children and School Health Day is observed every Thursday. Curry leaves and drum-stick trees are grown in the school premises. In Karnataka, all schools have gas-based cooking. In Pondicherry, in addition to the mid-day meal (MDM), Rajiv Gandhi Breakfast Scheme provides for a glass of hot milk and biscuits. In Bihar, Bal Sansad (Child Cabinet) is actively involved in the orderly distribution of MDM. In Uttaranchal, mothers are appointed as Bhojan Mata and Sahayika in primary schools. In Gujarat, Chhattisgarh, and MP children are provided micronutrients and deworming medicines under MDMS.

district levels for effective monitoring are yet to be set up in some States. There are no details on coverage and facilities in EGS/AIE centres in urban areas. The Planning Commission has undertaken a detailed evaluation study in 2006–07 to assess the impact of the MDMS. On the whole, despite the prevalence of good practices, a systematic supervision and monitoring of the programme and transparency in implementation are lacking in most of the States.

1.1.43 Notwithstanding these shortcomings, MDMS appears to have had a positive impact on school attendance and nutritional status of children through removal of classroom hunger.[6] The latest National Sample Survey (NSS) (61st Round) covered MDMS along with Annapurna Integrated Child Development Services (ICDS) Scheme, and Food for Work Programme. It is reported that MDMS has benefited 8.1% of rural population and 3.2% of urban population. The total coverage of all the four programmes was 11% in rural and 4.1% in urban areas. MDMS has catered to the nutritional needs of low-income groups in both rural and urban areas.

Eleventh Plan: Goals, Targets, and Strategies in Elementary Education

1.1.44 The Constitution of India was amended in 2002 to make elementary education a justiciable Fundamental Right. However, 7.1 million children being out of school and over 50% dropping out at elementary level are matters of serious concern. SSA would, therefore, be reoriented to meet the challenges of equity, retention, and high-quality education. This would require a strong rights orientation within the programme. It is necessary to consider passing appropriate legislation for this purpose. SSA would be restructured into a National Mission for Quality Elementary Education to ensure minimum norms and standards for schools (both government and private). It would address access, quality, and equity holistically though a systems approach.

1.1.45 The backlog for additional classrooms is about 6.87 lakh. Opening of about 20000 new primary schools and upgradation of about 70000 primary schools are required.

TABLE 1.1.6
Schools without Basic Facilities, 2005–06

(Percentages)

Facilities	Primary		Upper Primary	
	2004–05	2005–06	2004–05	2005–06
Building	3.5	3.0	2.8	2.4
Toilets	51.4	44.6	16.8	15.3
Drinking water	16.3	15.1	4.7	4.8

Source: DISE data, 2005–06, NUEPA.

1.1.46 Unless there is a strong effort to address the systemic issues of regular functioning of schools, teacher attendance and competence, accountability of educational administrators, pragmatic teacher transfer and promotion policies, effective decentralization of school management, and transfer of powers to Panchayati Raj Institutions (PRIs), it would be difficult to build upon the gains of SSA. It is important to focus on good quality education of common standards, pedagogy, and syllabi to ensure minimum learning levels.

TABLE 1.1.7
Elementary Schools by Management

(in lakh)

Stages of Education	Govt.	Local Bodies	Private Aided	Private Unaided	Total
I–V	3.32	3.60	0.20	0.55	7.67
VI–VIII	1.18	0.80	0.18	0.59	2.75
I–VIII	4.50	4.40	0.38	1.14	10.42

Source: Selected Educational Statistics, 2004–05.

[6] J. Dreze and A. Goyal (2003), The Future of Mid-day Meals, *EPW*, 38(44), Nov. 1–7, pp. 4673–84.

1.1.47 In the liberalized global economy where there is a pursuit for achieving excellence, the legitimate role of private providers of quality education not only needs to be recognized, but also encouraged. Public–Private Partnership (PPP) need not necessarily mean only seeking private investments to supplement governmental efforts, but also encouraging innovation in education that the government schools may lack. Schools under private management (unaided) have been expanding at a faster rate (Table 1.1.7). However, a vast majority of the poor, particularly in rural areas, is solely dependent on government schools.

Box 1.1.2
National Commission on Education

The Kothari Commission (1964–66) was the last commission set up on education. As regards school education, the salient features of the report, submitted in 1966, advocated, inter alia (i) improving the system in existence, (ii) setting up State Boards of Education, (iii) levelling of institutions for equality, (iv) setting up area-specific neighbourhood schools, and (v) a statutory School Education Commission. While there has been progress in the last three decades on (i) and (ii) mentioned above, the same cannot be said of (iii), (iv), and (v).

There is a need for setting up a new Education Commission for deliberating on the emerging perspectives on education in the changing global context.

1.1.48 The substantial step up in the Eleventh Plan outlay in the Central sector would increasingly be invested in improving quality of elementary education, recruiting additional teachers (particularly science and mathematics), seeking technology upgradation including ICT in schools, and Technical Assistance (TA) including the educationally fragile States. The issue of poor performing schools would be addressed by grading schools through a composite index and by providing TA.

1.1.49 It has been found that students who often do not perform well in conventional subject examinations demonstrate high success levels in the use of Information Technology (IT) and IT-enabled learning. IT could provide new directions in pedagogical practices and students' achievement. The idea is not merely making children computer literate but also initiating web-based learning through modern software facilities.

1.1.50 Keeping the above in view, the following targets have been set for elementary education in the Eleventh Plan.

Eleventh Plan Targets for Elementary Education

- Universal enrolment of 6–14 age group children including the hard to reach segment.
- Substantial improvement in quality and standards with the ultimate objective to achieve standards of Kendriya Vidyalayas (KVs) under the Central Board of Secondary Education (CBSE) pattern.
- All gender, social, and regional gaps in enrolments to be eliminated by 2011–12.
- One year pre-school education (PSE) for children entering primary school.
- Dropout at primary level to be eliminated and the dropout rate at the elementary level to be reduced from over 50% to 20% by 2011–12.
- Universalized MDMS at elementary level by 2008–09.
- Universal coverage of ICT at UPS by 2011–12.
- Significant improvement in learning conditions with emphasis on learning basic skills, verbal and quantitative.
- All EGS centres to be converted into regular primary schools.
- All States/UTs to adopt NCERT Quality Monitoring Tools.
- Strengthened BRCs/CRCs: 1 CRC for every 10 schools and 5 resource teachers per block.

Quality Improvement in SSA

1.1.51 In the Eleventh Plan, the quality of education imparted in the primary and UPS would be improved through a range of coherent, integrated, and comprehensive strategies with clearly defined goals that help in measuring progress. These include the following:

- Restructure SSA with a clear goal of providing a quality of education equivalent to that of KVs under the CBSE pattern.
- Ensure basic learning conditions in all schools and acquisition of basic skills of literacy and numeracy in early primary grades to lay a strong foundation for higher classes.

- Give special focus on Maths, Science, and English (core) where students tend to be weak and universally introduce English in Class III onwards.
- Implement a Common Syllabi, Curriculum, and Pedagogy and carry out the consequent textbook revisions.
- Support more quality-related activities and improve interactive classroom transaction.
- Address fully all teacher-related issues—vacancies, absenteeism, non-teaching assignments, and fix accountability for learning outcomes of pupils.
- Achieve 100% training for teachers including para-teachers. Revise PTR to 30:1 from 40:1.
- Recruit additional teachers to deal with single teacher schools and multi-grade teaching with mandatory two-third new teachers to be female for primary classes.
- National Eligibility Test (NET)/State Eligibility Test (SET) for teacher recruitment by NCERT/State Council for Educational Research and Training (SCERT)/CBSE/State Boards to enable decentralized recruitment of high-quality teaching faculty at district/block levels.
- Make District Institutes of Education and Training (DIETs)/SCERTs fully functional and organically linked with BRC/CRC and NCERT.
- Enhance learning levels by at least 50% over baseline estimates (2005–06 District Information System for Education [DISE]).
- 'Improved Quality' to be defined in operational terms through clearly identified outcome indicators, viz. learning levels of students, teacher competence, classroom processes, teaching learning materials, etc.
- The National Curriculum Framework (NCF) 2005 and the syllabi prepared by NCERT to be the guiding documents for States for revising their curricula/syllabi with SCERTs playing a more active role in ensuring common standard.
- Introduce monetary and non-monetary incentives for recognizing good teachers with block/district and State awards.

Sharing of SSA Expenditure and Reprioritization of SSA Components

1.1.52 The approved SSA programme provided for an 85:15 sharing between Centre and the States till the end of the Ninth Plan period, 75:25 sharing during the Tenth Plan period, and 50:50 thereafter. In view of persistent demand from the States and the urgency in filling up the infrastructure gap in the educationally fragile States, the funding pattern between Centre and States/UTs for SSA Phase II has been modified to 65:35 for the first two years of the Eleventh Plan, 60:40 for the third year, 55:45 for the fourth year, and 50:50 thereafter. The special dispensation for NE States during 2005–06 and 2006–07 will continue for the Eleventh Plan whereby each of the NE States contributes only 10% of the approved outlay as State share.

1.1.53 The restructuring of SSA will include ensuring that all teachers, including para teachers, are trained, the norms for civil works are the same throughout a State, there is 1 CRC for every 10 schools, 10 CRCs per BRC, and 5 resource teachers per block, there is no single teacher school and no multi-grade teaching. The curricula/syllabi will be revised as per the NCF and the NCERT guidelines.

Special Interventions for the Disadvantaged Groups

1.1.54 Young learners from socially marginalized sections experience education in a distinctly different form than those who occupy mainstream positions of power and privilege.[7] They face overt and covert forms of rejection in schooling.[8] The Eleventh Plan will lay special focus on disadvantaged groups and educationally backward areas. This focus will include not only higher resource allocation but also capacity building for preparation and implementation of strategies based on identified needs, more intensive monitoring and supervision, and tracking of progress. Specific measures will include:

- Top priority in pre-primary schooling to habitations of marginalized sections.

[7] Sunil Batra (2006), Equity in Education in India: A distant Dream or an Elusive Reality? National Seminar on Universalising Elementary Education in India, IHD, New Delhi.

[8] K Kumar (1983), Educational Experience of Scheduled Castes and Tribes, *EPW*, 18, pp. 328–47.

- Setting up additional 500 KGBVs in blocks with higher concentration of SC, ST, OBC, and minority population.
- Special attention to districts with high SCs, STs, and minority population. Innovative funds for SFDs to be doubled.
- Focus on improving the learning levels of SC, ST, minority children through remedial coaching in schools and also in habitations through educated youth of Nehru Yuva Kendra Sangathan (NYKS), NSS, Self-help Groups (SHGs), and local non-governmental organizations (NGOs).
- Special schools for slum children in 35 cities with million plus population.
- Special intervention for migrating children, deprived children in urban slum areas, single parent's children, physically challenged children, and working children.
- Creation of capacity within the school for dealing with students lagging in studies.
- Setting up 1000 hostels in EBBs with the resident PG teacher as the warden to provide supplementary academic support.
- Sensitizing teachers for special care of weaker sections and CWSN.
- Intensive social mobilization in SCs, STs, OBCs, and predominantly tribal and minority habitations through community support.
- Housing for teachers in tribal and remote habitations.

Pre-school Education (PSE)

1.1.55 The PSE component of ICDS-Anganwadi is very weak with repetition high and learning levels low. This in turn discourages many children from continuing their education. SSA will have a component of one-year pre-primary, which can be universalized to cover 2.4 crore children in a phased manner.[9] This is critical for school readiness/entry with increased basic vocabulary and conceptual abilities that help school retention. Besides, it will free the girl child of sibling care. The existing coverage of pre-primary classes in schools is over 11 million. A large number of primary schools in States like UP and Rajasthan already have ECCE. Primary schools within the habitations are ideal for such ECCE. In other habitations, ICDS-Anganwadi will be supported.

Madarsas/Maktabs

1.1.56 In the Eleventh Plan additional madarsas maktabs will be supported for modernization under AIE component and it should be possible to cover all the 12000 odd Madarsas during the Plan period.

1.1.57 Education in human moral values, civic duties, environmental protection, and physical education will be built into the system whereby every child is prepared to face the future with a healthy frame of mind and body and become a responsible citizen. Education will foster the spirit of liberty, freedom, patriotism, non-violence, tolerance, national unity and integration, cultural harmony, inquisitive reasoning, rationality, and scientific temper in young minds. Every school and EGS/AIE centre will receive a special grant to celebrate national festivals of Independence Day and Republic Day. Hoisting of national flag on these days should be made mandatory in all educational institutions including private schools with discipline.

KGBV and DPEP

1.1.58 These schemes will be subsumed within SSA in the Eleventh Plan. Expansion of 500 KGBVs in district/blocks with high concentration of SCs, STs, OBCs, and minorities will be taken up. Also, an in-depth evaluation of the functioning of the existing KGBVs will be undertaken. The programme of civil works under KGBV appears to be slow in many States. DPEP will end in November 2008 and will be subsumed under SSA as per the existing procedure. The external commitments will however be met.

Mid-Day Meal Scheme (MDMS)

1.1.59 The scheme has been extended to UPS (government, local body, and government-aided schools, and EGS/AIE centres) in 3479 EBBs from 1 October 2007 to cover 17 million additional children and will be extended to all UPS from April 2008 to cover 54 million children. Thus, MDMS will cover about 18 crore children by 2008–09. The nutritional value of meals for upper primary children will be fixed at

[9]Mid-Term Appraisal of the Tenth Five Year Plan, 2005, Planning Commission, New Delhi.

700 calories derived from 150 gm of cereals and 20 gm of protein.

MDMS: ACTION POINTS

- MDM to be managed by the local community and PRIs/NGOs, and not contractor-driven: civic quality and safety to be prime considerations.
- Sensitize teachers and others involved in nutrition, hygiene, cleanliness, and safety norms to rectify observed deficiencies.
- Involve nutrition experts in planning low cost nutrition menu and for periodic testing of samples of prepared food.
- Promote locally grown nutritionally rich food items through kitchen gardens in school, etc.
- Revive the School Health Programme; disseminate and replicate best practices adopted by States.
- Provide drinking facilities in all schools on an urgent basis.
- Display status regarding supplies, funds, norms, weekly menu, and coverage in schools to ensure transparency.
- Central assistance to cooking cost should be based on the actual number of beneficiary children and not on enrolment.
- Promote social audit.
- Online monitoring.

Mahila Samakhya (MS)

1.1.60 The MS programme will be continued as per the existing pattern and expanded in a phased manner to cover all the EBBs and also in urban/suburban slums, as it contributes to educational empowerment of poor women. There is a need to operationalize the National Resource Centre of MS to support training, research, and proper documentation. The documentation and dissemination of MS needs its strengthening. It is desirable to conclude negotiations with the development partners as EAP comes with excellent project design and measurement system, capacity building, and TA.

Literacy and Adult Education: Performance in Tenth Plan

1.1.61 Literacy is the most essential prerequisite for individual empowerment. A new thrust was given to adult literacy in the National Policy on Education 1986 and the Plan of Action 1992, which advocated a three-pronged strategy of adult education, elementary education, and non-formal education to eradicate illiteracy. The National Literacy Mission (NLM) was set up in 1988 with an initial target to make 80 million persons literate by 1995, which was later enhanced to 100 million by 1997 and the revised target is to achieve a threshold level of 75% literacy by 2007.

1.1.62 Dominant strategies of the NLM and the Total Literacy Campaigns (TLC) were 'area specific, time bound, volunteer based, cost effective and result oriented.' The efforts made by the TLCs and Post Literacy Projects (PLP) to eradicate illiteracy yielded commendable results: rise in literacy from 52.2% in 1991 to 64.8% in 2001. The urban–rural literacy differential also decreased during the period. The literacy rates for females increased at a faster rate than that for males. However, gender and regional disparities in literacy still continue to persist.

1.1.63 The national overall literacy rate for Muslims is 59.1% (males 67.6% and females 50.1%). The literacy rate among Muslims is higher than the national literacy rate of 64.8% in 17 States/UTs.

1.1.64 Female literacy rates among Muslims are particularly low in Haryana (21.5%), Bihar (31.5%), Nagaland (33.3%), and Jammu and Kashmir (34.9%).

1.1.65 The Tenth Plan had set a target of achieving a sustainable threshold level of 75% literacy by 2007, to cover all left-over districts by 2003–04, to remove residual illiteracy in the existing districts by 2004–05, to complete PLP in all districts and to launch Continuing Education Programmes (CEP) in 100 districts by the end of the Plan period

TLC and PLP

1.1.66 The TLC has been the principal strategy of NLM for eradication of illiteracy. The TLCs are implemented through Zilla Saksharata Samitis (District Literacy Societies), independent and autonomous bodies having due representation of all sections of society. A total of 597 districts are presently covered under various literacy programmes The Central:State share for TLCs and PLPs is in the ratio of 2:1 for general districts and

4:1 for tribal districts. During the Tenth Plan period, the total number of districts under TLC and PLP were 95 and 174, respectively. Special project undertaken through these agencies are:

Accelerated Female Literacy Programme

1.1.67 As per 2001 census, 47 districts had a female literacy rate below 30%. These districts are concentrated in UP, Bihar, Orissa, and Jharkhand. Special innovative programmes were taken up in identified districts for improvement of female literacy.

Projects for Residual Illiteracy

1.1.68 In many cases despite the completion of the TLC campaigns, a large number of illiterates remained unreached. Projects for Residual Illiteracy were launched after the conclusion of TLCs for covering the remaining illiterates in districts of Rajasthan (10), Andhra Pradesh (8), Bihar (4), Jharkhand (3), MP (9), Karnataka (2), UP (13), and WB (4).

Special Literacy Drive in 150 Districts

1.1.69 A special literacy drive was launched in 150 districts in April 2005, which had the lowest literacy rates in the country. These districts are mainly in UP, Bihar, Jharkhand, Rajasthan, MP, Chhattisgarh, and Orissa. The special drive aimed to cover nearly 36 million illiterates during 2005–07. So far, 134 districts have been completed.

Continuing Education Programme (CEP)

1.1.70 The Continuing Education Scheme provides a learning continuum to the efforts made by TLC/PLP. The main thrust is on providing further learning opportunities to neo-literates by setting up Continuing Education Centres that provide area-specific and need-based opportunities for basic literacy, upgradation of literacy skills, pursuit of alternative educational programmes, vocational skills, and promotion of social and occupational development. The total number of districts covered under CEP is 328.

Jan Shikshan Sansthan (JSS)

1.1.71 The objective of JSS Scheme is educational, vocational, and occupational development of socio-economically backward and educationally disadvantaged groups of urban/rural population, particularly neo-literates, semi-literates, SCs, STs, women and girls, slum dwellers, migrant workers, etc. By linking literacy with vocational training, JSSs seek to improve the quality of life of the beneficiaries. JSSs offered around 284 different types of vocational courses—from candle and agarbatti making to computer training and hospital/health care. The total number of JSSs is 198.

Major Weaknesses in Adult Education Programmes

1.1.72 The constraints in the implementation of adult education programmes include inadequate participation of the State Governments, low motivation and training of voluntary teachers, lack of convergence of programmes under CEP, and weak management and supervision structure for implementation for NLM. Besides, the funding for various components of NLM schemes was also inadequate and the level of community participation was low.

Adult Education and Literacy: Goals, Targets, and Strategies for the Eleventh Plan

Adult Education

1.1.73 The NLM programmes will be revamped in the Eleventh Plan. The targets and special focus areas are given in Box 1.1.3 below.

Box 1.1.3
Eleventh Plan Targets and Special Focus Areas

Eleventh Plan Targets	Special Focus Areas
• Achieve 80% literacy rate, • Reduce gender gap in literacy to 10%, • Reduce regional, social, and gender disparities, • Extend coverage of NLM programmes to 35+ age group	• A special focus on SCs, STs, minorities, and rural women. • Focus also on low literacy States, tribal areas, other disadvantaged groups and adolescents.

Revamped Strategy of NLM in Eleventh Plan

1.1.74 The main features of the revamped NLM will be:

- Integrating Zilla Saksharata Samitis with the PRIs.

- Bringing literacy programmes at various levels under PRI structures at Block/Gram Panchayat levels, through Panchayat Saksharata Samitis.
- Revamping of NLM integrating TLC, PLP, and CEP and introducing a broad-based Lifelong Education and Awareness Programme (LEAP). The LEAP will offer diverse learning programmes, functional skills, Quality of Life Improvement Programmes, Vocational Skills, and Equivalency Programmes.
- Centres for Lifelong Education and Awareness will be multifunctional and multidimensional seeking to provide a variety of learning programmes to beneficiaries.
- ICTs will be more widely used to spread literacy in the country.
- About 250 new JSS will be set up in the Eleventh Plan. The sanction of new JSS will be contingent upon independent evaluation of the existing JSS with regard to their utility.
- To ensure transparency in the functioning of JSS, an accreditation process will be evolved in partnership with States and only accredited NGOs with good track record will implement JSS. The management of dysfunctional JSS will be changed. The quality of JSS training programme will be improved with the help of professional technical institutions of the district and the programmes tuned to meet local demand. Placement record of the trainees in the self employment will be maintained.
- A stronger synergy would be ensured between the State Resource Centres (SRCs) and the Adult Education Departments in universities for sound academic and research inputs.
- Existing SRC/District Resource Centre (DRC) will be strengthened as per the assessed needs and new SRCs will be set up only in the States where they do not exist. There will be no more than one SRC per State irrespective of the size of the State's population so that uniform standards are maintained including production of Teaching Learning Materials (TLM).
- All NGO-operated schemes will be sanctioned to accredited institutions only. The accreditation process will invariably involve State Governments and the accredited institutions will be listed on the MHRD website.

1.2 SECONDARY EDUCATION AND VOCATIONAL EDUCATION (VE)

1.2.1 The success of SSA in achieving large scale enrolment of children in regular and alternate schools has thrown open the challenge of expanding access to secondary education. Rapid changes in technology and the demand for skills also make it necessary that young people acquire more than eight years of elementary education to acquire the necessary skills to compete successfully in the labour market. Moreover, secondary education serves as a bridge between elementary and higher education.

1.2.2 The stage is thus set for universalization of secondary education. The population of children in the age group (14–18 years) is estimated at 107 million in 2001, 119.7 million in 2006, and 121.1 million in 2011, where as, the current enrolment in secondary and senior secondary education together is around 37 million only (2004–05).

Secondary Education: Review of Performance in the Tenth Plan

1.2.3 The thrust of secondary education during the Tenth Plan period was on improving access and reducing disparities by emphasizing the Common School System in which it is mandatory for schools in a particular area to take students from low-income families in the neighbourhood. The Tenth Plan also focused on revision of curricula with emphasis on vocationalization and employment-oriented courses, expansion and diversification of the open learning system, reorganization of teacher training, and greater use of ICTs. These objectives have been achieved only partly.

Access

1.2.4 The enrolment in 1.02 lakh secondary and 0.50 lakh higher secondary schools is 24.3 million and 12.7 million, respectively (2004–05). The GER for secondary education (IX and X) is 51.65% and that for higher secondary 27.82%. The combined GER for both the levels is only 39.91%. The dropout rate at secondary level is as high as 62% (Table 1.2.1).

1.2.5 There are glaring inter-State and intra-State variations in enrolment, dropouts, and access to

secondary and higher secondary schools (Annexure 1.2.1). At the national level, the average number of secondary/higher secondary schools per 1 lakh population is as low as 14 and it is lower than the national average in Bihar (4), UP (7), WB (10), and also Jharkhand (4) and Chhattisgarh (12). The national average number of secondary and higher secondary schools per 100 sq. km is only four, and Bihar, UP, Rajasthan, MP, Chhattisgarh, and Jharkhand fall below this national average. Consequently, the GER in these States is lower than the national average of 39.91%.

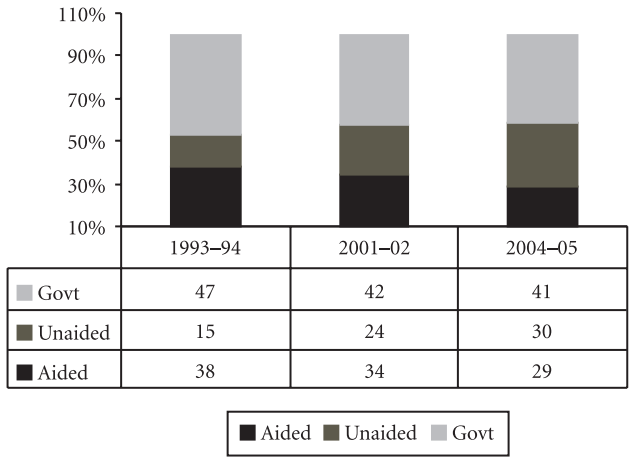
TABLE 1.2.1
Secondary Education—Enrolment and Dropout, 2004–05

S. No.	Indicators Enrolment (in crore)	Boys	Girls	Total
1	Secondary (IX–X)	1.42 (57.39)	1.01 (45.28)	2.43 (51.65)
2	Hr Secondary (XI–XII)	0.74 (30.82)	0.53 (24.46)	1.27 (27.82)
3	Secondary & Hr Sec. (IX–XII)	2.16 (44.26)	1.54 (35.05)	3.70 (39.91)
4	Dropout (%) Rates (I–X)	60.41	63.88	61.92

Note: Figures in the parentheses are GER.
Source: Selected Educational Statistics (2004–05), MHRD.

1.2.6 During the decade ending 2004–05, enrolment at the secondary and higher secondary levels increased at an average annual rate of 5.32%. During the three years of the Tenth Plan upto 2004–05, it increased at a faster rate of 6.75% per annum and an additional 7.5 million children were enrolled. There will be further acceleration in secondary enrolments during the Eleventh Plan period as the primary dropout rates are declining and the transition rate from primary to upper primary is getting closer to 90%.

1.2.7 Nearly 60% of secondary schools are with private management both aided and unaided, almost in equal proportions. The share of government and local body schools and private aided schools has shown a declining trend with private unaided schools showing an increase from 15% in 1993–94 to 24% in 2001–02 and further to 30% in 2004–05 (see Figure 1.2.1). The doubling of the share of private unaided schools indicates that parents are willing to pay for education that



Source: Selected Educational Statistics (2004–05), MHRD.

FIGURE 1.2.1: Secondary Schools by Management

is perceived to be of good quality. The factors underlying this perception include better English teaching, better monitoring and supervision of students' performance, better attention, attendance and accountability of teachers. There is, however, no evidence to show that the enrolments in these schools are additional. Only those who can afford to pay apparently opt for these schools and their average enrolment is much lower than that in the aided and government schools. Public sector investment in secondary schools has therefore to be increased even for incentivizing PPP.

SC and ST Enrolments

1.2.8 The secondary education GER for SCs and STs 45.4% and 37.2%,are respectively, as compared to the overall GER of 51.6% indicating a substantial social gap in enrolments for these groups. The GER for girls belonging to SCs and STs is 37.6% and 30.5%, respectively, indicating a substantial gender gap in enrolment for these groups.

Girls' Education

1.2.9 The Central Advisory Board of Education Committee Report on Girls Education noted a gross shortage of secondary schools for girls (both co-educational and girls' schools). The dropout of girls is extremely high mainly in the northern States, not only because the parental priority for girls' education is low, but also due to the poor access to schools in the rural areas. Opening of schools exclusively for girls appears to be

necessary to overcome the gender disparity. States have to undertake, on priority, school mapping for girl's education, especially for Muslim girls.

1.2.10 The Union Government has been implementing the scheme 'Strengthening of Boarding and Hostel Facilities for Girl Students of Secondary and Higher Secondary Schools (Access & Equity)'. Under the scheme, financial assistance is given to societies and NGOs to provide boarding and hostel facilities to girls, predominantly belonging to the rural, desert, and hilly areas, and particularly for those belonging to SCs, STs, and educationally backward minorities. The performance of the scheme is not up to the mark. The scheme will be restructured and merged with the new umbrella scheme of 'Universalization of Access and Improvement of Quality of Secondary Education'.

Quality Improvement in Schools

1.2.11 During the Tenth Plan, a composite Centrally sponsored scheme (CSS) of 'Quality Improvement in Schools' was introduced by converging the following five existing schemes: (i) Improvement of Science Education in Schools, (ii) Promotion of Yoga in Schools, (iii)Environmental Orientation to School Education, (iv) National Population Education Project, and (v) International Science Olympiads. Improvement of Science Education in Schools has since been transferred to the States as a State sector scheme and the remaining four components are being implemented by NCERT. It appears that very few States implement this scheme at present.

National Curriculum Framework (NCF)

1.2.12 Mathematics, Science, and English are the three core subjects in which a large number of students do not fare well in examinations. In fact, nearly 50% fail in these subjects. This is perhaps the biggest shortcoming of both the elementary and secondary education system. The NCF—2005 NCERT addresses this issue. The National Focus Group on 'Teaching of Science' suggested prevention of marginalization of experiment-based learning in school science curriculum. Investment is required for improving school libraries, laboratories, and workshops to promote culture of experiment-based learning while reducing the importance of external examinations. There is also a need to have computer-interfaced experiments and projects utilizing database from public domain.

Education for Disabled

1.2.13 The scheme 'Integrated Education for the Disabled Children (IEDC)' is being implemented with a view to integrating children and youths with mild and moderate disabilities in the formal school system. It provides 100% financial assistance to States/UTs and NGOs. About 2.84 lakh children from 1.0 lakh schools were benefited under the scheme.

Central Sector Schemes (CS)

1.2.14 The Central Government is managing and fully funding four types of schools viz., KVs, Navodaya Vidyalayas (NVs), Central Tibetan Schools (CTSs), and National Institute of Open Schooling (NIOS). There are 972 KVs with an enrolment of 9.54 lakh and staff strength of about 46000. KVs are to cater to the educational needs of the wards of transferable Central Government and public sector employees. There are 548 NVs with a total enrolment of 1.91 lakh students, selected through entrance tests. These are pace setting residential co-educational schools providing quality education to talented children predominantly from rural areas. The enrolment of SC and ST children in these schools is 23.9% and 16.2%, respectively. There are 79 CTSs with a total enrolment of 9755 children. NIOS provides opportunities for continuing education to those who missed completing school education. 14 lakh students are enrolled at the secondary and senior secondary stages through 11 Regional Centres, 1943 accredited institutions for academic courses, and 1002 accredited vocational institutions (AVIs) for programme delivery through open learning and distance learning. NIOS centres have also been set up in UAE, Kuwait, Nepal, and China.

Allocation and Expenditure of the Tenth Plan

1.2.15 As against the total Tenth Plan allocation of Rs 4325.00 crore, the anticipated expenditure was Rs 3766.90 crore.

Secondary Education: Goals, Targets, and Strategies for the Eleventh Plan

1.2.16 The Eleventh Plan aims to: (i) raise the minimum level of education to class X and accordingly

universalize access to secondary education; (ii) ensure good quality secondary education with focus on Science, Mathematics, and English; and (iii) aim towards major reduction in gender, social, and regional gaps in enrolments, dropouts, and school retention. The norm will be to provide a secondary school within 5 km and a higher secondary school within 7–8 km of every habitation. The GER in secondary education is targeted to increase from 52% in 2004–05 to 75% by 2011–12 and the combined secondary and senior secondary GER from 40% to 65% in the same period.

Scheme for Universal Access and Quality at the Secondary Stage (SUCCESS)

1.2.17 The erstwhile schemes of ICT in schools, girls child incentive, IEDC, VE, etc. will be subsumed under a new umbrella CSS named SUCCESS. The principal objectives of SUCCESS will be (i) universalizing access with major reduction in gender, social, and regional gaps in enrolment, dropout, and retention and (ii) improving quality with focus on Science and Maths. Specific interventions will include:

- Setting up 6000 high quality Model Schools at block level to serve as benchmark for excellence in secondary schooling.
- Upgrading 15000 existing primary schools to secondary schools.
- Increasing the intake capacity of about 44000 existing secondary schools.
- Strengthening infrastructure in existing schools with 3.43 lakh additional classrooms and additional 5.14 lakh teachers.
- Encouraging establishment of good quality schools in deficient areas in both public and more in PPP mode.
- Expansion of KVs and NVs in underserved areas.
- 100% trained teachers in all schools and reaching PTR of 25:1 by 2011–12.
- Revamped ICT in secondary and higher secondary schools.

1.2.18 The 6000 Model Schools will be set up in two distinct streams. Under both the streams, land will be provided by the State/UTs free of cost. The first stream will consist of 3500 public funded schools (3000 in KVs and 500 in NVs template) to be launched in the EBBs which have a significant SC, ST, OBC, and Minority population. The second stream of about 2500 schools would be set up through PPP in other blocks with emphasis on geographical, demographic, gender, and social equity. These schools will be managed and run by involving corporates, philanthropic foundations, endowments, educational trusts, and reputed private providers.

Substantial Improvement in Quality of Secondary Education

1.2.19 The other measures for improving quality in secondary education will include adoption of NCF 2005, adoption of NET/SET of NCERT/CBSE/SCERT/State Boards to enable recruitment of quality teaching faculty; long pending institutional reforms in school management, and ensuring accountability at all levels.

Revamped ICT in Schools

1.2.20 There has been a significant impact of ICT in the delivery of educational services across the world. ICT infrastructure will be established at government and government-aided secondary and senior secondary schools during the Eleventh Plan period. There are about 1.4 lakh such schools out of which 1.08 lakh are government and government-aided schools. About 28000 schools are in far flung areas. About 80000 schools are proposed to be connected on Internet through terrestrial/wireless broadband mode and the remaining 28000 schools will be provided Internet connectivity through broadband Very Small Aperture Terminals. The latter mode of connectivity (satellite) has been proposed as the terrestrial infrastructure in the far flung and Schedule V regions is quite weak and service providers have no immediate plans to extend the broadband infrastructure in these regions. UPS with battery backups and solar power panels for uninterrupted power supply will also be provided as per requirements.

1.2.21 An amount of Rs 5000 crore is being provided during the Eleventh Plan for providing ICT infrastructure in schools. Under this programme, each school will be provided with ICT infrastructure consisting of

a networked computer lab with at least ten computers, a server, a printer connected on Local Area Network and broadband Internet connectivity of 2 Mbps. Every school will also have a technology classroom, with audio visual equipment for enhancing the learning. A dedicated programme for content creation as per the curricula will be undertaken as an integral part of this initiative. In addition, educational content on CDs for embellishing classroom teaching will also be made available. Training of teachers in the use of computers and teaching through computers will be another important component of this initiative.

1.2.22 This revamped scheme of ICT in schools will be implemented in partnership with the States and private providers. This will be a sub-Mission of the National Mission of ICT of MHRD.

Education for Girls

1.2.23 Most of the States implement incentive schemes for education of girls, but generally with very limited coverage. Measures will be undertaken to overcome obstacles to girls' education posed by factors such as poverty, domestic/sibling responsibilities, girl child labour, low preference to girls' education, preference to marriage over the education of girls, etc. A Girl Child Incentive Scheme will be launched on a pilot basis in the selected EBBs. On the basis of quick evaluation, its expansion will be considered in the Eleventh Plan period. The merger of all girl child incentives schemes will be ensured.

Bridging Social Disparities

1.2.24 In order to bridge social gaps in secondary education in respect of SCs, STs, minorities, and OBCs, the Eleventh Plan will address specific areas including (i) upgradation of elementary schools to secondary schools in geographic concentration areas of relevant social groups, (ii) supply of free uniforms, text books, footwear, (iii) supply of bicycle/wheelchairs, (iv) hostels for boys and girls, (v) stipends to the deserving children, (vi) support to all Madrasas for adoption of general curriculum of States, (vii) pre-matric and post-matric scholarships, (viii) special remedial coaching within/outside school for weaker students, and (ix) an area-intensive approach with community participation.

Education of Children with Disabilities

1.2.25 The scheme of Inclusive Education for the Disabled at Secondary Stage (IEDSS) will enable all students with disabilities completing eight years of elementary schooling an opportunity to complete four years of secondary schooling (classes IX–XII) in an inclusive and enabling environment. The IEDSS will also support the training programmes for general school teachers to meet the needs of children with disabilities.

Levy of Fees

1.2.26 Even in public schools, there is a need to encourage some fees for students for enabling school management to raise resources for quality improvement. This should be accompanied by a generous provision of scholarships to those who cannot afford such fees, particularly girl students who are at the risk of dropping out and marrying early.

National Institute of Open Schooling (NIOS)

1.2.27 During the Eleventh Plan, the thrust of the Open Schooling system will be on (i) developing NIOS as a potential Resource Organization in Open Schooling at the national and international level, besides offering courses of study, (ii) up-scaling programmes of the existing 10 State Open Schools (SOSs), and (iii) setting up SOSs in the remaining 19 States. In order to ensure quality in Open Schooling, there will be a full-time coordinator with ancillary staff on contract basis in each Study Centre under the Open Schooling system. During the Eleventh Plan, 1000 AVIs will be set up as a part of the Skill Development Mission (SDM). All AVIs will be rated for their performance before continuation.

Teacher Education

1.2.28 During the Tenth Plan, the thrust areas for Teacher Education are development and strengthening of teacher education institutes, improvement in quality of pre-service and in-service teacher education, professional development of teacher education, and assessment of students. All these were to ensure that teacher education leads to qualitative improvement of schools. The performance of teacher education programmes has not, however, been satisfactory. The objective of setting up DIETs was to influence the

quality of teacher education through innovative pre-service and in-service education programmes. However, there seems to be no evidence of DIETs taking off, constrained as they are by several factors that are proposed to be addressed in the Eleventh Plan. The scheme of Restructuring and Reorganizing of Teacher Education, a CSS, has built up a large infrastructure base with 571 DIETs/DRCs, 104 Colleges of Teacher Education (CTEs), and 31 Institutes of Advanced Study in Education (IASEs) up to 2006–07. However, in view of the acute shortage of teachers, States have appointed a large number of para-teachers through VECs.

1.2.29 DIETs have not justified their existence in terms of outcomes despite their existence for about two decades. DIETs were in acute shortage of quality faculty and several DIETs were headless during the Tenth Plan. Structural problems and the absence of linkages with higher education seem to have isolated DIETs from current trends in research as well as from the academic community. The quality of teacher training leaves much to be desired. SCERTs have also not yet measured up to their expectations. It appears that quality faculty for DIETs needs to be outsourced or else DIETs should adopt the PPP mode, in partnership with reputed institutions to take up intensive and useful training activities. The Eleventh Plan should ensure that the DIETs fulfil their mandate.

1.2.30 A holistic framework cross-connecting various teacher education institutions ranging from those run by universities and research organizations to SCERTs, DIETs, BRCs, and CRCs is needed. A core team drawn from apex agencies and universities should be set up to evolve linkages and to draw up standards for teacher education, along with a plan for academic support at each level. This team will also formulate detailed guidelines for recruitment of teacher educators, academic responsibility, affiliation, and accountability.

1.2.31 A grading system of DIETs/SCERTs will be evolved through NCERT/State Institute of Educational Management and Training (SIEMAT). All teacher training for elementary education will be brought under a single major head. All in-service training, pre-service training, special courses, training for remedial coaching, training of master trainers, etc., will be brought under the aegis of DIETs. BRCs and CRCs will be organically linked with DIETs. All training institutions (NCERT to CRCs) will be properly strengthened and funded to enable them to conduct programmes of high standards.

1.2.32 The vacant faculty positions in DIETs will be filled on a drive basis. A broad-based faculty development programme for continuous teacher training and master trainers will be in place. DIETs will develop their own model institutions or set benchmarks in collaboration with renowned teacher training institutions (TTIs). There will be full-fledged teacher training capacity building from CRCs to NCERT with adequate funding. A special package for improving teacher education in NE States needs to be initiated. The Regional Centre of Indira Gandhi National Open University (IGNOU) and the newly created North East Regional Institute of Education of NCERT may be entrusted with this task. Special support to NE States should also be extended to establish additional teacher education institutions. MHRD will create a teacher education portal giving details of all teacher education institutions, their calendar of training programmes, curriculum, best teaching/learning practices, self-learning material, theoretical and practical teaching material, etc.

1.2.33 The Teacher Education Scheme should be implemented in partnership with States. Recurring expenditure on the scheme, including salaries and contingencies during the Eleventh Plan period will be met by GoI to the extent of 100% in 2007–08 and thereafter progressively reduced by 10% each year to be 90% in 2008–09; 80% in 2009–10; 70% in 2010–11, and 60% in 2011–12 so that gradually the States can take up their committed liabilities and hold establishment expenditure. The GoI will bear 100% of the new establishment and programme components expenditure.

1.2.34 The Eleventh Plan would be a Quality Plan in respect of the education sector. The following specific programmes are proposed to be taken up in teacher education during the Eleventh Plan.

- Strengthening Teacher Education by (i) developing Teacher Education Information Base in Public

Domain, (ii) creating additional support systems in the field, and (iii) strengthening academic capacity.
- Continuation of existing scheme relating to SCERTs.
- Continuation of support to IASEs and CTEs.
- Conducting training of Educational Administrators including Head Teachers.
- Introducing substitute/stipend scheme for enabling teachers and educational administrators to enhance their academic qualifications.
- Continuation of support to DIETs.
- Augmenting Teacher Education capacity in SC/ST and minority areas.
- Professional Development of teacher through training programmes.
- Professional Development of Teacher Educators through Refresher Courses and Fellowship programmes.
- Support to NGOs.
- Technology in Teacher Education.
- Integrating Elementary Teacher Education with Higher Education.

NCTE, SCERTs, CTEs, and IASEs

1.2.35 National Council for Teacher Education (NCTE) is a statutory body vested with the responsibility of maintaining quality standards in teacher education institutions. Performing this task is obviously linked to regulating the establishment of TTIs in accordance with specified norms and matching the need for qualified teachers. Uncontrolled growth in the number of private TTIs in recent years has led to unevenness in the quality of teacher training institutions. There has been a mushroom growth of low-quality private institutions. While NCTE has been very active in southern States and Maharashtra, it is virtually dormant in the eastern States. The existing mechanism for regular monitoring has proved inadequate.

1.2.36 SCERTs have been in existence in practically all States of the country. Though SCERTs were envisaged as apex institutes for educational research and training, the older State-created institutions such as the State Institutes of Education (SIEs) also continue to function in some States. SIEs and SCERTs will be merged. New SCERTs could be set up in States that are yet to establish them. Expansion of CTEs and IASEs will be undertaken only on the basis of evaluation by independent bodies.

1.2.37 Pre-service and in-service training programmes, the annual conference of Directors of SCERTs/SIEs, NCERT Awards for innovative practices in teacher education/school education, etc., have continued to be organized by the NCERT. Besides NCERT organizes orientation programme for librarians of SCERTs/DIETs. However, NCERT has contributed very little to the capacity building of the SCERTs. The schemes implemented by NCERT, particularly those relating to grants needs to be evaluated by an independent professional agency.

There is a need to address the teacher training requirements in polytechnics. Teachers in polytechnics have to be trained to upgrade their teaching skills due to the changes in technology. Further, in order to keep pace with industry, the curriculum of diploma courses will be revised and its periodic updation made compulsory.

Vocational Education: Review of Performance in Tenth Plan

1.2.38 The Kothari Commission on Educational Reforms, 1964–66, had visualized that 25% of the students at the secondary stage would go for the vocational stream. The Kulandaiswamy Committee Report had targeted this figure at 15% to be achieved by 2000. According to the recent National Sample Survey Organization (NSSO) data, only 5% of the population of 19–24 age group in India have acquired some sort of skills through VE. The corresponding figure for Korea is 96%.

1.2.39 The CSS of Vocationalization of Secondary Education at +2 level is being implemented since 1988. The revised scheme is in operation since 1992–93. The scheme provides financial assistance to States for setting up administrative structures, carrying out area-vocational surveys, preparing curriculum guides training manuals, organizing teacher training programmes, strengthening technical support system for research and development (R&D), etc. It also provides financial assistance to NGOs and voluntary organizations (VO) for implementation of specific innovative projects for conducting short-term courses. Under the

scheme, an enrolment capacity of over 10 lakh students in 9583 schools with about 21000 sections have been created so far.

Vocational Education: Strategy and Targets in the Eleventh Plan

Strategy

1.2.40 The National SDM is on the anvil. It is envisaged to evolve a comprehensive scheme for creating a diverse and wide range of skills for our youth that would enable the country to reap the scientific and demographic dividend. The emphasis will be on demand-driven VE programmes in partnership with employers. The current programmes will be restructured with emphasis on hands-on training/exposure, vertical mobility, and flexibility.

1.2.41 Greater emphasis will be placed on the services sector and, therefore, on soft skills, computer literacy, and flexi-time. There will also be emphasis on development of generic and multiple skills so that persons may respond to changes in technology and market demands. Generic skills that cut across a number of occupations would enable an individual to transfer from one field to another during his/her working life. Other features will include compulsory partnership with employers who could provide trainers and arrange for internships, give advice on curricula, and participate in assessment and certification.

1.2.42 Only 5% of the population can receive skill training through the formal system. The remaining about 4.0 crore unskilled and semi-skilled persons, who are already working, will be given continuous or further training for upgradation of their skills through a variety of delivery systems, including part-time, sandwich system, day release system, block release system, open and distance learning system, etc.

1.2.43 VE programmes preparing for occupations in Farming, Artisan Trades, Crafts, Small and Medium Enterprises, particularly for self-employment, will include entrepreneurship development and elementary training in ICT to enable persons to take responsibility for production, marketing, management, and rational organization of enterprise.

1.2.44 VE could be offered in flexible mode through modular courses of varying durations, with credit transfer facility. Clear strategies for encouraging access to Vocational Education and Training (VET) for marginalized groups, including SCs, STs, OBCs, minorities, girls, street children, working children and differently abled children will be adopted.

1.2.45 A National Vocational Qualification (NVQ) system, in which public and private systems of VE collaboratively meet the needs of industry and individuals, will be developed. Under this, modular competency based vocational courses will be offered along with a mechanism of testing skills. Bridge courses to facilitate people without any formal education to get enrolled in the regular system of courses will also be developed through NVQ system.

1.2.46 The functioning of the Central Institute of Vocational Education, Bhopal, will be reviewed and the institute restructured to serve as a national resource institution for policy, planning, and monitoring of VE programmes and for developing a NVQ system in the country.

1.2.47 An integrated institutional mechanism for effective implementation of vocational programmes, with quality checks at the State, district, and block levels could be established as a distinct wing of the existing institutional arrangements of SCERT, DIETs, and BRCs. These institutions will be strengthened in a convergent mode.

Physical Targets

1.2.48 During the Eleventh Plan, VE will be expanded to cover 20000 schools with intake capacity of 25 lakh by 2011–12. The programme will ensure mobility between vocational, general, and technical education and multiple entry and exit options.

1.3 HIGHER AND TECHNICAL EDUCATION

1.3.1 The investment made in higher education in the 1950s and 1960s has given us a strong knowledge base in many fields and contributed significantly to economic development, social progress, and political democracy in independent India. At the time of independence, the number of universities was no more than

20, of colleges around 500 and the total enrolment was less than 1.0 lakh. By the end of the Tenth Plan, the Indian higher education system has grown into one of the largest in the world with 378 universities, 18064 colleges, a faculty strength of 4.92 lakh, and an estimated enrolment of 140 lakh students. The higher education institutions include 23 Central universities (CU), 216 State universities, 110 deemed universities, 11 private universities, and 33 institutions of national importance established through central legislation and another 5 institutions established through State legislations.

1.3.2 Despite the expansion that has occurred, it is evident that the system is under stress to provide a sufficient volume of skilled human power, which is equipped with the required knowledge and technical skills to cater to the demands of the economy. The accelerated growth of our economy has already created shortages of high-quality technical manpower. Unlike the developed countries, where the young working age population is fast shrinking with higher dependency ratios, India has a demographic advantage with about 70% of the population below the age of 35 years. But this advantage can only be realised if we expand opportunities for our youth on a massive scale and in diverse fields of basic science, engineering and technology, health care, architecture, management, etc. This is possible only if we initiate rapid expansion along with long overdue reforms in the higher, technical, and professional education sectors.

1.3.3 Expansion, inclusion, and rapid improvement in quality throughout the higher and technical education system by enhancing public spending, encouraging private initiatives, and initiating the long overdue major institutional and policy reforms will form the core of the Eleventh Plan effort. *Our long-term goal is to set India as a nation in which all those who aspire good quality higher education can access it, irrespective of their paying capacity.*

Higher Education: Review of the Tenth Plan

Expansion

1.3.4 The focus of the Tenth Plan was on primary education with an expenditure of over Rs 50000 crore, whereas, the expenditure on university and higher education was below Rs 8000 crore. The growth of higher education system during the Tenth Plan is given in Table 1.3.1.

TABLE 1.3.1
Growth of Higher Education System

No. of Institutions	2002	2007
Universities	201	378
Colleges	12342	18064
NAAC Accredited:		
(i) Universities	61	140
(ii) Colleges	198	3492
Enrolment(lakh)	75	140

Source: UGC-NAAC.

1.3.5 Our GER of around 11% is very low compared to the world average of 23.2%, 36.5% for countries in transition, 54.6% for the developed countries, and 22% for Asian countries. Further, with high disparities (Table 1.3.2), inclusive education has been an elusive target. 370 districts with GER less than the national average need enrolment drives and rapid expansion of higher education institutions.

TABLE 1.3.2
Disparities in GER, 2004–05

Disparities	GER
Area:	
(i) Rural	6.70
(ii) Urban	19.90
Gender:	
(i) Male	12.40
(ii) Female	9.10
Social:	
(i) SCs	6.57
(ii) STs	6.52
(iii) OBCs	8.77
(iv) Others	17.22
ALL	11.00

Source: UGC.

1.3.6 We should aim to increase the GER to 21% by the end of the Twelfth Plan with an interim target of 15% by 2011–12. To achieve this, the enrolments in universities/colleges need to be substantially raised at an annual rate of 8.9% to reach 21 million by 2011–12.

This requires an additional enrolment of 8.7 lakh students in universities and 61.3 lakh in colleges.

Private Institutions

1.3.7 A welcome development during the Tenth Plan is that the share of private unaided higher education institutions increased from 42.6% in 2001 to 63.21% in 2006. Their share of enrolments also increased from 32.89% to 51.53% in the same period. This trend is likely to continue in the Eleventh Plan and therefore, it is reasonable to expect that about half of incremental enrolment targeted for higher education will come from private providers.

1.3.8 Though the emergence of the private sector has helped expand capacity, it is characterized by some imbalances. Private institutions have improved access in a few selected disciplines such as engineering, management, medicine, IT, etc. where students are willing to pay substantial fees. However, the distribution across country is uneven, with some States receiving most of the growth in private institutions.

Grant to Colleges/Universities

1.3.9 Out of the 18064 colleges that exist today, only 14000 come under the purview of the University Grants Commission (UGC) system, with permanent and temporary affiliations. UGC assists only 40% (5625) of these 14000 colleges recognized under Section 12(b) of UGC (permanent affiliation) Act, which meet the minimum eligibility norms, mostly in terms of physical facilities and infrastructure.

Central Universities (CU)

1.3.10 The existing State universities of Allahabad, Manipur, Tripura, and Arunachal Pradesh and the Central Institute of English and Foreign Languages (CIEFL) have been converted into CU, while a new CU has been established in Sikkim. The National Institute of Education Planning and Administration has been converted into a deemed university and is now called the NUEPA.

UGC

1.3.11 The UGC, a statutory body, established in 1956, operates over 100 schemes, providing a wide range of development grants to institutions, running day care centres for children, promotion of sports, travel grants for Vice-Chancellors and researchers, area studies, cultural exchange, adult education, women studies, academic staff colleges (ASCs), hostels for women, innovative programmes in frontier research and career oriented education, etc. The schemes implemented by UGC have not yet been evaluated by any external professional agencies. There is an urgent need for such in-depth evaluation and streamlining the range of schemes, and rationalizing the procedures and delivery mechanism including the disbursal of grants.

The National Accreditation Assessment Council (NAAC)

1.3.12 NAAC was set up in 1994 to make quality an essential element through a combination of internal and external quality assessment and accreditation. During the Tenth Plan, NAAC was strengthened with the opening of four regional centres so as to speed up the accreditation process. NAAC has so far completed accreditation of only 140 out of the 378 universities and 3492 out of the 14000 colleges. The results of the accreditation process thus far indicate serious quality problems. Only 9% of the colleges and 31% of the universities are rated as A grade and the rest fall in 'B' and 'C' categories.

ASCs

1.3.13 At present there are 55 ASCs which conduct orientation programmes of four weeks for newly appointed teachers and refresher courses of three weeks for in-service teachers. The refresher courses provide opportunities for serving teachers to learn from each other and serve as a forum for keeping abreast with the latest advances in various subjects. The functioning of ASCs has not yet been evaluated.

ICT

1.3.14 A number of steps have been taken for leveraging the use of ICT in higher education. UGC INFONET allows teachers and students to have access to e-formatted journals, besides links to other research. The network is run and managed by ERNET India. Information for Library Network (INFLIBNET), an autonomous Inter-University Centre for UGC, is the nodal agency for coordination and facilitation of the linkage between ERNET and universities. States have

Box 1.3.1
Private Sector Participation in Higher Education

Past experience shows that private mechanism has been responsible for setting up of some first rate institutions:

- Indian Institute of Science (IISc), Bangalore and Tata Institute of Fundamental Research (TIFR), Mumbai were established by J.N. Tata with the vision and aim of advancing the scientific capabilities of the country.
- The renowned Santiniketan, presently Viswa-Bharati University, was founded by Nobel Laureate Rabindranath Tagore in early 1900s.
- Xavier Labour Relations Institute (XLRI), one of the finest management schools in India, was founded in 1949 by Fr Quinn Enright in the Steel City of Jamshedpur with a vision of 'renewing the face of the earth'.
- The Birla Institute of Technology & Science (BITS), Pilani, whose founder is the noted industrialist G.D. Birla, was started in early 1900s as a small school that grew to become a premier engineering institution. Today, BITS has campuses in Goa, Hyderabad, and Dubai. The Birla Education Trust is one of the biggest educational trusts in the private sector in our country.
- The Tata Institute of Social Sciences (TISS) was established in 1936, as the Sir Dorabji Tata Graduate School of Social Work. It was the first school of social work in India and in 1944 was renamed as TISS. In 1964 it was recognized as a deemed university by UGC.
- The International Institute of Information Technology (IIIT), Hyderabad is an autonomous, self-supporting institution with major national and international IT companies being actively involved in its academic programmes through their corporate schools on the campus.
- Vidyanagari in Baramati offers courses from Primary Education to Masters Degree. The Trust runs a Law College, Engineering College, Biotechnology College, and an Institute of Information Technology.

agreed to encourage their universities, colleges, and technical institutes to become members of INFLIBNET and Indian National Digital Library for Engineering Sciences and Technology (INDEST).

Autonomous Status

1.3.15 During the Tenth Plan, the target was to accord autonomous status to 10% of eligible colleges. At present 132 colleges under 29 universities are autonomous. However, the number of institutions that have utilized their autonomous status in launching new courses and innovative methods either in teaching or management appears to be extremely limited.

Science Education

1.3.16 The proportion of students opting for Science courses is far too low. Consequently, a large segment of our graduates are inadequately equipped to meet the changing needs of the emerging labour market.

All India Council for Technical Education (AICTE)

1.3.17 The AICTE was set up in 1945, and was given statutory status in 1987 for coordinated development of Technical Education, promotion of qualitative improvement, and maintenance of norms and standards.

National Board of Accreditation (NBA)

1.3.18 NBA has also become a provisional member of the Washington Accord. This will ensure acceptance of its accreditation procedure amongst the member countries of the Accord. So far about 1924 programmes have been considered for accreditation.

Higher Education: Targets and Strategies in Eleventh Plan

Setting a Reforms Agenda

1.3.19 An Inter-Ministerial Working Group should be set up to work out a detail reforms agenda on outlines given below.

(i) Admission, Curriculum, and Assessment

- Common calibration and admission based on Common Entrance Test and/or other relevant criteria for at least professional and PG courses in CU in the first phase.
- Universalizing the semester system.
- Continuous internal evaluation and assessment to eventually replace annual examinations.
- Introducing Credit System to provide students with the possibility of spatial and temporal flexibility/mobility.

- Curriculum revision at least once in every three years or earlier to keep syllabi in tune with job market dynamics and advancement in research.

(ii) ACCREDITATION AND RATINGS

- Introduction of a mandatory accreditation system for all educational institutions;
- Creation of multiple rating agencies with a body to rate these rating agencies.
- Department-wise ratings in addition to institutional rating.

(iii) TEACHERS' COMPETENCE AND MOTIVATION

- Restructuring of NET/SET with greater emphasis on recruitment of adequate and good quality teachers.
- Revamping ASCs and upgrading teachers capabilities through short and long term courses.
- Expansion of research programmes/projects and incentivizing research faculty through funded projects/research.

(iv) MISCELLANEOUS

- UGC in consultation with stakeholders to arrive at optimum size of universities and the number of college affiliations.
- Setting up of a new Inter-university Centre on higher education to undertake specialized research for policy formulation.

Autonomy and Accountability in Higher Educational Institutions

1.3.20 The issues of autonomy and accountability are very critical. While many initiatives have already been taken on various aspects, a lot has to be done in the near future with full determination.

1.3.21 Autonomy is the sine qua non of excellence. Erosion of autonomy adversely impacts quality. Autonomy must, however, be linked to accountability. Furthermore, the government must ensure that fee structures do not lead to profiteering. Beyond this, the State/government must not interfere in institutional governance.

1.3.22 Higher education institutions must subject themselves to internal accountability to their stakeholders with respect to their performance and outcomes. They need to set their own goals and targets to assess their achievements and subject themselves to peer review. They should be subject to an apex regulatory institutional mechanism that must be at an arm's-length from the government and independent of all stakeholders. The main function of the regulatory mechanism would be of setting and maintenance of standards as also to evaluate performance and outcomes. The regulatory framework must be conducive to innovation, creativity, and excellence in higher education.

1.3.23 Autonomy has three inter-related dimensions:

(i) Institutional autonomy in Academic Matters envisages that there will be a Governing Board in the each institution that will be free to decide future strategies and directions, the processes governing admissions, curriculum updating, examinations, classroom processes, and the interface with the external environment as well as to determine the standards and degree of excellence. The Board should consist of people of eminence and should not have more than one third of its members from the government, with the others coming from industry, the professions, and alumni to enable it to draw upon the services of persons of eminence and provide representation to all stake-holders.

(ii) Governance related autonomy enables the Governing Board and its Academic Councils to decide on personnel policies of the institutes, faculty recruitment and development plans, core areas of academics, research and consultancy related strengths, delegation of administrative authority, and its performance review processes for faculty and non-faculty personnel.

(iii) Financial Autonomy will enable institutions to mobilize resources from user fees, review fee-structures, consultancy services, and donations. They can rationalize their fee structures according to the degree of excellence achieved both in terms of academic achievement and market value. It will also unshackle the institutions, enabling them to take bold initiatives regarding campus accretions/additions, starting new faculties and new disciplines, creating competencies in new knowledge domains, expanding infrastructure, and enlarging

student outreach. The Governing Board should be left free to evolve policies relating to donations, endowments, scholarships, instituting Chairs, accumulation and deployment of reserves and surpluses, keeping in mind the overarching principle of equity while fixing fees and determining the amount of scholarships.

Quantitative Expansion

1.3.24 Quantitative expansion in enrolment will be achieved through: expansion of existing institutions, both government and private; creation of new government (Central and States) funded universities and colleges; facilitating/removing barriers in creation of new universities and colleges; special programmes for targeted expansion in CU; support to State universities and colleges, and additional assistance to under-funded institutions; the implementation of recommendations of the Oversight Committee (OSC), would be subject to final order of the Supreme Court. Focus on access and affordability in SCs, STs, OBCs, and minority concentration districts and implementation of the recommendations of the Sachar Committee with respect to educational development of the Muslim community.

Inclusive Education

1.3.25 The objective of inclusiveness will be achieved through the following:

- Reduction of regional imbalances;
- Support to institutions located in border, hilly, remote, small towns, and educationally backward areas;
- Support to institutions with larger student population of SCs, STs, OBCs, minorities, and physically challenged;
- Support to the SCs, STs, OBCs, minorities, physically challenged, and girl students with special scholarships/fellowships, hostel facilities, remedial coaching, and other measures;
- Setting up of an 'Equal Opportunity Office' in all universities to bring all schemes relating to this group under one umbrella for effective implementation.

Quality Improvement

1.3.26 Quality improvement in higher education will be brought about through restructuring academic programmes to ensure their relevance to modern market demands; domestic and global linkages with employers and external advisory resource support groups and tracer studies; greater emphasis on recruitment of adequate and good quality teachers; complete revamping of teaching/learning methods by shifting from traditional repetitive experiments to open-ended design-oriented work for encouraging invention and innovation; compulsory interactive seminar-tutorials, broadening the content of Science and engineering programmes to strengthen fundamental concepts, improving learning opportunities and conditions by updating text books and learning material; and improving self-directed learning with modern aids and development of IT network.

New CU

1.3.27 30 CU will be set up including 16 on the basis of one CU in each of the 16 uncovered States such as Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, J&K, Jharkhand, Karnataka, Kerala, MP, Orissa, Punjab, Rajasthan, Tamil Nadu, and Uttarakhand. The Indira Gandhi National Tribal University will be set up as a CU. In addition, it is proposed to establish 14 new CU aiming at world class standards. These universities will be set up through a single umbrella Central legislation and will be subject to the State providing land free of cost and signing a Memorandum of Understanding (MoU) for a minimum set of educational reforms in its university system whereby the new institutions serve as benchmarks of excellence for other universities and colleges.

1.3.28 The proposed 14 World Class Universities (WCU) need to be carefully planned to have various schools including medical and engineering. Their establishment should be implemented in a creative mode, by setting up an autonomous project team comprising eminent people for each of the proposed WCU, who would design and implement the project creatively. The location of these institutions should be determined by competitively evaluating alternative offers of land by State. The location decision should balance the desire for achieving a greater geographical spread and the potential synergies arising from co-location with the existing reputed institutions and laboratories (e.g., Council of Scientific and Industrial

Research [CSIR] laboratories). The setting up of WCU will take time, especially for them to come up to full strength. But locations and initiation of work should get top priority during the Eleventh Plan so as to enable India to become the global knowledge hub and set benchmark for Central and other universities.

Supporting State Universities and Colleges

1.3.29 About 8800 affiliated colleges of State universities, mainly undergraduate colleges, are technically under the purview of UGC but do not get assistance as they do not meet the minimum eligibility norms in terms of physical facilities and human resources. During the Eleventh Plan, about 6000 colleges and 150 universities with focus on under served areas will be strengthened to enable these institutions to fulfil the criteria for UGC assistance. Each college and university will be provided Rs 2.0 crore and Rs 10 crore, respectively, based on DPR. But there must be corresponding funds from States plus willingness to raise funds internally.

1.3.30 Although assistance is provided through UGC to about 160 State universities and 5625 colleges through development grants, due to the budgetary constraints the funding is low and insufficient affecting the quality of interventions. During the Eleventh Plan, these colleges and universities will be provided one-time assistance at the rate of Rs 1.0 crore and Rs 5.0 crore, again based on DPR. This support will be subject to the matching commitments on funding and reforms from the Centre, States, and institutions.

Correcting Regional Imbalances: Establishing 370 New Degree Colleges

1.3.31 States like Bihar, MP, and Orissa have low GER. To ensure better access with equity, a new CSS will be launched with a Central–State funding pattern of 1:2 (1:1 for Special Category States) for increasing intake capacity in the existing institutions or starting new institutions. Further, 370 new degree colleges will be established in districts with low GER based on careful selection.

Initiatives for Inclusive Education in States

1.3.32 Focus on the disadvantaged sections (SCs, STs, OBCs, and minorities) holds the key to achieving the GER of 15% for the Plan. Financial assistance will be provided to the States on the basis of specific projects submitted for these social groups. Girl's hostels will be constructed in districts with low female GER and high concentration of SCs STs, OBCs, and minorities. About 2000 hostels with a unit cost of Rs 1.0 crore will be provided during the Eleventh Plan subject to the recurrent expenditure being borne by the States/beneficiaries and hostels being managed by the respective institutions.

Technical Education

Status

1.3.33 India's technical education institutions comprise:

- 7 Indian Institutes of Technology (IITs) and 6 Indian Institutes of Management (IIMs), which are Institutions of National Importance;
- 20 National Institutes of Technology (NITs);

Box 1.3.2
Basic Features of a Model CU

- CU should provide education and research opportunities in a variety of disciplines.
- These universities should admit students on an all-India basis and through a nationwide test by an independent testing body.
- Degrees should be granted on basis of completion of a requisite number of credits.
- Syllabi should be revised every two year to keep up with changes.
- Appropriate system of appointments and incentives should be put in place to maximize the productivity of faculty.
- Mechanisms should be set up to monitor and evaluate performance and progress of teachers.
- Strong linkages should be built between teaching and research, the university and industry and research laboratories.
- The CU should be department-based and should have no affiliated colleges.
- Non-teaching functions should be outsourced wherever possible.
- Administrative processes should be streamlined and made transparent and accountable by use of ICTs.

- 1617 engineering and technology colleges, 1292 polytechnics,
- 525 institutions for diploma in pharmacy,
- 91 Schools for Hotel Management and 4 Institutions for Architecture in 2006.
- For postgraduate courses, these are 1147 educational institutions, for Master of Business Administration (MBA)/Post Graduate Diploma in Management (PGDM) and 953 for Master of Computer Applications (MCA).
- 7 Deemed-to-be-Universities, namely, Indian Institute of Science (IISc), Bangalore, Indian School of Mines, Dhanbad, School of Planning and Architecture, New Delhi, Indian Institute of Information Technology and Management, Gwalior and Indian Institute of Information Technology (IIIT), Allahabad, Indian Institute of Information Technology, Design and Manufacturing, Jabalpur and Kanchipuram.
- 4 Boards of Apprenticeship Training, etc.
- National Institute of Foundry and Forge Technology, Ranchi.
- National Institute of Industrial Engineering, Mumbai.
- Sant Longowal Institute of Engineering and Technology (SLIET).
- North Eastern Regional Institute of Science and Technology (NERIST), Itanagar.
- 4 National Institute of Technical Teachers Training and Research (NITTTRs).

1.3.34 Many central programmes/schemes contribute significantly to technical education. These include:

- Programme for Apprenticeship Training (Scholarships and Stipends),
- Community Polytechnics (CP),
- Technician Education Project-III assisted by the World Bank for Improvement of Polytechnic Education,
- Technical Education Quality Improvement Programme (TEQIP),
- Polytechnics for Disabled Persons,
- National Programme on Technology Enhanced Learning (NPTEL).
- National Programme for Earthquake Engineering Education,
- INDEST,
- Consortium and Technology Development Missions.

1.3.35 The dispersal of degree level technical institutions in the country is however highly skewed. Andhra Pradesh, Tamil Nadu, Karnataka, and Maharashtra account for nearly 55% of the engineering colleges and 58% of enrolments in the country. The State-wise distribution of national institutions is even worse (Annexure 1.2).

Tenth Plan Performance

1.3.36 The Tenth Plan period saw a big increase in the number of technical and management institutions, mainly due to private initiatives. During the Tenth Plan, the number of AICTE approved Degree Engineering/ Technology institutions has risen from 1057 to 1522 and the annual intake from 2.96 lakh to 5.83 lakh. The aggregate number of technical institutions and the intake capacity by the end of Tenth Plan were 4512 and 7.83 lakh, respectively.

1.3.37 During the Tenth Plan the University of Roorkee was upgraded to an IIT and the number of IITs increased to seven. Seventeen RECs, two Indian Institutes of Science Education and Research (IISERs) at Pune and Kolkata were also set up and three other institutions were upgraded to NIT level. A new Indian Institute of Information Technology, Manufacturing and Design was established at Jabalpur making it the third institute in the series. All the four Technical Teacher Training Institutes were upgraded as NITTTR. Several engineering colleges were conferred with Deemed to-be-University status. Many private universities became operational imparting technical education through legislation of various State Governments. Bengal Engineering College, a deemed university, was conferred with the status of unitary university and redesignated as Bengal University of Science and Technology. In several States, technical institutions were brought under the purview of new Technical Universities and this improved quality and standards.

1.3.38 The AICTE and INDEST have joined hands to form a combined AICTE-INDEST Consortium.

The AICTE has set up 106 virtual classrooms in identified technical institutions under Education Satellite (EDUSAT) scheme to share the knowledge of premier and well-established institutions with other institutions.

1.3.39 To enhance learning effectiveness and to expand access to high-quality digital video-based courses, an NPTEL has been launched. The TEQIP aims at up-scaling and supporting ongoing efforts of the GoI to improve quality of technical education. Under the scheme, 40 lead institutions (including 18 Centrally funded NITs) and 88 State engineering/network institutions (including 20 polytechnics) in 13 States have participated. The programme targets 10000 graduating students each year. It also imparts superior skills and training to enhance the professional development of 1000 teachers. TEQIP Phase II is still under negotiation and it is expected to be substantially enlarged, diversified, made more flexible and allow for greater involvement of States in design and implementation.

1.3.40 The Tenth Plan outlay for the technical education sub-sector was Rs 4700 crore, against which an expenditure of only Rs 3416 crore was incurred (73%).

Technical Education: Goals and Targets in Eleventh Plan

1.3.41 During the Eleventh Plan, intake of technical education institutions needs to grow at an estimated 15% annually, to meet the skilled manpower needs of our growing economy.

Schemes for Expansion and Upgradation

1.3.42 The Eleventh Plan envisages setting up of 8 new IITs, 7 new IIMs, 10 new NITs, 3 IISERs, 20 IIITs, and 2 new SPAs. In establishing these institutions the scope for PPPs will be explored. Seven selected technical institutions will be upgraded subject to their signing MoU on commitments to making reforms in governance structure, admission procedure, etc. and aligning with character of the national institutions. In the location and selection of sites for the new institutions, clustering will be a key consideration and the States will be incentivized for co-locating institutions in strategic locations.

Expansion of Intake Capacity in the Existing Central Institutions

1.3.43 The recent recommendations of the OSC to increase the intake capacities of the Cen-trally funded technical institutions in the categories of IITs, NITs, IIITs, NITTTRs, and IIMs provide for an opportunity for major capacity expansion of high level technical and management institutions while providing for social equity.

1.3.44 Considering the urgency in expanding the intake capacity due to the acceleration in demand for technical education, a quick feasibility study will be undertaken to decide upon the optimum intake capacity of the Central institutions and support them for additional infrastructure, etc. In view of the increasing demand particularly for MBAs, Departments/Institutes of Management and Business Administration in the university system will also be strengthened.

Strengthening State Technical Institutions

1.3.45 The State Engineering Colleges suffer from severe deficiencies in academic infrastructure, equipment, faculty, library facilities, and other physical facilities. Top ranking students in entrance examination of the States opt for these institutions in view of relatively low fee structure and government recognition. These are supposed to be model institutions for the private sector institutions to benchmark their standards. If standards and norms are insisted upon for private institutions, the government cannot keep its institutions in unsatisfactory condition.

1.3.46 TEQIP Phase II is expected to be substantially enlarged to cover additional 200 State engineering institutions, diversified, made more flexible and allow for greater involvement of States in design and implementation. There will be one-time assistance for project-based support and funds will be released on performance and the State Government accepting a minimum set of reforms including curriculum revision, internal assessments, faculty upgradation, adoption of seminar-tutorials, and the semester system, etc. Proper appraisal system of the projects and effective Monitoring and Evaluation (ME) system will be established . TEQIP-II projects will be on log frame.

Box 1.3.3
Mohali Knowledge City—Advantages of Clustering

- It is planned to build a knowledge city in Mohali, Punjab with a vision to promote innovation and startup companies. The cluster includes, on a single campus, the Indian Institute of Science Education and Research (IISER), National Agri-food Biotechnology Institute, Nanotechnology Institute, Management School, Technology and IP Management Centre, Business Centre, an Informatics Centre, Centralized Platform, Technology facility, a Good Manufacturing Practices (GMP) compliant Bio process Facility for Food and Nutriceuticals, a Technology Park for start-ups, and a host of other shared facilities. Governance, as a cluster is so designed as to allow dynamic contact and collaboration within the cluster and with all existing local institutes and enterprises.
- Building cluster in strategic location enables innovation. Characteristically, in a cluster, research, technology management, investment and business skills, technology incubators and parks for startups are co-located, functionally linked, based on a common vision. The vision of such a cluster is to create necessary synergies and sharing of resources, ideas, and facilities.

1.3.47 Efforts will be made to establish 50 centres for training and research in frontier areas like Biotechnology, Bio-informatics, Nano-materials and Nano–technologies, Mechatronics, MEMS, High Performance Computing, Engineering, etc. However, these will be funded on the basis of specific proposals and on a competitive basis.

Science and Technology (S&T): The Cutting Edge

1.3.48 In the current knowledge era, our development depends crucially on the ability to harness S&T to find innovative solutions. Capabilities in S&T, therefore, are reckoned as a benchmark for establishing the status of the development of a nation. India must occupy a frontline position in this listing. The Eleventh Five Year Plan approach to S&T will be guided by this ambition and emphasis will be on:

- Evolving an integrated S&T Plan involving UGC, Department of Science and Technology (DST), CSIR, Indian Council of Agricultural Research (ICAR), Departments of Atomic Energy and Space to provide the resources needed for substantially stepping up support to basic research, setting up a national level mechanism for evolving policies, and providing direction to basic research.
- Enlarging the pool of scientific manpower and stren-gthening the S&T infrastructure. Focused efforts will be made to identify and nurture bright young students who can take up scientific research as a career.
- Promoting strong linkages with other countries in the area of S&T, including participation in mega international science initiatives.
- Evolving an empowered National Science and Technology Commission responsible for all matters relating to S&T (Administrative, Financial, and Scientific) including scientific audit and performance assessment of scientists and scientific institutions through peer review.
- Supporting the schemes suggested by the Empowered Committee on the Science Education.

Faculty Development and Research

1.3.49 The world over, it is recognized that R&D efforts are imperative for sustained economic growth and social development. However, in India there has been a low level of R&D efforts, mainly due to the inadequate number of highly trained and knowledgeable R&D personnel—particularly at the level of PhDs—relatively low investment in R&D by the corporate sector, and the lack of synergy among R&D institutions and universities. The present output of about 450 doctorates per annum in Engineering and Technology, should increase several folds with the expanded technical education capacity, offering substantial scope for postgraduate and doctoral level programmes.

National Science and Engineering Research Board (NSERB)

1.3.50 Upgradation of science education and research infrastructure in the universities is a major challenge. The DST would adopt a two-pronged strategy to achieve this objective: (i) expansion and strengthening

of S&T base in the universities through appropriate HRD measures and building up of research capabilities of the academic sector and (ii) funding for undertaking internationally competitive and front-ranking major research programmes. For this purpose, the existing Science and Engineering Research Council mechanism of the DST would be restructured into NSERB and a special program for rejuvenation of research in universities would be initiated. The proposed Board will address these issues and follow global best practices.

Reducing Wide Regional Disparities

1.3.51 Southern States have successfully attracted capital and students from all over the country. Government schemes and AICTE will proactively encourage establishment of higher (technical) institutions in deficient States (Annexures 1.2.1 and 1.3.1).

Oversight Committee (OSC)

1.3.52 In pursuance of the 93rd amendment to the Constitution of India aiming to provide statutory reservations to SCs, STs, and OBCs in Central Educational Institutions, the Central Educational Institutions (Reservation in Admission) Act has been enacted and has been notified in January 2007. The OSC (Moily Committee), constituted in May 2006 recommended an investment of Rs 17270 crore over a period of five years for the Central Educational Institutions to increase their intake capacity by 54% so as to provide 27% reservation to OBCs without affecting the number of general seats. Of this, Rs 7035 crore will be non-recurring expenditure, the bulk of which will be spread over year 1, 2, and 3, whereas, the recurring expenditure will be Rs 10235 crore spread over five years, increasing progressively subject to the final order of the Supreme Court. An Inter-Ministerial Monitoring Committee will be constituted in the Planning Commission to oversee and review the progress. (See Annexure 1.3.2.)

Fees in Higher Education, Scholarships, Fellowships, and Loan Schemes

1.3.53 The national commitment 'to ensure that nobody would be deprived of higher education opportunities due to lack of financial resources' necessitates a serious look at the issues of fees, scholarships, and loan schemes.

1.3.54 At present, fees vary across universities, but generally these have been kept very low, in many cases not even covering 5% of the operating cost. The Centre and State Governments must either be able to subsidize university education massively or try to mobilize a reasonable amount from those who can afford it by way of fees that cover a reasonable part of the running cost. Since most university students come from the top 10% of the population by income levels, they would be able to pay fees amounting up to 20% of the operating cost of general university education. The fees for professional courses could be much higher. The fee levels

Box 1.3.4
Faculty Augmentation and Development in Science and Technology

- Substantial increase in the intake in Junior Research Fellowship (JRF);
- Enhance research fellowship for PhD students if they are given additional responsibility to also take up teaching as lecturer and make eligible non-NET PhD scholars also for fellowship;
- Increase the number of fellowships and the quantum of assistance for MTech students;
- Make the teaching system attract and retain the best talent with better pay/perks and funded research. Performance-based rapid career progression;
- Increase industry–institution interface including provision for tenure jobs in industry for faculty;
- Set aside a share of project funds as incentive payments for the researchers/fellows;
- Selected top class institutions to undertake special programmes for best faculty development;
- Infusion of knowledge capital in the Centres of Excellence through MoU;
- Institutions to open up for international faculty, visiting programmes, and faculty exchange;
- Recruitment policy of faculty reviewed for providing more flexibility in appointments, short-term contracts, assignments, and possibility of outsourcing select faculty that is in short supply;
- A major expansion of faculty development programme.

should, therefore, be increased gradually in existing institutions but the new norms could be implemented in new institutions from the start. It may be noted that the new institutions will take time to start.

1.3.55 It must be recognized that there will be some students who cannot afford to pay the increased fees and they should receive scholarships. From a fiscal perspective, the government has to bear the cost either by undercharging fees or providing scholarships. The latter method is most preferable because not all students need scholarships and those that do should be able to avail of the scholarship at any recognized university, thus providing an incentive for universities to compete and attract students rather than have all their costs covered. With a portable scholarship system, the demand for admission in the better universities will signal their preferred standing.

1.3.56 The operating cost of providing technical and medical education is much higher then general education and fees in these institutions will have to be higher. However, these courses also provide opportunities for much higher earnings for most graduates. The additional cost to the student of taking these courses, beyond the basic level of fees referred to above, can be met through student loan programmes. Banks are currently providing student loans but there are operational problems. Students at premier institutions such as the IITs or IIMs find no difficulty in getting bank loans, but in other institutions, loans are often linked to providing collateral.

Increasing Affordability through Scholarships, Fellowships, and Loans

- Scholarships to colleges/universities students.
- Effective fellowship programme and substantial increase in coverage of PhD research students under Junior Research Fellowship (JRF).
- Encourage NET qualified and PhD students to take to research as a career and for creation of intellectual property.
- Establish interlink of research faculty with research students in universities by offering research fellowships.
- A framework for facilitating student loans for professional programmes including a Higher Education Loan Guarantee Authority for covering bank loans to students of accredited universities.

1.3.57 It is necessary to move to a position where banks will lend freely to students who have achieved admission to certified institutions against a loan guarantee given by a National Student Loan Guarantee Corporation.

Reforms in Apex Regulatory Institutions of Higher Education

1.3.58 The government has created an elaborate institutional arrangement by establishing the UGC as an umbrella organization for coordination and maintenance of standards of higher education, as also other professional statutory councils for regulating professional and technical education and determining their quality and standards. These include AICTE, Medical Council of India (MCI), Bar Council of India, NCTE, etc. These institutions have played an important role in laying down a strong foundation of higher, professional, and technical education and expanding its base throughout the country. However, consequent upon the major structural changes that have taken place during the last 25 years or so in the domestic education system and its growing linkages and involvement with the international education providers, the context of higher, professional, and technical education has undergone a paradigm shift.

1.3.59 It is, therefore, imperative to review the changing role that these organizations are expected to perform in the context of global changes, with a view to enabling them to reach out, regulate and maintain standards, and meet the challenges of diversification to enhance access and maintain the quality and standards of higher, professional, and technical education. This would help create and expand the relevant knowledge base from the point of view of the expanding individual entitlements and increasing the capacity of the economy to take full advantage of the domestic and global opportunities.

1.3.60 A high-level committee will be set up to suggest a specific reforms agenda in this context. Similar exercises will have to be carried out with respect to State level institutional arrangements.

National Mission in Education through ICT

1.3.61 A National Mission in Education through ICT will be launched to increase ICT coverage in all the 378 universities and 18064 colleges. The Mission will focus on digitization and networking of all educational institutions, developing low cost and low power consuming access devices, and making available bandwidth for educational purposes. MHRD-Department of Information Technology (DIT)-Department of Tele Communications (DoT) collaborative efforts are needed to ensure fully electronic universities and digital campuses. Advanced computational facilities will be provided in select institutions.

1.3.62 The outputs envisaged from these efforts include:

- Availability of e-books in English language for most of the subjects.
- EDUSAT teaching hub at each of the CU.
- 2000 broadband Internet nodes at each of the 200 Central Institutions.
- One Satellite Interactive terminal for providing network connectivity in 18000 colleges.
- Each department of 378 universities and each of the 18064 colleges to be networked through broadband Internet modes of adequate bandwidth.
- Digitization of large volume of video contents of Teaching Learning Materials generated overtime.
- Spreading Digital Literacy.

1.3.63 National Knowledge Network and Connected Digital Campuses for plunging into knowledge cyberspace:

- The move from the old economy to a knowledge economy is characterized by collaborations and sharing of knowledge. Today, the R&D activities are becoming multi-disciplinary and moving onto collaborative mode amongst researchers spread across countries. The Eleventh Plan must, therefore, aim at creating a world-class ambience by establishing a dynamically configurable national multi-gigabit network connecting all educational institutions, R&D institutions, hospitals, libraries, or agricultural institutions.
- A provision of Rs 5000 crore has been made in the Eleventh Five Year Plan for 'Education Mission through ICT'. This would adequately take care of the recommendations of the 'Oversight Committee on Reservations in Higher Educational Institutions' for harnessing ICT and creating digital campuses to cope with the challenges of the age of networked intelligence, as well as the recommendation of the National Knowledge Commission for networking 1000 institutions in the first phase.
- The Integrated National Knowledge Network shall be designed to support Overlay Networks, Dedicated Networks, create country wide classrooms, and empower campuses through campus wide network. The entire network will seamlessly integrate with global science at multiple gigabits per second speed. In the first phase 1000 institutions would be brought under this network.
- A suitably structured Empowered Committee consisting of stakeholders will also be required to coordinate activities of creation and implementation of the content, applications, and establishment of network. The Empowered Committee shall be assisted by a Technical Advisory Committee.
- The National Knowledge Network will enable our institutions of higher learning to have digital campuses, video-conference classrooms, and wireless hot-spots campus wide. Students of all professional/science programmes should be encouraged to have their own laptops/desktop computers, with hostels providing wi-fi connectivity.

Polytechnics

Present Status

1.3.64 Polytechnics in the country offer three year generalized diploma courses in conventional subjects such as civil, electrical, and mechanical engineering. The courses are now diversified to include electronics, computer science, medical lab technology, hospital engineering, etc. Women's polytechnics offer courses in garment technology, beauty culture, textile design, etc.

1.3.65 The number of polytechnics has increased slowly from 1203 in 2001–02 to 1292 in 2005–06 with corresponding rise in intake from 2.36 lakh to 2.65 lakh. The proportion of polytechnics is high in the

southern States (46%). Further, the proportion of public sector institutions at degree level in the country is very low around 20% and on the other hand around 80% of diploma level institutions are in public sector. 125 districts do not have even a single polytechnic.

1.3.66 Even the existing polytechnics seem to struggle for survival. Over the years, the diploma courses have lost the skill components and are perceived as diluted version of degree education. The Eleventh Plan will have to address several issues including static curricula, poor industry interface, lack of flexibility to respond to needs obsolescence of equipment, lack of trainers, and inadequate funding.

1.3.67 CP are wings of the existing polytechnics intended to provide a platform for transfer of appropriate technologies to rural masses and to provide technical support and services to the local community. At present, there are 669 CP in the country. During the Tenth Plan period, about 13 lakh persons had been trained in various job-oriented non-formal skills/ trades.

Eleventh Plan Proposals

1.3.68 New polytechnics will be set up in every district not having one already on priority basis. These polytechnics will be established primarily with Central funding and over 700 will be set up through PPP and private funding. All these new polytechnic institutes will have a CP wing. Women's hostels will also be set up in all the government polytechnics. The existing government polytechnics will be incentivized to modernize in PPP mode. Efforts will also be made to increase intake capacity by using space, faculty, and other facilities in the existing polytechnics in shifts.

1.3.69 There is a shortage of qualified diploma holder in several new areas. Therefore, engineering institutions will be incentivized and encouraged to introduce diploma courses to augment intake capacity. Diploma programmes could be run in evening shifts when the laboratory, workshop, equipment, and library are free. The faculty could be incentivized for institutions running diploma programmes in an optimal manner. This will also restore the credibility of diploma programmes and also support vertical mobility for higher education. In fact, Sant Longowal Institute and NERIST, Itanagar, already have vertically integrated certificate, diploma, and degree programmes.

1.3.70 Teachers in the polytechnics will be trained continuously to upgrade their teaching knowledge and skill to keep pace with the industry. The curriculum of diploma courses will be revised. Polytechnics will be encouraged to involve industrial and professional bodies in developing linkages with industries in their vicinity.

1.3.71 Setting up of additional 210 community colleges, mainly in northern, western, and eastern parts of the country will be supported on placement based funding. Existing 190 community colleges (largely in southern States, some of which offer diploma courses) will also be supported for capacity building, training cost (equipment, faculty development, TLM, stipend, etc., but not for civil works and other capital costs). Funding will based on MoU between community colleges, States, and MHRD.

Distance Learning

IGNOU

1.3.72 Access to education through the open and distance learning system is expanding rapidly. IGNOU now has a cumulative enrolment of about 15 lakh. It has a network of 53 regional centres and 1400 study centres with 25000 counsellors. Besides, there are 28 FM radio stations and 6 television channels. The university introduced 16 new programmes during 2006–07. The Distance Education Council, an authority of IGNOU is coordinating the activities of 13 State Open Universities (SOUs) and 119 Institutes of Correspondence Courses in the conventional universities.

1.3.73 The pilot project of 'SAKSHAT'—one-stop education portal—has been launched in October 2006 to facilitate lifelong learning of students, teachers, and those of employment or in pursuit of knowledge, free of cost to them. The vision is to scale up the pilot project to cater to the learning needs of more than 50 crore people. The portal contains the virtual class that has four quadrant approaches to learning, which include

written course materials, animations, simulations, video lectures, related web links, question answers, confidence building measures, etc.

1.3.74 The Eleventh Plan will support IGNOU, existing SOUs and the States setting up new SOUs. Considering the dismal performance of some of the statutory bodies, in-depth and independent evaluation of these statutory bodies will be undertaken urgently.

1.3.75 Consortium for Educational Communication Centre (CEC) will set up a technology enabled system of mass higher education by taking advantage of Vyas 24-hours Education Channel for one way communication, EDUSAT network for two-way communication and Internet for 'any time anywhere' education. The thrust areas will include strengthening of the existing media centres, setting up of new media centres in those States where no centres exist, strengthening of the concepts of packaging knowledge in video and e-content form in need-based subject areas, transforming the CEC and media centre into a virtual university system.

Language and Book Promotion

Language Promotion

1.3.76 The development of languages occupies an important place in the National Policy on Education 1986 and the Programme of Action 1992. There are 122 other languages having at least 10000 speakers and nearly 234 identifiable mother tongues (as per the figures given in the 2001 Census Report). Promotion and development of 22 languages listed in the Schedule VIII of the constitution, including classical languages on the one hand and English and foreign languages on the other, have received due attention and will continue to do so. Some of the important programmes that continued during the Tenth Plan are promotion and development of Sanskrit and Hindi through different institutions, training of Hindi teachers for non-Hindi speaking States, and the use of ICT in the sector.

1.3.77 New Linguistic Survey (NLSI) of India will be undertaken during the Eleventh Plan as a CS. The original Linguistic Survey of India is more than 100 years old, supervised by Sir George Abraham Grierson who produced a monumental document consisting of 19 volumes between 1894 and 1927. It had identified 179 languages and 544 dialects.

1.3.78 The proposed NLSI will focus on 22 languages in the Eighth Schedule and their geo-space but would also pay special attention to the top 15 Non-Scheduled languages and also to the sign languages that are as complex as spoken languages. The Survey will be conducted by the Central Institute of Indian Languages (CIIL), Mysore, and the Departments in select universities that have a strong base in sociology, anthropology, etc.

1.3.79 At present there is no scheme or organization devoted exclusively for the development of Non-Schedule VIII languages. A new scheme for the preservation and development of languages not covered by the Eighth Schedule, namely the Bharat Bhasha Vikas Yojana would be taken up.

1.3.80 The National Translation Mission would cover Translators' Education: running short-term training programmes; creating a course for translators as a part of language teaching programme; developing specialized courses in translation technology and related areas; information dissemination; etc.

1.3.81 A Central Institute of Classical Tamil (CICT) at Chennai will be set up during the Eleventh Plan to develop Tamil as a classical language. The Tenth Plan scheme for development of Tamil language will be subsumed in CICT.

1.3.82 The following Central sector institutional schemes will continue to be supported by the MHRD but all the schemes will be evaluated in-depth for further funding: (i) Central Hindi Directorate, (ii) Commission for Scientific and Technical Terminology, (iii) Kendriya Hindi Sansthan, (iv) CIIL, Mysore, (v) National Council for Promotion of Urdu Language, (vi) National Council for Promotion Sindhi Language, and (vii) Mahrishi Sandipani Rashtria Ved Vidya Pratishthan (viii) Rashtriya Sanskrit Sansthan.

Book Promotion

1.3.83 An outlay of Rs 434 crore for the Languages and Rs 67 crore for Book Promotion Sectors have been allocated for the Tenth Plan and expenditures during the Plan period were Rs. 578.16 crore and Rs. 45.92 crore, respectively.

1.3.84 The main schemes under the sector are two: (i) National Book Trust (NBT) that undertakes the activities such as promotion of Indian books abroad, assistance to authors and publishers, and promotion of children's literature (National Centre for Children Literature) and (ii) Intellectual Property Education, Research, and Public Outreach (IPERPO) run by the Book Promotion and Copyright Division, MHRD.

1.3.85 The existing schemes of IPERPO were operationalized in the Tenth Plan for effective implementation of the cause of promoting awareness/research on copyright/Intellectual Property Rights (IPRs) and WTO matters. The Scheme will review the present IPR in the area of Education, Research, Literacy and strengthen it to suit the objectives of a knowledge-based economy. New initiatives need to be taken to strengthen the Copyright Office, establish new IPR Chairs in all universities, other IPR Centre/Cells in Government Departments, PSUs, develop appropriate Internal Monitoring Systems, hold National Seminars and celebrate World Intellectual Property Day, and Public awareness programmes.

1.3.86 During the Eleventh Plan the NBT will strengthen its three regional offices at Bangalore, Mumbai, and Calcutta and also strengthen its activities in the North Eastern Region. The subsidy project for assistance to authors and publishers for producing books of an acceptable standard at reasonable prices for students and teachers will continue.

Financing Education in the Eleventh Plan

1.3.87 The government has pledged to raise public spending on education to 6% of Gross Domestic Product (GDP). For accelerating public expenditure, the Central Budget 2004 introduced a cess of 2% on major central taxes/duties for elementary education and Budget 2007 a cess of 1% for secondary and higher education. In the Eleventh Plan, Central Government envisages an outlay of about Rs 2.70 lakh crore at current price (Rs 2.37 lakh crore at 2006–07 price) for education. This is a four-fold increase over the Tenth Plan allocation of Rs 0.54 lakh crore at 2006–07 price. The share of education in the total plan outlay will correspondingly increase from 7.7% to 19.4%. Around 50% of Eleventh Plan outlay is for elementary education and literacy, 20% for secondary education, and 30% for higher education (including technical education). The scheme wise details are given in Appendix to Volume III.

1.3.88 This reflects the high priority being given to the education sector by the Central Government and represents a credible progress towards raising the public spending of the Centre and the States combined to 6% of GDP. However, it is a shared responsibility between the Centre and States to raise education expenditure to the targeted level. The State Governments should also accord a high priority to education in the sectoral plan priorities/allocation.

ANNEXURE 1.2.1
Major Education Statistics, 2004–05

S. No.	State/UT	Population (Cr)			GER	Drop-out	PTR		Schools per lakh population		Tenth Plan SSA Exp.			Lakh of Population per Institution		
		Total Census 2001	6–14 age 2004	Literacy 2001	Classes (I–VIII)	Classes (I–X)	Primary	UP	Elem.	Sec./ Hr Sec	(Rs cr)	% of Total	Per capita 6–14 age	Univ-ersity	College	Tech-nical
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	Andhra Pradesh	7.62	1.30	60.5	86.99	63.69	33	31	99	22	1806.75	5.09	1387	31.6	0.59	1.97
2.	Arunachal Pradesh	0.11	0.02	54.3	106.70	70.79	34	30	163	19	187.30	0.53	8179	11.4	1.14	5.70
3.	Assam	2.67	0.53	63.3	91.92	74.96	42	16	137	19	1165.14	3.28	2186	46.5	0.88	25.34
4.	Bihar	8.30	1.88	47.0	65.16	83.06	104	75	57	4	2479.49	6.99	1319	46.2	1.18	43.87
5.	Chhattisgarh	2.08	0.41	64.7	112.63	0.00	48	46	203	12	1439.83	4.06	3513	43.8	1.03	18.25
6.	Goa	0.13	0.02	82.0	106.04	40.65	21	17	76	31	19.03	0.05	1119	14.1	0.61	1.57
7.	Gujarat	5.06	0.89	69.1	101.70	59.29	35	39	73	14	972.75	2.74	1096	26.6	1.05	5.55
8.	Haryana	2.11	0.41	67.9	80.01	32.48	44	30	63	23	732.96	2.07	1800	24.9	1.35	2.20
9.	Himachal Pradesh	0.61	0.10	76.5	108.74	-6.98	24	30	212	37	366.50	1.03	3658	9	0.71	7.00
10.	Jammu & Kashmir	1.01	0.19	55.5	74.45	53.75	34	16	153	13	482.54	1.36	2518	11.8	2.12	6.64
11.	Jharkhand	2.69	0.58	53.6	75.82	0.00	81	61	76	4	1429.56	4.03	2480	35.5	2.43	18.93
12.	Karnataka	5.28	0.89	66.6	98.76	59.38	26	37	97	21	1707.17	4.81	1909	20.3	0.59	1.84
13.	Kerala	3.18	0.44	90.9	95.35	7.15	28	27	30	16	390.72	1.10	893	40.9	1.76	2.68
14.	Madhya Pradesh	6.03	1.24	63.7	114.09	64.70	43	30	205	13	3534.59	9.96	2844	30.5	0.84	6.15
15.	Maharashtra	9.69	1.66	76.9	105.70	54.16	37	37	67	18	2205.65	6.22	1327	24.8	0.84	2.99
16.	Manipur	0.22	0.04	70.5	129.65	43.02	30	20	150	31	52.07	0.15	1389	11.25	0.39	11.25
17.	Meghalaya	0.23	0.05	62.6	121.93	79.15	44	16	317	29	94.10	0.27	1897	24.1	0.45	24.1
18.	Mizoram	0.09	0.02	88.8	109.51	66.95	17	8	263	56	141.21	0.40	8826	9.2	0.35	4.60
19.	Nagaland	0.20	0.04	66.6	75.76	97.29	19	16	97	18	69.86	0.20	1708	20.7	0.56	6.90
20.	Orissa	3.68	0.65	63.1	108.47	64.42	53	44	162	23	1506.65	4.25	2315	25.4	0.54	7.05
21.	Punjab	2.43	0.41	69.7	72.57	44.06	43	19	62	16	602.66	1.70	1486	28.2	1.20	5.52
22.	Rajasthan	5.65	1.22	60.4	102.67	73.87	49	34	137	17	2540.85	7.16	2089	24	0.98	10.71
23.	Sikkim	0.05	0.01	68.8	111.49	82.30	22	25	155	29	29.33	0.08	2848	2.8	2.8	1.87
24.	Tamil Nadu	6.24	0.89	73.5	113.96	55.19	33	41	63	14	1742.08	4.91	1965	16.4	1.44	1.51
25.	Tripura	0.32	0.06	73.2	109.59	73.36	54	15	84	20	214.40	0.60	3622	33.2	2.37	16.6

(*Annexure 1.2.1 contd.*)

(*Annexure 1.2.1 contd.*)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
26.	Uttar Pradesh	16.62	3.64	56.3	87.04	43.77	58	35	95	7	6836.31	19.27	1878	45.2	1.75	11.76
27.	Uttaranchal	0.85	0.16	71.6	106.39	0.00	25	18	207	21	533.95	1.51	3258	9.9	1.04	4.46
28.	West Bengal	8.02	1.43	68.6	94.67	78.03	54	44	63	10	2051.18	5.78	1438	34.7	2.23	8.86
29.	Andaman & Nicobar Islands	0.03	0.01	81.3	107.97	36.97	20	18	69	24	15.29	0.04	2592		1.3	1.95
30.	Chandigarh	0.09	0.01	81.9	71.87	16.73	41	29	3	12	16.04	0.05	1146	3.33	0.83	3.33
31.	Dadra & Nagar Haveli	0.02	0.00	57.6	113.70	67.06	62	43	91	9	3.90	0.01	975			2.39
32.	Daman & Diu	0.06	0.00	78.2	128.85	43.43	43	29	40	15	0.91	0.00	479		1.9	1.90
33.	Delhi	1.38	0.25	81.7	91.84	46.92	40	26	20	11	88.91	0.25	358	1	2.4	3.69
34.	Lakshadweep	0.01	0.00	86.7	58.75	18.88	21	16	38	16	0.10	0.00	53			
35.	Pondicherry	0.1	0.01	81.2	121.34	16.89	24	21	45	22	13.83	0.04	981	10.1	0.92	1.01
	India	102.86	19.46	64.8	93.54	61.92	46	35	97	14	35473.61	100.0	1823	27.4	1.04	4.36

Note: GER: Gross Enrolment Ratio; PTR: Pupil Teacher Ratio; UP: Upper Primary.
Source: Selected Educational Statistics, 2004–05.

ANNEXURE 1.3.1
National Institutions

S. No.	State/UT	Population (Cr)	IITs	IIMs	CU	CSIR	ICAR	DST	ICMR	Others*	Total
1	2	3	4	5	6	7	8	9	10	11	12
1	Andhra Pradesh	7.62			3	3	9	1	3	2	20
2	Arunachal Pradesh	0.11			1		1				2
3	Assam	2.67	1		2	1	1		1		6
4	Bihar	8.30					2		1		3
5	Chhattisgarh	2.08									0
6	Goa	0.13				1	1			1	3
7	Gujarat	5.06		1		1	2		1	1	6
8	Haryana	2.11					6			1	7
9	Himachal Pradesh	0.61				1	2				3
10	Jammu & Kashmir	1.01				1	1				2
11	Jharkhand	2.69				3	1				4
12	Karnataka	5.28		1		3	5	4	1		14
13	Kerala	3.18		1		1	5	1		2	10
14	Madhya Pradesh	6.03		1		1	4		1	1	8
15	Maharashtra	9.69	1		1	2	8	2	7	5	26
16	Manipur	0.22			1					1	3
17	Meghalaya	0.23			1		1				2
18	Mizoram	0.09			1						1
19	Nagaland	0.20			1		1				2
20	Orissa	3.68				1	4		1	3	9
21	Punjab	2.43					1				1
22	Rajasthan	5.65				1	6		1		8
23	Sikkim	0.05			1		1				1
24	Tamil Nadu	6.24	1			4	3		3	3	14
25	Tripura	0.32			1						0
26	Uttar Pradesh	16.62	1	1	4	4	14	1	2	1	28
27	Uttarakhand	0.85	1			2	4	2			9
28	West Bengal	8.02	1	1	1	3	3	3	1	2	15
29	A&N Islands	0.03					1		1		2
30	Chandigarh	0.09				2					2
31	Dadar & Nagar Haveli	0.02									0
32	Daman & Diu	0.06									0
33	Delhi	1.38	1		4	5	8		4	2	24
34	Lakshadweep	0.01									0
35	Pondicherry	0.1			1				1		2
	India	102.86	7	6	23	40	95	14	29	25	237

Note: * Others include DBT, DOC, DAE, MOEF.
Source: Selected Educational Statistics, 2004–05.

ANNEXURE 1.3.2
Oversight Committee—Sector-wise Expenditure

(Rs crore)

S. No.	Sector	No. of Institutions	Total Expenditure
1.	Agriculture	5	133
2.	Central Universities	17	3298
3.	Management	7	285
4.	Medical	11	1877
5.	Engineering	39	6746
	Total	79	12338
6.	Merit Scholarship scheme	–	1680
7.	Research Fellowship	–	1500
8.	IT Infrastructure	–	1752
	Grand Total	79	17270

Note: Items 1–5: For infrastructural and physical facilities.
Item 6: To cover at least 100000 students a year @ Rs 12000 per student per year from class IX to a post-graduate programme.
Item 7: For a National Science Talent for Research and Innovation Scholarships of Rs 100000 a year for 10000 students.
Item 8: For ICT enabled networked digital campuses with each student having access to a personal computer.
Source: OSC Recommendations.

2

Youth Affairs and Sports and Art and Culture

2.1 YOUTH AFFAIRS AND SPORTS

Youth and Adolescent Development

2.1.1 The adolescents and youths are the most vibrant and dynamic segment as well as potentially most valuable human resource of every country. While the youth population is fast shrinking with higher dependency ratios in the developed world, India is blessed with 70% of her population below the age of 35 years. In the next few decades India will probably have the world's largest number of young people. The population between the age of 10–19 years is approximately 242 million, the largest ever cohort of young people to make a transition to adulthood. The time has never been better to invest in our young people. Efforts, therefore, need to be made to harness the energy of the youth towards nation-building through their active and responsive participation.

Existing Schemes and Programmes

2.1.2 At present, 12 schemes and programmes are being implemented for the development of youth and adolescents. These schemes can be broadly categorized into two groups, viz., youth based organizations and youth development activities. The NYKS and National Service Scheme (NSS) are the two flagship programmes encompassing a major part of its activities in institutional, functional, and financial terms (60%). The Rajiv Gandhi National Institute of Youth Development (RGNIYD), established in 1993, has been engaged in education, training, and research on youth development. The scheme of Youth Hostel aims at promoting youth travel and provides boarding and lodging facilities at very subsidized rates. The National Service Volunteers Scheme (NSVS) and Rashtriya Sadbhavana Yojana (RSY) aim at providing opportunities to educated youths other than students to involve themselves voluntarily in youth and community developmental activities. The schemes are for performing activities related to vocational training, development of adolescents, national integration and adventure, for which financial assistance is provided to NYKS and other NGOs/institutions. Grant-in-aid is provided to Bharat Scouts and Guides for conducting training camps and holding of jamborees, etc., throughout the country. The scheme of 'Cultural Youth Programmes with Commonwealth Countries' is an effective institution for promoting exchange of ideas, values, and culture among youth and strengthens better relations.

Performance during the Plan Period

2.1.3 In the temporal context, to harness the *Yuva Shakti* in nation-building several programmes for national discipline, leadership training, expansion and strengthening of the NSS and NYKS, launching NSVS, effective coordination amongst different programmes were introduced in successive Plan periods. However, the sector received a boost in the Seventh Plan, when a National Youth Policy was enacted and a Plan of Action formulated in 1992. The thrust in the Eighth

and Ninth Plans was on harnessing youth power by involving them in various community-based nation building activities.

2.1.4 The major thrust of the Tenth Five Year Plan was on involving the youth in the process of planning and development and making them a focal point of the development strategy, by providing proper educational and training opportunities, access to information on employment opportunities including entrepreneurial guidance and financial credit and the programmes for developing among the youth qualities of leadership, tolerance, open mindedness, patriotism, etc. The NYKS was to be expanded to cover all the districts in the country together with expanding the network of Youth Clubs to cover at least 50% of the more than six lakh villages. At least one Youth Development Centre was to be set up in each of the country's 6200 blocks. Besides, 500 rural Information Technology Youth Development Centres were envisaged to be set up. The NSS was to be expanded to cover all degree colleges and +2 schools, while the RSY was to extend its reach to 500 districts. RGNIYD was to be developed into an apex national centre for information, documentation, research and training in respect of youth related issues. However, desired expansion and envisaged activities for various institutes could not materialize fully. Hence, the review of Planning Commission suggested restructuring and overhauling the institutional arrangement to meet the stated goals. A major drawback was the lack of involvement of State Government in various programmes of Ministry of Youth Affairs and Sports. Other dysfunctionalities include over centralized system and procedures, acute problems of utilization certificate, and sub-optimal performance of scheme activities.

2.1.5 The NSS has been included as one of the priority areas under the National Common Minimum Programme (NCMP), which emphasizes the need to provide opportunities for the youth to involve themselves in national and social development through educational institutions. Under the revised 20-Point Programme, RSY and NSS have been made a part of the specific monitorable targets. The NSS motto 'you, not me' seeks to invite a spirit of volunteerism and community service in youth minds.

Review of Performance during the Tenth Plan

2.1.6 As against the Tenth Plan outlay of Rs 677.64 crore, an amount of Rs 642.06 crore was provided in the annual plans and the aggregate expenditure was Rs 522.64 crore accounting for 77% of outlay and 81% of allocations (Annexure 2.1.1). The physical achievements under the various schemes were short of the target. The NYKS could not extend its activities beyond 500 districts that were covered by end of the Ninth Plan. A logical linkage between grassroots youth organizations such as youth clubs, sports clubs, *mahila mandal*s, etc., and NYKS could not fully materialize. Although the progress of NSS has been relatively better, it had not kept pace with desired expansion to universities, colleges, and +2 school networks. RGNYID continued to suffer teething problems and could start functioning only during the latter part of Tenth Plan. Presently, there are 72 youth hostels, 18 are under construction, and 32 have been approved in-principle. Only a few government-owned youth hostels could get affiliation to the International Youth Hostels Association as they failed to meet the prescribed standards on accommodation, reception, hygiene, security, etc. The mega youth exchange programme with China, as a part of the activities during the India–China Friendship Year, 2006, has however, been a major success.

2.1.7 Considering huge and ever-increasing youth population in India, and to achieve the goals set for the Tenth Plan, the National Youth Policy 1998 was replaced by a New National Youth Policy-2003 with four thrust areas, viz. (i) Youth Empowerment; (ii) Gender Justice; (iii) Inter-sectoral Approach; and (iv) Information and Research Network.

2.1.8 The policy accords priority to the following groups of young people including (i) Rural and Tribal Youth; (ii) Out-of-School Youth; (iii) Adolescents, particularly female adolescents; (iv) Youth with disabilities; and (v) Youth under especially difficult circumstances like victims of trafficking, orphans, and street children.

Approach and Strategy for the Eleventh Plan

2.1.9 The Eleventh Plan envisages a holistic approach and comprehensive strategy to enable the development and realization of the full potential of the youth in the

country and channelize their energy towards socio-economic development and growth of the nation. To achieve the goals of empowering and enabling the youth to become effective and productive participants in the socio-economic changes, a de novo look at the existing policies, instruments and institutions, initiation of innovative policies, efficient and effective instruments, and creative ways to rejuvenate institutions would be taken up. Synergy and convergence of efforts will be ensured. Evaluation of existing schemes/programmes, through an independent agency, would be mandatory and restructuring of schemes under Zero Based Budgeting (ZBB) will be a regular annual budgetary exercise.

Programmes for the Eleventh Plan

(i) NEHRU YUVA KENDRA SANGATHAN (NYKS)

2.1.10 The thrust of the NYKS would be on a consolidating, expanding, and energizing the youth club movement. There would be a paradigm shift in the manner of its functioning and implementation. The services of NYKS would be utilized for fostering secular values, national unity, and against extremism in the country through a number of existing and new programmes. A flexible approach would be adopted to register active clubs. The youth clubs would be regrouped into three categories 'A', 'B', and 'C' as per their performance and activeness. Focus would be on encouraging the clubs to move up the ladder and become active and self-sustaining/self-reliant. The reach of NYKS would be extended to all 609 districts in the country. Female membership would be increased through special campaigns. Computerized Management Information System (MIS) would be introduced for monitoring purposes. The selection procedure for filling up the posts would be reviewed. NYKS would involve State Governments in implementation of various programme activities.

Box 2.1.1
Objectives of the Eleventh Plan—Youth Affairs

- Holistic adolescent development through convergence of schemes;
- Overall personality development of youth and provision of life skills;
- Youth empowerment through restructuring and expansion of youth programmes;
- Greater female participation in youth development programmes;
- Special focus on engaging rural youths in nation-building activities transcending beyond social, economic, religious, and linguistic boundaries.

(ii) NATIONAL SERVICE SCHEME (NSS)

2.1.11 NSS would be strengthened and expanded from 2.60 million to 5.10 million volunteers and made more effective through qualitative improvements in the programme activities. NSS would be extended to uncovered universities, colleges, technical institutes, and senior secondary schools. The feasibility of extending NSS to class IX will be examined separately. The funding pattern would be revised from the existing 70:50 to 75:25, at par with National Cadet Corps, for normal States and 90:10 in the case of NE States.

(iii) RAJIV GANDHI NATIONAL INSTITUTE OF YOUTH DEVELOPMENT (RGNIYD)

2.1.12 RGNIYD would be developed as the apex institution with the status of Deemed National Youth University in the country. The Institute would provide special focus on youth leaders from PRIs and will be developed as an International Centre of Excellence on youth development. The collaboration of RGNIYD with the Commonwealth Youth Programme (CYP) Asia Centre, Chandigarh, would be strengthened to enable a higher level of international participation.

(iv) YOUTH HOSTELS

2.1.13 To encourage youth travel, youth hostels are envisaged at historical, cultural, and tourist places in the country as a joint venture between the Central and the State Governments. The construction and maintenance and operations could be taken up in a self-sustaining manner in the PPP/franchising mode. Some portion of the hostels could also be earmarked with differential tariff and facilities so as to generate additional resource to meet maintenance and up keep of the campus.

(v) NATIONAL PROGRAMME FOR YOUTH AND ADOLESCENT DEVELOPMENT

2.1.14 The programmes/schemes being funded through grant-in-aid/financial assistance under 'Yuva

Shakti Abhiyan' for youth and adolescent development will be restructured and placed under a single scheme namely, 'National Programme for Youth and Adolescent Development'. Considering increasing population of adolescents in future, Eleventh Plan recognizes adolescents as individuals with their own rights, aspirations and concerns, thus emphasizing a shift away from the welfare approach to a rights and empowerment oriented approach. The thrust areas of Eleventh Plan will consist of highlighting the need to extend coverage to adolescents in the various schemes of the Ministry of Youth Affairs and Sports and strengthening of the existing scheme of Financial Assistance for Development and Empowerment of Adolescents on holistic approach.

(vi) OTHER SCHEMES

2.1.15 The volunteers under NSVS and RSY are the backbone of NYKS. These schemes should be merged with NYKS and should be renamed as 'National Volunteer Scheme'. The existing scheme, namely, CYP would be strengthened. The mega youth exchange programme with China will be continued as a regular feature. Scouting and Guiding would be continued with renewed focus to develop the character of young boys and girls and inculcate in them a spirit of patriotism, social service, and communal harmony. There is a wider scope for PPP especially in respect of adventure sports, tourism, and eco-tourism. A road map will be drawn through a stakeholders' consultative process to broad-base the movement and mainstream it as a part of a larger India Youth Network.

SPORTS AND PHYSICAL EDUCATION

2.1.16 Every civilization has evolved and developed its own indigenous modes of physical endeavour and healthy social interaction through a variety of games and sports forms and events. There has been an intrinsic component of education and development of the human personality in philosophical texts of ancient Greece, the progenitor of the Olympic movement. In India, sports and games as a vital component of social and cultural life are embedded in the heritage right from Vedic as well as in Buddhist and Jain literature. Swami Vivekanand has been the principal exponent of sports culture in the country. He advised 'Be strong my young friends, that is my advice to you. You will be nearer to heaven through football than through the study of the Gita'.

2.1.17 The Eleventh and Twelfth Plan periods would be full of international sports events in the country. The World Military Games are proposed to be held at Hyderabad in 2007, the Commonwealth Youth Games (CYG) would be held in Pune in 2008, followed by the main Commonwealth Games (CG), 2010 in Delhi. The main aim behind the organization of such games has to relate to development of a sports culture and world-class sports facilities across the country, and a significant improvement in the levels of excellence, in terms of performance and medal-winning abilities of our sportspersons at the national and international levels. The existing policy and programmes need to be reviewed and the strategy and activities chalked out accordingly.

Box 2.1.2
Commonwealth Games (CG) 2010 and Commonwealth Youth Games (CYG) 2008

- The CG will be held in Delhi during 3–14 October 2010.
- CG 2010 will host 17 disciplines that will be held in the newly constructed and existing indoor/outdoor stadiums, developed by various agencies like Delhi Development Authority, Delhi University, Sports Authority of India (SAI), All India Tennis Association, and National Capital Territory of Delhi. The New Delhi Games Village will be set up on a 63.5 acre site with the accessible capacity of 8500 athletes and officials. The residential Zones of the Games are being developed on PPP basis. The tentative estimated outlay is Rs 6304 crore.
- The existing stadiums will be used for sports, viz., Archery, Aquatics, Athletics, Badminton, Boxing, Cycling, Elite Athletes with Disability events, Gymnastics, Hockey, Lawn Bowls, Netball, Rugby 7s, Shootings, Squash, Table Tennis, Tennis, Weightlifting, and Wrestling.
- Prior to CG 2010, third CYG will be held from 12–18 October 2008 at Pune. The CYG covers Athletics, Badminton, Boxing, Shooting, Swimming, Table Tennis, Tennis, Weightlifting, and Wrestling. Planning Commission provided Rs 210 crore and Government of Maharashtra Rs 100 crore for sports infrastructure development of CYG, Pune.

Performance during Plan Period

2.1.18 The National Sports Policy, 1984, was the first move towards developing an organized and systematic framework for the development and promotion of sports in the country, and the precursor of the present National Sports Policy, 2001. The policy, inter alia, emphasized the need for making sports and physical education an integral part of the curriculum. This resolve has also been stated in the National Policy of Education 1986, which calls for making sports and physical education an integral part of the learning process, and provides for its inclusion in the evaluation of performance. However, a review of Eighth Plan investments in Youth Affairs and Sports both at the national and State levels showed gross inadequacy considering the magnitude of youth population as indicated in Table 2.1.1.

TABLE 2.1.1
Plan Expenditure on Youth Affairs and Sports

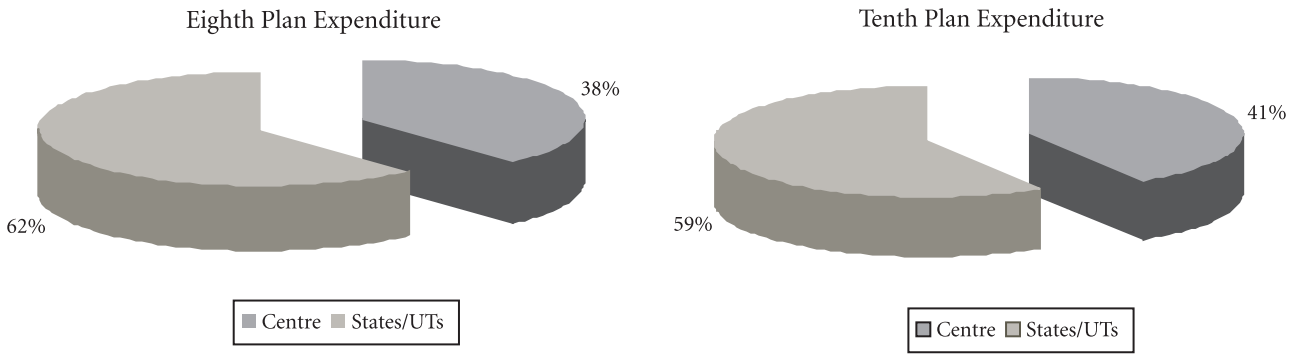
(Rs crore)

Government	Eighth Plan	Ninth Plan	Tenth Plan
Centre	434 (38)	895 (44)	1832 (41)
States/UTs	712 (62)	1143 (56)	2649 (59)
Total	1146 (100)	2038 (100)	4481 (100)

Note: The figures in parenthesis indicate percentage.
Source: Planning Commission, State Plans Division.

2.1.19 The per capita plan expenditure at the central and State level works out to only Rs 8.94 and Rs 12.92 per youth per annum, respectively, and the national per capita expenditure at Rs 21.86 per youth per year during Tenth Plan. The per capita State Plan expenditure was much lower than the national average in several major States like Kerala, Haryana, UP, Orissa, Gujarat, MP, and Bihar. It has also been observed from the structure of Plan expenditure, the State share of Plan expenditure has declined from 62% in the Eighth Plan to 59% in the Tenth Plan (Figure 2.1.1). Among the major States, while Andhra Pradesh, Karnataka, West Bengal, Maharashtra, and Tamil Nadu topped the Plan expenditure, Gujarat, Rajasthan, Himachal Pradesh were in the lower order of expenditure.

2.1.20 There is a need for reforms in sports management and governance to make it dynamic, responsive, and result-oriented. Some of the problems and issues identified by Parliamentary Standing Committee include: (i) Lack of a sports culture and consciousness in the country; (ii) Non-integration of sports with education; (iii) Lack of proper co-ordination amongst the Centre, States, federations/associations, and various private and public sector undertakings; (iv) Lack of infrastructure in the rural areas and its concentration in urban/metropolitan centres; (v) Underutilization of available infrastructure and its poor maintenance and upkeep; (vi) Lack of good quality and affordable sports equipments; (vii) Absence of adequate incentives for the youth to take up sports as a career; (viii) Unfair selection procedure and last minute finalization of teams; and (ix) Lack of adequate exposure and specialized training/coaching of international standards. It is noted that most of the State Governments do not have their State Sports Policy. These would be addressed in the Eleventh Plan.



Source: Planning Commission, State Plans Division.

FIGURE 2.1.1: Centre vs State Share of Plan Expenditure

Performance Review of Tenth Plan

2.1.21 The thrust areas identified for the Tenth Plan were creation of infrastructure, training facilities, upgradation of coaching skills, promotion of research and scientific support systems, creation of a drug-free environment, welfare and incentives for sportspersons, and tapping of resources from the private/public sector and individuals for the development of sports. Sports Authority of India (SAI) is an apex body for promotion of sports excellence in the country. The qualitative performance of SAI has to be seen in the light of three distinct aspects, i.e. (i) academics, which include the schemes for the training of coaches and other scientific staff, and programmes related to physical education; (ii) the collaboration with the National Sports Federations (NSFs) pertaining to the training of identified elite athletes and teams in different disciplines; and (iii) operations, which include schemes pertaining to the spotting and nurturing of talent. There is an acute shortage of coaches in the country. Efforts made by SAI under its Training centres and Special Area Games scheme have not yet yielded results.

2.1.22 The CSS related to sports infrastructure was transferred to States w.e.f. 1.4.2005 with provision for meeting the committed liability of continuing projects till the end of the Tenth Plan. The performance of district and State level competitions under Rural Sports Programme and Promotion of Sports and Games in Schools had not been satisfactory. Adequate participation from corporate/private sector could not forth come under National Sports Development Fund and for setting up of State Sports Academies. The scheme relating to Talent Search and Training was a bit slow to take off, but in the last two to three years, the scheme helped a number of players in achieving excellence at the international level. The progress of pre-project activities for the development of infrastructure for CG 2010, Delhi, and CYG 2008, Pune, is satisfactory.

2.1.23 Against the outlay of Rs 1145.36 crore and allocation of Rs 1463.69 crore for Sports and Physical Education, the anticipated expenditure was Rs 1306.41 crore (89.25%) during Tenth Plan (Annexure 2.1.1). SAI incurred 47% of expenditure followed by assistance to NSFs (16%), CG-2010 (15%), and infrastructure schemes (9%).

Approach and Programmes for Eleventh Plan

2.1.24 The approach and strategy for the Eleventh Plan would encompass the twin objectives of 'Broad-basing of Sports' and 'Promotion of Sports Excellence'. Despite initiating of a variety of steps taken by the Central Government, in terms of establishing structures and schemes for the development and promotion of sports, the desired results seem exclusive and therefore, there is an urgent need to review and reorient the system and procedures pertaining to coaching and organizing camps, provision of scientific back-up, and support during training/coaching camps and at the competition stage.

2.1.25 There is also a need for clear delineation of the roles and responsibilities of the related organizations/institutions, viz., SAI, Indian Olympic Association, and NSFs, together with action to co-opt the private sector in the form of adoption of disciplines/teams, sponsorship, etc., to supplement the efforts of the government. To achieve this, a close coordination and convergence would be required of all stakeholders.

Box 2.1.3
Objectives for Eleventh Plan—Sports and Physical Education

- Creation of sports infrastructure at grass-root level in rural and urban areas;
- Creating sports culture through organizing competitive events and involvement of educational institutions;
- Creating a pool of talented sports persons and providing them world class training facilities;
- Improving coaching facilities;
- Reformulating sport policy and action plan;
- Involvement of corporate sector;
- Creating career opportunities and social security for sports persons.

There is a need for transparency and accountability in the functions of sports bodies. The facilities under SAI would need systematic and scientific expansion and upgradation. The management aspects pertaining to development of various individual sports disciplines will also need to be reviewed and made more effective.

BROAD-BASING: INTRODUCTION OF PANCHAYAT YUVA KRIDA AUR KHEL ABHIYAN (PYKKA)

2.1.26 Broad-basing of Sports is the key to the promotion and development of a sports culture. The emphasis on sports should be on fitness of body of every individual and particularly youth and not relegated to entertainment and related activities as listed in the concurrent list. In order to make sports as mass movement, a new CSS under the title of 'Panchayat Yuva Krida Aur Khel Abhiyan (PYKKA)' would be launched for filling up the gaps at the sub-district level. The objective of the scheme is to create basic infrastructure and facilities for sports and games at the village and town levels, generating a sports culture among the rural youth, organizing competition and non-competition sporting activities at the village level, and developing a competition structure up to the district level. PYKKA would be implemented during Eleventh and Twelfth Plan in a Mission Mode with the involvement of the PRIs and the 2.50 lakh Rural Youth and Sports Clubs under NYKS and other schemes of the State Governments in a phased manner. The existing scheme of Rural Sports Programme will be subsumed in PYKKA. As the sports and games is State subject, the State Governments should also share costs and be accountable.

2.1.27 For purposes of funding under the scheme, it is proposed to bring in the greatest possible synergy and convergence between various schemes of the Central Government, such as the National Rural Employment Guarantee Scheme, Backward Regions Grant Fund, relevant schemes of the Ministry of Tribal Affairs and Department for the Development of the North Eastern Region, MP Local Area Development Scheme (and similar schemes of State Governments), funds available to the PRIs through devolution and the schemes of the State Governments for development of sports infrastructure.

PROMOTION OF SPORTS EXCELLENCE

2.1.28 The broad-basing of sports could gradually yield a pool of one lakh talented youth at the Sub-Junior, Junior, and Senior levels, who would require systematic and scientific nurturing and focused training to achieve excellence at the national/international levels. This would require multiple measures, including spotting/identification of national probables based on proficiency, performance, and potential; establishment of training infrastructure arrangements; coaching facilities; strengthening scientific and technical supports system; supply of quality sports goods and equipment; and use of media to bring sports consciousness. There is a need to maintain a computerized inventory of assets relating to sports at State, district, and block levels. NGOs, outstanding sportspersons, and corporate entities would be encouraged to get involved in the creation of facilities to promote sports excellence, in the form of academies, etc.

2.1.29 Recognizing the role of media in creating sports consciousness in the country, all efforts would be made to ensure their support in promoting and broad-basing of sports, particularly rural sports. The government will have to build in some regulations to ensure covering of sporting events apart from cricket and tennis to make good lack of adequate sponsorship. Special programmes and capsules also need to be prepared and aired, from time to time, about excellence promotion programmes such as coaching camps, talent-spotting exercise, selection trials, etc., to generate awareness about the development of sports in the country.

2.1.30 As regards the development of physical education, steps would need to be taken to develop and bring about an integral relationship between related institutions, including the possible reorganization of Laxmibai National College of Physical Education, Thiruvananthapuram as a Regional Centre (South) of the Laxmibai National Institute of Physical Education (LNIPE), Gwalior, which itself is a Deemed University. This would be in addition to other measures pertaining to synergy and complimentary between LNIPE and SAI. LNIPE would set up regional centres in the north east, east, west, and north. Besides, the

infrastructure facilities at LNIPE itself would be strengthened, upgraded, and modernized. The recommendation of NCERT that Health and Physical Education should be a core subject up to class X and an elective subject up to plus two levels should be implemented.

2.1.31 Considering the growing menace of doping, two separate autonomous entities, namely, National Anti-Doping Agency and National Dope Test Laboratory will be set up for ensuring quality testing of samples, etc. In view of 2.13% of Indian population is physically or mentally challenged and the impressive performance of Indian Elite Athletes with Disability at the international level, a comprehensive scheme would be formulated to ensure planned and systematic promotion of excellence in this field.

NE States

2.1.32 The approved outlay Tenth Plan was Rs 192.50 crore for NE States including Sikkim against which the expenditure is Rs 167.22 crore indicating a utilization of about 87%. NE region has a tremendous potential to excel in sports has been proved by the National Games at Guwahati in Assam. There is need for greater investment in improving games facilities in this region.

The Path Ahead

2.1.33 Despite Youth Affairs and Sports being a State subject, it has not got adequate support from the State Governments. Only few State Governments have their own Youth and Sports Policies. It is necessary that all States/UTs formulate State-specific Youth and Sports Policies and Action Plan for development of youth. State Sports Academies should be set up to select the best talent in sports. Perhaps, Sports could be brought in the concurrent list to supplement the State efforts. However, Plan expenditure of States will have to step up to arrest the declining trends.

2.1.34 The total projected Gross Budgetary Support (GBS) for the Eleventh Plan for the Ministry of Youth Affairs and Sports is given in Appendix of Volume III.

2.2. Art and Culture

Introduction

2.2.1 The Constitution of India stipulates that it shall be the duty of every citizen to value and preserve the rich heritage of our composite culture. The art and culture of India are a vast continuum, evolving incessantly since time immemorial. Therefore, preservation and conservation of India's rich cultural heritage and promotion of all forms of art and culture, both tangible and intangible, including monuments and archaeological sites, anthropology and ethnology, folk and tribal arts, literature and handicrafts, performing arts of music-dance-drama, and visual arts of paintings-sculpture-graphics assume considerable importance. On a larger scale, cultural activities also address issues relating to national identity in conjunction with several other sectors such as education, tourism, textiles, external relations, etc.

Thrust during Plan Periods

2.2.2 Since Independence the crux of all culture development plans has been the preservation of cultural heritage with emphasis on the thread of continuity binding the dissimilarities into a synergistic whole. The main focus in the early Five Year Plans, up to the Sixth Plan, was on the establishment of cultural institutions in the field of archaeology, anthropology and ethnography, archives, libraries, museums, and performing arts including academies. Since the Seventh Plan there was also special emphasis on the pursuit of contemporary the creativity.

Achievements in the Plan Periods

Performing Arts

2.2.3 The ongoing schemes under the performing arts spanning disparate fields of classical/traditional and folk music/theatre and dance—showcased by organizations like Sangeet Natak Akademi (SNA), National School of Drama, and Zonal Cultural Centres (ZCCs)—have played a crucial role in supporting and facilitating the performing arts traditions in the country. Several schemes continue to be implemented under the performing and visual arts with a view to supporting creative individuals and institutions in their new ventures/productions.

Museums and Visual Arts

2.2.4 Modernization of museums involved laying emphasis on digitization and documentation of artworks as part of Plan activities and on strengthening of networking among Central museums. The scheme of financial assistance for strengthening of regional and local museums has been revised with a view to widening its scope for assisting smaller museums. The National Council of Science Museums (NCSM) has been engaged in popularizing Science and Technology amongst students through a wide range of activities and interactive programmes implemented by 26 Science Museums/Centres.

Archaeology, Anthropology, and Ethnology

2.2.5 Successive Five Year Plans focused on preservation and development of heritage sites and monument complexes. Major strategies included (i) involvement of university departments of History and Archaeology in survey of heritage sites; (ii) modernization of galleries, digital documentation of antiquities, publication of catalogues, museum guides, and picture postcards by the Archaeological Survey of India (ASI); (iii) publication of excavation reports; (iv) setting up a new Underwater Archaeology Branch; and (v) demarcation of protected limits of archaeological monuments and provisions to safeguard against encroachments.

Archives, Libraries, and Literature

2.2.6 The National Archives of India (NAI) has been the custodian of Central Government records of enduring value for permanent preservation and use by administrators and scholars. Preservation and conservation of rare books and other documents is one of the chief activities of the National Library and Central Reference Library (Kolkata), Central Secretariat Library and Delhi Public Library (New Delhi), State Central Library (Mumbai), Thanjavur Maharaja Serofji Saraswati Mahal Library (TMSSML) (Thanjavur) and Raja Ram Mohun Roy Library Foundation (Kolkata), which are engaged in digitization of old books and manuscripts and retro-conservation of catalogues. Developing a National Bibliographic Database in electronic format to encourage resource sharing, networking and to improve reader services is the hallmark of modernization activities in the library sector.

Education, Research and Others

2.2.7 Achievement of Plan schemes have been substantial under the education and research fields, viz. Buddhist and Tibetan Institutions, National Museum Institute, Centenary and Memorials, Centre for Cultural Resources and Training (CCRT), etc. Other initiatives included building projects and construction activities at National Museum (New Delhi) and at National Gallery of Modern Art (Bangalore and New Delhi). Under National Culture Fund (NCF), projects were undertaken in collaboration with private houses, viz. Shaniwarwara (Pune), Jnana Pravaha (Varanasi), Humayun's Tomb (Delhi), Durgapur Children's Society (WB), five heritage sites in five States in collaboration with Indian Oil Corporation, Taj Mahal (Agra) in collaboration with Taj Group of Hotels, and Jantar Mantar (New Delhi) in collaboration with APJ Group.

Progress during the Tenth Plan

2.2.8 The thrust areas during the Tenth Plan included implementation of a comprehensive plan for the preservation of archaeological heritage and development of monument complexes; modernization of museums and preservation of archival heritage; promotion of classical, folk and tribal art crafts, and oral traditions. Computerization of museums with the assistance of National Informatics Centre (NIC), digitization of collections, micro filming of manuscripts and the introduction of equipment for audio tours received special focus. Networking amongst Central museums, undertaking in-service staff training and organizing exhibitions were other priority areas.

2.2.9 The Tenth Plan (2002–07) allocation for Art and Culture was Rs 1720 crore. The total expenditure during the Tenth Plan at Rs 1526.30 crore accounted for 88.74% of Plan outlay (see Annexure 2.2.1). Lack of proper phasing of expenditure and activities under various cultural organizations hindered full utilization of Plan allocation. There were cost and time over-runs in some of the major civil work projects.

Scheme-wise/Sector-wise Analysis

Promotion and Dissemination of Art and Culture

2.2.10 Promotion and dissemination of art and culture have been mainly done through seven ZCCs.

During the Tenth Plan, the CCRT trained about 22000 in-service teachers and 700 teacher-educators. The SNA, Sahitya Akademi (SA), and Lalit Kala Akademi (LKA) organized Golden Jubilee Celebrations to commemorate their fiftieth anniversaries. About 21000 books were added to the SA libraries in Delhi, Mumbai, Kolkata, and Bangalore during the Tenth Plan. SNA organized Music, Dance and Theatre Festivals, Seminars and Workshops, Yuva Utsavs and Puppetry Shows. LKA organized exhibitions in India and abroad. The National School of Drama conducted more than 300 production-oriented theatre workshops and organized a Satellite Theatre Festival in Bangalore. The expenditure under Promotion and Dissemination of Art and Culture at Rs 454.99 crore exceeded the Tenth Plan outlay of Rs 362.43 crore by 25.5%.

Archaeology

2.2.11 Several excavation projects undertaken during the period include those at Dholavira (Kachchh, Gujarat), Dhalewa (Punjab), Sravasti (UP), Kanaganahalli Sannati (Karnataka), Hathab (Saurashtra, Gujarat), Udaigiri (Orissa), Boxanager (Tripura), Karenghar (Sibsgar, Assam), Arikamedu (Pondicherry), Dum Dum (Kolkata), and Bellie Guard (Lucknow). Major works for conservation and integrated development in respect of 15 monuments were taken up by the ASI. Collaboration with the corporate sector such as Taj Group of Hotels and the World Monument Fund was also initiated. Initiatives undertaken by the ASI included protection of 3667 monuments and signing an MoU with Government of Kampuchea for the conservation of Ta-Prohm Temple in Siem Reap. Under Archaeology, the plan expenditure of Rs 304.11 crore exceeded the Tenth Plan outlay of Rs 284.83 crore by 7%.

Archives and Records

2.2.12 The NAI has revitalized its programmes of expansion of records management and repair and reprography. Other scheme components under Archives and Records, viz., Khuda Baksh Oriental Public Library, Rampur Raza Library, Asiatic Societies at Kolkata and Mumbai, and the TMSSML have performed well during the Tenth Plan. However, the Plan expenditure of Rs 60.32 crore showed a shortfall of 18.61% as compared to the Tenth Plan outlay of Rs 74.11 crore.

2.2.13 It was during the Tenth Plan that attention was drawn towards the manuscript wealth of the country and on the need for special attention on their conservation and upkeep. The National Mission for Manuscripts was launched for inventorization and protection of Indian manuscripts. The mission has taken up the task of compiling a national database of manuscripts (being made available online) by initiating a national survey of about 2 million manuscripts. More importantly, 45 most unique manuscripts recording India's achievements in science, philosophy, scripture, history, and the arts have been selected by a committee of selectors as national treasure. Software has been prepared by NIC in Visual Basic Net for cataloguing of manuscripts. About 2 lakh illustrated manuscripts have been digitized.

Museums

2.2.14 Out of the Tenth Plan outlay of Rs 304.13 crore for Museums, Plan expenditure at Rs 314.21 crore exceeded the outlay by 3.3%. The thrust was on the strengthening of networking among Central museums, enabling these institutions to share their experiences and resources in undertaking in-service training, and organizing exhibitions. The National Museum paid increased attention on modernizing its permanent galleries. Three new galleries, viz., Nizam Jewellery Gallery, Folk and Art Gallery, and Central Asian Antiquities were set up in the National Museum.

Public Libraries

2.2.15 Out of the Tenth Plan outlay of Rs 131.05 crore, an expenditure of Rs 121.76 crore was incurred, which indicates a shortfall of 7.1%. This scheme includes National Library of India, Central Research Library, Raja Rammohun Rai Library Foundation, Kolkata; Delhi Public Library and Central Secretariat Library, New Delhi; State Central Library, Mumbai; Connemara Library, Chennai, and National Policy on Library and Information Centre.

Indira Gandhi National Centre for Arts (IGNCA)

2.2.16 The mandate of IGNCA is to explore, study and revive the dialogue between India and her neighbours in areas pertaining to the arts, especially in South and South East Asia. IGNCA has six functional units,

viz., Kalanidhi (multi-form library); Kalakosh (Indian language texts); Janapada Sampada (lifestyle studies); Kaladarshan (visible forms of IGNCA researches); Culture Informatics Lab (technology tools for cultural preservation); and Sutradhara (coordinating IGNCA activities). IGNCA had a plan outlay of Rs 90.00 crore. IGNCA's performance suffered a setback due to administrative and other reasons including lack of credible Plan schemes. By the time the factors responsible for dismal performance and other issues were sorted out and IGNCA re-railed, the Tenth Plan closed with an expenditure only Rs 4.12 crore.

Institutions of Tibetan and Buddhist Studies

2.2.17 Out of the Tenth Plan outlay of Rs 45.70 crore, an expenditure of Rs 45.11 crore was incurred indicating 98.7% utilization. The scheme consists of Central Institute of Buddhist Studies (Leh), Central Institute of Higher Tibetan Studies (Sarnath), Centre for Buddhist Cultural Studies (Tawang), Tibet House (New Delhi), and Scheme of Financial Assistance for the Preservation and Development of Buddhist/ Tibetan Culture and Art.

Memorials

2.2.18 The scheme comprises Gandhi Smriti, Darshan Samiti, and Nehru Memorial Museum and Library (New Delhi), Maulana Abul Kalam Azad Institute of Asian Studies (Kolkata), and Nava Nalanda Mahavihar (Bihar). Actual expenditure at Rs 61.73 crore exceeded the plan outlay of Rs 49.35 crore by 25.1%.

Activities for North East Region (NER)

2.2.19 As against the targeted expenditure of Rs 154.00 crore in the NER, the actual expenditure was only Rs 134.19 crore (87.1%). With the aim of creating cultural awareness in the NER and identifying/ promoting vanishing folk art traditions in rural/ semi-urban areas the North Eastern ZCC has been set up at Dimapur. The progress under the scheme of Multipurpose Cultural Complexes (MPCC) has been slow and the scheme not yet been evaluated in any of the States. The MPCC did not meet any criteria for a CSS and only about 25% of the projects sanctioned have been completed. As per the ZBB exercise, the scheme was discontinued in Budget 2007–08. Initiatives were taken to set up the Central Institute of Himalayan Cultural Studies at Dahung (AP) for promoting traditional Buddhist Studies. The approach towards utilization of earmarked funds, save for few activities listed above, was far from satisfactory. It is essential that the 10% earmarked resources are not only invested for the NE States but also in the NER.

Perspective of the Eleventh Plan

2.2.20 Given the challenges inherent in the enormity a country of India's size, the monumental diversity of its people and their languages, and the plurality of faiths and belief systems, it is imperative to embark on a planned development of cultural conservation and promotion activities in the Eleventh Five Year Plan. There is a need for a long-term perspective plan for each major sector within which the medium term and annual plans are built up to fulfil the vision.

2.2.21 Diversity is the hallmark of India's rich cultural heritage. Therefore, all forms of art and culture should have an equal footing and deserve financial and other support. Conventional support should yield to relative merits in terms of the need to preserve, protect, and promote the cultures of different parts of the country. In this context, it is essential to view culture as 'ways of living together', as means to the end of promoting and sustaining human progress, with intrinsic value. Accordingly, the imbalances in flow of funds for various activities under promotion and dissemination of performing arts will have to be set right, particularly in favour of vanishing folk arts and crafts that cannot be pitted against classical arts to compete for resources and media attention. Popular forms of art and culture, particularly in terms of patronage, could find resources of their own via PPP.

2.2.22 Many art forms are in the peril of withering away due to the lack of State patronage. Market forces can also extend support to creative arts, but these are necessarily selective and limited. There is a need for greater support for performing arts and for correcting the distortions induced by selective support of market forces. It is with this perspective that the existing schemes in the area of art and culture including Performing Arts, in addition to being reviewed and strengthened, have been appraised and recommended for continuation in the Eleventh Plan with modifications.

Priorities in the Eleventh Plan

2.2.23 The two UNESCO Conventions, one 'to safeguard and protect Intangible Heritage' and the other on 'Cultural Diversity', have urged governments to initiate proactive measures to safeguard and protect cultural diversity and the various expressions of intangible heritage facing the risk of disappearance. The spirit of these two conventions would permeate the schemes of Ministry of Culture and its bodies during the Eleventh Plan period.

2.2.24 The upkeep and maintenance of museums and archaeological sites will be considerably improved with introduction of modern technology and redeployment of existing staff. Security services are already outsourced. The possibility for outsourcing in areas like consultancy and maintenance needs to be examined. PPP models may be explored for development of monuments not protected by ASI with the involvement of States. Delhi should be developed as a heritage city by making some of its monuments world-class, preferably before 2010 CG. Publication through private sector should be encouraged as they have modern technology and know-how to produce the best. Repository work is done well by the private sector. As Ministry of Culture has been facing recurrent cuts in outlay due to poor spending during the first two quarters, proper expenditure planning including phasing of expenditure in sub-sectors other than Akademies and ASI. In the field of art and culture, several schemes are being implemented without assessing the process and impact. Therefore, all the schemes will be evaluated.

Restructuring of Schemes and Sectoral Thrusts

Performing Arts

2.2.25 The existing scheme of 'Financial Assistance to Professional Groups and Individuals for Specified Performing Art Projects' will be bifurcated into two schemes, viz., Salary and Production Grants with revisions in the cost structure. The scheme of 'Financial Assistance for Research Support to Voluntary Organizations engaged in cultural activities' will be modified as the scheme of 'Financial Assistance for Research, Seminar and Performance to voluntary organizations engaged in cultural activities'. The existing scheme of 'Award of Senior/Junior Fellowship to Outstanding Artists in the field of Performing, Literary and Classical Arts' would be added with a new component, namely 'Fellowship of National Eminence', with fellowships to outstanding scholars selected through a search process and peer review.

Box 2.2.1
Strategies for the Eleventh Plan

- Tapping of PPP models for sustenance of Arts and Crafts.
- Greater involvement of universities in schemes of Lalit Kala, Sangeet Natak, and Sahitya Akademies; Fine Arts to be included as a subject in universities.
- SA to work out operational modalities of promoting Hindi and getting it recognized as a UN language.
- SNA to promote and correct the imbalance in extending patronage to varied forms of art with focus on group and dances like Bihu, Bhangra, Nautanki, Dandiya, Bamboo and folk dances besides classical forms.
- Protection of monuments not notified for protection by ASI and involvement of States/PRIs in protecting unprotected monuments.
- Preserving and promoting India's rich intangible cultural heritage by inventorizing and documenting oral traditions, indigenous knowledge systems, guru-shisya parampara, Vedic chanting, Kuddiattam, Ramlila, folklores and tribal, oral traditions.
- Publication of reports of archaeological excavations undertaken in last 20 years.
- Greater momentum and funding to the library movement in the country and the National Mission on Libraries launched.
- Set up one museum in each district with separate chambers for visual and other forms of art, architecture, science, history and geography with regional flavour.
- Enhancing assimilative capabilities to adapt to emergent challenges of globalization and technological innovations.

Box 2.2.2
Specific Plan of Action for Art and Culture

- Promoting regional languages with focus on translation of regional/vernacular literature and integration with National Translation Mission.
- Dovetailing of cultural and creative industries—media, films, music, handicraft, visual and performing arts, literature, heritage, etc., for growth and employment.
- Generating demand for cultural goods and services as a matter of sustenance rather than patronage, thus bringing art and culture sector in the larger public domain.
- Restructuring some existing schemes to encourage PPP.
- Development of Sanskriti Grams for giving basic amenities to indigent urban artists.
- Promoting export of core cultural goods and services for taking the country in the list of first 20 countries ranked by UNESCO for export of culture.
- Recognizing 'cultural heritage tourism' as an upcoming industry with mutually supportive activities.
- Building cultural resources with adaptation of scientific and technological knowledge to local circumstances, and forming partnerships between local and global.
- Infusion of knowledge capital in cultural institutions through flexible engagements.
- Housing segments on cultural resources in the national museums and Science Cities/Centres set up by the NCSM.
- Documentation of unprotected monuments, other than the 3667 protected ASI monuments.

2.2.26 A new component under performing arts is the creation of a 'National Artists Welfare Fund'—with a corpus of Rs 5.00 crore for meeting medical emergencies of artists—as an independent administered fund with facilities to receive contributions from any lawful sources.

2.2.27 The Akademies and the ZCCs will have a new scheme called 'Protecting the Intellectual Property Rights of the artists and of cultural industries'—especially of folk and tribal artists—along with the creation of a national apparatus to work as a watchdog and facilitator in this area. A Cultural Centre at Kolkata will be set up in PPP with Calcutta Museum of Modern Art in collaboration with the State Government with provision for funding by the three Akademies.

Museums and Visual Arts

2.2.28 The ongoing schemes/institutions in the field of museums will continue in the Eleventh Plan along with the modernization/strengthening/upgradation of various museums. The museums in four metros, viz., Delhi, Kolkata, Mumbai, and Chennai will be modernized. Gandhi Darshan Memorial at Rajghat will be developed as a Centre of Excellence for promoting research in Gandhian studies. Also, during the Eleventh Plan, a comprehensive development of Jallianwala Bagh National Memorial, befitting its status and importance in the history of Indian freedom struggle, will be undertaken.

Archaeology, Anthropology, and Ethnology

2.2.29 Specific tasks for the ASI include undertaking a time-bound programme to complete all pending excavation reports and drawing up a phased programme for qualitative upgradation of all 41 site museums besides completing and operationalizing new museums that are built at Chanderi, Khajuraho, and Shivpuri. ASI will undertake an intensified conservation programme for 2000 Centrally protected monuments and excavated archaeological remains and a program-me of integrated development of all World Heritage Cultural Sites. The Regional Centres of ASI will be strengthened.

2.2.30 A research/conservation laboratory at Aurangabad for further improving the condition of Ajanta-Ellora monuments and a centralized Cell for Archaeological Investigation using modern scientific methods will be set up. A new scheme providing fellowships for two years' duration to young archaeologists in the age group of 25–35 years will be launched. A new scheme for providing Financial Assistance to

State Protected Monuments and for Unprotected Monuments will be launched leveraging State and private sector funds for protection and preservation of monuments.

2.2.31 The Anthropological Survey of India will take up four new Plan schemes, viz., Indigenous Knowledge and Traditional Technology, Oral Traditions/ Folk Taxonomies, Social Structure and Bio-Cultural Adaptations with Gender Perspectives, and Man in the Biosphere and National Repository of Human Genetic Resources. Indira Gandhi Rashtriya Manav Sangrahalaya will take up new programmes for upgradation of existing exhibition galleries and development of new exhibitions on the theme 'India and the World', National Documentation Centre and Archive for Intangible Cultural Heritage and establishment of four Regional Outreach Centres.

Literature, Libraries, and Archives

2.2.32 The development of Public Libraries in the Eleventh Plan includes Rural Public Libraries and provision for handicapped and under-privileged in District Libraries. A National Library Mission will be set up. National, State/district libraries will develop special collections and technological support for visually challenged and hearing-impaired.

Education, Research, and Others

2.2.33 A Cultural Heritage Volunteers Forum will be set up in schools/colleges/universities in convergence with NSS for integrating the basic tenets of India's cultural heritage. A Pilot Scheme for Cultural Industries will be launched by selected ZCCs for providing market information, design, packaging, training, and e-commerce facilities. The schemes of CCRT, Assistance for Preservation and Development of Cultural Heritage of Himalayas, and Assistance for Preservation and Development of Buddhist/Tibetan Organization will be restructured.

National Translation Mission

2.2.34 A new scheme will be launched in partnership with States for cultural exchange to strengthen the composite culture through translation of a minimum five good literary works in every language into all other major languages.

The Path Ahead

2.2.35 The strengthening of inter-organizational networks and introduction of management-oriented approaches in the administration of cultural institutions are the two cardinal prerequisites for improving efficiency in the working of the cultural institutions. The Ministry of Culture's Modernization and Computerization Scheme should develop a module for exclusively dealing with increasing inter-organizational cooperation, networking, and sharing of information amidst disparate cultural organizations. There is a need to emulate networking systems in scientific institutions with a view to repositioning India's rightful place in the comity of Knowledge Superpowers.

2.2.36 Resuscitating India's dwindling higher institutions of art and culture poses a real challenge and an action plan to strengthen these institutions needs to be worked out during the Eleventh Plan. Outstanding scholars from India and abroad could be encouraged to get associated with these organizations. However, it is important that institutions must be autonomous and develop a conducive working environment. In this context, it is desirable to formulate norms and procedures for flexible engagement of scholars in higher institutions of art and culture. There is an urgent need for adopting the idea of concept makers. In other words, creating an Ideas Bank, which could explore and scrutinize the ideas that originated in India first and then spread across the globe. The Ideas Bank could generate new research designs and modules with inter-disciplinary linkages to develop the growth of innovative research.

2.2.37 The dynamics of the infusion of knowledge capital into the designated Knowledge Institutions through flexible engagements needs to be worked out during the Eleventh Plan. The key elements of this infusion will include (i) evolving a broad framework for infusion of knowledge capital, both domestic and global, (ii) setting out guiding principles that are conducive to flexible engagements and are free from crippling rules and regulations, (iii) redefining the role of knowledge institutions as facilitators of production of knowledge, (iv) extending enhanced autonomy to the institutions for flexible engagements, (v) attracting global creative talents in specialized disciplines

and exploring the possibilities of institutionalizing linkages, (vi) ownership of knowledge outputs including inalienable rights of creative talents over output and dissemination and (vii) freeing institutions from budgetary constraints by creating a Knowledge Fund with a reasonable corpus to begin with. Hence, there is a need for (i) assessment of requisite competencies and criteria such as eligibility/suitability and scholarship, (ii) level playing field and (iii) development and nurturing of domestic creative talents with attachments, assignments and partnerships in projects.

2.2.38 Major scheme-wise break up of the GBS for the Eleventh Plan for the Ministry of Culture is given in Appendix of Volume III.

ANNEXURE 2.1.1
Youth Affairs and Sports—Outlay and Expenditure of the Tenth Plan

(Rs Crore)

S. No.	Sub-Sector	Tenth Plan (2002–07)	
		Outlay	Expenditure
A.	Youth Affairs	677.64	522.62
B.	Sports and Physical Education	1145.36	1306.41
C.	Others	2.00	3.05
	Total	1825.00	1832.08

Source: Ministry of Youth Affairs and Sports.

ANNEXURE 2.2.1
Culture—Outlay and Expenditure of the Tenth Plan

(Rs Crore)

S. No.	Scheme/Major Head	Tenth Plan (2002-07)	
		Outlay	Expenditure
1	Modernization & Computerization	4.39	2.73
2	Promotion & Dissemination	362.43	454.99
3	Archaeology	284.83	304.11
4	Archives & Records	74.11	60.32
5	Museums	304.13	314.21
6	Anthropology & Ethnology	40.02	42.06
7	Public Libraries	131.05	121.76
8	IGNCA	90.00	4.12
9	Inst. of Buddhist & Tibetan Studies	45.70	45.11
10	Other Exp. (Memorials)	49.35	61.73
11	Activities for NER	154.00	134.19[@]
12	Building Projects/Capital outlay	180.00	115.16
	Total	1720.00	1526.30

Note: [@]An expenditure of Rs 134.19 crore included under respective sectors.

Source: Ministry of Culture.

3

Health and Family Welfare and AYUSH

3.1 HEALTH AND FAMILY WELFARE

Introduction

3.1.1 The health of a nation is an essential component of development, vital to the nation's economic growth and internal stability. Assuring a minimal level of health care to the population is a critical constituent of the development process.

3.1.2 Since Independence, India has built up a vast health infrastructure and health personnel at primary, secondary, and tertiary care in public, voluntary, and private sectors. For producing skilled human resources, a number of medical and paramedical institutions including Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (AYUSH) institutions have been set up.

3.1.3 Considerable achievements have been made over the last six decades in our efforts to improve health standards, such as life expectancy, child mortality, infant mortality, and maternal mortality. Small pox and guinea worm have been eradicated and there is hope that poliomyelitis will be contained in the near future. Nevertheless, problems abound. Malnutrition affects a large proportion of children. An unacceptably high proportion of the population continues to suffer and die from new diseases that are emerging; apart from continuing and new threats posed by the existing ones. Pregnancy and childbirth related complications also contribute to the suffering and mortality.

3.1.4 The strong link between poverty and ill health needs to be recognized. The onset of a long and expensive illness can drive the non-poor into poverty. Ill health creates immense stress even among those who are financially secure. High health care costs can lead to entry into or exacerbation of poverty. The importance of public provisioning of quality health care to enable access to affordable and reliable heath services cannot be underestimated. This is specially so, in the context of preventing the non-poor from entering into poverty or in terms of reducing the suffering of those who are already below poverty line.

3.1.5 The country has to deal with rising costs of health care and growing expectations of the people. The challenge of quality health services in remote rural regions has to be urgently met. Given the magnitude of the problem, we need to transform public health care into an accountable, accessible, and affordable system of quality services during the Eleventh Five Year Plan.

Vision for Health

3.1.6 The Eleventh Five Year Plan will provide an opportunity to restructure policies to achieve a New Vision based on faster, broad-based, and inclusive growth. One objective of the Eleventh Five Year Plan is to achieve good health for people, especially the poor and the underprivileged. In order to do this, a comprehensive approach is needed that encompasses individual health care, public health, sanitation, clean drinking water, access to food, and knowledge of

hygiene, and feeding practices. The Plan will facilitate convergence and development of public health systems and services that are responsive to health needs and aspirations of people. Importance will be given to reducing disparities in health across regions and communities by ensuring access to affordable health care.

3.1.7 Although it has been said in plan after plan, it needs to be reiterated here that the Eleventh Five Year Plan will give special attention to the health of marginalized groups like adolescent girls, women of all ages, children below the age of three, older persons, disabled, and primitive tribal groups. It will view gender as the cross-cutting theme across all schemes.

3.1.8 To achieve these objectives, aggregate spending on health by the Centre and the States will be increased significantly to strengthen the capacity of the public health system to do a better job. The Plan will also ensure a large share of allocation for health programmes in critical areas such as HIV/AIDS. The contribution of the private sector in providing primary, secondary, and tertiary services will be enhanced through various measures including partnership with the government. Good governance, transparency, and accountability in the delivery of health services will be ensured through involvement of PRIs, community, and civil society groups. Health as a right for all citizens is the goal that the Plan will strive towards.

Time-Bound Goals for the Eleventh Five Year Plan

- Reducing Maternal Mortality Ratio (MMR) to 1 per 1000 live births.
- Reducing Infant Mortality Rate (IMR) to 28 per 1000 live births.
- Reducing Total Fertility Rate (TFR) to 2.1.
- Providing clean drinking water for all by 2009 and ensuring no slip-backs.
- Reducing malnutrition among children of age group 0–3 to half its present level.
- Reducing anaemia among women and girls by 50%.
- Raising the sex ratio for age group 0–6 to 935 by 2011–12 and 950 by 2016–17.

(Actions to be taken to achieve the goals related to clean drinking water, malnutrition, and anaemia have been indicated in detail in other chapters.)

Current Scenario, Concerns, and Challenges

India in the International Scenario

3.1.9 The comparative picture with regard to health indicators such as life expectancy, TFR, IMR, and MMR points that countries placed in almost similar situations such as Indonesia, Sri Lanka, and China have performed much better than India (Table 3.1.1).

TABLE 3.1.1
Health Indicators among Selected Countries

Country	IMR (per 1000 live births)	Life Expectancy M/F (in years)	MMR (per 100000 live births)	TFR
India	58	63.9/66.9*	301	2.9
China	32	70.6/74.2	56	1.72
Japan	3	78.9/86.1	10	1.35
Republic of Korea	3	74.2/81.5	20	1.19
Indonesia	36	66.2/69.9	230	2.25
Malaysia	9	71.6/76.2	41	2.71
Vietnam	27	69.5/73.5	130	2.19
Bangladesh	52	63.3/65.1	380	3.04
Nepal	58	62.4/63.4	740	3.40
Pakistan	73	64.0/64.3	500	3.87
Sri Lanka	15	72.2/77.5	92	1.89

Note: * Projected (2001–06).

Source: India—RGI, Government of India (GoI) (Latest Figures); Others—State of World Population (2006).

Scenario in Relation to Tenth Plan Goals

3.1.10 Of the 11 monitorable targets for the Tenth Plan, three were related to the health sector. Their goals and achievements are summarized in Table 3.1.2.

DECADAL RATE OF POPULATION GROWTH/ TOTAL FERTILITY RATE (TFR)

3.1.11 The decadal growth of population during 1991–2001 had been 21.5%, on account of the momentum built from high levels of fertility in the past. The good news is that we are right on course with respect to the first of the three Tenth Plan monitorable targets related to the health sector. The projected decadal population growth rate is 15.9% for 2001–11. The two important demographic goals of the National Population Policy (2000) are: achieving the population replacement level (TFR 2.1) by 2010 and a stable population by 2045. TFR, which in the early 1950s was 6.0, has declined to 2.9 in 2005. Thus, India is moving towards its goal of replacement-level fertility of 2.1. The percentage of married women using contraception has increased from a level of just over 10% in the early 1970s to 41% in 1992–93, 48% in 1998–99, and to 56% by 2005–06 (Figure 3.1.1). However, there are huge differentials amongst various States.

MATERNAL MORTALITY RATIO (MMR)

3.1.12 The MMR during 2001–03 has been 301 per 100000 live births (RGI, 2006). Levels of maternal mortality vary greatly across the regions due to variation in access to emergency obstetric care (EmOC), prenatal care, anaemia rates among women, education level of women, and other factors. There has been a substantial decline during the seven year period of 1997–2003. However, the pace of decline is insufficient. At the present rate of decline, it will be difficult to achieve the goal of 100 by 2012 (Figure 3.1.2). This reinforces that rapid expansion of skilled birth attendance and EmOC is needed to further reduce maternal mortality in India.

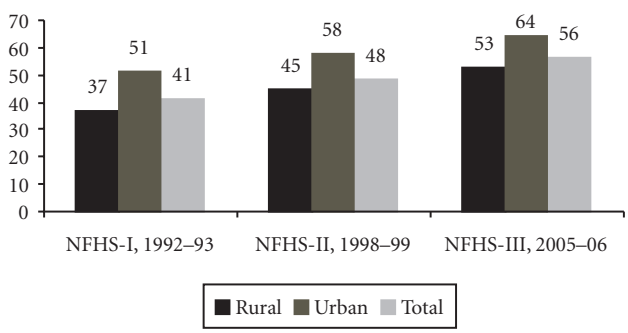
INFANT MORTALITY RATE (IMR)

3.1.13 IMR is 58 per 1000 live births (Sample Registration System [SRS], 2005). It is higher in rural areas (64) and lower in the urban areas (40) of the country.

TABLE 3.1.2
Goals and Achievements during the Tenth Plan

Indicator	Goal for Tenth Plan	Achievements
Decadal Rate of Population Growth	16.2%	15.9% for 2001–11 (Projected)[1]
IMR	45 per 1000 live births	58 per 1000 live births[2]
MMR	2 per 1000 live births	3.01 per 1000 live births[3]

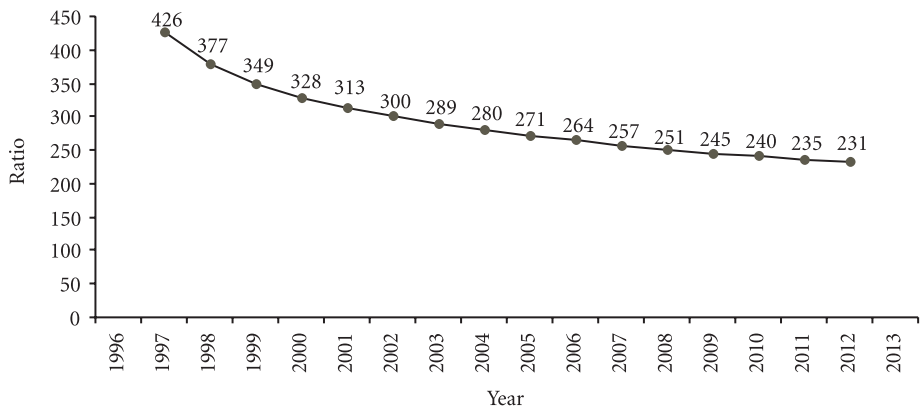
Notes: 1. Technical Group on Population Projections set up by National Commission on Population (December 2006), RGI, GoI; 2. SRS 2005; 3. 2001–03 Special Survey of Deaths using RHIME (routine, re-sampled, household interview of mortality with medical evaluation), RGI (2006), GoI.



Source: NFHS-3, IIPS (2005–06).

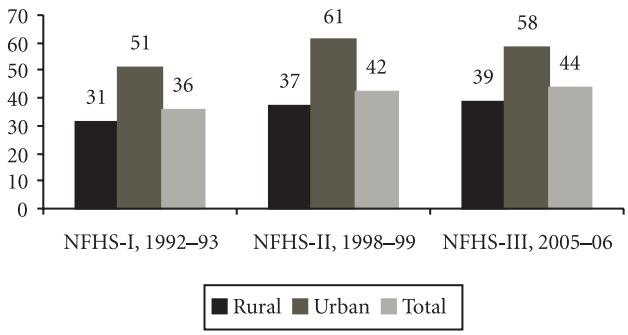
FIGURE 3.1.1: Trends in Contraceptive Use (%) (currently married women in 15–49 age group)

It also varies across States. Neo-natal mortality (at 37 per 1000 live births) constitutes nearly 60%–75% of the IMR in various States. The coverage of immunization has increased marginally from 42% in 1998–99 to 44% in 2005–06 (Figure 3.1.3). Polio continues to be a problem and usage of Oral Rehydration Solution (ORS) among children with diarrhoea continues to be low (according to NFHS-3, 26.2% of children with diarrhoea in the last two weeks received ORS). The trend of reduction in IMR has been shown in Figure 3.1.4. Concerted efforts will be required under Home Based Newborn Care (HBNC) to reduce the IMR and Neonatal Mortality Rate (NMR) further.



Source: RGI (2006).

FIGURE 3.1.2: MMR in India: Trends Based on Log-linear Model, 1997–2012



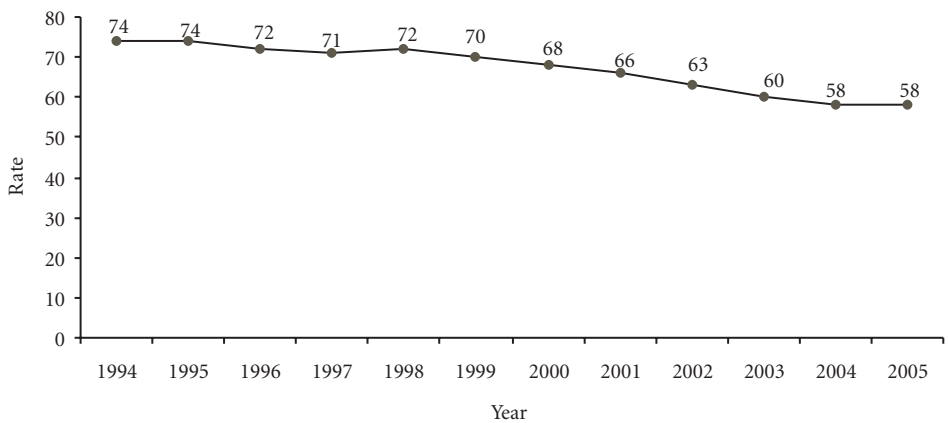
Source: NFHS-3, IIPS (2005–06).

FIGURE 3.1.3: Trends in Full Immunization Coverage

Disparities and Divides

3.1.14 Within the country, there is persistence of extreme inequality and disparity both in terms of access to care as well as health outcomes. Kerala's life-expectancy at birth is about 10 years more than that of MP and Assam. IMRs in MP and Orissa are about five times that of Kerala. MMR in UP is more than four times that of Kerala and more than three times that of Haryana. Crude death rates among States also reveal wide variations. Crude death rates in Orissa and MP are about twice the crude death rates in Delhi and Nagaland. This high degree of variation of health indices is itself a reflection of the high variance in the availability of health services in different parts of the country.

3.1.15 Approximately a quarter of the districts account for 40% of the poor, over half of the malnourished, nearly two-thirds of malaria and kala-azar, leprosy,



Source: SRS Bulletin, RGI (October 2006).

FIGURE 3.1.4: IMR in India

infant and maternal mortality, and diseases (National Commission on Macroeconomics and Health, NCMH, 2005). The challenge is to provide these areas with access to low-cost public health interventions such as universal immunization services and timely treatment. These States are also the ones that have acute crises of human and financial resources.

3.1.16 Public health care system in rural areas in many States and regions is in shambles. Extreme inequalities and disparities persist both in terms of access to health care as well as health outcomes (Table 3.1.3). This large disparity across India places the burden on the poor, especially women, scheduled castes, and tribes. Inequity is also reflected in the availability of public resources between the advanced and less developed States.

3.1.17 Urban growth has led to increase in number of urban poor. Population projections postulate that slum growth is expected to surpass the capacity of civic authorities to respond to their health and infrastructure needs. As per 2001 census, 4.26 crore lived in urban slums spread over 640 towns and cities. The number is growing. Though the coverage of health and family welfare services in urban areas is much better than the rural, lack of water and sanitation and the high population density in slums leads to rapid spread of infections. These settlements have high incidence of vector-borne diseases, asthma, tuberculosis, malaria, coronary heart diseases, diabetes, etc. Poor housing conditions, exposure to heat and cold, air and water pollution, and occupational hazards add to the environmental risks for the poor. They are vulnerable as they have no backup savings, food stocks, or social support systems to tide over the crisis of illness. Despite the presence of many private and government hospitals in urban areas, a large chunk of the homeless and those living in slums or temporary settlements are left out of the proper health care system. Thus, even though there is a concentration of health care facilities in urban areas, the urban poor lack access; initiatives in the country to date have been limited and fragmented.

Disease Burden

3.1.18 India is in the midst of an epidemiological and demographic transition with increasing burden of chronic diseases, decline in mortality and fertility rates, and ageing of the population. An estimated 2–3.1 million people in the country are living with HIV/AIDS, a communicable disease, with a potential to undermine the health and developmental gains India has made since Independence. Non-communicable diseases (NCDs) such as cardiovascular diseases (CVDs), cancer, blindness, mental illness, etc., have imposed the chronic disease burden on the already over-stretched health care system of the country. The NCMH 2005 figures of disease burden are given in Table 3.1.4.

COMMUNICABLE DISEASES

3.1.19 AIDS is acquiring a female face, that is, gradually the gap between females and males is narrowing as far as number of cases and infections are concerned. The youth are becoming increasingly vulnerable. The prevalence rate of more than 1% amongst pregnant women was reported from five States, that is, Andhra Pradesh, Maharashtra, Karnataka, Manipur, and Nagaland. GoI responded to HIV/AIDS threat by preventive awareness, targeted interventions, and care and support programmes. As on 31 December 2006, a total of 162257 cases of AIDS were reported. The risk of tuberculosis infection in HIV positive

TABLE 3.1.3
Urban/Rural Health Indicators

	Crude Birth Rate (per 1000)	Crude Death Rate (per 1000)	IMR (per 1000 live births)	Prevalence of Anaemia among Children (6–35 months) (%)	Prevalence of Anaemia among Pregnant Women (%)
Urban	19.1	6.0	40	72.7	54.6
Rural	25.6	8.1	64	81.2	59.0
Total	23.8	7.6	58	79.2	57.9

Source: Ministry of Health and Family Welfare (MoHFW), GoI (2006) and NHFS-3, IIPS (2005–06).

TABLE 3.1.4
Disease Burden Estimation, 2005

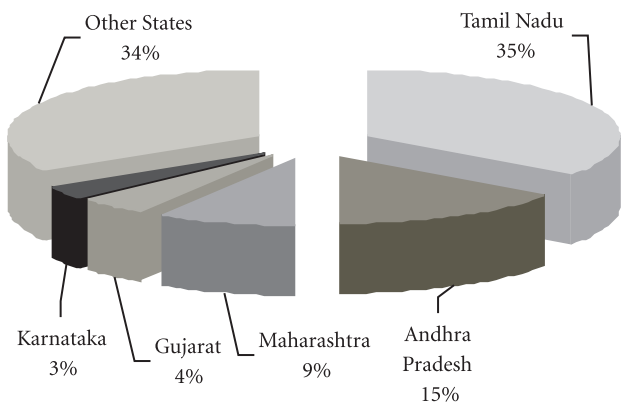
Disease/Health Condition	Estimate of Cases/lakh	Projected number (2015) of Cases/lakh
Communicable Diseases		
Tuberculosis	85 (2000)	NA
HIV/AIDS	51 (2004)	190
Diarrhoeal Diseases Episodes per Year	760	880
Malaria and other Vector Borne Diseases	20.37 (2004)	NA
Leprosy	3.67 (2004)	Expect to be Eliminated
Otitis Media	3.57	4.18
Non-Communicable Conditions		
Cancers	8.07 (2004)	9.99
Diabetes	310	460
Mental Health	650	800
Blindness	141.07	129.96
CVDs	290 (2000)	640
COPD and Asthma	405.20 (2001)	596.36
Other Non-Communicable		
Injuries—deaths	9.8	10.96
Number of Hospitalizations	170	220

Source: NCMH (2005).

persons increased manifold. National AIDS Control Organization (NACO) is working closely with Revised National Tuberculosis Control Programme (RNTCP) for promoting cross referrals for early diagnosis and prompt treatment. The strategies of National AIDS Control Programme Phase II (NACP-II) have yielded positive results. The HIV prevalence is stabilizing and States like Tamil Nadu, Andhra Pradesh, Karnataka, Maharashtra, and Nagaland have started showing declining trends. The State-wise distribution of number of AIDS cases in India during 2006 is shown in Figure 3.1.5. The lessons learnt have been utilized in formulating NACP-III, which will be implemented in the country during the Eleventh Five Year Plan.

3.1.20 Tuberculosis remains a public health problem, with India accounting for one-fifth of the world incidence. Every year 1.8 million people in India develop tuberculosis, of which 0.8 million are infectious smear positive cases. The emergence of HIV-TB co-infection and multi drug resistant tuberculosis has increased the severity and magnitude of the problem. RNTCP has achieved nation wide coverage in March 2006. Since the inception of the programme, over 6.3 million patients have been initiated on treatment, and the programme has achieved all the proposed goals in terms of expansion of Directly Observed Treatment, Short Course (DOTS) services, case finding, and treatment success during the Tenth Plan.

3.1.21 A National Vector Borne Disease Control Programme was initiated during the Tenth Plan with the convergence of ongoing programmes on malaria, kala-azar, filariasis, Japanese encephalitis, and dengue.

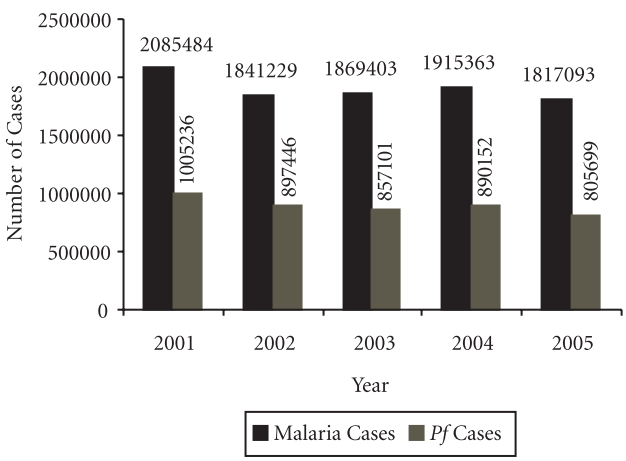


Source: National Health Profile (2006).

FIGURE 3.1.5: Number of AIDS Cases in States, 2006

Malaria cases in India declined from 3.04 in 1996 to 1.82 million cases in the year 2005. The number of *Plasmodium falciparum* (*Pf*) cases has also been decreasing (Figure 3.1.6). More than 80% of malaria cases and deaths are reported from NE States, Chhattisgarh, Jharkhand, MP, Orissa, Andhra Pradesh, Maharashtra, Gujarat, Rajasthan, WB, and Karnataka. Under the Enhanced Malaria Control Project, 100% support was provided in 100 districts of 8 States, predominantly inhabited by tribal population. These areas reported a 45% decline in malaria cases.

3.1.22 An estimated population of 130 million is exposed to the risk of kala-azar in the endemic areas. The annual incidence of disease has come down from 77099 cases in 1992 to 31217 cases in 2005 and deaths from 1419 to 157, respectively. Lymphatic Filariasis (LF) remains endemic in about 250 districts in 20 States and UTs. The population at risk is over 500 million. To achieve elimination of LF, the GoI has launched nationwide Annual Mass Drug Administration (MDA) with annual single recommended dose of diethylcarbamazine citrate tablets in addition to scaling up home based foot care and hydrocele operations. In 2005, 243 endemic districts implemented MDA targeting a population of about 554 million with a coverage rate of 80%. Dengue fever and Chikungunya are emerging as major threats in urban, peri-urban, and rural areas in many States/UTs.



Source: MoHFW, GoI (2006).

FIGURE 3.1.6: Malaria Cases and *Pf* Cases, India

3.1.23 The goal of leprosy elimination at national level (<1 case/10000 population) as set by National Health Policy (2002) was achieved in the month of December 2005. Even though the disease came down to a level of elimination, still it is prevalent with moderate endemicity in about 20% of the districts. During 2005–06, a total of 1.61 lakh new leprosy cases were detected.

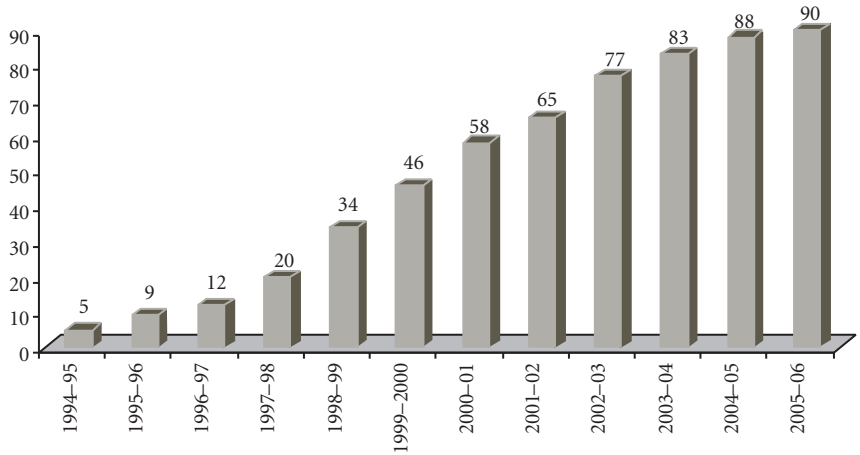
NON-COMMUNICABLE DISEASES (NCDs)

3.1.24 India is experiencing a rapid epidemiological transition, with a large and rising burden of chronic diseases, which were estimated to account for 53% of all deaths and 44% of Disability Adjusted Life Years lost in 2005. NCDs, especially diabetes mellitus, CVDs, cancer, stroke, and chronic lung diseases have emerged as major public health problems due to an ageing population and environmentally-driven changes in behaviour.

3.1.25 Cancer has become an important public health problem in India with an estimated 7 to 9 lakh cases occurring every year. At any point of time, it is estimated that there are nearly 25 lakh cases in the country. The strategy under the National Cancer Control Programme (NCCP) was revised in 1984–85 and further in 2004 with stress on primary prevention and early detection of cancer cases. In India, tobacco related cancers account for about half the total cancers among men and 20% among women. About one million tobacco related deaths occur each year, making tobacco related health issues a major public health concern.

3.1.26 In India, more than 12 million people are blind. Cataract (62.6%) is the main cause of blindness followed by Refractive Error (19.70%). There has been a significant increase in proportion of cataract surgeries with Intra Ocular Lens (IOL) implantation from <5 % in 1994 to 90% in 2005–06 (Figure 3.1.7).

3.1.27 Oral Health Care has not been given sufficient importance in our country. Most of the district hospitals have a post of dental surgeon but they lack equipment, machinery, and material. Even where the equipment exists, the maintenance is poor, hence service delivery is affected.



Source: Annual Report, MoHFW (2006–07).

FIGURE 3.1.7: Percentage of Cataract Surgeries with IOL

Health Care Infrastructure and Human Resources: The Gaps

3.1.28 To address the gaps in health infrastructure and human resources, the National Rural Health Mission (NRHM) was launched on 12 April 2005. A generic public health delivery system envisioned under NRHM from the village to block level is illustrated in Figure 3.1.8.

3.1.29 The details of existing and required physical infrastructure have been provided in Table 3.1.5. Maximum shortage at the Community Health Centres (CHCs) level is adversely affecting the secondary health care and linkages.

3.1.30 Availability of appropriate and adequately trained human resources is an essential concomitant of Rural Health Infrastructure. The present position, requirement, and shortfall regarding public health care human resources have been shown in Table 3.1.6. Across rural areas, there are considerable shortfalls plus a large number of vacant positions of doctors, nurses, and paramedical personnel. There is also wide variation in number of persons served by a specialist in rural areas (Figure 3.1.9). Despite the existing shortages, whatever few formally trained and qualified doctors are available, are mainly through the public health care system. A large proportion of population visits private providers for their health care needs. The challenge is to resolve these problems and provide the poor access to subsidized or free public health services.

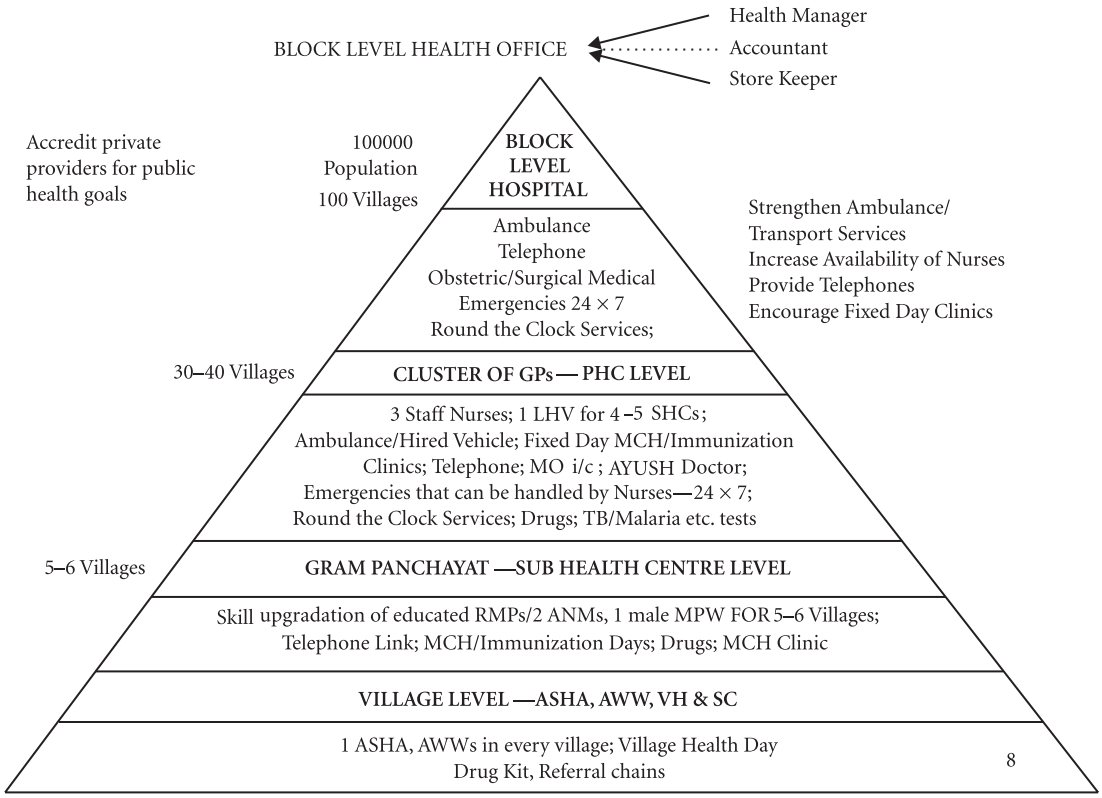
3.1.31 During the last few years there has been a great change in the availability of secondary and tertiary health care facilities in the country. Number of government hospitals increased from 4571 in 2000 to 7663 in 2006, that is, an increase of 67.6%. Number of beds in these hospitals increased from 430539 to 492698, that is, an increase of 14.4%. Current figures are not available on number of private and NGO hospitals as well as on human resources in the

TABLE 3.1.5
Shortfall in Health Infrastructure—All India

As per 2001 Population	Required	Existing	Shortfall	% Shortfall
Sub-Centres	158792	144998	20903	13.16
PHCs	26022	22669	4803	18.46
CHCs	6491	3910	2653	40.87

Notes: All India shortfall is derived by adding State-wise figures of shortfall ignoring the existing surplus in some of the States.

Source: Bulletin of Rural Health Statistics in India, Special Revised Edition, MOHFW, GoI (2006).



Notes: TB = Tuberculosis, MO = Medical Officer, MCH = Maternal and Child Health.

FIGURE 3.1.8: NRHM–Illustrative Structure

private sector but in 2002, the country had 11345 private/NGO hospitals (allopathic) with a capacity of 262256 beds. These are mostly in the private sector located in cities and towns.

Drawbacks of the Public Health System

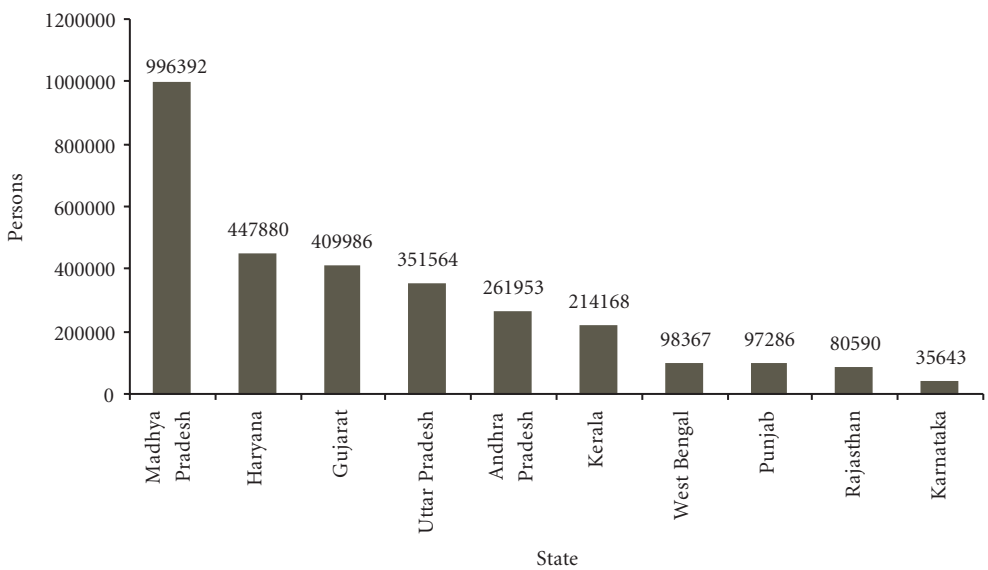
3.1.32 The public health system in our country has various drawbacks (see Box 3.1.1). The conceptualization and planning of all programmes is centralized instead of decentralized using locally relevant strategies. The approach towards disease control and prevention is fragmented and disease-specific rather than comprehensive. This leads to vertical programmes for each and every disease. These vertical programmes are technology-centric and work in isolation of each other (Box 3.1.2). The provision of infrastructure is based on population norms rather than habitations leading to issues of accessibility, acceptability, and utilization. Inadequate resources also lead to lack of client conveniences and non-availability of essential consumables and non-consumables. The gap between requirement and availability of human resources at various levels of health care is wide and where they are available, the patient–provider interactions are beset with many problems, in addition to waiting time (opportunity cost) for consultation/treatment. The system lacks a real and working process of monitoring, evaluation, and feedback. There is no incentive for those who work well and check on those who do not. Quality assurance at all levels is not adhered to due to lacunae in implementation. This results in semi-used or dysfunctional health infrastructure. There is lack of convergence with other key areas affecting health as the system has been unable to mobilize action in areas of safe water, sanitation, hygiene, and nutrition. Despite constraints of human resources, practitioners of Indian Systems of Medicine (ISM), Registered Medical Practitioners (RMPs), and other locally available human resources have not been adequately mobilized and integrated in the system.

TABLE 3.1.6
Shortfall in Health Personnel—All India

For the Existing Infrastructure	Required (R)	Sanctioned (S)	In Position (P)	Vacant (S-P)	Shortfal (R-P)
Multipurpose Workers (Female)/ANM at Sub-Centres and PHCs	167657	162772	149695	13126 (8.06%)	18318 (10.93%)
Health Workers (Male)/MPWs (M) at Sub-Centres	144998	94924	65511	29437 (31.01%)	74721 (51.53%)
Health Assistants (Female)/LHV at PHCs	22669	19874	17107	2781 (13.99%)	5941 (26.21%)
Health Assistants (Male) at PHCs	22669	24207	18223	5984 (24.72%)	7169 (31.62%)
Doctors at PHCs	22669	27927	22273	5801 (20.77%)	1793 (7.91%)
Total Specialists at CHCs	15640	9071	3979	4681 (51.60%)	9413 (60.19%)
Radiographers at CHCs	3910	2400	1782	620 (25.83%)	1330 (34.02%)
Pharmacists at PHCs and CHCs	26579	22816	18419	4445 (19.48%)	4389 (16.51%)
Lab Technician at PHCs and CHCs	26579	15143	12351	2792 (18.44%)	9509 (35.78%)

Note: For calculating the overall percentages of vacancy and shortfall, the States/UTs for which the human resources position is not available, have been excluded. Also, all India shortfall is derived by adding State-wise figures of shortfall ignoring the existing surplus in some of the States.

Source: Bulletin of Rural Health Statistics in India, Special Revised Edition, MOHFW, GoI (2006).



Source: Bulletin of Rural Health Statistics in India, Special Revised Edition, MOHFW, GoI (2006).

FIGURE 3.1.9: Number of Persons per Specialist at CHCs, 2006

Box 3.1.1
Drawbacks of the Public Health System

- Centralized planning instead of decentralized planning and using locally relevant strategies
- Institutions based on population norms rather than habitations
- Fragmented disease specific approach rather than comprehensive health care
- Inflexible financing and limited scope for innovations
- Semi-used or dysfunctional health infrastructure
- Inadequate provision of human resources
- No prescribed standards of quality
- Inability of system to mobilize action in areas of safe water, sanitation, hygiene, and nutrition (key determinants of health in the context of our country)—lack of convergence
- Inability to mobilize AYUSH and RMPs and other locally available human resources

Box 3.1.2
Vertical Programmes

Technology-centric
- See the disease as being caused by an agent (parasite/virus/bacteria) and fail to see its social and ecological setting.
- Response is heavily dependant on technology.

Fragmented
- Only one or two of all the factors that go into the disease setting (and that too in isolation) are addressed.

Administration
- The entire planning and packaging is done centrally.
- Only local aspect is the application (under a chain of command).
- Limited role for community participation.

The Result
- An inappropriate package for local needs.
- Local people are indifferent—sometimes even resistant.
- Even the administration cannot in perpetuity keep its attention on the programme alone.

Growth of Private Sector, Health Care Utilization, and Cost

3.1.33 The growth of private health sector in India has been considerable in both provision and financing. There is diversity in the composition of the private sector, which ranges from voluntary, not-for-profit, for-profit, corporate, trusts, stand-alone specialist services, diagnostic services to pharmacy shops and a range of highly qualified to unqualified providers, each addressing different market segments.

3.1.34 We have a flourishing private sector, primarily because of a failing in the public sector. The growth of private hospitals and diagnostic centres was also encouraged by the Central and State Governments by offering tax exemptions and land at concessional rates, in return for provision of free treatment for the poor as a certain proportion of outpatients and inpatients. Apart from subsidies, private corporate hospitals receive huge amounts of public funds in the form of reimbursements from the public sector undertakings, the Central and the State Governments for treating their employees.

3.1.35 The cost of health care in the private sector is much higher than the public sector. Many small providers have poor knowledge base and tend to follow irrational, ineffective, and sometimes even harmful practices for treating minor ailments. Bulk of the qualified medical practitioners and nurses are subject to self-regulation by their respective State Medical Councils under central legislation. In practice, however, regulation of these professionals is weak and close to non-existent.

3.1.36 Public spending on health in India is amongst the lowest in the world (about 1% of GDP), whereas its proportion of private spending on health is one of the highest. Households in India spend about 5–6% of their consumption expenditure on health (NSSO). The cost of services in the private sector makes it unaffordable for the poor and the underprivileged.

HEALTH CARE UTILIZATION

3.1.37 Despite a steady increase in public health care infrastructure, utilization of public health facilities by population for outpatient and inpatient care has not improved. The NSSO (1986–2004) data clearly show a major decline in utilization of the public health facilities for inpatient care and a corresponding increase in utilization of the same from private health care providers in both rural and urban areas (Figures 3.1.10 and 3.1.11). With the exception of a few States, there has been very low utilization for outpatient care as well (Figure 3.1.12). Despite higher costs in the private sector, this shift shows the people's growing lack of trust in the public system. Critical shortage of health personnel, inadequate incentives, poor working conditions, lack of transparency in posting of doctors in rural areas, absenteeism, long wait, inconvenient clinic hours, poor outreach, time of service, insensitivity to local needs, inadequate planning, management, and monitoring of service/facilities appear to be the main reasons for low utilization.

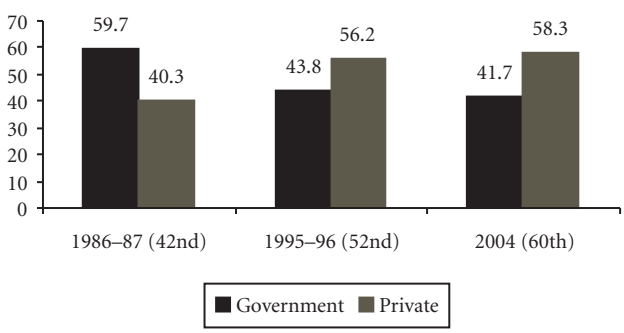
COST OF TREATMENT BY HOUSEHOLDS

3.1.38 According to NSSO (60th Round), the average expenditure for hospitalized treatment from a public hospital was less than half that of private hospital in rural areas and about one-third in urban areas (Figure 3.1.12). There are also inter-State variations. The cost per hospitalization in government hospital was lowest in Tamil Nadu (Rs 637 in rural areas and Rs 1666 in the urban areas) and highest in rural Haryana (Rs 11665) and urban Bihar (Rs 30822). The cost of hospitalization in private hospitals was highest in Himachal Pradesh (Rs 14652 in rural areas and Rs 23447 in urban areas) and lowest in rural Kerala (Rs 4565) and urban Chhattisgarh (Rs 4359), respectively.

3.1.39 As per NSSO 60th Round, during 2004, 24% of the episodes of ailments among the poor were untreated in rural areas and 22% in urban areas. Lack of finances was cited as a reason by 28% of persons with untreated episodes in rural areas and 20% in urban areas. It is also notable that 12% cited lack of medical facility as the cause of not receiving treatment in rural areas.

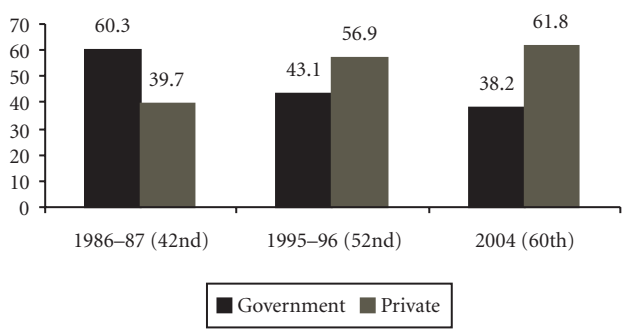
Review of Tenth Plan Schemes

3.1.40 The Tenth Five Year Plan (2002–2007) indicated the dismal picture of the health services infrastructure and emphasized the need to invest more on building good primary-level care and referral services. The plan emphasized on restructuring and developing the health infrastructure, especially at the primary level. The plan highlighted the importance of the role of decentralization but did not state how this would be achieved. Programme-driven health care was in focus. Verticality and technical solutions were



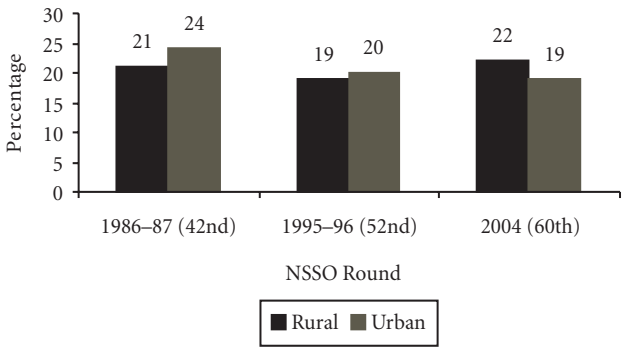
Source: NSSO 60th Round (2004).

FIGURE 3.1.10: Percentage of Cases of Hospitalized Treatment by Type of Hospital in Rural Areas



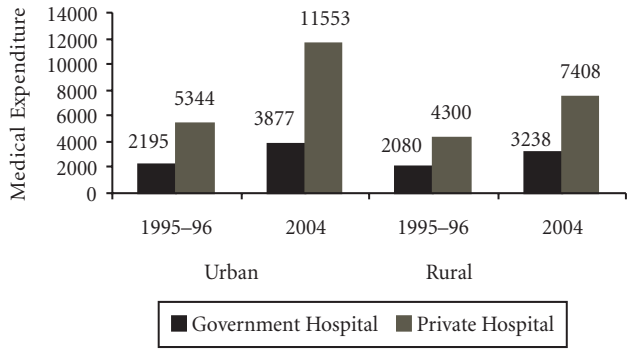
Source: NSSO 60th Round (2004).

FIGURE 3.1.11: Percentage of Cases of Hospitalized Treatment by Type of Hospital in Urban Areas



Source: NSSO 60th Round (2004).

FIGURE 3.1.12: Percentage of Treated Ailments Receiving Non-hospitalized Treatment from Government Sources



Source: NSSO 60th Round (2004).

FIGURE 3.1.13: Average Medical Expenditure (Rs) per Hospitalization Case

given more importance than comprehensive primary health care. The review of the plan not only throws light on the gap between the rhetoric and reality but also the framework within which the policies were formulated.

3.1.41 It was important to question whether it is only the low investment in health that is the main reason for the present status of the health system or is it also to do with the framework, design, and approach within which the policies were formulated. Keeping this in view the NRHM was launched.

3.1.42 The original approved health and family welfare outlay for the Tenth Plan CSS and CS was Rs 36378 crore. However, the sum of annual outlay increased to Rs 41585 crore. Against this, the actual expenditure has been Rs 34950.45 crore, that is, 84.05% of the sum of annual outlay. In 2005–06, all family welfare schemes and major disease control programmes were put under the umbrella of the NRHM. Scheme-wise details of Tenth Plan outlay and expenditure are provided in Annexures 3.1.1 and 3.1.2. State Plan outlay and expenditure during Tenth Plan have been provided in Annexure 3.1.3.

3.1.43 Review of the NRHM at the end of the Tenth Plan reveals that in order to improve the public health delivery, the situation needs to change on a fast track mode at the grassroots. The status as on 1 April 2007 is as under:

- 17318 Village Health and Sanitation Committees (VHSCs) have been constituted against the target of 1.80 lakh by 2007.
- No untied grants have been released to VHSCs pending opening of bank accounts by the Committees.
- Against the target of 3 lakh fully trained Accredited Social Health Activists (ASHAs) by 2007, the initial phase of training (first module) has been imparted to 2.55 lakh. ASHAs in position with drug kits are 5030 in number.
- Out of the 52500 Sub-centres (SCs) expected to be functional with 2 Auxiliary Nurse Midwives (ANMs) by 2007, only 7877 had the same.
- 9000 Primary Health Centres (PHCs) are expected to be functional with three staff nurses by 2007. This has been achieved at 2297 PHCs.
- There has been a shortfall of 9413 (60.19%) specialists at the CHCs. As against the 1950 CHCs expected to be functional with 7 specialists and 9 staff nurses by 2007, none have reached that level.
- CHCs have not been released untied or annual maintenance grant envisaged under the NRHM as they have not reached upto the expected level.
- Number of districts where annual integrated action plan under NRHM have been prepared for 2006–07 are 211.

Towards Finding Solutions

3.1.44 The Eleventh Five Year Plan will aim for inclusive growth by introducing National Urban Health

Mission (NUHM), which along with NRHM, will form *Sarva Swasthya Abhiyan*.

National Rural Health Mission (NRHM)

3.1.45 NRHM was launched to address infirmities and problems across primary health care and bring about improvement in the health system and the health status of those who live in the rural areas. The Mission aims to provide universal access to equitable, affordable, and quality health care that is accountable and at the same time responsive to the needs of the people. The Mission is expected to achieve the goals set under the National Health Policy and the Millennium Development Goals (MDGs).

3.1.46 To achieve these goals, NRHM facilitates increased access and utilization of quality health services by all, forges a partnership between the Central, State, and the local governments, sets up a platform for involving the PRIs and the community in the management of primary health programmes and infrastructure, and provides an opportunity for promoting equity and social justice. The NRHM establishes a mechanism to provide flexibility to the States and the community to promote local initiatives and develop a framework for promoting intersectoral convergence for promotive and preventive health care. The Mission has also defined core and supplementary strategies.

3.1.47 STRATEGIES OF NRHM

Core Strategies

- Train and enhance capacity of PRIs to supervise and manage public health services.
- Promote access to improved health care at household level through the female health activist (ASHA).
- Health Plan for each village through Village Health Committee of the Panchayat.
- Strengthen SC through an untied fund to enable local planning and action and more Multipurpose Workers (MPWs).
- Strengthen existing PHCs and CHCs and provide 30–50 bedded CHC per lakh population for improved curative care to a normative standard (Indian Public Health Service Standards [IPHS] defining personnel, equipment, and management standards).
- Prepare and implement an intersectoral District Health Plan prepared by the District Health Mission, including drinking water, sanitation, hygiene, and nutrition.
- Integrate vertical health and family welfare programmes at national, State, and district levels.
- Technical Support to National, State, and District Health Missions for Public Health Management.
- Strengthen capacities for data collection, assessment, and review for evidence-based planning, monitoring, and supervision.
- Formulate transparent policies for deployment and career development of Human Resources for health.
- Develop capacities for preventive health care at all levels for promoting healthy life styles, reduction in consumption of tobacco and alcohol, etc.
- Promote non-profit sector particularly in underserved areas.

Supplementary Strategies

- Regulation of private sector including the informal rural practitioners to ensure availability of quality service to citizens at reasonable cost.

Box 3.1.3
Sarva Swasthya Abhiyan

- NRHM has been launched for meeting health needs of all age groups and to reduce disease burden across rural India.
- NUHM will be launched to mmet the unmet needs of the urban population (28.6 crore in 2001 and 35.7 crore in 2011). As per the 2001 Census, 4.26 crore lived in urban slums spread over 640 towns and cities. The number is growing.
- NUHM based on health insurance and PPP will provide integrated health service delivery to the urban poor. Initially, the focus will be on urban slums. NUHM will be aligned with NRHM and existing urban schemes.
- Besides, Sarva Swasthya Abhiyan aims for inclusive growth by finding solutions for strengthening health services and focusing on neglected areas and groups.

Box 3.1.4
Five Planks of the NRHM

The Mission is expected to address the gaps in the provision of effective health care to rural population with a special focus on 18 States, which have weak public health indicators and/or weak infrastructure.

The Mission is a shift away from the vertical health and family welfare programmes to a new architecture of all inclusive health development in which societies under different programmes will be merged and resources pooled at the district level.

The Mission aims at the effective integration of health concerns with determinants of health like safe drinking water, sanitation, and nutrition through integrated District Plans for Health. There is a provision for flexible funds so that the States can utilize them in the areas they feel are important.

The Mission provides for appointment of ASHA in each village and strengthening of the public health infrastructure, including outreach through mobile clinics. It emphasizes involvement of the non-profit sector, especially in the under-served areas. It also aims at flexibility at the local level by providing for untied funds.

The Mission, in its supplementary strategies, aims at fostering PPPs; improving equity and reducing out of pocket expenses; introducing effective risk-pooling mechanisms and social health insurance; and taking advantage of local health traditions.

- Promotion of PPPs for achieving public health goals.
- Reorienting medical education to support health issues including regulation of Medical Care and Medical Ethics.
- Effective and viable risk-pooling and social health insurance to provide health security to the poor by ensuring accessible, affordable, accountable, and good quality health care.

3.1.48 The expected outcomes of NRHM are listed below:

- IMR—reduced to 30/1000 live births by 2012.
- Maternal Mortality—reduced to 100/100000 live births by 2012.
- TFR—reduced to 2.1 by 2012.
- Malaria Mortality Reduction—50% up to 2010, additional 10% by 2012.
- Kala-azar Mortality Reduction—100% by 2010 and sustaining elimination until 2012.
- Filaria/Microfilaria Reduction—70% by 2010, 80% by 2012, and elimination by 2015.
- Dengue Mortality Reduction—50% by 2010 and sustaining at that level until 2012.
- Cataract operations—increasing to 46 lakh until 2012.
- Leprosy Prevalence Rate—reduce from 1.8 per 10000 in 2005 to less that 1 per 10000 thereafter.
- Tuberculosis DOTS—maintain 85% cure rate through entire Mission Period and also sustain planned case detection rate.
- Upgrading all health establishments in the district to IPHS.
- Increase utilization of First Referral Units (FRUs) from bed occupancy by referred cases of less than 20% to over 75%.

3.1.49 Under the NRHM, it is planned to have:

- Over 5 lakh ASHAs, one for every 1000 population/large habitation, in 18 Special Focus States and in tribal pockets of all States by 2008
- All SCs (nearly 1.75 lakh) functional with two ANMs by 2010
- All PHCs (nearly 30000) with three staff nurses to provide 24 × 7 services by 2010
- 6500 CHCs strengthened/established with seven specialists and nine staff nurses by 2012
- 1800 Taluka/Sub Divisional Hospitals and 600 District Hospitals strengthened to provide quality health services by 2012
- Mobile Medical Units for each District by 2009
- Functional Hospital Development Committees in all CHCs, Sub Divisional Hospitals, and District Hospitals by 2009
- Untied grants and annual maintenance grants to every SC, PHC, and CHC released regularly and utilized for local health action by 2008

- All District Health Action Plans completed by 2008

3.1.50 In the Eleventh Five Year Plan, the emphasis under NRHM will not be on numerical achievements only but also on IPHS and enforcement of guidelines for improving the functioning of infrastructure being strengthened and created. It has been felt that the Mission Directors, both at the Centre and the States, should be officials with public health background, supported by the Civil Service cadres.

JANANI SURAKSHA YOJANA (JSY)

3.1.51 To change the behaviour of the community towards institutional delivery, the GoI, under NRHM in 2005, modified the National Maternity Benefit Scheme (NMBS) from that of a nutrition-improving initiative to the JSY. The scheme has the dual objectives of reducing maternal and infant mortality by promoting institutional deliveries. Though the JSY is implemented in all States and UTs, its focus is on States having low institutional delivery rate. The scheme is 100% centrally sponsored and integrates cash assistance with maternal care. It is funded through the flexi-pool mechanism. Under the NRHM, out of 184.25 lakh institutional deliveries in the country (as on 1 April 2007), JSY beneficiaries were 28.74 lakh.

3.1.52 While the JSY scheme is meant to promote institutional delivery, it has to take two critical factors into account, one being that India does not have the institutional capacity (International Institute of Population Sciences [IIPS], 2003) to receive the 26 million women giving birth each year, and the other being that around half of all maternal deaths occur outside of delivery, during pregnancy, abortions, and postpartum complications. If institutions are preoccupied with handling the huge numbers of normal childbirths, there will be inevitable neglect of life-threatening complications faced by women. They will be compelled to vacate beds in the shortest time. Consequently, complications during pregnancy and after childbirth will not be given attention. Second, JSY money sometimes does not reach hospitals on time, and as a result, poor women and their families do not receive the promised money.

National Urban Health Mission (NUHM)

3.1.53 The NUHM will meet health needs of the urban poor, particularly the slum dwellers by making available to them essential primary health care services. This will be done by investing in high-caliber health professionals, appropriate technology through PPP, and health insurance for urban poor.

3.1.54 Recognizing the seriousness of the problem, urban health will be taken up as a thrust area for the Eleventh Five Year Plan. NUHM will be launched with focus on slums and other urban poor. At the State level, besides the State Health Mission and State Health Society and Directorate, there would be a State Urban Health Programme Committee. At the district level, similarly there would be a District Urban Health Committee and at the city level, a Health and Sanitation Planning Committee. At the ward slum level, there will be a Slum Cluster Health and Water and Sanitation Committee. For promoting public health and cleanliness in urban slums, the Eleventh Five Year Plan will also encompass experiences of civil society organizations (CSO) working in urban slum clusters. It will seek to build a bridge of NGO–GO partnership and develop community level monitoring of resources and their rightful use. NUHM would ensure the following:

- Resources for addressing the health problems in urban areas, especially among urban poor.
- Need based city specific urban health care system to meet the diverse health needs of the urban poor and other vulnerable sections.
- Partnership with community for a more proactive involvement in planning, implementation, and monitoring of health activities.
- Institutional mechanism and management systems to meet the health-related challenges of a rapidly growing urban population.
- Framework for partnerships with NGOs, charitable hospitals, and other stakeholders.
- Two-tier system of risk pooling: (i) women's *Mahila Arogya Samiti* to fulfil urgent hard-cash needs for treatments; (ii) a Health Insurance Scheme for enabling urban poor to meet medical treatment needs.

3.1.55 NUHM would cover all cities with a population of more than 100000. It would cover slum dwellers; other marginalized urban dwellers like rickshaw pullers, street vendors, railway and bus station coolies, homeless people, street children, construction site workers, who may be in slums or on sites.

3.1.56 The existing Urban Health Posts and Urban Family Welfare Centres would continue under NUHM. They will be marked on a map and classified as the Urban Health Centres on the basis of their current population coverage. All the existing human resources will then be suitably reorganized and rationalized. These centres will also be considered for upgradation.

3.1.57 Intersectoral coordination mechanism and convergence will be planned between the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and the NUHM.

Strengthening Existing Health System

3.1.58 There is need to shift to decentralization of functions to hospital units/health centres and local bodies. The States need to move away from the narrow focus on the implementation of budgeted programmes and vertical schemes. They need to develop systems that comprehensively address the health needs of all citizens. Thus, in order to improve the health care services in the country, the Eleventh Five Year Plan will insist on Integrated District Health Plans and Block Specific Health Plans. It will mandate involvement of all health related sectors and emphasize partnership with PRIs, local bodies, communities, NGOs, Voluntary and Civil Society Organizations.

PRIMARY HEALTH CARE

3.1.59 During the Eleventh Five Year Plan, major focus will be on NRHM initiatives. Efforts will be made for restructuring and reorganizing all health facilities below district level into the Three Tier Rural Primary Health Care System. These will serve the populations in a well-defined area and have referral linkages with each other. Population-centric norms, which continue to drive the provisioning of health infrastructure, will be modified. These will be replaced with flexible norms comprising habitation-based needs, community-based needs, and disease pattern-based needs. Steps will also be taken to reorganize Urban Primary Health Care Institutions and make them responsible for the health care of people living in a defined geographic area, particularly slum dwellers.

3.1.60 The Approach Paper on Eleventh Five Year Plan stated accessibility as a major issue, especially in rural areas, where habitations are scattered and women and children continue to die en route to hospital. Policy interventions, therefore, have to be evidence based and responsive to area specific differences as shown in Assam (Box 3.1.5). Concerted action will be taken such as enabling pregnant women to have skilled attendance at birth and receive nutritional supplements. PHCs and CHCs will be connected by all weather roads so that they can be reached quickly in emergencies (accessibility to hospital would be measured in travel time, not just distance from nearest PHC). Home-based neonatal care will be provided, including emergency life saving measures. Achievement of health objectives will, therefore, involve much more than curative or even preventive health care, an integrated approach will be adopted.

3.1.61 The Eleventh Five Year Plan will ensure availability of essential drugs and supplies, vaccines, medical equipment, along with the basic infrastructure like electricity, water supply, toilets, telecommunications, and computers for maintaining records. All States will be encouraged to implement the Tamil Nadu model in which close to 58% of the health centres are functioning round the clock. Success models of various States such as higher salary to health workers posted in tribal regions of Himachal Pradesh and KBK districts of Orissa can be considered and replicated.

3.1.62 Tribal population in India is considered to be the most socio-economically disadvantaged group. The National Population Policy (2000) has made special mention of tribal areas in terms of improving basic health and Reproductive and Child Health (RCH) services. In order to ensure adequate access to health care services for the tribal population, apart from dispensaries and mobile health clinics, 20284 SCs, 3230 PHCs, and 750 CHCs have been established.

Box 3.1.5
***Akha*—Ship of Hope**

On the *saporis* or river islands of Assam that are inundated with floods every time the mighty Brahmaputra unleashes its fury, life is a constant struggle against disease and deprivation. Some 30 lakh people live in 2300 remote, floating villages on the Brahmaputra in Upper Assam. Here, there are no functional *anganwadis*, no health centres, no schools, no power, not even drinking water. Till recently, immunization, Antenatal Care (ANC), disease management, and treatment were all unheard of. Then in 2005 the Centre for North East Studies and Policy Research intervened. They partnered with NRHM, UNICEF, and the government of Assam, to start Akha (meaning hope in Assamese)—a 22-metre long, four-metre wide ship that carries hope and health care to 10000 forgotten people in Tinsukhia, Dhemaji, and Dibrugarh districts of Upper Assam. The 120 hp powered Akha has an Out Patient Department (OPD) room, cabins for medical staff and ship crew, medicine storage space, a kitchen, two toilet cum bathrooms, and a general store. A generator set and 200 litre water reservoir are also installed to ensure that the medical team that travels to the saporis has adequate power and water supply.

The idea behind Akha is simple—use the river to tackle the problems and challenges created by it. Doctors and ANMs who are unwilling and unable to survive on these remote islands, live on this ship stocked with medicine and other supplies and hold health camps on the saporis. They immunize, treat, provide medicines, and advise people on preventive measures. They even take critically ill patients to the nearest health centre in Dibrugarh.

In less than two years, Akha has provided succour to many. If we can upscale this innovative intervention under NRHM, health care will no longer be a distant reality for the people living on this highly volatile river. It can be upscaled to include a hospital ship with diagnostic facilities, in patient ward and operation theatre. Then health care would become truly inclusive.

Most of the centrally sponsored disease control programmes have a focus on the tribal areas. In spite of all this, tribal communities have poor access to health services and there is also underutilization of health services owing to social, cultural, and economic factors. Some of the problems include difficult terrain, locational disadvantage of health facilities, unsuitable timings of health facilities, lack of Information, Education, and Communication (IEC) activities, lack of transport, etc.

3.1.63 Challenges such as demand side constraints, human resource development issues, and the providers' attitude are particularly acute in tribal areas. During the Eleventh Five Year Plan, therefore, renewed efforts will be made to provide need-based quality integrated health and family welfare services, improvement of service coverage, promotion of community participation, encouragement of tribal system of medicine under AYUSH and replication of successful efforts (See Box 3.1.6).

3.1.64 The challenge of increasing urbanization with growth of slums and low-income families in cities has made access to health care for the urban poor a priority of the Eleventh Five Year Plan. Therefore, the thrust during the Eleventh Five Year Plan will be to locate the services in or around urban slums, Minorities, and SC *bastis* and SC concentration areas having 20% or more SC/ST population. With a view to improving health status of people in urban slums, the Eleventh Five Year Plan will provide support to the Comprehensive Project Implementation Plan (PIP) for vulnerable groups, which covers population in urban slums and other vulnerable groups in cities and towns with a population up to one lakh. The Plan will develop mechanism to address this particular issue. This will be in addition to the NUHM described above.

3.1.65 In order to meet the objectives of reducing various types of inequities and imbalances, interregional and rural–urban, the Eleventh Five Year Plan will increase the sectoral outlay in the primary health sector. While recognizing the role of primary heath sector, the National Health Policy (2002) sets out an increased allocation of 55% of the total public health outlay for primary care; the secondary and tertiary health sectors being targeted for 35% and 10% respectively. The Policy also states that the increased aggregate outlays for primary health care should be utilized for strengthening existing facilities and opening additional public health service outlets, consistent with the norms.

Box 3.1.6
Cultural Alignment

Often cultural alienation coupled with the apathy of doctors drives the tribals away from big hospitals and government health care facilities. The best way of delivering health care to the tribals is to do so in an environment that is familiar to them. This is what has been done in Gadchiroli. The SEARCH hospital is a habitat of huts built between trees. The reception area resembles a *Ghotul*—the traditional place for social and cultural events in a Gond village. The patients don't stay in wards but in individual huts with their families. Everything from bedsheets to towels is of khadi. The tribals often feel isolated and scared in big buildings. Here, surrounded by their natural environment and loved ones, patients feel at home. The result: thousands of tribal patients from 10 blocks of Chandrapur and Gadchiroli flock to this hospital for treatment.

SEARCH has also demonstrated how tribal beliefs can be used to disseminate health education. Every year, a *jatra* is organized in Shodhgram (SEARCH campus at Gadchiroli) in honour of Goddess Danteshwari, the deity revered by tribals. Representatives from as many as 40 tribal villages participate in this jatra. At the end of it, an *Aarogya Sansad* is held where the tribals are asked to enumerate their health concerns. After voting, one health problem is identified as the year's priority. Representatives then go back to the villages and start working on the identified problem. This is regarded as a command from the Goddess herself which no one can oppose. For instance, one year, the tribals voted for eradication of malaria. They were shocked to learn that malaria was caused by a mosquito bite and immediately wanted to know how to check the breeding of mosquitoes. By communicating with the tribals in a language that they understand, SEARCH has been able to tackle many superstitions and unhealthy practices.

3.1.66 Under the NRHM, emphasis has been given to allocate 70% of the total financial resources to below district level (block level and below), 20% at district level, and 10% at State level. Efforts will be made to allocate funds under various schemes and programmes as per NRHM guidelines. Further, the requirements of funds for a fully functional primary health care system (defined as all services at block level and below, including field-based implementation of disease control and preventive activities, but not administration) will also be worked out.

SECONDARY AND TERTIARY HEALTH CARE

3.1.67 Secondary and Tertiary health care will receive attention. There is an urgent need to take a fresh look at how public and private sector can be better utilized during the Eleventh Five Year Plan. The NRHM addresses these issues through a few strategies. Priorities will be given to strategies involving PPPs, risk-pooling mechanisms, and cross subsidization.

3.1.68 Administration of the secondary and tertiary care hospitals will be professionalized and trained professionals posted as Medical Superintendents. Hospitals will be allowed to recruit various staff including junior doctors on ad hoc and contract basis. Drugs purchase should be made through centralized rate contract and decentralized distribution with zero stock at headquarter level. Emergency and disaster stock should be located at each hospital. Drugs at all levels with minimum of one year shelf life should be supplied.

3.1.69 District hospitals, which play a key role in providing health services to the poor, need substantial improvement in infrastructure and other facilities to perform their role more effectively. This would also be a key intermediate step in the health strategy, till the vision of health care through PHCs and community health centres is fully realized. The Plan will also complete setting up of 6 AIIMS-like institutions, upgrading 13 existing medical institutes under the *Pradhan Mantri Swasthya Suraksha Yojana* (PMSSY) and strengthening the Central Government hospitals. Adoption of PPP mode will be explored for these activities.

3.1.70 It is often observed that Government Medical Colleges and Hospitals are on the verge of de-recognition mainly because they fail to adhere to the infrastructure, equipment, and staff norms, as laid down by MCI. This is thought to be due to lack of funding. The Centre and States will have to make provisions for strengthening these institutions.

3.1.71 During the Eleventh Five Year Plan period, the following will receive priority:

- Establishment of Hospital Development Committees in all government hospitals.
- Improvement of infrastructure and facilities in district hospitals.
- Provision of high-quality secondary health care services for every block in the country.
- Creation of state-of-the-art medical education, research, and care institutions in all disciplines of medicine.
- Creation of new institutions and upgradation of existing tertiary care hospitals.
- Mainstreaming of AYUSH systems to actively supplement the efforts of the allopathic systems.

ACCESS TO ESSENTIAL DRUGS AND MEDICINES

3.1.72 Drugs and medicines form a substantial portion of the out-of-pocket spending on health by households (Table 3.1.7). The poor are the worst affected because they are frequently affected by diseases and are least able to purchase and utilize the health services, such as drugs. On the other hand, the component of drugs and medicines accounts for a mere 10% of the overall health budget of both the Central and State Governments. Timely supply of drugs of good quality that involves procurement as well as logistics management is of critical importance in any health system.

3.1.73 An essential component of strengthening primary health facilities will be a system of guaranteeing essential drugs. Standard treatment guidelines will be available for doctors at PHCs and CHCs. Under the NRHM, experiences of efficient procurement and distribution could be rapidly adapted and generalized to all States. Although the World Health Organization (WHO) has its essential list of drugs yet all of these are not required at all levels. Each State will decide for each level the essential list based on epidemiological situation. Availability of essential drugs in every PHC and CHC will increase people's confidence in the public health system.

3.1.74 Analysis of drug prices indicates that publicly procured drugs are cheaper. Assuring regular supply of drugs in public facilities would improve utilization of public sector services and reduce out-of-pocket expenditures. The NCMP also committed to ensure availability of life saving drugs at reasonable prices. During the Eleventh Five Year Plan, all efforts will be made to encourage States to model the public procurement systems on the lines of the Tamil Nadu Medical Services Corporation (Box 3.1.7). Efforts will be made to experiment available models in Rajasthan and Delhi for making drugs available to hospital at cheaper rates. In order to take up drug pricing, quality, clinical trials, etc. as recommended by the Mashelkar Committee (2003) and NCMH (2005), a National Drug Authority (NDA) with an autonomous status was to be set up during the Plan. Accordingly, Central Drugs Authority of India has been set up. The present National Pharmaceutical Pricing Authority, created under the aegis of the Ministry of Chemicals and Fertilizers, is proposed to be merged with the NDA. The Central Government will provide assistance to States for strengthening the drug regulatory system. During the Plan, the following will be emphasized:

- Developing essential drug lists for all levels of institutions
- Making available essential drugs of good quality in adequate quantities in all government health facilities
- Increasing efficiency, economy, and transparency in drug procurement, warehousing, and distribution
- Initiating strategies in coordination with professional and consumer bodies to ensure safe drugs and rational use of drugs
- Disseminating information on essential drugs to medical professionals, pharmacists, and to the people
- Including all essential drugs under a system of price monitoring
- Implementing and reinforcing the concept of Standard Treatment Guidelines in the in-service and pre-service training programmes of the doctors and health workers.

FOOD SAFETY AND QUALITY CONTROL

3.1.75 To tackle the issues of pesticide residues in food/beverages, additives and contaminants, and nutritional

TABLE 3.1.7
Percentage Share of Household Expenditure on Health and Drugs in Various States

State	Share of Health to Total Household Expenditure		Share of Drug Expenditure to Total Household Health Expenditure	
	Rural	Urban	Rural	Urban
Andhra Pradesh	6.56	4.13	72.42	71.36
Assam	2.47	4.04	70.65	68.49
Bihar	4.40	2.96	89.14	82.16
Delhi	3.34	3.34	61.83	72.69
Goa	4.28	5.16	79.19	73.87
Gujarat	5.03	4.22	63.90	69.56
Haryana	6.99	6.56	76.80	76.28
Himachal Pradesh	5.25	3.91	88.96	74.39
J&K	2.90	3.61	90.39	81.33
Karnataka	4.58	4.17	68.75	55.96
Kerala	7.79	7.15	71.83	64.05
MP	6.05	5.25	81.28	78.21
Maharashtra	7.50	5.98	68.75	59.08
Orissa	5.46	4.51	90.64	90.26
Punjab	7.66	5.60	79.47	73.90
Rajasthan	4.79	4.70	89.43	83.88
Tamil Nadu	5.80	4.45	61.41	61.44
UP	8.20	5.64	86.76	81.47
WB	4.64	4.84	72.89	67.80
All India	6.05	4.91	77.33	69.18

Source: NCMH (2005).

Box 3.1.7
Essential Drug Supply—Tamil Nadu Experience

Activities

Finalizing list of Essential Drugs selected from the model list by the WHO
Ensuring adequate funds and human resources for supply of drugs from its warehouses to various points of health care delivery
Testing drugs for quality
Supplying drugs only in strips and blister packing
Selecting drugs on the basis of disease pattern, safety, effectiveness, and cost
Including only generic drugs
Making proper arrangements for storage of drugs in modern warehouses
Training the pharmacists regarding storage and distribution of drugs
Revising store keeping procedures and storing drugs according to the first come-first out basis and according to their generic name

Achievements

Preparation of the Essential Drugs list, catering to varying needs of different levels of health care
Provision of good quality, generic drugs
Provision of drugs specific to the need and level of health care
Rational use of drugs
Availability of accurate up to date stock information on the computer
Linkage of all warehouses telephonically with the TNMSC headquarters in Chennai

labelling, following actions will be undertaken during the Eleventh Five Year Plan:

- Creating Food Safety Authority for speedy enforcement of safety standards.
- Ensuring implementation of Capacity Building Project with the objective to enhance capacities in laboratories, awareness of food safety, and hygiene.
- Strengthening State labs, capacity building, food portal, comprehensive and informative/analytical database.
- Rationalizing protocol for establishment of labs for food safety.
- Implementing the Food Safety and Standards Act, 2006.

Decentralized Governance

ROLE OF PRIs

3.1.76 PRIs have the mandate to manage the primary health system. Communitiza-tion through ownership by PRIs is necessary for an efficient and effective health system. Implementation of the NRHM will have to be closely watched to ensure that the involvement of Panchayats is total and complete. The various tiers of PRIs will decide the local priorities and also supervise functioning of health facilities, functionaries, and functions through their participation in various committees.

3.1.77 Since one-third of elected members at the local bodies are women, this is an opportunity to promote a gender-sensitive, multi-sectoral agenda for population stabilization with the help of village level health committees. All this will remain rhetoric until the elected women are trained and empowered. Under the NRHM, ASHAs are envisaged to be selected by and be accountable to the village Panchayats. Involvement of PRIs will also be necessary to improve the coverage and quality of registration of births, deaths, marriages, and pregnancies in all States.

3.1.78 During the Eleventh Five Year Plan, decentralization of resources to Panchayats or local representative bodies will be implemented in a phased manner to make decentralized planning a living reality.

ROLE OF CIVIL SOCIETY

3.1.79 Community Based Health Partnership is the key to sustaining health action even with limited resources. This can take many forms, through the PRIs, community-based and NGOs, and of people participating at all levels of health interventions. This cannot be achieved only by giving financial and administrative powers to the Panchayats, it needs active participation of the people for local action. Partnership with community groups (through youth, *mahila mandal*s, SHGs, and Gram Sabhas) is necessary for local solutions to local problems. In this regard, successful communitization of health services in Nagaland should be studied and replicated (Box 3.1.9).

3.1.80 The NRHM envisages community participation such as described above. Under the framework for implementation, the Mission tries to ensure that more than 70% of the resources are spent through bodies that are managed by peoples' organizations and at least 10% of the resources are spent through grants-in-aids to NGOs. The mechanism of untied funds at the local level is meant to give them a little flexibility. During the Eleventh Five Year Plan, efforts will be made to promote various community-based initiatives.

Affecting Convergence

3.1.81 Clean drinking water is vital as unsafe water increases the risk of diseases and malnutrition. Waterborne infections hamper absorption of food even when intake is sufficient. Rural water supply is beset with the problem of sustainability, maintenance, and water quality. Though more than 95% coverage was achieved prior to Bharat Nirman, out of the 14.22 lakh habitations in the country about 1.66 lakh have slipped back to a position where people do not have adequate water to drink and have to walk more than 2 km to fetch potable water. Similarly, about 1.86 lakh habitations are dependent on contaminated water supply, which leads to various health problems.

3.1.82 Lack of sanitation is directly responsible for several waterborne diseases. Rural sanitation coverage was 1% in the 1980s. With the launch of the Central Rural Sanitation Programme in 1986, the coverage improved

Box 3.1.8
Role of PRIs

Nearly three-fourths of the population of the country lives in villages. This rural population is spread over more than 10 lakh habitations of which 60% have a population of less than 1000. For the success of Sarva Swasthya Abhiyan, the reform process would have to touch every village and every health facility. This would be possible only when the community is sufficiently empowered to take leadership in health matters.

PRIs, right from the village to district level, would have to be given ownership of the public health delivery system in their respective jurisdictions. Some States like Kerala, WB, Maharashtra, and Gujarat have already taken initiatives in this regard and their experiments have shown the positive gains of institutionalizing involvement of PRIs in the management of the health system.

The NRHM empowers the PRIs at each level that is, Gram Panchayat, Panchayat Samiti (Block), and Zilla Parishad (District) to take leadership to control and manage the public health infrastructure at district and sub district levels in the following ways:

- A VHSC in each village within the over all framework of Gram Sabha in which proportionate representation from all the hamlets would be ensured. Adequate representation is given to the disadvantaged categories like women, SCs, STs, OBCs, and Minorities.
- Sub Health Centre is accountable to the Gram Panchayat and shall have a local committee for its management, with adequate representation of VHSCs.
- PHC, which is not at the block level, will be responsible to the elected representative of the Gram Panchayat where it is located. All other Gram Panchayats covered by the PHCs would be suitably represented on its management.
- The Block level PHC and CHC will have involvement of Panchayati Raj elected leaders in its management. The *Rogi Kalyan Samiti* would manage day-to-day affairs of the hospital.
- The Zilla Parishad at the district level will be directly responsible for the budgets of the health societies and for planning for people's health needs.
- With the development of capacities and systems, the entire public health management at the district level would devolve to the District Health Society which would be under the effective leadership and control of the district Panchayat, with participation of the block Panchayats.

To empower and facilitate local action, the NRHM provides untied grants at all levels, namely, Village, SC, PHC, and CHC. Monitoring committees will be formed at various levels, with participation of PRI representatives, user groups, and CBO/NGO/VO representatives to facilitate their inputs in the monitoring planning process. They will enable the community to be involved in broad-based review and suggestions for planning. A system of periodic *Jan Sunwai* or *Jan Samvad* at various levels has been built in to empower community members to engage in giving direct feedback and suggestions for improvement in public health.

Box 3.1.9
Communitization in Nagaland

The health SC in Mopungchuket village in Mokokchung district of Nagaland is a beautifully and aesthetically constructed building made from local materials. This village of almost 6000 people felt an acute need for health care. So, in 2002 when communitization started, the community collected Rs 2.83 lakh through contributions to run the SC. They donated a building. Two ANMs, one ASHA, and a pharmacist run the SC. They are always present. The building is spic and span. A room has been created and a few beds put in for patients. Deliveries also take place here. The records of all patients, along with their health problems, line of treatment, and medications prescribed are meticulously maintained in neat registers. The centre never falls short of medicines and essential drugs. If the government supply is delayed, the community pools in money to purchase drugs.

to 4% in 1988 and then to 22% in 2001. It is now acknowledged that unless 100% coverage is achieved and proper solid waste management (SWM) carried out, health indicators will not show significant improvement. Toilets are essential also for ensuring the safety and dignity of girls and women. Lack of adequate number of toilets with privacy affects the school dropout rate of girl child. The solution, therefore, is to provide clean drinking water and adequate sanitation coverage throughout the country by adoption of a convergent approach by VHSCs under the NRHM.

3.1.83 During the Eleventh Five Year Plan, the Ministry of Health and Family Welfare (MoHFW) will take up a Programme for Prevention and Control of Water Borne Diseases as a part of Sarva Swasthya Abhiyan, which will establish a mechanism of collaboration with other departments (for supplying safe water to community and carry out water quality monitoring), with specific responsibilities. The targets are: (i) by 2010, to reduce the burden of waterborne diseases to 75% of the present level; and (ii) by 2015, to reduce the burden of waterborne diseases to 50% of the present level. In order to achieve 100% coverage of clean water and sanitation, Eleventh Five Year Plan strategies include:

- Convergence of health care, hygiene, sanitation, and drinking water at the village level through VHSCs under NRHM.
- Renewed efforts under NUHM to cover primary health care, safe drinking water, and sanitation in urban areas.
- Participation of stake holders at all levels, from planning, design, and location to implementation and management of the projects.
- Institutionalization of water quality monitoring and surveillance systems by involving PRIs, community, NGOs, and other CSO.
- Increased attention to Behavioural Change Communication.
- Linking treatment of sewage and industrial effluents to development planning.

Enhancing PPP

3.1.84 During the last few years, the Centre as well as the State Governments have initiated a wide variety of PPP arrangements to meet peoples' growing health care needs (few examples provided in Box 3.1.10). Besides these examples, services like cleaning and maintenance of buildings, security, waste management, scavenging, laundry, diet have been contracted out to the private sector by many States.

3.1.85 The existing evidence for PPP does not allow easy generalization. Contracting is the predominant model for PPP in India. Some partnerships are simple contracts (like laundry, diet, cleaning, etc.), others are more complex involving many stakeholders with their respective responsibilities. For example, the Yeshaswini Health Insurance scheme for farmers in Karnataka includes the State Department of Cooperatives, the Yeshaswini Trust with its almost 200 private hospitals, a corporate Third Party Administrator (TPA), and beneficiaries with the eligibility conditions. It is seen that in most partnerships, the State Health Department is the principal partner with limited stakeholder consultation. However, true partnerships that mean equality among partners, mutual commitment to goals, shared decision making, and risk taking are rarely seen.

3.1.86 Findings of existing case studies also bring forth concerns such as absence of the beneficiary in the entire process, lack of effective governance mechanisms for ensuring accountability, non transparent mechanisms, lack of appropriate monitoring and governance systems, and institutionalized management structures to handle the task. For example, while contracting out PHCs, the State Governments sometimes hand over the worst performing PHCs to NGOs. Not paying the initial instalment to NGOs at the start of the project is another problem. The NGOs are never sure whether the money will eventually be released and if so, how much to expect. Management of health facilities should be handed over to NGOs only if the process is completely transparent and there is a strong local monitoring mechanism. This is the objective of Government–NGO partnership envisaged in the Eleventh Five Year Plan.

3.1.87 During the Eleventh Five Year Plan, the experience of PPP initiatives in selected States will be studied thoroughly. Based on evidence, efforts will be made

Box 3.1.10
Public–Private Partnership (PPP)

- Rajasthan:
  Partners: Medicare Relief Society, SMS Hospital, Jaipur, and Vardhman Scanning and Imaging Private Ltd.
  Services: Contracting in Radiological diagnostic services in the public hospitals.
  Provision of quality drugs and supplies cheaper than market rate. All this free for BPL patients above 70 years of age and freedom fighters; pre-negotiated rates for others.
- West Bengal:
  Partners: Government of West Bengal, Mediclue, District Health & FW Societies, Private partners, M/S Doctors Laboratory and Non Profit NGOs.
  Services: CT Scan in seven medical colleges, MRI in one medical college hospital, diagnostic facilities in 30 rural hospitals, and running of 133 ambulances for emergency transport under management of NGOs/CBOs at the level of Block PHCs.
- Uttarakhand:
  Partners: Government of Uttarakhand, DST, GoI and Uttaranchal Institute of Scientific Research, Bhimtal (NGO).
  Services: Mobile Health Services—Diagnostic, Laboratory, and Clinical Services through mobile vans. Dedicated health camps in 6 districts of western part of Uttarakhand.
- Karnataka:
  Partners: Government of Karnataka and Apollo Hospitals Enterprises Ltd, Hyderabad Rajiv Gandhi Super Specialty Hospital, Raichur handed to Apollo Hospital under management contract.
  Services: 350 bedded hospital. Free services to BPL patients, 40% beds for BPL (government reimburses the charges) and remaining patients treated under special rates.
  Partners: Government of Karnataka & Karuna Trust.
  Services: Contracting out adoption and management of PHCs and affiliated SCs in remote, rural, and tribal areas in the State.
  24 hrs health services—OPD, emergency services, electrocardiogram (ECG), X-ray, laboratory, immunization, national health programmes, RCH programme, 20 bed patient ward, and ambulance.
- Gujarat:
  Partners: Government of Gujarat and Private Doctors (Obstetricians and Gynecologists).
  Services: Chiranjeevi Yojana: Private Doctors (Obstetricians) are contracted for deliveries both normal and caesarian of BPL women at their facilities.
- Arunachal Pradesh:
  Partners: Government of Arunachal Pradesh & VHAI, Karuna Trust, Future Generations, and Prayas.
  Services: Management of selected PHCs.
- Andhra Pradesh:
  Partners: Government of Andhra Pradesh and Social Action for Integrated Development Services, Adilabad (NGO)
  Services : Urban Slum health care project. Contracting in (performance contract but without any public premises being handed over to the private partner).
  Partners: Government of Andhra Pradesh & New India Assurance Company.
  Services : Arogya Raksha Scheme based on vouchers.
  Funded by the government, operational management by the public sector company, and service delivery by private health service providers.
- Tamil Nadu:
  Partners: Government of Tamil Nadu & the Seva Nilayam Society in association with Ryder-Cheshire Foundation (NGOs).
  Services: Performance contract for the provision of emergency ambulance services in the region. Ambulances are owned by the government.

Note: FW = Family Welfare.

to develop a generic framework for different categories of PPPs at primary, secondary, and tertiary levels of health care to improve cost-effectiveness, enhance quality, and expand access through extensive stakeholder consultations. Contracting out well-specified and delimited projects such as immunization can help enhance accountability. Setting up of diagnostic and therapeutic centres (facilities that are not available in hospital) by private players in hospital premises will be encouraged. Government may consider giving them an infrastructure status in those geographical areas by providing incentives like land at concessional rates, increasing floor area ratio and ground coverage, tax holiday, and loan at concessional rates. However, emphasis would be on model contractual agreements with specific performance requirements to be measured by the civil society. Costs will be built in.

Health Insurance: Protecting the Poor

3.1.88 In India, due to huge geographical area, very large population, and inequity of resources, ensuring good health for all, particularly the poor, is a complex issue. Our health system is a mix of the public and private sectors, with the NGOs and civil society still playing a very small (though important) role.

3.1.89 The 60th Round of the NSSO (2004–05), has clearly brought out the fact that in rural government hospitals, an out-of-pocket expenditure of more than Rs 3000 is made during every hospitalization. In rural private hospitals, it is more than Rs 7000. The expenditure in the urban areas in private hospitals is more than Rs 11000 and about three times higher than the public hospitals. Today, this expenditure would have increased substantially. Private out-of-pocket expenditure can be reduced through Comprehensive Health Insurance, on a risk pooling basis for all, particularly the poor.

3.1.90 Coverage of health insurance in India is pathetically limited. Current health insurance in government and private sector covers around 11% of the population. The existing Employees State Insurance Scheme, Central Government Health Scheme (CGHS), and Ex-Servicemen Contributory Health Scheme provide services to industrial workers, government employees, and ex-Armed Forces Personnel along with their families. Mediclaim covers mainly the upper-middle income groups. Private health insurance schemes are mainly urban oriented and they have problems like unaffordable premiums, delay in settling claims, non-transparent procedures in deciding reimbursements, etc. Even though the system of TPAs has facilitated cash payments and expanded access to providers it is yet to show evidence of having been able to control cost or provide appropriate care.

ENCOURAGE COMMUNITY RISK-POOLING

3.1.91 Providing financial protection to the poor during hospitalization will have an immediate impact on alleviating indebtedness. Local governments will identify population at risk and provide a revolving fund to be managed by a consortium of SHGs. This consortium would also encourage small savings by households and whenever required, give needy households, a cash support of Rs 5000 to Rs 10000 for hospitalization, catastrophic illness, and death. This will save households from immediate financial debt at the point of crisis. They would repay this money at a modest interest rate within an appropriate time frame so that the village health risk pool does not fall below Rs 1 lakh. During the Plan, pilots will be undertaken in selected States under NRHM and NUHM. The scheme will empower SHGs, enable households to access micro-credit, and also recover from financial stress during treatment of illness.

COMMUNITY BASED HEALTH INSURANCE (CBHI)

3.1.92 Evidence suggests that well-designed and managed CBHI schemes coupled with behavioural change campaigns and other interventions increase the quality of health care. Easy and low cost accessibility to health care can protect the households from indebtedness arising from high medical expenditure. These schemes can be implemented in areas where institutional capacity is too weak to organize mandatory nation-wide risk pooling.

3.1.93 CBHI is 'any not-for-profit insurance scheme that is aimed primarily at the informal sector and formed on the basis of a collective pooling of health risks and the members participating in its management'. What distinguishes these schemes from

public or private-for-profit insurance schemes is that the targeted community is involved in defining the contribution amount and collecting mechanism, content of benefit package, and allocating the scheme's financial resources.

3.1.94 CBHI schemes in India are very diverse in nature in terms of design, management, and size of the targeted population. ACCORD, BAIF, Karuna Trust, Self Employed Women's Association (SEWA), DHAN Foundation, and VHS are some examples. Experience of current CBHI schemes in India reveals that area specific schemes should be developed according to the local requirements. These schemes should be tailored to the reality of the poor, and organized according to their convenience. During the Plan, CBHI schemes through the public system and by accredited private providers will be encouraged.

HEALTH INSURANCE FOR THE UNORGANIZED SECTOR

3.1.95 We have a huge working population of about 400 million. Almost 93% of this work force is in the unorganized sector. There are numerous occupational groups in economic activities, passed on from generation to generation, scattered all over the country with differing employer–employee relationship. Those in the organized sector of the economy, whether in the public or private sector, have access to some form of health service coverage. The unorganized sector workers have no access. The National Commission for Enterprises in the Unorganized Sector (NCEUS) has recommended a specific scheme for health in incidences of illness and hospitalization for workers and their families.

3.1.96 The Eleventh Five Year Plan will introduce a new scheme based on cashless transaction with the objective of improving access to health care and protecting the individual and her family from exorbitant out-of-pocket expenses. Under the scheme, coverage will be given to the beneficiary and her family of five members. Providers will be both public and private.

MATERNITY HEALTH INSURANCE

3.1.97 During the Eleventh Five Year Plan, the Maternity Health Insurance Scheme as an initiative across a few States is expected to be implemented. This scheme is premised on capitation-based financing, where the provider is assured a fixed per capita payment in respect of all those who enrol for maternity care. All pregnant women belonging to BPL families will be covered under this scheme. They would register with the ANM and simultaneously identify from a list of diverse accredited providers, any institutional facility in the public or private sector, which will look after her during her pregnancy. The ANM will complete the antenatal check in consultation with the facility identified. The capitation fee for the pregnant women in the BPL category will be borne by government. This intervention will improve outcomes for maternal and infant mortality by ensuring that the complete cycle of maternity care in particular for the poor, is handled by a qualified institutional provider. More specifically, this intervention will increase institutional deliveries and lower maternal mortality, empower women with improved access to reproductive health care, enable and facilitate women to adopt postpartum terminal methods of family planning if they need to. It will stimulate development of accredited health infrastructure accessible in rural and remote areas, facilitate partnerships, and finally, improve the responsiveness and accountability of public sector facilities.

Central Government Health Scheme (CGHS)

3.1.98 CGHS was started in 1954 and at present 24 cities are covered with total of 9.12 lakh card holders and 33.01 lakh beneficiaries (as on 31 March 2006). 72.5% card holders are serving employees, 25.4% are pensioners, and rest belong to the categories such as freedom fighters, Members of Parliament (MPs), ex-MPs, journalists, and others. Services covered under CGHS include hospitalization, outpatient consultation and treatment, diagnostics, drugs, etc. For these services there are 247 allopathic dispensaries, 82 AYUSH dispensaries, 19 polyclinics, and 65 laboratories in the cities covered. For hospitalization, the services are largely outsourced to selected private hospitals, all government hospitals are included. Out Patient Department (OPD) and diagnostic services are also partly outsourced to selected private hospitals and diagnostic centres.

3.1.99 Mid Term Appraisal for the Tenth Plan has made the following recommendations regarding CGHS:

- Restructure, reform, and rejuvenate.
- Existing subscribers be given the option to either continue or switch over to a system of health insurance.
- Greater autonomy to the CGHS to enable it to develop various options for reducing costs in providing services and trying different models of service delivery.

3.1.100 To reform CGHS, a number of new initiatives have been taken. A pilot project on computerization has been completed. This would help weeding out large number of duplicate cards, online indenting, and billing of medicines, reducing supply time from three days to one day, and reduction in waiting time for the beneficiaries. All dispensaries are being networked to allow beneficiary treatment from any dispensary. Database on disease profile of beneficiary, reimbursement claims, prescribing and referring, pattern of medical officers (MO), billing pattern of panel hospitals, diagnostic centres are also computerized. Other new initiatives proposed to be taken are delegation of enhanced financial powers to ministries. Within CGHS, local advisory committees at dispensary level, empanelment process of hospitals, and diagnostic centres as a continuous process, outsourcing of sanitation of CGHS dispensaries, PPP for setting diagnostic/radiological services in GGHS buildings, procurement of drugs on rate contract system with stringent penalties for delay, TPAs for processing of claims, and medical audit will also be taken up.

3.1.101 Fixed subscription is contributed by the beneficiary irrespective of the size of the family and the magnitude of services being availed. Present subscription rates are based upon the basic pay or pension of the government servant or pensioner. Since there is no linkage between subscription rates (fixed) and cost of services (dynamic), the already huge gap between beneficiary contributions and actual expenditure is progressively widening. To arrest the increasing trend, following options will be considered during Eleventh Five Year Plan:

- Linking the rate of subscription to total cost of CGHS system so that beneficiaries contribute a fixed percentage of CGHS cost and remaining cost is borne by the government.
- Contribution should be per person/beneficiary and not per CGHS card issued to the family.
- In addition to the monthly subscription, each beneficiary should bear the first 20% of the total admissible bill/amount and the balance 80% would be paid by CGHS.
- Phasing out the direct budgetary support for the CGHS through the introduction of health insurance system. Health insurance scheme(s) would cover both serving employees as well as pensioners particularly in non-CGHS areas, on optional basis. Employees joining after a cut off date (to be decided) would compulsorily be covered under health insurance scheme. Health insurance scheme would cover both OPD and hospitalization services. Premium on coverage in the insurance scheme would be on sharing basis.
- Gradually shifting Central Government employees from CGHS to system of health insurance, through which they may access the CGHS or any other clinical health care provider of their choice.

Regulation and Accreditation

3.1.102 There is a need to empower PRIs to monitor the minimum standards for clinical establishments. Participation of NGOs in such efforts will be ensured.

3.1.103 All State Councils will be encouraged to shift to a system of periodical renewal of registration, possibly every three to five years. A specialist's or a super specialist's qualifications should also be required to be registered. These details should get transferred to a National Register to be maintained and updated by each apex council. There is need for a system of accreditation of various courses offered by Medical, Dental, and Nursing educational institutions. The Human Resource Development Ministry has already established a system for accreditation and rating of universities. Such a system is also needed in the medical education sector. The proposed Health Sciences Grants Commission should be given this responsibility.

3.1.104 In the field of paramedical education, priority will be given for establishment of National Para

Medical Council as an apex body to determine standards and to ensure uniform enforcement throughout the country. On similar lines, councils for physiotherapy and occupational therapy should also be established.

3.1.105 National Accreditation Board for Hospitals and Health care Providers (NABH), a constituent Board of Quality Council of India, has adopted standards and accreditation process in line with worldwide accreditation practices. Academy of Hospital Administration had formulated a standard for NABH. Other organizations like Indian Confederation for Health Care Accreditation and financial rating organizations like ICRA have started the process of accreditation and rating the health institutions.

3.1.106 Of late, the government has given approval for introducing the Clinical Establishments (Registration and Regulation) Bill in the Parliament. The proposed legislation will cover all clinical organizations in different streams of medicine including AYUSH systems. Under this legislation, all the clinical establishments including diagnostic centres will be registered and regulated by the National Council of Standards. The council will prescribe minimum standards for health services and maintain national register of clinical establishments.

3.1.107 Efforts will be made to enforce standards for government hospitals at all levels. Priority will be given for development of Standard Operating Procedures and Standard Treatment Guidelines for all specialties and all systems of medicines. A National Advisory Board for Standards will be set up and financial assistance will be provided to States for setting up infrastructure for registration of clinical establishments.

3.1.108 The following activities will be accorded priority during the Eleventh Five Year Plan:

- Legislation for registration of clinical establishments in the country.
- Development of uniform standards for infrastructure and service delivery.
- Re-registration in case of additional and higher qualifications.
- Creation of National Registers of all medical and paramedical personnel.
- Setting up a National Paramedical and other Councils for regulating education and service delivery.
- Recognition of RMPs as *sahabhaagi*s in NRHM.

Emerging Technologies

LOW COST AND INDIGENOUS TECHNOLOGIES

3.1.109 For quality health service, development and utilization of appropriate technologies for diagnosis and treatment of diseases is essential. Over the last few years, health-related technology has developed at a rapid pace. But its impact on indices of public health has been minimal. There is a need to develop cheaper technologies that are as effective as the existing ones. Many technologies are expensive, so alternatives are badly needed. It should be of prime concern to find technological solutions for making crucial equipment affordable, for example, anaesthesia machine, surgical equipment and lighting, sterilization equipment, defibrillator, ventilator, electrocardiogram (ECG), blood pressure monitoring equipment, pulse oxymeter. Benefits of reduced cost of such technologies should reach village health care providers.

3.1.110 Apart from the secondary and tertiary care, there is need and scope to introduce the use of public health related technologies and public health related practices at all levels of health care. Use of the technologies like those indicated in Box 3.1.11 would help to prevent outbreaks of waterborne diseases, maternal mortality related to unsafe deliveries and postpartum infections, anaemia, prevent acquisition of malaria, and deaths due to childhood pneumonias, etc. Efforts will be made in the Eleventh Five Year Plan to promote public health related technologies.

ROLE OF e-HEALTH

3.1.111 Appropriate use of IT for an enhanced role in health care and governance will be aimed at during the Eleventh Five Year Plan. It is feasible to set up a National Grid to be shared by health care providers, trainers, beneficiaries, and civil society. The country already has the advantage of a strong fibre backbone

and indigenous satellite communication technology with trained human resources in this regard. A number of pilot projects on e-Health over the past years by private concerns, corporate, NGOs, medical colleges, and research institutions have been set up. The successful outcome of many of these initiatives needs to be evaluated and scaled up.

3.1.112 Health Management Information System (HMIS) would be an important new initiative utilizing developments in the field of IT. A computerized web enabled data capturing and analytical system will be established to provide valid and reliable data and reports for use at all levels. This would not only facilitate proper ME of different programmes under implementation but will also help in various aspects of service delivery. The HMIS will also integrate the various vertical systems having their own reporting machinery into an integrated umbrella of holistic ME to cater to the needs of Sarva Swasthya Abhiyan. The data will flow directly from the periphery. The Integrated Disease Surveillance Project (IDSP) will eventually be a by-product of the HMIS. As the system stabilizes and the penetration of computerization at the block level increases, the system will be modular enough to expand the scope to the remotest areas. Wastage of drugs due to date expiry also needs to be curtailed by demand-driven management and redistribution of medicines nearing date of expiry. HMIS when fully developed and implemented will track demand and supply and continuously monitor the drug situation.

3.1.113 Telemedicine could help to bring specialized health care to the remotest corners of the country. Telemedicine is likely to provide the advantages of telediagnosis, especially in the areas of cardiology, pathology, dermatology, and radiology besides continuing medical education (CME). It will be of immense use for diagnostic and consultative purposes for patients getting treatment from the secondary level health care facilities. The efficacy of telemedicine has already been shown through the network established by the Indian Space Research Organization (ISRO) that has connected 42 super-specialty hospitals with 8 mobile telemedicine vans and 200 rural and remote hospitals

Box 3.1.11
Making Health Care Affordable—
The Experience of *Jan Swasthya Sahyog* (JSS)

For the last seven years, a group of dedicated young doctors from institutes like CMC, Vellore and AIIMS have been working to make health in the hinterlands, available, accessible, and affordable. The JSS team has given up lucrative jobs, sparkling city lights, and hefty pay packets to develop cheap, accurate and easy-to-use technology that can be used for prevention, diagnosis, and treatment of diseases in remote, tribal areas of Bilaspur and Chhattisgarh. So, the JSS method for early detection of UTIs costs less than Rs 2 per test, anaemia Re 1, diabetes Rs 2, pregnancy Rs 3. They have also developed low cost mosquito repellent creams, breath counters for detection of pneumonia among children, easy-to-read BP instruments to prevent preeclampsia, and a simple water purification method whereby one can cycle for 15 minutes and get a bucket of potable water treated by UV light. Low cost delivery kits with everything needed for the mother and child in the first 24 hours—gloves, large plastic sheets, soap, disinfectant, blade, gauze, sterilized threads, cotton cloth to wrap the baby, thick sanitary pads for women—are available for just Rs 40. These simple techniques are so designed that they can be used by illiterate and semi-literate village women and school students. Then there are the more complicated tests like sputum concentration system for increasing the sensitivity of microscopic diagnosis of tuberculosis and electrophoresis for detection of sickle cell anaemia, a common malady in the area. While electrophoresis costs Rs 300 in the market, using JSS technology it costs just Rs 20.

The most innovative strategy put in place by JSS, however, is the malaria detection system. They have trained village health workers in taking blood smears. These are labelled and neatly packed in small soap cases which are handed over through school children to bus drivers. On their way to school, the drivers drop the smears at the Ganiyari hospital run by JSS. Here they are immediately tested and the reports are sent back through the same buses on their return trip. This courier system has been operational in 21 villages in the area for the last 5 years and has saved many lives. It is now being extended for tuberculosis detection. These simple, innovative technologies developed by JSS can be used by all health workers to make diagnosis in peripheral, remote areas more rational and decrease misuse of drugs.

across the country through its geostationary satellites. So far about 3 lakh people have benefited from this programme. Facility of telemedicine will be provided in district hospitals and government medical colleges.

3.1.114 The e-Health initiatives to be taken up during the Eleventh Five Year Plan are:

- Training, Education, and Capacity Building for e-Health
- Monitoring by e-enabled HMIS to ensure timely flow of data and collation to be used at various levels
- Geographical Information System (GIS) Resource Mapping of various health facilities (Allopathic and AYUSH), Laboratories, Training Centres, Health Manpower, and other inputs to optimize utilization
- Providing service delivery and other e-enabled activities like, disease surveillance, tele-consultations, health helpline, district hospital referral net, and e-enabled mobile medical units

Gender Responsive Health Care

3.1.115 The GoI has taken several policy measures to reduce gender bias. The practice of gender budgeting in Health will be made mandatory in all programmes of the Centre and the States. The performance of different health programmes will be judged on the basis of gender disaggregated data.

Box 3.1.12
Telemedicine

Telemedicine programmes are being actively supported by:
- ISRO
- DIT
- NEC Telemedicine programme for NE States
- State Governments
- NGOs

Various projects have been commissioned. Few examples are:
- NE Project
- Jammu & Kashmir (J&K) Project
- Southern India Project
- Armed Forces Medical Services Project
- Asia Heart Foundation South India Project
- Sankara Netharalaya Telemedicine Project
- Wockhardt Hospital and Heart Institute Project
- Apollo Hospitals Project

3.1.116 To reduce maternal mortality, several initiatives have been taken to make the maternal health programme broad based and client friendly. The major interventions include providing additional ANMs and Staff Nurses in certain health care facilities; referral transport; 24-hours delivery service at PHCs and CHCs; essential and emergency obstetric care; and optimal operationalization of FRUs. All these interventions will have to actually be done on a large scale during the Eleventh Five Year Plan. The goal is to reduce MMR to 100 per 100000 live births by 2012. State specific goals have also been suggested (Annexure 3.1.4).

SEX RATIO

3.1.117 The Eleventh Five Year Plan target is to raise the sex ratio for age group 0–6 to 935 by 2011–12 and subsequently to 950 by 2016–17. State-specific goals have also been suggested (Annexure 3.1.5). Apart from ensuring effective implementation of the Pre-Conception and Pre-Natal Diagnostic Techniques (PC & PNDT) Act, relentless public awareness measures will be undertaken. Other steps for integrating the issue of prenatal sex selection in the initiatives and programmes include the following:

- Increasing community awareness through ASHAs
- Including these issues in training modules and programmes and in IEC
- Adding sex selection information in medical curriculum
- Including indicators on improvement in sex ratios and birth registration as monitoring targets
- Ensuring inclusion of these issues in district level programme planning and implementation
- Ensuring convergence with other ministries such as Women and Child Development (WCD), Panchayati Raj, and Youth Affairs
- Evoking a community response to the issue

3.1.118 During the Eleventh Five Year Plan, the following additional strategies will be adopted:

- Develop clear targets of natural sex ratio at birth (SRB) which is 105 males per 100 females and give

financial benefits to States that have improved SRB. From 2007 onwards, the Annual Health Survey will include estimates of SRB at the district level. Planning Commission will obtain independent estimates of the SRB at the district level each year. The States will be asked to monitor the SRB of the institutional deliveries, by parity, for each facility as well as for the districts. Improvement in SRB will be considered one of the indicators for arriving at decisions on plan assistance to States.

- Improve availability of data plus its access and quality on SRB. The option of PHC level enumeration will be considered to monitor the SRB on a routine basis.
- Provide financial support for capacity building, awareness generation and strict enforcement of PC & PNDT Act
- Amend the PC & PNDT Act to provide for the independence of the Appropriate Authorities at the district level.
- A National Research and Resource Centre in health for women will be developed under NRHM.

ANTENATAL CARE (ANC)

3.1.119 Universal screening of pregnant women using appropriate ANC is essential for the detection of problems and risk during pregnancy for referral to appropriate hospital for treatment. Under the NRHM, efforts are being made to improve the coverage, content, and quality of ANC in order to substantially reduce maternal and perinatal morbidity and mortality. Every effort will be made to operationalize the strategy for prevention and management of anaemia during the Eleventh Five Year Plan so that the target of reducing anaemia among women and girls by 50% is achieved by the end of 2012.

3.1.120 Emphasis will be given to screening all women during pregnancy to detect those with problems and referring them at the appropriate time to predesignated institutions for management and safe delivery. This will reduce maternal and perinatal morbidity and mortality.

SAFE DELIVERY

3.1.121 Since child birth at home costs less than that at a private hospital or a public health facility, it is reasonable that families opt for home deliveries. Emphasis will therefore be given on training Traditional Birth Attendants (TBAs) and turn them into Skilled Birth Attendants (SBAs). They would ensure proper deliveries, whether at home or in an institution. Home delivery by trained persons will be encouraged if the families so desire. TBAs will be taught to recognize complications and refer them to hospitals. This strategy will help in reduction of maternal and neonatal deaths and perhaps pave the way for good ANC.

3.1.122 Attention will be paid by ASHAs, Anganwadi Workers (AWWs), and TBAs to make arrangements for transport to hospital for EmOC, early detection, and management of infections. All pregnant women from poor households will be covered by social insurance schemes to facilitate access to reliable maternal care. In this context, all States will be encouraged to experiment with schemes for maternity care (like *Chiranjeevi* scheme in Gujarat). Positive outcomes will be upscaled and replicated. Every district will have fully equipped Mother and Child Hospital. The existing maternal and child hospitals in the districts will also be upgraded.

3.1.123 It is now recognized globally that the countries successful in bringing down maternal mortality are the ones where the provision of skilled attendance at every birth and its linkage with appropriate referral services for complicated cases has been ensured. This has also been ratified by WHO. Guidelines for normal delivery and management of obstetric complications at PHCs and CHCs for MO and guidelines for ANC and skilled birth attendance at birth for ANMs and Lady Health Visitors (LHVs) have been formulated and disseminated to the States. During the Eleventh Five Year Plan, emphasis will be given to ensure the services of skilled birth attendant at child birth, both for home deliveries and in institutional settings. Since home deliveries will remain the norm across many States, effort will be made to provide skilled birth attendant training to *dai*s who are ubiquitous in every nook and corner of the country.

ESSENTIAL AND EMERGENCY OBSTETRIC CARE

3.1.124 Operationalization of FRUs and skilled attendance at birth go hand in hand. Therefore simultaneous

steps have been taken to ensure tackling obstetric emergencies. Under the NRHM, efforts are being made to make FRUs operational for providing Emergency and Essential Obstetric Care. Other steps include training of MBBS doctors in life saving anaesthetic skills for EmOC, establishment of blood storage at FRUs, and guidelines for operationalization of the FRUs. There is also a plan for training MBBS doctors in management of obstetric cases including caesarean section with the help of professional organizations of obstetricians and gynaecologists. Over the next five years, efforts will be made to improve the Emergency Obstetric Care in all CHCs in a phased manner. CHCs will have well equipped operation theatre, access to safe banked blood, qualified obstetricians, paediatricians, and anaesthetists. Roads linking habitations to CHCs will get special attention. The objective is to ensure availability of EmOC facilities within two hours of travel time.

ESSENTIAL POSTPARTUM CARE

3.1.125 Early postpartum care is essential to diagnose and treat complications such as puerperal infections, secondary postpartum haemorrhage, and ecclampsia, which are major causes of postpartum mortality. Postpartum care provides an opportunity to check the general well-being of mother and infant and to ensure that the infant is nursing well and there is enough supply of breast milk. Exclusive breastfeeding should be started within the first hour of birth. It can save many infant lives by preventing malnutrition and infections. Birth spacing and methods of contraception need to be discussed at this time. During the Eleventh Five Year Plan, Community Health Workers (ASHAs) will be appropriately oriented to this and their remuneration would also be linked to health checks of both the mother and newborns.

SAFE ABORTION SERVICES

3.1.126 The Medical Termination of Pregnancy (MTP) Act was passed by the Indian Parliament in 1971 and came into force from 1 April 1972. The aim of this Act was to reduce maternal mortality and morbidity due to unsafe abortions. The MTP Act, 1971 laid down conditions under which a pregnancy can be terminated and the place where such terminations can be performed. A recent amendment to the Act (2003) includes decentralization of power for approval of places and enlarging the network of safe MTP service providers. The amendment also provides for specific punitive measures for performing MTPs by unqualified persons and in places not approved by the government.

3.1.127 States are being provided flexibility to adopt strategies for the delivery of services to suit their local situations. Interventions for safe abortion services that were being provided in RCH Programme will however continue to be available and implemented more effectively during the Eleventh Five Year Plan.

REPRODUCTIVE TRACT INFECTIONS/SEXUALLY TRANSMITTED INFECTIONS (RTI/STI)

3.1.128 The spread of HIV infection and the role that RTI/STI play in the transmission of HIV has focused urgent attention on the problem. Identification and management of RTI is an important objective of the RCH Programme. The RCH strategies, under NRHM, for prevention, early detection, and effective management of common lower RTI through the existing primary health care infrastructure; and provision of the RTI/STI services at sub-district level will be implemented during the Eleventh Five Year Plan.

3.1.129 During the Eleventh Five Year Plan, for improving maternal health, special attention will be focused on the following areas:

- Ensuring universal provision of comprehensive ANC
- Providing widespread screening for anaemia and high-risk conditions
- Ensuring comprehensive training programme for skilled birth attendants
- Ensuring the services of skilled birth attendant at child birth, both for home deliveries and in institutional settings
- Providing SBA training to dais who are ubiquitous in every nook and corner of the country
- Enhancing availability of facilities for institutional deliveries and effective EmOC
- Providing 24-Hours Delivery Service at PHCs and CHCs
- Training of health personnel at PHCs and CHCs to

perform emergency obstetrical procedures, especially c-sections
- Providing additional ANMs and Public Health and Staff Nurses in certain SCs, PHCs, and CHCs
- Providing skilled human resources on contractual basis
- Improving EmOC in all CHCs in a phased manner (CHCs will have well equipped operation theatre, access to safe banked blood, qualified obstetricians, paediatricians, and anaesthetists)
- Operationalizing FRUs through supply of drugs in the form of Emergency Obstetric drugs kits
- Providing special attention to roads linking habitations to CHCs
- Providing Referral Transport
- Orienting ASHAs to postpartum care and linking her remuneration to health checks of both the mother and newborns
- Providing Safe Abortion Services
- Preventing, detecting, and effectively managing common lower RTI through the existing primary health care infrastructure

Child Health

3.1.130 Under the RCH Programme, newborn and child health services are implemented in the country with the aim of reducing neonatal, infant, and child mortality. In order to reduce these, a continuum of care is needed at the community as well as facility level. The Eleventh Five Year Plan goal is to reduce IMR to 28 per 1000 live births by 2012. State-specific goals have also been suggested (Annexure 3.1.6).

HOME BASED NEWBORN CARE (HBNC)

3.1.131 Efforts to improve home based care have proven successful at improving child survival. Home Based Newborn and Child Care is to be provided by a trained Community Health Worker (such as the ASHA) who guides and supports the mother, family, and TBA in the care of newborn, and attends the newborn at home if she is sick. The worker is supervised by a field person (ANM/LHV or a doctor) who visits the community once in 15 days. Community acceptance and coverage of such care has been quite good.

3.1.132 The GoI has recently approved the implementation of HBNC based on the Gadchiroli model (Box 3.1.13), where appreciable decline in IMR has been documented on the basis of work done by a VO called SEARCH. Gadchiroli has shown how ordinary women can do extraordinary things: a well-trained local woman can not only lower neonatal mortality but can also bring about attitudinal change. The women *Shishu Rakshak*s of Gadchiroli have managed to dispel many myths surrounding pregnancy and have been able to ensure better nutrition, care, immunization, and hygiene.

3.1.133 During the Eleventh Five Year Plan, ASHAs will be trained on identified aspects of newborn care during their training. This initiative will be initially implemented in the five high focus States (MP, UP, Orissa, Rajasthan, and Bihar). To supervise and provide onsite training and support to ASHAs, mentor-facilitators will be introduced for effective implementation. The national strategy during the Plan will be to introduce and make available high-quality HBNC services in all districts/areas with an IMR more than 45 per 1000 live births. Apart from performance incentive to ASHAs, an award will be given to ASHAs and village community if no mother–newborn or child death is reported in a year. For effective linkages, model Intensive Care Units will also be set up at the district level, particularly in States with poor health indicators, in order to make facility based curative newborn care available.

INTEGRATED MANAGEMENT OF NEONATAL AND CHILDHOOD ILLNESS (IMNCI)

3.1.134 IMNCI strategy encompasses a range of interventions to prevent and manage five major childhood illnesses, that is, Acute Respiratory Infections (ARI), Diarrhoea, Measles, Malaria, and Malnutrition and the major causes of neonatal mortality, which are prematurity and sepsis. It focuses on preventive, promotive, and curative aspects. The major components of this strategy are:

- Strengthening the skills of the health care workers
- Strengthening the health care infrastructure
- Involvement of the community

3.1.135 The first two components of the strategy are the facility based IMNCI and the third is the

Box 3.1.13
Home Based Newborn Care—Gadchiroli Model

Requirements

- Transparent selection of best motivated
- Rigorous training
- Intensive supervision
- Curative role for CHWs
- Performance-based remuneration

Interventions

- Health education of mothers and the community
- Attending home delivery with TBA
- Care of baby at birth
- Home visits and support to mother and baby up to 28 days
- Management of newborn sicknesses

Interventions Aimed at Prevention and Management of

- Birth asphyxia
- Sepsis/Pneumonia
- Low Birth Weight (LBW)/Preterm
- Breast feeding problems
- Hypothermia

Achievements

- NMR reduced by 51%
- IMR reduced by 47%
- High community acceptance and beneficiary preference to CHW as the source of newborn care at home (85%)

Lessons Derived

- CHWs could be trained to provide HBNC in villages and urban slums
- 85% mothers and newborns can be covered
- The various components of HBNC including the management of birth asphyxia in home deliveries and the diagnosis and treatment of newborn sepsis by using injectable gentamicin could be safely and effectively delivered by trained CHWs working under supervision

community based IMNCI. 104 districts all over the country have initiated implementation of IMNCI. During the Eleventh Five Year Plan, efforts will be made to implement the IMNCI programme coupled with home-based neonatal care throughout the country in a phased manner.

HBNC AND IMNCI: DIFFERENT BUT COMPLEMENTARY ROLES

3.1.136 In order to reduce infant and child mortality a continuum of care is needed at the community as well as facility level. Of the two main packages available for reducing child mortality, the HBNC operates at the community level and has a strong evidence of feasibility and reducing child mortality. It should be used to deliver care at home through ASHAs and ANMs. IMNCI training is primarily facility-based and has been shown to improve neonatal care. Hence the IMNCI should focus on improving newborn and child care in the district hospitals and CHCs. This will avoid duplication of efforts and, at the same time, provide continuum of care.

SKILLED CARE AT BIRTH

3.1.137 The underlying principle of effective care at birth is that wherever she is born whether at home or facility, she is provided clean care, warmth, resuscitation, and exclusive breastfeeding. She is weighed and examined, and if clinical needs are not manageable at the place of delivery, she is referred and managed at an

appropriate facility. Programme for newborn care is relatively easy to implement in facilities because of the presence of doctors, nurses, ANM/LHV, and supporting environment.

3.1.138 It is also true that a large proportion of deliveries would continue to take place at home by the TBAs. Under NRHM, newborn care skills should also be imparted to TBAs in areas with high rate of home deliveries. For this they should be provided with delivery kits. There are many good practices all over the country related to low cost hygienic kits which can be taken on board and replicated, e.g. the one developed by Jan Swasthya Sahyog (JSS). The overall effort during the Eleventh Five Year Plan will be to promote childbirth by skilled attendants at home and in institutions, both in the public and private sector.

BREAST FEEDING PRACTICES

3.1.139 Exclusive breastfeeding for the first six months of life is the single most important child survival intervention. Successful breastfeeding also requires the initiation of breastfeeding within an hour after birth, and avoidance of prelacteals, supplementary water, or top milk. Continued breastfeeding for two years or more, with introduction of appropriate and adequate complementary feeding from the seventh month onwards, further improves child survival rates by a considerable percentage. According to NFHS-3, the proportion of exclusively breast fed infants at 6 months of age was only 46.3%. Only 23.4% of mothers initiated breastfeeding within the desired one hour after birth, as against the Tenth Plan goal of 50%. Therefore, the Eleventh Five Year Plan will concentrate on promoting optimal breastfeeding practices among women at home and in health facilities. Baby Friendly Hospital Initiative and Breastfeeding Partnership, two programmes involving all the key partners will be encouraged.

ARI, DIARRHOEA, AND VACCINE PREVENTABLE DISEASES

3.1.140 Research has shown that most of the cases of ARI are not severe; community health workers can effectively manage them and bring down IMR. Severe ARI cases require urgent referral to a facility for injectable antibiotic therapy and supportive care. Co-trimoxazole tablets are being provided at SCs and ANMs are being trained to treat children with the infection. During the Eleventh Five Year Plan, attempt will be made to eradicate polio from the country along with strengthening the routine immunization. Studies have shown that the entire context, strategy, and implementation of polio eradication activities need to be reanalysed. The option of injectable polio vaccine should also be kept open. Reduction will be done in the mortality associated with diarrhoea and ARI through HBNC and IMNCI.

3.1.141 During the Eleventh Five Year Plan, thus, IMNCI and HBNC will be rigorously implemented across the country. The major strategies will be:

- Essential new born care (home and facility based)
- Standard case management of diarrhoea and pneumonia
- Timely initiation of breastfeeding, exclusive breastfeeding for six months and continued breastfeeding with appropriate complementary feeding from the seventh month onwards
- Increased usage of ORS and strengthened immunization.

School Health

3.1.142 School Health Programme should aim at helping children in attaining optimal potential for growth in physical, mental, educational, and emotional development. The programme should provide health knowledge and improve the health of children. Its components will include school health services, health promoting school environment, and health education curriculum. In this area as well there are good practices all over the country that can be taken on board and replicated. Eleventh Five Year Plan will work on school going children's health. One innovative School Health Programme is under implementation, in PPP mode, in Udaipur district of Rajasthan. In view of the low cost versus achievements, it is a good case for replicating in other parts of the country. However, to make it comprehensive, preventive, and promotive components of school health care will have to be added to this programme. Some of the key features of the programme are given in Box 3.1.15.

Box 3.1.14
Strengthening Immunization

- Strengthening routine immunization programme
- Improving awareness through various channels of communication
- Involving community and CSO in routine immunization
- Achieving 100% coverage for the six vaccine preventable diseases
- Eradicating polio
- Eliminating neonatal tetanus
- Expanding the coverage of Hepatitis B vaccine

Adolescent Health

3.1.143 Adolescents in India represent nearly one-third of the population. The last two decades witnessed a rapid increase in their population. Some of the public health challenges for adolescents include pregnancy, excess risk of maternal and infant mortality, STI, RTI, and the rapidly rising incidence of HIV. The use of health services by adolescents is limited due to poor knowledge and lack of awareness. Pregnancy is associated with significantly higher obstetric risk in adolescent girls. Many of them suffer from malnutrition and anaemia. This combined with poor ANC leads not only to increased morbidity in the mother but also to high incidence of Low Birth Weight (LBW) and perinatal mortality. Poor child-rearing practices add to the morbidity and undernutrition in infants, thus perpetuating the inter-generational cycle of undernutrition and ill health. Thus, ill health during adolescence has profound implications for maternal and infant morbidity and mortality.

3.1.144 The urgent need for appropriate nutrition and health education for adolescents will be met by advocacy for delay in age at marriage and optimum health and nutrition interventions during pregnancy. Knowledge and skills will be given to health service delivery personnel catering to the adolescents' reproductive and sexual health needs.

3.1.145 During the Eleventh Five Year Plan, adolescent issues will be incorporated in all the RCH training programmes. Materials will be developed for communication and behavioural change. The existing services at PHCs and CHCs will be made adolescent friendly by providing special window for their needs.

Health Care for Older Persons

3.1.146 An area of growing importance and demanding attention is the health of older persons. It requires comprehensive care providing preventive, curative, and rehabilitative services. Unlike developed countries, India does not have a Geriatric Health Service as a component of health services. According to the 2001

Box 3.1.15
Innovative School Health Programme—Udaipur Model

- Target Group: 40000 students from 222 government/aided schools in Udaipur.
- Care: Screening, outpatient as well as inpatient, and also specialty care.
- Screening: Camps held in school, free dental kits, and ID card issued.
- Outpatient care: one room in selected 28 schools and mobile team.
- Inpatient: a ward (7 ICU and 12 general beds), redesigned/furnished with NGO in government hospital).
- Specialty care: Tie up with good private hospitals.
- 24×7 service: toll free number and ambulances.
- Human resources: 9 doctors, 12 paramedical, and 38 support staff.
- Cost: Check up Rs 4 lakh (borne by GoR and NGO @ 50:50), Cost of OP/IP facility Rs 25 lakh (by NGO), and recurring cost Rs 72 lakh (NGO, Nagar Parishad, and UIT @ 50:25:25). It amounts to 50 paise per child per day.
- Achievements: 17500 treated in OP, 150 treated in IP for different disease including serious/chronic and 4 cardiac cases operated.

Note: GoR = Government of Rajasthan, OP/IP = Outpatient/Inpatient, UIT = Urban Improvement Trust.

Census, there are 76.6 million people over the age of sixty, constituting about 7.4 % of the total population. Life expectancy has been increasing and the proportion of older persons in India will rise in the next few decades.

3.1.147 The health services need to be responsive to the special needs of older persons. Provision of specialty based clinics in secondary and tertiary care facilities would help. A counselling and medical care facility to look after health needs of older persons and an emergency facility to reach those in acute need and transport them to a hospital is needed. This will include acute care, long-term care, and community-based rehabilitation.

3.1.148 To improve the access to promotive, preventive, curative, and emergency health care among older persons, a range of services will be provided under the programme for health care of older persons. First, a home health service, which means home visits intended to detect health problems, and as a psychological support by health personnel sensitized on such issues. Second, a community-based health centre for them for educational and preventive activity. This will be integrated with the NRHM and an allocation made specifically for geriatric care. The ASHAs under the NRHM will be trained in geriatric care. Third, the outpatient medical service that serves as the base for home health service will be enhanced. Finally, an improved hospital-based support service focused on their health care needs will be established. Specific provisions will also be made for widows and a few centres on geriatric health especially focused on elderly women.

Box 3.1.16
Older Persons' Health

- Prevalence and incidence of diseases as well as hospitalization rates are much higher in older people than the total population.
- 8% of older Indians are confined to their home or bed (immobile)
- Women are more frequently afflicted with immobility
- Many older people take ill health in their stride as a part of 'usual/normal ageing'.
- Self perceived health status is an important indicator of health service utilization and compliance to treatment interventions.

3.1.149 During the Eleventh Five Year Plan, thus, following actions will be taken:

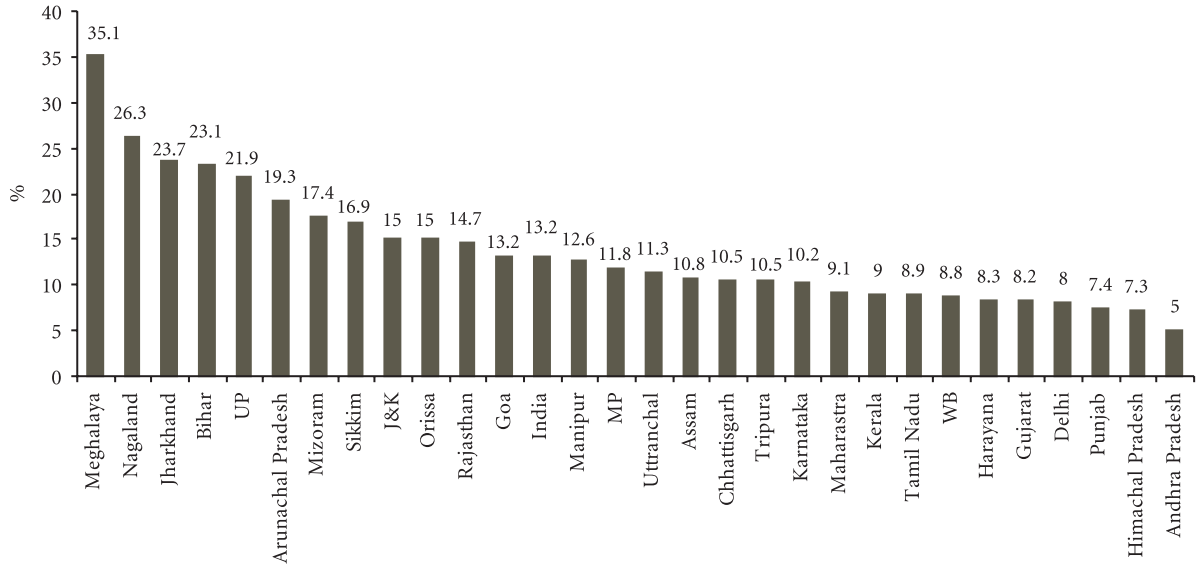
- Providing comprehensive health care to the older persons
- Training health professionals in Geriatrics, including supportive care and rehabilitation
- Developing scientific solutions to specific health problems by research in Geriatrics and Gerontology
- Developing two National Institutes for Research in Ageing and Health, one in the North and the other in South

Voluntary Fertility Regulation

3.1.150 The percentage of married women using contraception has increased. Yet the gender imbalance in the family planning programme is evident by the fact that despite being the most invasive and tedious contraceptive intervention, female sterilization remains the most common method of family planning. Men are not being addressed as responsible partners and the use of condoms or male sterilization remains very low. There are also inter-State differences in the magnitude of unmet need for contraception (Figure 3.1.14).

3.1.151 Even meeting half of the unmet need could lead to an appreciable decline in the birth rate. ANMs and ASHAs will identify the couples with unmet need in their area, and address their concerns. During the Eleventh Five Year Plan, all strategies adopted under RCH programme will be continued with a greater focus in areas of high unmet need.

3.1.152 The Eleventh Five Year Plan goal is to achieve a reduction of TFR to 2.1 by 2012. State specific goals have also been suggested (Annexure 3.1.7). The Plan will ensure that all issues of demographic change, the population policies, and programmes to achieve population stabilization are addressed without violating the peoples' rights of decision making and choices. Most importantly this should be done without adversely affecting the sex ratio.



Source: NFHS-3, IIPS (2005–06).

FIGURE 3.1.14: Unmet Need for Family Planning (currently married women, age 15–49)

INVOLVEMENT OF CIVIL SOCIETY AND NGOS

3.1.153 As per the NFHS data, less than 10% of rural women report that they are visited by the ANMs during a year. On the other hand, there is a large pool of formally or informally qualified Rural Health Practitioners (RHPs) who meet the day-to-day health care needs of people in 6 lakh villages, 24×7. In the Eleventh Five Year Plan, it is proposed to enlist their services for many tasks including the delivery of non-clinical methods of contraception and referring the clinical cases to the PHCs or FRUs. The successful experiment by a VO, *Janani*, in Bihar may be studied and replicated.

3.1.154 There is an urgent need to increase the involvement of CSO, VOs, and NGOs including private sector in the delivery of family planning services, especially in areas where the public sector is weak. *Jansankhya Sthirata Kosh* (JSK) (National Population Stabilization Fund) is a registered society of the MoHFW to accelerate population stabilization efforts. JSK is expected to work in close cooperation with the government, private, and voluntary sectors to promote small and healthy families. State governments, district officials, and other organizations will be encouraged to suggest innovations in enhancing family planning services which can be supported by JSK on a pilot scale. Expertise of the Population Foundation of India will be sought to scale up good pilots in the country. Centres of excellence (such as one in Tamil Nadu—Box 3.1.18) can also play a vital role.

3.1.155 During the Eleventh Five Year Plan greater focus will be on the following for voluntary fertility reduction:

Box 3.1.17
Janani—Using RHPs

An NGO, Janani, set up a network of more than 21000 Titli (Butterfly) centres and more than 500 Surya (Sun) clinics in the States of Bihar, Jharkhand, and MP. Surya clinics are referral clinics run in towns by formally qualified, State-registered doctors. Titli centres are situated in villages and run by RHPs who have been trained to provide family planning counselling and sell non-clinical contraceptives. Since RHPs are males, they work with a Woman Health Partner who is generally a member of their family (in most cases, wife). RHPs and their female counterparts hold a two-day training programme on family planning counselling. Female partners help reach out to the village women who are hesitant to approach male health providers on reproductive health matters.

Box 3.1.18
Facilitating Action by Private Sector

Tamil Nadu Government established a Centre of Excellence, 'Sterilization and Recanalization Training-cum-Service Centre' at Kilpauk Medical College, Chennai, in 1987 with core officers—a female gynaecologist and a male urologist. It conducts workshops and trains doctors in standard procedures of male and female sterilizations. The centre also provides services by conducting sterilization and recanalization operations for males and females.

In Tamil Nadu, private sector participation is strengthened to improve family welfare programmes in the State. Private nursing homes have been approved to provide family welfare services in the State. Nearly 25% of the sterilizations are performed by voluntary and approved private institutions. Contraceptive stocks are freely supplied to these institutions to provide better services to needy couples to improve spacing between births.

- Expanding the basket of contraceptive choices
- Improving social marketing
- Increasing male involvement
- Enhancing role of mass media for behavioural change
- Disseminating through satisfied users

Human Resources for Health

3.1.156 Given the present scarcity of human resources, the next decade will posit newer opportunities and challenges for medical and health education. The country has to train an adequate number of health professionals with appropriate knowledge, skill, and attitude to meet the future health care needs of the people and the increasing disease burden. Additionally, there is the opportunity for India to become an important destination for health care services. Given the rising demand and growing need for expanding health services, systematic studies need to be launched for estimating requirements. In the Eleventh Five Year Plan, efforts will be made to develop an effective human resource MIS by involving concerned Ministries, Professional Councils, Technical Councils, UGC, Central and State Universities, Public Health Institutions, and knowledgeable individuals from Civil Society.

3.1.157 NCMH (2005) has recommended additional funding for establishment of new medical, nursing, and other institutions, training of village level functionaries, and in-service training of health personnel. The resource requirements for development of human resources for health during the Eleventh Five Year Plan will be shared by the Centre and the States. The NRHM will also contribute. Efforts will be made to mobilize additional resources through suitable partnership arrangements with the private sector and also through other available options.

3.1.158 Measures will be taken during the Eleventh Five Year Plan period to solve the problem of shortage of basic education infrastructure and human resources. The role and functions of apex bodies like MCI need to be reviewed. The following strategies will be accorded priority during the Plan:

- Ensure availability of medical professionals in rural areas on a permanent basis, posting of doctors with adequate monetary as well as non-monetary incentives, such as suitable accommodation, class I status, preferential school admissions for children of doctors living in remote areas, transfer or posting of choice after a stipulated length of stay and training opportunities.
- States to expand the pool of medical practitioners including a cadre of Licentiate Medical Practitioners and practitioners of Indian Systems of Medicine and Homeopathy (AYUSH).
- Increase age of retirement of doctors (all Central and State Government including Defence, Railways, etc.) to 62 years. States will be encouraged to retain public health doctors on contract basis for further period of three years till the age of 65 years, especially in the notified hardship areas.
- A series of one-year duration Certificate Courses for MBBS graduates will be launched in deficit disciplines like public health, anaesthesia, psychiatry, geriatric care, and oncology. The private sector will also be encouraged to participate in this venture.

Box 3.1.19
Human Resources for Health

Issues

- Growing shortage of all key cadre in rural areas—Doctor, Paramedicals, ANMs, Nurses, Lab Technicians, and OT Assistants.
- Problems of absenteeism and irregular staff attendance.
- Non-availability of drugs and diagnostic tests at health facility leading to demotivation of doctors.
- No motivation or will to serve in rural areas.
- Weak or non-existent accountability framework leading to powerlessness of local communities and Panchayat vis-à-vis the health system functionaries.
- Non-transparent transfer and posting policy leading to demoralization.
- Inadequate systems of incentive for all cadres especially in difficult area postings.
- Lack of career progress leading to demotivation and corruption.
- Lack of standard protocols to promote quality affordable care and full utilization of human resources.

Possible Solutions

- State-specific human resource management policy and transparency in management of health cadres.
- Training and utilization of locally available paramedics, RMPs, and VHWs to meet the gaps in rural areas. Allow them to prescribe basic medication.
- Reintroducing Licentiate course in Medicine
- Incentives for difficult areas and system for career progression.
- Accountability to local communities and Panchayats.
- Devolution of power and functions to local health care institutions—provide resources and flexibility to ensure service guarantee.
- Resources, flexibility, and powers to ensure that IPHS are achieved.
- Adequate staff nurses and a minimum OPD attendance and service provision
- Improved and assured tele-linkages.

- Efforts of the National Board of Examinations (NBE) will be enhanced for overcoming the shortage of specialists and also to improve the quality of training.
- Councils to create a scientific data bank of health professionals.
- Re-registration of all medical and dental practitioners including specialists after every five years till they are practising or serving.
- New medical, nursing, and dental colleges will be established in the underserved areas.
- As recommended by the NCMH (2005), priority will be given to reducing the existing inequality by establishing 60 medical colleges in deficit States (UP, Rajasthan, MP, Orissa, Chhattisgarh, etc.) and 225 new nursing colleges in underserved areas. PPP will be used to bridge this gap.
- Experiences of University of Health Sciences set up in various States during the Tenth Plan, against medical colleges that are part of the general universities to be evaluated before more such universities are set up during the Eleventh Five Year Plan.
- Implementation of recommendations of OSC for development of Human Resources for health.
- Equip medical graduates with the skills essential for providing broad-based community health care.
- Stem the high rate of attrition of academics; teaching in professional colleges to be made attractive. Need to enhance the salary structure and provide an innovative programme of incentives. Private OPDs in the medical colleges to be considered as one such incentive.
- RMPs, after training, can contribute towards activities under NRHM. Few suggested roles have been listed in Box 3.1.20.

Public Health Education

3.1.159 Currently several institutions are engaged in imparting public health and related education in the country. Various medical organizations are in

the process of starting new Public Health Courses at the Masters level, namely Indian Council of Medical Research (ICMR), AIIMS, PGIMER, etc. The supply position is bound to improve after institutions of Public Health under Public Health Foundation of India (PHFI) and new Public Health Schools are set up within the existing Medical Institutions.

3.1.160 During the Eleventh Five Year Plan, benefits of knowledge and skills of modern Public Health will be made available at all levels. For the development of public health, multiple independent centres with a common regulatory body will be a suitable approach. Some of these centres could be located in universities of health sciences and some with the multidisciplinary universities. This would enable greater input from different disciplines to enrich the subject. During the Plan, therefore, efforts will be made to set up new public health schools within the existing medical colleges. MBA Programmes specially tailored for the health care and MD (Hospital Administration)/Diplomate National Board (Hospital and Health Administration)/ MD (Community Health Administration)/Masters (Hospital Administration) Programmes will be encouraged.

Health Systems and Bio-Medical Research

3.1.161 With the development and use of sophisticated tools of modern biology, a better understanding of complex interplay between the host, agent, and environment is emerging. This is resulting in the generation of new knowledge. This scientific knowledge is to be used to develop drugs, diagnostics, devices, and vaccines that should find a place in the health systems of the country. A vibrant inter-phase between the research community, the industry, and the health systems is the only way to facilitate this. It is not only the technological advances in public health and medicine that influence health of the population. The epidemiology of disease extends beyond biology. A sociological perspective is important to understand the occurrence, persistence, and cure of a disease. The diseases are not rooted in biological causes alone, but are multifactorial. This calls for an inter-disciplinary approach to health research.

3.1.162 The Eleventh Five Year Plan, therefore, will mark a departure in orientation to research in health. No amount of pure bio-medical research will be able to find solutions to health issues unless it addresses upfront the social determinants of health. While health research has made appreciable progress, there remains an unacceptable lag time in translating the research outcomes into tangible health products or in application of the knowledge generated through research. Thus, the task is how best to mobilize research to bridge the gap between what is known and what is done—the 'know-do' gap. Equally important is to ensure that the products of health research reach and are used for and by the people who need it most. Health research during the Eleventh Five Year Plan will be directed to provide ways and means of bringing about equity and improving access to health technologies.

3.1.163 With a view to re-organize the medical research establishments in the country in order to keep

Box 3.1.20
Role of RMPs as Sahabhaagis in NRHM

- Running social awareness programmes in schools to cover topics like: ill effects of tobacco and alcohol, advantages of good sanitation, hygiene, nutrition, and safe drinking water
- Running free camps for: vision tests, health check-ups, immunization
- Training rural people in association with SHGs about: Hygiene, Sanitation, Nutrition, Safe drinking water, Needs of pregnant women, Protection against unsafe sex, awareness about locally prevalent communicable and non communicable diseases
- Providing non clinical contraceptives and referring for clinical cases
- Acting as drug distribution depots and fever treatment centres
- Supervising spray activities, water treatment, sanitary landfill, and sanitary latrines
- Providing emergency primary health services and referrals

abreast with the dynamic international health research environment and to address the current and future health challenges, the Central Government is creating a new Department of Health Research under the MoHFW. The newly created Department will deal with promotion and co-ordination of basic, applied, and clinical research including clinical trials and operations research in areas related to medical, health, biomedical and medical profession, and education through development of infrastructure, human resources, and skills in the cutting edge areas and management of related information thereto; promote and provide guidance on research governance issues including ethical issues in medical and health research; inter-sectoral coordination and promotion of PPP in medical, biomedical, and health research areas; advanced training in research areas concerning medicine and health including grant of fellowship for such training in India and abroad; international co-operation in medical and health research including work related to international conferences in related areas in India and abroad; technical support for dealing with epidemics and natural calamities; investigation of outbreaks due to new and exotic agents and development of tools for prevention; matters relating to scientific societies and associations, charitable and religious endowments in medicine and health research areas; coordination between organizations and institutions under the Central and State Governments in areas related to the subjects entrusted to the Department and for promotion of special studies in medicine and health, and ICMR.

3.1.164 The following priority areas for the health system research have been identified for the Eleventh Five Year Plan:

- Impact of PPPs in health on the public health services, State finances, and whether PPPs really bring about equity in health access.
- Studies on modalities and impact of health insurance.
- Issues of health care access in urban areas, health problems of urban poor, the migrants, homeless, street, and working children.
- Health care in situations of violence and conflict.
- Gender issues in disease prevalence, access to health care, and education.
- Studies on the innovation, diffusion, use, and misuse of medical technologies, research on their relevance or appropriateness, misuse and irrational use, the additional financial burden on the users due to misuse. Such studies should cover prescription practices to the new medical technologies such as genetics, assisted reproduction, life prolonging technologies, stem cell research, and organ donation and transplantation.
- Medical audit to establish various ways of improving health care service delivery at different levels.
- Nursing research to be undertaken by the nursing as well as social science and bioethics institutions in India.
- Audit of research, that is, whether research is justified and relevant.

3.1.165 During the Plan, clinical and operational research in both the modern and AYUSH systems will continue. The major thrust in Allopathy as well as AYUSH will be given to the following areas:

- Improving diagnosis, treatment delivery, and development of new tools for the diagnosis and treatment
- Integrating disease control programmes within primary health care system
- Cost effectiveness analysis of different regimen for prevention and treatment of diseases
- Quality of lab-diagnosis, lab related factors, periodic training, adequacy of reagents, kits and good microscopy
- Delayed diagnosis: community factors, surveillance factors, lab factors, and health system factors
- Upgradation of drug delivery system: surveillance mechanisms
- Research on poor drug compliance rate: community, social, educational, ethnic, cultural, and health system factors
- Research on social determinants of health, health care seeking, and the epidemiological web

3.1.166 The institutions and organizations like ICMR involved in research, should be committed to an agenda that recognizes that future improvements in health

and well-being will depend on research that does the following:

- Increases understanding of both the molecular and biological mechanisms underlying diseases as well as the psychosocial, economic, and environmental determinants of health
- Develops new vaccines, diagnostic tools, and cost-effective therapies
- Deepens understanding of underlying social and behavioural causes of injuries and lifestyle diseases
- Links health with S&T, engineering, and related disciplines
- Promotes healthy living and reduces risk behaviours

From Vertical to Horizontal: Affecting Integration

3.1.167 The Eleventh Five Year Plan will not allow any vertical structures to be created below district level under different programmes. The existing programmes will be integrated horizontally at the district level, as the emphasis during the Plan would be system-centric rather than disease centric. Already under NRHM, some programmes like the ones dealing with vector-borne diseases, tuberculosis, leprosy, blindness, and iodine deficiency disorders (IDD) have been integrated under a single District Health Society. Other programmes and activities described below will also be brought under one umbrella.

NATIONAL AIDS CONTROL PROGRAMME (NACP)

3.1.168 During the Eleventh Five Year Plan, the NACP has set the goal to halt and reverse the epidemic in India over the next five years by integrating programmes for prevention, care, support, and treatment and also addressing the human rights issues specific to people living with HIV/AIDS (PLWHA). The specific objectives are to reduce new infections by 60% in high prevalence States so as to obtain reversal of the epidemic and by 40% in the vulnerable States so as to stabilize the epidemic.

3.1.169 In order to achieve the objectives, the following strategies will be adopted:

- Preventing new infections in high risk groups and general population through:
  - Saturation of coverage of high risk groups with targeted interventions.
  - Scaled up interventions in the general population.
- Increasing the proportion of PLWHA who receive care, support, and treatment.
- Strengthening the infrastructure, system, and human resource in prevention, care, support, and treatment programmes at the district and national levels.
- Enacting and enforcing national legislation prohibiting discrimination against PLWHA and their families in health facilities, schools, places of employment, and other institutions.
- Including mechanisms for victims and their guardians to lodge complaints and receive quick redressal.
- Ensuring that women and children living with HIV/AIDS receive medical care, including antiretroviral (ARV) treatment and use all possible means to remove barriers to their receiving care.
- Strengthening a nation-wide strategic information management system.
- Advancing R&D of vaccines suitable for the strains of HIV prevalent in India.

NATIONAL CANCER CONTROL PROGRAMME (NCCP)

3.1.170 During the Tenth Five Year Plan, a taskforce comprising experts from across the country was constituted. Based on recommendations from the national taskforce a comprehensive NCCP will be implemented during the Plan. The main activities during the Plan will be:

- Establishing new Regional Cancer Centres
- Upgradation of the existing Regional Cancer Centres based on their performance and linkages with other cancer organizations in the region.
- Creating skilled human resources for quality cancer care services
- Training health care providers for early detection of cancers at primary and secondary level
- Increasing accessibility and availability of cancer care services
- Providing behavioural change communication along with provision of cost effective screening techniques and early detection services at the door step of community

- Propagating self-screening of common cancers (oral, breast)
- Upgrading Oncology Wings in government medical colleges
- Creating and upgrading Cancer detection and Surgical and Medical Treatment facilities in District Hospitals/Charitable/NGO/Private Hospitals
- Promoting research on effective strategies of prevention, community-based screening, early diagnosis, environmental, and behavioural factors associated with cancers and development of cost effective vaccines
- Creating Palliative Care and Rehabilitation Centres
- Monitoring, Evaluation, and Surveillance

NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF DIABETES, CVDs, AND STROKE

3.1.171 Common risk factors for both CVD and diabetes are unhealthy diet, physical inactivity, and obesity. There is evidence-based information that NCDs are preventable through integrated and comprehensive interventions. Cost-effective interventions exist and have worked in many countries. The most successful ones have employed a range of population wide approaches combined with interventions for the individuals. Thus, the programme will aim to prevent and control common NCDs risk factors through an integrated approach and to reduce premature morbidity and mortality from diabetes, CVD, and stroke. Up scaling based on pilot results will be done during the Eleventh Five Year Plan.

3.1.172 During the Plan, the objectives of the programme will be:

- Primary prevention of major NCDs through health promotion
- Surveillance of NCDs and their risk factors in the population
- Capacity enhancement of health professionals and health systems for diagnosis and appropriate management of NCDs and their risk factors
- Reduction of risk factors in the population
- Establishment of National guidelines for management of NCDs
- Development of strategies and policies for prevention by intersectoral coordination
- Community empowerment for prevention of NCDs

NATIONAL MENTAL HEALTH PROGRAMME (NMHP)

3.1.173 A multipronged strategy to raise awareness about issues of mental health and persons with mental illness with the objective of providing accessible and affordable treatment, removing ignorance, stigma, and shame attached to it and to facilitate inclusion and acceptance for the mentally ill in our society will be the basis of the NMHP. Its main objective will be to provide basic mental health services to the community and to integrate these with the NRHM. The programme envisages a community and more specifically family-based approach to the problem.

3.1.174 The Plan will strengthen District Mental Health Programme (DMHP) and enhance its visibility at grass root level by promoting greater family and community participation and creating para professionals equipped to address the mental health needs of the community from within. It will fill up human resource gap in the field of psychiatry, psychology, psychiatric social work, and DMHP. The plan will strive to incorporate mental health modules into the existing training of health personnel. It will also harness NGOs' and CSOs' help in this endeavour, especially family care of persons with mental illness, and focus on preventive and restorative components of Mental Health. The Eleventh Five Year Plan, recognizing the importance of mental health care, will provide counselling, medical services, and establish help lines for people affected by calamities, riots, violence (including domestic), and other traumas. To achieve these, a greater outlay will be allocated to mental health.

3.1.175 During the Eleventh Five Year Plan, the Restrategized NMHP will be implemented all over the country with the following objectives:

- To recognize mental illnesses at par with other illnesses and extending the scope of medical insurance and other benefits to individuals suffering with them
- To have a user friendly drug policy such that the psychotropic drugs are declared as Essential drugs

- To give greater emphasis to psychotherapeutic and a rights based model of dealing with mental health related issues
- To include psychiatry and psychology, and psychiatric social work modules in the training of all health care giving professionals
- To empower the primary care doctor and support staff to be able to offer psychiatric and psychological care to patients at PHCs besides educating family carers on core aspects of the illness.
- To improve public awareness and facilitate family-carer participation by empowering members of the family and community in psychological interventions.
- To provide greater emphasis on public private participation in the delivery of mental health services.
- To upgrade psychiatry departments of all medical colleges to enhance better training opportunities
- To improve and integrate mental hospitals with the whole of health delivery infrastructure that offer mental health services thus lifting the stigma attached
- To provide after care and lifelong support to chronic cases.

INJURIES AND TRAUMA

3.1.176 Data from Survey of Causes of Death and Medical Certification of Causes of Deaths reveals that 10–11% of total deaths in India were due to injuries. It is estimated that nearly 850000 persons die due to direct injury related causes including road traffic injuries every year in India, with 17 million hospitalizations and 50 million requiring hospital care for minor injuries. Most of the hospitals do not have integrated facilities for treatment of trauma victims and the casualty services are generally ill equipped, poorly managed, and over worked. A scheme to upgrade and strengthen emergency care in State hospitals located on national highways has been under implementation with a view to provide treatment to road accident victims in hospitals as near the site of accident as possible.

3.1.177 During the Eleventh Five Year Plan, the emphasis will also be given for development of a comprehensive trauma care system covering the entire nation with State wide emergency medical service and trauma care. The components will include provision of equipment, communication system, training and provision of human resources, registry and surveillance. Eventually the plan is to start a National Programme for Medical Emergencies Response. The strategy during the Eleventh Five Year Plan will be:

- To identify health care facilities along highways and upgrade them to specific levels of trauma care
- To establish a life support ambulance system
- To plug gaps in human resource training and availability for trauma care
- To establish communication linkages between various levels of health care
- To assist the States in developing and managing an appropriate trauma referral system
- To develop, implement, and maintain State-wise and nation wide trauma registry as an integral part of e-Health.

DISABILITY AND MEDICAL REHABILITATION

3.1.178 With the ongoing health, demographic, and socio-economic transitions, the Disability Profile is changing, with an alarming rise in the number of people suffering from chronic disorders and associated morbidity and disability. According to census (2001), there were 2.19 crore persons with visual, hearing, speech, locomotor, and mental disabilities in India. Of the disabled population, locomotor disabled constitute 28%, speech and hearing 13%, visual 49%, and mental 10%. Population over 60 years of age has disabilities affecting multiple organs.

3.1.179 The Eleventh Five Year Plan aims at building capacity in Medical Colleges and District Hospitals to train adequate human resources required for medical rehabilitation programme at all three levels of Health Care Delivery System. Towards this end the following steps are planned:

- To upgrade and develop two Physical Medicine and Rehabilitation (PMR) departments in the country to act as Model Centres
- To set up PMR Departments in 30 Medical Colleges/ Teaching Institutions (at least one in each State) and each such department to adopt districts, CHCs,

and PHCs for developing medical rehabilitation services
- To train medical and rehabilitation professionals in adequate number for providing secondary and tertiary level rehabilitation services
- To introduce training programme on Disability Prevention, Detection, and Early Intervention at diploma, undergraduate, and postgraduate level
- To provide Rehabilitation Services in Medical Hospitals and evolve strategy of care in the domiciliary and community set up.

PREVENTION AND CONTROL OF DEAFNESS

3.1.180 As per WHO estimates, in India, there are 63 million hearing impaired, with an estimated prevalence as 6.3%. A larger percentage of our population suffers from milder degrees of hearing impairment, adversely affecting productivity, both physical and economic. The objectives in the Eleventh Five Year Plan will be to prevent avoidable hearing loss; identify, diagnose, and treat conditions responsible for hearing impairment; and medically rehabilitate all hearing impaired.

3.1.181 The strategies during the Eleventh Five Year Plan will be:

- Strengthening service delivery including rehabilitation
- Developing human resources for ear care
- Promoting outreach activities and public awareness using innovative IEC strategies
- Developing institutional capacity of District Hospitals/CHCs/PHCs for ear care services

OCCUPATIONAL HEALTH

3.1.182 Exposure to chemicals, biological agents, physical factors and adverse ergonomic conditions, allergens, safety risks, and psychological factors often afflict working population of all ages. People also suffer from injuries, hearing loss, respiratory, musculoskeletal, cardiovascular, reproductive, neurotoxic, dermatological, and psychological effects. Such risks are often preventable. The illness resulting from such exposures is not identified properly due to lack of adequate expertise. The work up of the cases by physicians lacking skills to identify such illness leads to unnecessary use and waste of scarce medical resources as well as their own time. Freedom from occupational illness is essential in today's competitive world where workers' productivity is an important determinant of growth and development.

3.1.183 The objectives of occupational health initiative during the Eleventh Five Year Plan will be to promote and maintain highest degree of physical, mental, and social well-being of workers in all occupations; identify and prevent occupational risks of old as well as newer technologies such as Information and Nano technology; build capacity for prevention, that is, early identification of occupational illness; create an occupational health cell under NRHM in each district headquarter, well-equipped to be able to promote primary, secondary, as well as tertiary prevention; and establish occupational health services in agriculture, health and other key sectors for placement of workers in suitable work and propagating adaptation of work to humans.

3.1.184 During the Eleventh Five Year Plan, following strategies will be implemented to reduce occupational health problems:

- Creating awareness among policymakers on the cost of occupational ill health including injuries
- Ensuring use of technologies that are safe and free from risks to health of the workers
- Sensitizing employers as well as workers' organizations for their right to safety and the implication of injuries in their lives
- Instituting legislation and ensuring proper enforcement for prevention and control of occupational ill health and compensating those who suffer intractable illness due to work
- Building a national data base of occupational illness and injuries
- Monitoring and evaluating programmes and policies related to pollution prevention and control
- Establishing surveillance and research on occupational injuries and building capacity in health sector to be able to participate in preventing work related illness and injuries
- Enforcing safety regulations and standards
- Introducing no-fault insurance schemes for all workers in the formal and informal sectors

BLOOD AND BLOOD PRODUCTS

3.1.185 A well-organized Blood Transfusion Service is a vital component of any health care delivery system. An integrated strategy for Blood Safety is required for elimination of transfusion transmitted infections and for provision of safe and adequate blood transfusion services to the people.

3.1.186 During the Eleventh Five Year Plan, the programme for Blood and Blood Products to be initiated, will have following objectives:

- To reiterate firmly the government commitment to provide safe and adequate quantity of blood, blood components, and blood products.
- To make available adequate resources to develop and reorganize the blood transfusion services in the entire country.
- To make latest technology available for operating the blood transfusion services and ensure its functioning in an updated manner.
- To launch extensive awareness programmes for donor information, education, motivation, recruitment, and retention in order to ensure adequate availability of safe blood.
- To encourage appropriate clinical use of blood and blood products.
- To encourage R&D in the field of Transfusion Medicine and related technology.
- To take adequate regulatory and legislative steps for ME of blood transfusion services and to take steps to eliminate profiteering in blood banks.

Pilot Projects

3.1.187 During the Eleventh Five Year Plan, a few pilot projects would be taken up that will be eventually, depending on the success and experience gained, upscaled and most put under NRHM/NUHM. These relate to:

- Sports Medicine
- Deafness
- Leptospirosis Control
- Control of Human Rabies
- Organ Transplant
- Oral Health
- Fluorosis
- Disability and Medical Rehabilitation

National Centre for Disease Control (NCDC)

3.1.188 It has been planned to strengthen the National Institute of Communicable Diseases (NICD) as the NCDC to fulfil its role as an apex institute in the country. The NCDC will have two main divisions under its head. One division will look after communicable diseases while the other will look after coordination of non-communicable disease activities. Budgetary provisions have been made for this.

Health Financing

FINANCING HEALTH SERVICES

3.1.189 The existing level of government expenditure on health in India is about 1%, which is unacceptably low. Effort will be made to increase the total expenditure at the Centre and the States to at least 2% of GDP by the end of the Eleventh Five Year Plan. This will be accompanied by innovative health financing mechanisms (Box 3.1.21). The providers in public health system are not given any incentive, which affect the quality, efficiency, and drives them to greener pastures in the private sector. Therefore, incentives that link payment to performance will be introduced in the public health system.

3.1.190 The Eleventh Five Year Plan will experiment with different systems of PPPs, of which examples already exist. The State Governments may have an entitlement system for pregnant women to have professionally supervised deliveries. If properly implemented, it will empower them to exercise choice, as well as create competition in the health service sector. Contracting out well-specified and delimited projects such as immunization may also help increase accountability.

3.1.191 The problems of indebtedness due to sickness will be handled by sensitively devised and carefully administered health insurance. CBHI is a promising idea. Existing experiences in different States show that well-managed prepayment systems with risk pooling could be effective in protecting people from

impoverishment. CBHI initiatives based on some individual contribution to the premium, along with a government subsidy, will be supported as they would improve the health care quality and expand interventions as per need of the people. In the Eleventh Five Year Plan we will consider approaches such as comprehensive risk pooling packages through the public system and through accredited private providers. This is an area where many experiments need to be encouraged to discover what can work best for people.

HEALTH SPENDING

3.1.192 Health spending in India is estimated to be in the range of 4.5–6% of GDP. The results from the National Health Account (NHA) for the year 2001–02 (Figure 3.1.15) showed that total health expenditure in the country was Rs 105734 crore, accounting for 4.6% of its GDP. Out of this, public health expenditure constituted Rs 21439 crore (0.94%), private health expenditure constituted Rs 81810 crore (3.58%) and external support 2485 crore (0.11%).

3.1.193 Of the private health expenditure during 2001–02, households' out-of-pocket health expenditure was Rs 76094 crore, which accounts for 72% of the total health expenditure incurred in India. This includes out-of-pocket payments borne by the households for treating illness among any member in the household and also insurance premium contributed by individuals for enrolling themselves or family members in health insurance schemes. The data shows that a majority of expenditure (87.7%) goes towards curative care.

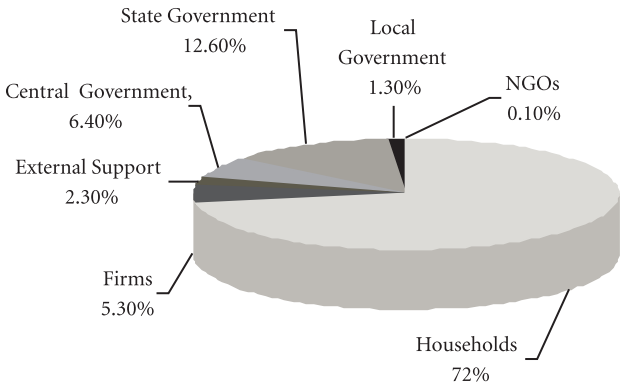
3.1.194 Studies have shown that the poor and other disadvantaged groups in both rural and urban areas spent a higher proportion of their income on health care than those who are better-off. The burden of treatment is high on them when seeking inpatient care (NSSO 60th Round). Very often they have to borrow at very high interest to meet both medical and other household consumption needs. The Eleventh Five Year Plan will explore mechanisms for providing universal coverage of population for meeting the cost of hospitalization, particularly for those who cannot afford it. It will provide public-sector financed universal health insurance, for which private and public-sector provider organizations can compete.

TREND IN HEALTH FINANCING BY THE CENTRE AND STATES

3.1.195 The financial allocation for the health sector over the past decade indicates that the public expen-

Box 3.1.21
Some Innovative Financing Mechanisms

Kerala:	In Kozhikode, risk pools constituted around professionals or occupational groups, SHGs or micro credit groups, weavers, fishermen, farmers, agricultural labourers, and other informal groups. Almost 90% of the population is covered under some form of network or the other.
Uttar Pradesh:	Voucher scheme for RCH services piloted in seven blocks of Agra for BPL population. The scheme was launched in March 2007 and funded by State Innovations in Family Planning Services Agency.
Jharkhand:	In order to promote institutional delivery and routine immunization, a voucher scheme was introduced in December 2005 in all 22 districts. Vouchers are issued to BPL pregnant women at the time registration of pregnancy. She is entitled to have the delivery at any government facility or at accredited private health providers.
Haryana:	Vikalp—an innovative approach to financing urban primary health care for the poor through a combination of PPPs and risk pooling using capitation fees for a package of primary health care services with the State Health Department and private providers.
Karnataka:	Yeshasvini Co-operative Health Care Scheme is a health insurance scheme targeted to benefit the poor. The scheme was initiated by Narayana Hrudayalaya, a super-specialty heart-hospital in Bangalore and by the Department of Co-operatives of the Government of Karnataka. All farmers who have been members of a cooperative society for at least a year are eligible to participate, regardless of their medical histories. The scheme provides coverage for all major surgeries.



Source: NHA Cell, MoHFW, GoI (2005).

FIGURE: 3.1.15: Source of Health Care Financing in India, 2001–02

ditures on health (through the Central and State Governments), as a percentage of total government expenditure, have declined from 3.12% in 1992–93 to 2.99% in 2003–04. Similarly, the combined expenditure on health as a percentage of GDP has also marginally declined from 1.01% of GDP in 1992–93 to 0.99% in 2003–04. In nominal terms, the per capita public health expenditure increased from Rs 89 in 1993–94 to Rs 214 in 2003–04, which in real terms is Rs 122 (Figure 3.1.16).

3.1.196 Health care is financed primarily by State Governments, and State allocations on health are usually affected by any fiscal stress they encounter. Besides chronic under funding, the sector has been plagued with instances of inefficiencies at several levels resulting in waste, duplication, and sub optimal use of scarce resources. All these factors combined have had an adverse impact on the public health sector's ability to provide health care services to the people.

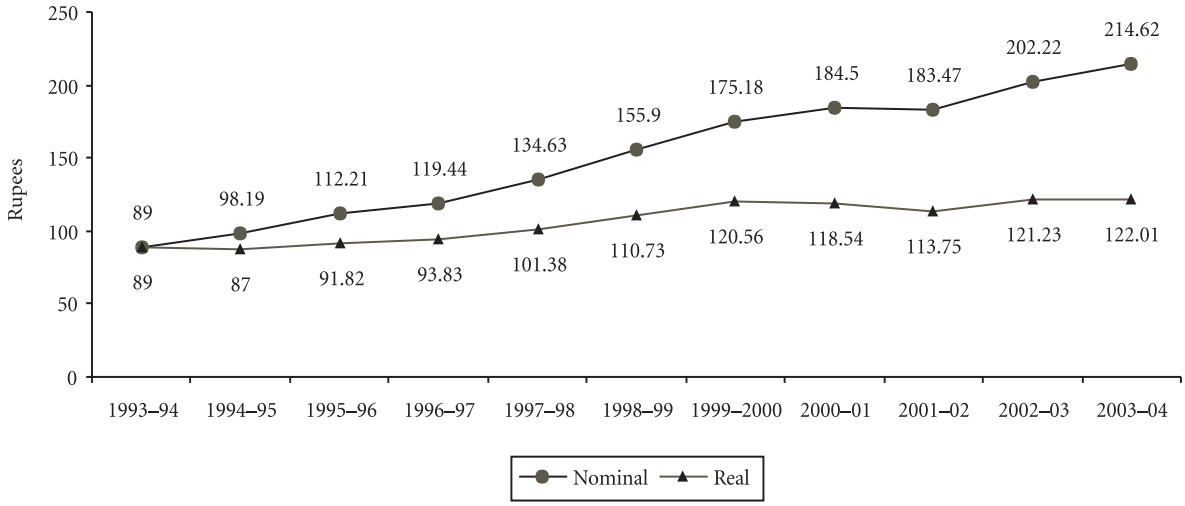
3.1.197 There was also a gradual decline in the proportion of funds released to States by Central Government when the States were themselves under fiscal stress. This resulted in sharp reduction in capital investment in public hospitals, low priority to preventive and promotive care, and inefficiencies in allocations under national health programmes. The financing system is equally dysfunctional as funds are released in five-year cycles, divided under different and complex budget heads—revenue, capital, etc., providing for little flexibility to respond to any health emergency. To address these issues, government has initiated several interventions under the NRHM such as District Health Action Plan, National Health Accounting systems, management capacity at all levels, improved financial management, and close monitoring.

3.1.198 It is estimated that in order to meet the target expenditure level, total Plan expenditure will need to grow at 29.7 % annually during the first three years of the Eleventh Five Year Plan, which breaks down to 30.2 % for the Centre and 29.2 % for the States. As a result, total health expenditure of the Centre and States, respectively, will rise to 0.55% of GDP and 0.85% of GDP in 2009–10. In the last two years of the Plan, total Plan expenditure will need to rise at about 48% annually. This will result in a total health expenditure of 0.87% of GDP by the Centre and 1.13% by States in 2011–12. Therefore, during the Eleventh Five Year Plan, while the Central Government makes every effort to augment resources for health, State Governments will be persuaded to assign at least 7–8% of State expenditures towards health care.

3.1.199 During the Plan, the objective of every State will be to increase competition among providers, create options for consumers, and ensure oversight through elected local bodies and Panchayats. State governments will also focus on integrating public health programmes with other public health interventions like drinking water, sanitation, nutrition, primary education, roads, and connectivity. State governments will be persuaded to allocate more resources for these sectors through better fiscal management and reprioritization.

MONITORING OUTCOMES VERSUS OUTLAYS

3.1.200 The allocation of funds among different levels (namely primary, secondary, and tertiary) and disease control programmes has been changing. The manner in which resources are allocated shows a wide disparity in spending and outcomes. It is therefore necessary to focus on health outcomes rather than health outlays, including a disaggregated examination by gender, class, caste, etc. to assess their impact on different groups. During the Eleventh Five Year Plan,



Source: NCMH (2005).

FIGURE 3.1.16: Growth of per capita Health Expenditure by Centre and States—Nominal and Real Terms

norms and indicators for outputs and outcomes will be developed to enable government and other agencies to measure the efficiency of health spending by the Centre and the States and allocations adjusted accordingly. The practice of gender budgeting by the States will be necessary.

BLOCK BUDGETING

3.1.201 Data from available surveys and studies reveal that there are major inequities in access to health care between the rich and the poor, between urban and rural areas, and between various regions of the country. Presently allocation of public funds is also quite iniquitous, with urban areas often receiving much larger per capita public health resources than rural areas, and certain States (Bihar, UP, MP, Orissa, Chhattisgarh, Jharkhand) having per capita public health expenditure less than half of other States (Himachal Pradesh, Punjab, Goa, Delhi, Mizoram).

3.1.202 One approach to address this situation is to follow the equity principles of 'equal resources for equal need' and 'greater resources for greater need'. With this approach, it is possible to work out a system of block budgeting wherein people in either urban or rural areas, whether in developed or less developed States anywhere in the country would receive the same baseline level of public health resources eliminating existing inequities in public health resource allocation. Added to this, there would need to be recognition of special needs (for women, children, *adivasi*s, and other disadvantaged groups) that would merit additional resources being allocated for services for these groups. During the Plan, block budgeting will be piloted in selected districts.

SCHEMES AND OUTLAYS FOR ELEVENTH FIVE YEAR PLAN

3.1.203 To achieve the desired outcomes in the health sector, a substantially enhanced outlay for the Department of Health and Family Welfare has been earmarked during the Eleventh Five Year Plan (2007–2012). The total projected GBS for the Eleventh Plan is Rs 120374.00 crore (at 2006–07 prices) and Rs 136147.00 crore (at current prices). This enhanced outlay is about four times the initial outlay for the Tenth Plan (Rs 36378.00 crore). A large proportion of this amount, i.e., Rs 89478.00 crore (65.72 %) is for NRHM, the flagship of the GoI. Another Rs 625 crore is to be contributed by the Department of AYUSH to make a total of Rs 90103 crore for NRHM during the Eleventh Five Year Plan. For the other ongoing schemes, a total of Rs 23995.05 crore has been earmarked. For the new initiatives it is Rs 20846.95 crore. Rs 1827.00 crore has also been earmarked for OSC.

3.1.204 Annexure 3.1.8 indicates the number of schemes that were in operation during 2006–07 and

the schemes that will be operational during the Eleventh Five Year Plan. The scheme-wise outlays of Department of Health and Family Welfare during the Eleventh Five Year Plan are given in Appendix of Volume III.

Eleventh Five Year Plan Agenda

3.1.205 Thrust areas to be pursued during the Eleventh Five Year Plan are summarized below:

- Improving Health Equity
  - NRHM
  - NUHM
- Adopting a system-centric approach rather than a disease-centric approach
  - Strengthening Health System through upgradation of infrastructure and PPP
  - Converging all programmes and not allowing vertical structures below district level under different programmes
- Increasing Survival
  - Reducing Maternal mortality and improving Child Sex ratio through Gender Responsive Health care
  - Reducing Infant and Child mortality through HBNC and IMNCI
- Taking full advantage of local enterprise for solving local health problems
  - Integrating AYUSH in Health System
  - Increasing the role of RMPs
  - Training the TBAs to make them SBAs
  - Propagating low cost and indigenous technology
- Preventing indebtedness due to expenditure on health/protecting the poor from health expenditures
  - Creating mechanisms for Health Insurance
  - Health Insurance for the unorganized sector
- Decentralizing Governance
  - Increasing the role of PRIs, NGOs, and civil society
  - Creating and empowering health committees at various levels
- Establishing e-Health
  - Adapting IT for governance
  - Establishing e-enabled HMIS
  - Increasing role of telemedicine
- Improving access to and utilization of essential and quality health care
  - Implementing flexible norms for health care facilities (based on population, distance, and terrain)
  - Reducing travel time to two hours for EmOC
  - Implementing IPHS for health care institutions at all levels
  - Accrediting private health care facilities and providers
  - Redeveloping hospitals/institutions
  - Mirroring of centres of excellence like AIIMS
- Increasing focus on Health Human Resources
  - Improving Medical, Paramedical, Nursing, and Dental education, and availability
  - Reorienting AYUSH education and utilization
  - Reintroducing licentiate course in medicine
  - Making India a hub for health care and related tourism
- Focusing on excluded/neglected areas
  - Taking care of the Older persons
  - Reducing Disability and integrating disabled
  - Providing humane Mental Health services
  - Providing Oral health services
- Enhancing efforts at disease reduction
  - Reversing trend of major diseases
  - Launching new initiatives (Rabies, Fluorosis, Leptospirosis)
- Providing focus to Health System and Bio-Medical research
  - Focusing on conditions specific to our country
  - Making research accountable
  - Translating research into application for improving health
  - Understanding social determinants of health behaviour, risk taking behaviour, and health care seeking behaviour.

3.2 AYURVEDA, YOGA AND NATUROPATHY, UNANI, SIDDHA, AND HOMEOPATHY (AYUSH)

Introduction

3.2.1 There is a resurgence of interest in holistic systems of health care, especially, in the prevention and management of chronic lifestyle related non-communicable diseases and systemic diseases. Health

sector trends suggest that no single system of health care has the capacity to solve all of society's health needs. India can be a world leader in the era of integrative medicine because it has strong foundations in Western biomedical sciences and an immensely rich and mature indigenous medical heritage of its own.

Vision for AYUSH

3.2.2 To mainstream AYUSH by designing strategic interventions for wider utilization of AYUSH both domestically and globally, the thrust areas in the Eleventh Five YearPlan are: strengthening professional education, strategic research programmes, promotion of best clinical practices, technology upgradation in industry, setting internationally acceptable pharmacopoeial standards, conserving medicinal flora, fauna, metals, and minerals, utilizing human resources of AYUSH in the national health programmes, with the ultimate aim of enhancing the outreach of AYUSH health care in an accessible, acceptable, affordable, and qualitative manner.

Current Scenario and Challenges

3.2.3 During the Tenth Plan, the Department continued to lay emphasis on upgradation of AYUSH educational standards, quality control, and standardization of drugs, improving the availability of medicinal plant material, R&D, and awareness generation about the efficacy of the systems domestically and internationally. Steps were taken in 2006–07 for mainstreaming AYUSH under NRHM with the objective of optimum utilization of AYUSH for meeting the unmet needs of the population.

Health Care Services under AYUSH

3.2.4 The AYUSH sector across the country supported a network of 3203 hospitals and 21351 dispensaries. The health services provided by this network largely focused on primary health care. The sector has a marginal presence in secondary and tertiary health care. In the private and not-for-profit sector, there are several thousand AYUSH clinics and around 250 hospitals and nursing homes for in patient care and specialized therapies like *Panchkarma*.

3.2.5 In clinics and nursing homes there are anecdotal reports of the role of AYUSH in the successful management of several communicable and non-communicable diseases. However, there is no macro-data available about the contribution of AYUSH to major national programmes for the management of communicable and NCDs. System and State-wise details of hospitals and dispensaries under AYUSH have been provided in Annexures 3.2.1 and 3.2.2. A major challenge in Eleventh Five Year Plan is to identify reputed clinical centres and support upgradation of their facilities via PPP schemes so that the country can boast of a national network of high-quality clinical facilities developed for rendering specialized health care in strength areas of AYUSH.

AYUSH under NRHM

3.2.6 Despite having a different scheme of diagnosis, drug requirements, and treatments as compared to the mainstream health care system, preliminary efforts to integrate AYUSH in NRHM were initiated during the Tenth Plan. The AYUSH interventions under NRHM have been depicted in Box 3.2.1. It is too early to assess if the AYUSH interventions in NRHM have had significant health impact by way of complementing the conventional national health programmes. Integrating AYUSH into NRHM has the potential of enhancing both the quality and outreach of NRHM, especially with the availability of a large number of practitioners in this field (Table 3.2.1). Supporting strategic pilot action research projects in the Eleventh Five Year Plan to evolve viable models of integration seems necessary.

Box 3.2.1
AYUSH Interventions under NRHM

- Co-location of AYUSH dispensaries in 3528 PHCs in different States.
- Appointment of 452 AYUSH doctors and paramedics (pharmacists) on contractual basis in the primary health care system.
- Inclusion of AYUSH modules in training of ASHA.
- Inclusion of *Punarnavdi Mandoor* in the ASHA Kit for management of anaemia during pregnancy.
- Inclusion of seven Ayurvedic and five Unani medicines in the RCH programme.
- Establishment of specialty clinics, specialized therapy centres, and AYUSH wings in district hospitals supported through CSS.

TABLE 3.2.1
Registered Medical Practitioners under AYUSH

System	Number of Practitioners
Ayurveda	453661
Unani	46558
Siddha	6381
Naturopathy	888
Homeopathy	217850
Total	725383

Source: Department of AYUSH, status as on 1 January 2007.

Human Resources Development in AYUSH

3.2.7 There are a total of 485 government and non-government AYUSH educational institutions in India (Table 3.2.2).There are Undergraduate and Postgraduate Regulations of Central Council of Indian Medicine (CCIM) for Minimum Standards of Ayurveda, Siddha, and Unani education. The teaching institutions are required to provide the infrastructure specified in the regulations, which include building for the college, hostel, library, hospital with requisite bed strength, teaching and non-teaching staff, etc. Despite a very large educational infrastructure, the quality of education in most of the institutions does not meet prescribed standards set by CCIM. The major challenge in the Eleventh Five Year Plan will be to initiate reforms in undergraduate and postgraduate education that can make AYUSH education more contemporary and to provide generous support to centres of excellence in governmental and non-governmental sector. The functioning of regulatory bodies requires vast improvement for proper regulation and development of professional education in these systems. Initiatives like institution of National Education Testing type testing for AYUSH teachers and NAAC type assessment and accreditation for AYUSH colleges are required.

3.2.8 There are, as of today, practically no formal accredited programmes for training of AYUSH paramedics viz., nurses, pharmacists, and panchakarma therapists.

3.2.9 Continuing Medical Education/Reorientation and Training Programme were initiated with two sub-components (i) reorientation programme for AYUSH personnel and (ii) short-term CME programme for AYUSH physicians/practitioners. Government/Private/NGO institutions of AYUSH are eligible to take up this training programme. The programme has been restructured for Eleventh Five Year Plan with more components including use of IT tools to modernize CME.

AYUSH Industry

3.2.10 System-wise details of manufacturing units have been provided in Table 3.2.3. The turnover of AYUSH industry is estimated to be more than Rs 8000 crore. 70% of the Indian exports from the AYUSH sector consist largely of raw materials and are estimated to be of the order of Rs 1000 crore per annum. The balance (around 30%) consists of finished products including herbal extracts. Indian exports are at present led by a trader's vision rather than a vision inspired by value added knowledge products. The major challenge for industry is to transform its global image from that of a raw material supplier to a knowledge products industry. This transformation will call for major

TABLE 3.2.2
Details of Educational Institutions and their Capacity

	Ayurveda	Yoga	Unani	Siddha	Homeopathy	Naturopathy	Total
Undergraduate Colleges	240	–	39	7	183	10	479
Admission Capacity	11225	–	1750	350	13425	385	27135
Colleges with Postgraduate Courses	62	–	7	3	33	–	105
Admission Capacity	991	–	67	110	1084	–	2252
Exclusive Postgraduate Institutes	2	–	1	1	2	–	6
Admission Capacity	40		28	30	99	–	197
Total Institutions	242	–	40	8	185	10	485

Source: Department of AYUSH, status as on 1 April 2007.

TABLE 3.2.3
System-wise Details of Manufacturing Units

System	Manufacturing Units	
	Numbers	Proportion
Ayurveda	7621	85.68
Unani	321	3.61
Siddha	325	3.65
Homeopathy	628	7.06
Total	8895	100.00

Source: Department of AYUSH, status as on 1 April 2007.

investments in upgrading processing technology, R&D including collaborative research with reputed international institutions and quality control. It will also call for intersectoral cooperation among AYUSH, CSIR, ICMR, private sector R&D, NGOs, and Ministry of Commerce for meeting global requirements of quality and safe natural medicinal products. Technical and financial support to the industry in this direction could go a long way in improving our exports.

Standardization and Quality Control of Ayurveda, Siddha, Unani, and Homeopathy (ASU&H) Drugs

3.2.11 Four different Pharmacopoeia Committees are working for preparing official formularies/pharmacopoeias to evolve uniform standards in preparation of drugs of ASU&H and to prescribe working standards for single drugs as well as compound formulations. Standards for around 40% of the raw materials and around 15% of formulations have been published by these committees. Drug Control Cell (AYUSH) is working in the Department of AYUSH to deal with the matters pertaining to licensing and regulation of Ayurvedic, Unani, and Siddha Drugs. Setting up of the Central Drug Authority for centralized licensing and enforcement of the provisions of Drugs and Cosmetics Act and Rules would go a long way in ensuring quality and safety of ASU&H drugs. Department of AYUSH intends to convert Pharmacopoeial Committees of various systems into a modern pharmacopoeial commission with adequate representation of stakeholders and to develop standards that are in line with internationally acceptable pharmacopoeial standards and quality parameters of Ayurveda, Siddha, and Unani drugs.

Research Activities

3.2.12 The Central Government has established research councils for Ayurveda and Siddha (Central Council for Research in Ayurveda and Siddha, CCRAS), Unani (Central Council for Research in Unani Medicine), Homeopathy Central Council for Research in Homeopathy, and Yoga and Naturopathy (Central Council of Yoga and Naturopathy). These Councils have carried out a wide range of research activities. Other government departments like ICMR, CSIR, DST, Department of Biotechnology (DBT), and ICAR also have research centres and focused programmes related to specific aspects of AYUSH. Department of AYUSH also administers an Extramural Research Scheme supporting project based research studies from accredited scientific and medical institutions.

3.2.13 One of the socially important outputs of research in the AYUSH sector has been the pharmacopeias and formularies of the various systems of medicine. Whereas numerous important research projects have been undertaken in the last three decades across the various research councils on important public health problems like malaria, filariasis, hepatitis, anaemia, there is no critical report on the quality or impact of these projects on the health sector in India. The current research investments are extremely low. One challenge is to step up research investments and support reputed research organizations in the government, non-government, and private sector and promote collaborative research with reputed international institutions. The challenge of addressing strategic research needs in disease areas of national and global importance is attempted to be met through Golden Triangle Research Programme from development of ASU&H drugs.

Natural Resource Base of AYUSH

3.2.14 The resource base of AYUSH is largely plants. Around 6000 species of medicinal plants are documented in published medical and ethno-botanical literature. Wild populations of several hundreds of these species are under threat in their natural habitats. In the Tenth Plan, a National Medicinal Plants Board (NMPB) was established for supporting conservation of gene pools and large scale cultivation of medicinal plants. The NMPB has also promoted the creation of

Box 3.2.2
Research Initiatives

Literary Research

Medico-historical studies, Transcription/translation of rare works

Fundamental Research

Pharmacopoeial work and standardization of formulations/therapies.

Drug Research

Medico-Botanical survey, Pharmacognostical/Phytochemical studies

Clinical Research

Therapeutic trials of drugs for specified diseases
Drug proving or Homeopathic Pathogenetic Trials

Tribal Health Care Research Programme, Family Welfare and RCH Related Research

Oral Contraceptive (*Pippalyadi Yoga*)
Spermicidal Agent (*Neem oil*)
Bal Rasayan and *Ayush Ghutti* for children's health
Scientific validation of Ayurvedic and Siddha Medicines for RCH Programme
Development of cosmaceutical/neutraceutical products based on traditional medicine knowledge

State Medicinal Plants Boards in most of the States. In addition to plants, there are also around 300 species of medicinal fauna and around 70 different metals and minerals used by AYUSH. However, there have been no official efforts so far to conserve these resources. The key challenges in the Eleventh Five Year Plan will be to conserve gene pools of red listed species, support large-scale cultivation of species that are in high trade, involve forestry sector in plantation of medicinal tree species, and establish modern processing zones for post-harvest management of medicinal plants.

Centrally Funded Institutions

3.2.15 Institutions for all the core functions (Regulatory, Research, Education, Laboratory, and Manufacture) have been established and/or strengthened by Central funding for establishing benchmarks for others to follow.

Review of Tenth Plan Schemes

3.2.16 Original approved outlay for the Department for the Tenth Plan was Rs 775.00 crore, which was increased to Rs 1214.00 crore. Year-wise allocation and corresponding expenditure substantially increased during Tenth Plan, particularly from the year 2004–05 onwards. Scheme wise details for Tenth Plan have been provided in Annexure 3.2.3.

Towards Finding Solutions

3.2.17 Apart from core areas for the AYUSH sector like education, research, industry, and medicinal plants, four important dimensions have been added to AYUSH in the Eleventh Five Year Plan viz., (i) mainstreaming of AYUSH in public health, (ii) technology upgradation of AYUSH industry, (iii) assistance to Centres of Excellence, and (iv) revitalization and validation of community-based local health traditions of AYUSH. All these dimensions will serve to enhance the social and community outreach of AYUSH in the Eleventh Five Year Plan at domestic and global level.

Systems Strengthening

3.2.18 The ongoing schemes namely, strengthening the Department of AYUSH, Statutory Institutions, hospitals and dispensaries, strengthening of pharmacopoeial laboratories, IEC, and other programmes and schemes have been merged as 'Systems Strengthening'. Adequate budgetary provisions will be made for this in the Eleventh Five Year Plan.

Educational Institutions

3.2.19 National Institutes of various AYUSH systems have been set up by the Central Government to set benchmarks for teaching, research, and clinical practices. Keeping in view the need for upgrading these national institutes into Centres of Excellence, a substantial increase in outlay will be made in the Eleventh Five Year Plan. This increase is also on account of setting up a state-of-the-art tertiary Ayurveda centre in the national capital with R&D focus and tertiary health care facilities.

3.2.20 Most of the AYUSH undergraduate and postgraduate colleges in the government sector suffer from a variety of infrastructure constraints. As low quality of AYUSH education is one of the crucial factors for lack of public confidence in AYUSH system, selected institutions in governmental and non-governmental sector having better track records will be upgraded into Centres of Excellence. An increased outlay will be provided to ensure that AYUSH institutions are brought up to the minimum standards prescribed by the Statutory Body within the Eleventh Five Year Plan period.

Research and Development (R&D)

3.2.21 The infrastructure and capacities of AYUSH research councils will be upgraded to enable them to carry out state-of-the-art scientific work related to drug standardization and quality control, botanical standardization, laying down of pharmacopoeial standards, and clinical trials.

3.2.22 Golden Triangle Research partnership initiated by Department of AYUSH with collaboration of CCRAS, ICMR, and CSIR is aimed at scientific validation and development of R&D based drugs as well as development of herbal drugs based on traditional medicinal knowledge for prioritized disease conditions. Ayurveda, Siddha, Unani, and Homoeopathy drug industry is being associated with this initiative. For expediting the work of laying down pharmacopoeial standards of single drugs and poly-herbal formulations, the research councils have been declared as the Secretariats of the Pharma-copoeias Committees. Various peripheral units/laboratories of research councils will be upgraded for undertaking sophisticated scientific work relating to development of marker compounds and biologically active ingredients for drug standardization and development.

Medicinal Flora and Fauna

3.2.23 The NMPB is functioning with a very small component of staff as an extension of the Department. Manifold increase in outlay for the Eleventh Five Year Plan is to restructure the NMPB as an autonomous body and provide sufficient manpower to undertake its wide mandate. A Centrally Sponsored component for cultivation, processing, and marketing of medicinal plants is being started from the outlay of NMPB. This will have sub components for financial allocation: cultivation of prioritized medicinal plants species over 75000 hectares; raising of 50 lakh seedlings; setting up of Centralized Seed Centre and Nursery for cultivating planting materials for 15 States; setting up of six medicinal plants zones in agro-climatic zones of the country; and market development assistance fund for plan building and marketing support. Another existing Central Sector component is regarding programme for in-situ conservation, creation of Gene Bank for medicinal plants, ex-situ conservation of prioritized medicinal plants, R&D for quality standards, and certification and programme for IEC.

Hospitals and Dispensaries

3.2.24 This Scheme has now been subsumed under the NRHM, as it aims at creating AYUSH facilities in PHCs, CHCs, and district hospitals for the purpose of mainstreaming of AYUSH under NRHM. The ambit of the scheme is widened to provide support for strengthening of AYUSH dispensaries, hospitals and for supply of AYUSH medicinal kits in rural areas and for development of specialized AYUSH treatment centres under PPP mode.

Industry

3.2.25 AYUSH industry at present suffers from small scale of operation and low technology that needs to be upgraded. Majority of the 5000 GMP compliance manufacturing units are of small and medium size. Even though back ended subsidy to these units under the Centrally sponsored component 'Drug Quality

Control' for establishing in-house quality control will be provided, these units also require other infrastructure like sophisticated packing machine, medicinal plants storage, testing facilities, other common quality control R&D facilities, and marketing assistance. Therefore 20 AYUSH industry clusters have been identified and an initiative for development of common facilities for these clusters will be made during the Eleventh Five Year Plan. They will be able to set benchmarks for quality control, packaging, testing of medicinal plants, brand development, and marketing development network, which are very necessary for globalizing AYUSH industry to capture a fair share of the global herbal market.

Drugs Quality Control

3.2.26 An increased outlay will be made during Eleventh Five Year Plan for strengthening the regulatory mechanism with a view to ensure safety, control, and efficacy of AYUSH medicines as a priority area. It is also proposed to reimburse to the States expenditure incurred on testing of AYUSH drugs through the network of National Accreditation Board for Testing and Calibration Laboratories accredited laboratories in the country. This is again a high priority to strengthen the enforcement of Drugs and Cosmetics Act in the country with regard to Ayurveda, Siddha, Unani, and Homoeopathy manufacturing units to create public confidence in India and abroad.

Financing AYUSH

3.2.27 The total Central Government investments in the AYUSH sector at the national level since the First Five Year Plan have ranged from 1% to 3% of the national health budget. In the States too, a small proportion of the health budget is assigned to AYUSH. The private sector investment in AYUSH industry (Rs 8800 crore turnover) is relatively large, while the private investments on research and education, public health services, and community health are relatively small. Gradually public investments for the AYUSH sector will be increased. The additional investments in AYUSH sector will not be exclusively put into government institutions. The government sector needs to be supplemented by appropriate investments through PPP and supported by non-government initiatives in strategic fields.

3.2.28 The new initiatives will be: International Co-operation including global market development; support for revitalization of local health traditions; assistance to accredited AYUSH Centres of Excellence in governmental and non-governmental sector engaged in AYUSH education, drug development and scientific validation and clinical research; AYUSH and Public Health; Cataloguing, digitization, and AYUSH IT network.

3.2.29 Some of the important new initiatives for Eleventh Five Year Plan are shown in Box 3.2.3.

3.2.30 ZBB exercise has been done for the Eleventh Five Year Plan (Annexure 3.2.4). The exercise was done to arrive at greater convergence among schemes with similar objectives for improving the efficacy and efficiency of Plan spending. The total projected GBS for the Eleventh Plan for the Department of AYUSH is Rs 3526 crore (at 2006–07 prices) and Rs 3988 crore (at current prices). Scheme-wise financial details for the Eleventh Five Year Plan have been provided in Appendix of Volume III.

Box 3.2.3
Important New Initiatives during the Eleventh Plan

- Development of common drug testing and other infrastructure facilities for AYUSH industry clusters
- Financial assistance to ASU&H Units for capacity building to improve quality control and R&D
- Support to centres of excellence in AYUSH education/drug development/clinical research/tertiary care
- Support for validation and revitalization of local health traditions
- Development of backward and forward linkages for in-situ conservation and ex-situ cultivation of medicinal plants for a sustainable ASU&H Industry
- Provision of marketing and value-added services to medicinal plant farmers
- Expansion of international cooperation and exchange programme with focus on global positioning of AYUSH systems and facilitation of cooperation with other countries in the areas of AYUSH education, research, and exports

Eleventh Five Year Plan Agenda

3.2.31 Successful implementation of the above-mentioned initiatives will enable AYUSH systems to contribute significantly to the health care of population while being an integral component of the health care system of our country.

3.2.32 The key interventions and strategies in the Eleventh Five Year Plan are enumerated below:

- Documenting measurable outputs for annual plan as well as for the five year plans that will facilitate designing and implementing systematic ME systems.
- Training in Public Health for AYUSH personnel is envisaged as an essential part of education and CME.
- Mainstreaming the system of AYUSH in National Health Care Delivery System by co-locating AYUSH facilities in primary health network.
- Restructuring Public Health Management to integrate AYUSH practitioners into the national health care system.
- Formulating a two-tiered research framework for AYUSH to interface with modern science while giving due cognizance and importance to development and application of theoretical foundations of the traditional knowledge systems and practices.
- Promoting scientific validation of AYUSH principles, remedies, and therapies.
- Revitalizing, documenting, and validating local health traditions of AYUSH.
- Improving the status of pharmacopoeial standards by setting up Pharmacopoeia Commission.
- Improving the status of quality of clinical services by creating specialty AYUSH Secondary and Tertiary Care Centres.
- Upgrading AYUSH undergraduate and postgraduate educational institutions by better regulation and establishing a system for NET type testing of AYUSH teachers and NAAC type assessment and accreditation of AYUSH undergraduate/postgraduate colleges.
- Ensuring conservation of medicinal plants gene pools as well as promoting cultivation of species in high trade and establishment of medicinal plants processing zones.
- Strengthening regulatory mechanism for ensuring quality control, R&D, and processing technology involving accredited laboratories in the government and non-government sector.
- Establishing Centres of Excellence.
- Promoting international co-operation in research, education, health services, and trade, and market development.
- Digitizing India's vast corpus of medical manuscripts in collaboration with the National Manuscripts Mission.
- Promoting public awareness about the strengths and contemporary relevance of AYUSH through IEC.

ANNEXURE 3.1.1
Department of Health and Family Welfare (Other than NRHM)—
Scheme-wise Outlay and Actual Expenditure during the Tenth Plan

(Rs in Crores)

S. No.	Name of the Schemes/Institutions	Outlay Tenth Plan (2002–07)	Tenth Plan (2002–07) Sum of Annual Outlay	Tenth Plan (2002–07) Actual Exp.
1	2	3	4	5
I.	**CENTRALLY SPONSORED PROGRAMMES**	**2045.80**	**3097.82**	**2718.36**
	Control of Communicable Diseases	1392.80	2165.17	2055.55
	1 NACP and National STD Control Programme	1392.80	2165.17	2055.55
	Control of NCDs	405.00	516.00	359.13
	2 Cancer	266.00	333.00	252.63
	(i) NCCP	266.00	333.00	252.63
	(ii) Tobacco Control Programme	0.00	0.00	0.00
	3 NMHP	139.00	183.00	106.50
	Other Programmes	248.00	355.65	299.45
	4 Assistance to State for Capacity Building for Trauma Care	110.00	140.00	142.03
	5 Assistance to States for Drug & PFA Control	138.00	215.65	157.42
	(i) Drugs Control	60.00		
	(ii) PFA Control	78.00		
	New Initiatives under CSS	0.00	61.00	4.23
	6 Initiatives during 2006–07	0.00	61.00	4.23
	(i) Telemedicine	0.00	15.00	0.00
	(ii) National Programme for Prevention and Control of Diabetes, (iii) CVD, and Stroke	0.00	5.00	0.00
	(iv) National Programme for Deafness	0.00	15.00	4.23
	(v) Other Initiatives	0.00	26.00	0.00
II	**CENTRAL SECTOR SCHEMES (CS)**	**5176.20**	**4926.58**	**3858.60**
	Control of Communicable Diseases	199.80	203.63	161.48
	7 NICD	65.00	62.17	49.93
	(i) Ongoing Activities (including Guineaworm & Yaws Eradication)	50.00		
	(ii) Strengthening of the Institute	15.00	4.00	0.00
	8 National Tuberculosis Institute, Bangalore	10.30	9.73	3.49
	9 BCG Vaccine Laboratory, Guindy, Chennai	19.50	17.27	9.48
	10 Pasteur Institute of India, Coonoor	35.00	44.00	31.18
	11 Lala Ram Sarup Institute of Tuberculosis and Allied Diseases, Mehrauli, Delhi	54.50	52.55	55.54
	12 Central Leprosy Training & Research Institute, Chengalpattu (Tamil Nadu)	5.50	7.00	4.73
	13 Regional Institute of Training, Research & Treatment under Leprosy Control Programme:	10.00	10.91	7.13
	(i) RLTRI, Aska (Orissa)	2.00	2.35	0.37
	(ii) RLTRI, Raipur (MP)	1.00	0.96	0.71
	(iii) RLTRI, Gauripur (WB)	7.00	7.60	6.05

(*Annexure 3.1.1 contd.*)

(*Annexure 3.1.1 contd.*)

1	2	3	4	5
	Hospitals & Dispensaries	567.00	796.03	609.22
	14 Central Government Health Scheme	80.00	132.50	122.43
	15 Central Institute of Psychiatry, Ranchi	50.00	62.20	30.17
	16 All India Institute of Physical Medicine & Rehabilitation, Mumbai	20.00	17.60	13.60
	17 Safdarjung Hospital and College, New Delhi	230.00	367.09	270.46
	18 Dr RML Hospital, New Delhi	150.00	175.64	138.35
	19 Institute for Human Behaviour & Allied Sciences, Shahdara, Delhi	7.00	4.00	0.00
	20 All India Institute of Speech & Hearing, Mysore	30.00	37.00	34.21
	Medical Education, Training, & Research	2981.10	3077.17	2774.62
	(a) Medical Education:	1951.00	1992.19	1649.56
	21 All India Institute of Medical Sciences and its Allied Departments, New Delhi	675.00	787.12	636.50
	22 PGIMER, Chandigarh	200.00	153.00	234.00
	23 JIPMER, Pondicherry	150.00	182.00	118.61
	24 Lady Hardinge Medical College & Smt. SK Hospital, New Delhi	200.00	95.00	68.33
	25 Kalawati Saran Children's Hospital, New Delhi	140.00	39.56	34.39
	26 Indira Gandhi Institute of Health & Medical Sciences for North East Region at Shillong	380.00	447.78	274.99
	27 NIMHANS, Bangalore	120.00	173.96	180.98
	28 Kasturba Health Society, Wardha	50.00	56.80	59.57
	29 National Medical Library, New Delhi	35.00	45.00	34.82
	30 NBE, New Delhi	1.00	11.97	7.37
	(b) Training	95.00	110.39	73.82
	31 Development of Nursing Services	82.00	102.00	70.14
	32 Nursing Colleges	13.00	8.39	3.68
	(i) RAK College of Nursing, New Delhi	11.00	6.46	2.69
	(ii) Lady Reading Health School	2.00	1.93	0.99
	(c) Research	870.00	841.00	962.00
	33 ICMR, New Delhi	870.00	841.00	962.00
	(d) Public Health	27.50	83.35	48.83
	34 PHFI	5.00	73.00	43.00
	35 All India Institute of Hygiene & Public Health, Kolkata (AIIH&PH) and Serologist and Chemical Examiner, Kolkata	22.50	10.35	5.83
	(i) AIIH&PH, Kolkota	20.00	8.90	5.22
	(ii) Serologist & Chemical Examiner, Kolkata	2.50	1.45	0.61
	(e) Others	37.60	50.24	40.41
	36 Indian Nursing Council	2.10	3.20	2.50
	37 VP Chest Institute, Delhi	23.00	30.30	31.80
	38 National Academy of Medical Sciences, New Delhi	2.50	2.74	1.75
	39 MCI, New Delhi	5.00	5.00	4.36
	40 Medical Grants Commission	5.00	9.00	0.00
	Other Programmes	429.30	441.75	283.02
	(a) Health Education, Research, & Accounts	19.40	16.64	3.37
	41 Health Education	12.60	8.20	0.79
	42 Health Intelligence and Health Accounts	6.80	8.44	2.58

(*Annexure 3.1.1 contd.*)

(*Annexure 3.1.1 contd.*)

1	2	3	4	5
	(i) Intelligence	3.80	4.44	2.58
	(ii) Accounts	3.00	4.00	0.00
	(b) Strengthening of DGHS/Ministry:	20.00	23.40	16.55
43	I. Strengthening of Departments under the Ministry	12.00	15.00	11.68
	II. Strengthening of DGHS	8.00	8.40	4.87
	(c) Emergency Medical Relief	30.00	87.00	35.96
44	Health Sector Disaster Preparedness and Management	30.00	47.00	23.25
45	Emergency Medical Relief (including Avian Flu)	0.00	40.00	12.71
	(d) Miscellaneous	359.90	314.71	227.14
46	Central Research Institute, Kasauli	50.00	30.88	23.37
47	National Institute of Biologicals, Noida (UP)	170.90	166.50	152.13
48	PFA	78.00	47.20	14.95
49	Central Drug Standard & Control Organization (CDSCO)	52.00	62.90	35.37
50	Port Health Authority	9.00	7.23	1.32
	(i) Jawaharlal Nehru Port Sheva	1.50	2.03	1.30
	(ii) Setting up of offices at 8 newly created international airports	7.50	5.20	0.02
51	PMSSY	999.00	385.00	20.94
	Dropped/Transferred Schemes	43.00	62.40	44.62
1	Hospital Waste Management	10.00	10.00	10.82
2	UNDP Pilot Initiatives for Community Health	0.00	8.90	0.00
3	Training of MO of CHS	0.00	0.00	0.01
4	RHTC, Najafgarh	0.00	0.00	1.48
5	Drug De-addition Control Programme	33.00	20.50	22.99
6	Bhuj Hospital	0.00	23.00	9.32
	Grand Total	7265.00	8063.80	6612.26

Note: Exp. stands for Expenditure; MO stands for Medical Officers.
Source: MoHFW.

ANNEXURE 3.1.2
Department of Health (H) and Family Welfare (FW)—NRHM#

(Rs in Crores)

S. No.	Name of the Schemes	Outlay Tenth Plan (2002–07)	Tenth Plan (2002–07) Sum of Annual Outlay	Tenth Plan (2002–07) Actual Exp.
1	2	3	4	5
CENTRALLY SPONSORED SCHEMES (CSS) OF FAMILY WELFARE		**24169.20**	**28011.97**	**23854.74**
1	Direction & Administration	1100.00	1176.66	999.93
2	Rural FW Services (SCs)	9663.00	8881.29	7561.01
3	Urban FW Services	580.00	638.17	539.48
4	Grants to State Training Institutions	480.00	500.37	411.08
5	Free Distribution of Contraceptives	940.00	760.22	627.97
6	Sterilization (Beds)—(Weeded)	12.00	10.25	8.78
7	Family Welfare Linked Health Insurance	150.00	105.10	10.63
8	Training	250.00	143.81	71.60
9	Procurement of Supplies and Materials	994.98	1141.30	335.14
10	Routine Immunization	1557.88	1625.50	783.44
11	Pulse Polio Immunization	3110.00	3887.70	3999.56
12	IEC	539.50	569.87	542.42
13	Area Projects	1750.00	1838.14	1250.60
14	Flexible Pool for State PIPs	3041.84	6733.59	6713.10
CENTRAL SECTOR SCHEMES (CS) OF FAMILY WELFARE		**1367.80**	**1611.53**	**1180.69**
1	Social Marketing Area Projects	20.00	35.00	0.00
2	Social Marketing of Contraceptives	660.00	790.04	599.70
3	FW Training and Res. Centre, Bombay	10.00	10.53	2.31
4	NIHFW, New Delhi	20.00	25.45	19.91
5	IIPS, Mumbai	10.00	9.57	8.09
6	Rural Health Training Centre, Najafgarh	45.00	12.42	1.56
7	Population Research Centres	45.00	39.13	30.01
8	CDRI, Lucknow	12.00	12.65	12.85
9	ICMR and IRR	100.00	150.00	162.44
10	Travel of Experts/Conference/Meetings etc. (Melas)	57.00	17.00	47.84
11	International Co-operation	9.00	8.44	6.73
12	NPSF/National Commission on Population	100.00	116.00	104.08
13	NGOs (PPP)	130.00	241.61	88.95
14	Other Schemes	149.80	143.69	96.22
TRANSFERRED TO STATES/WEEDED DURING TENTH PLAN		**589.00**	**417.50**	**291.12**
1	District Projects	51.00	105.00	40.95
2	Community Incentive Scheme	200.00	62.00	0.00
3	Transport	313.00	223.00	248.02
4	New Initiatives	25.00	27.50	2.15
TO NACO		**0.00**	**200.00**	**265.99**
FAMILY WELFARE (TOTAL)		**26126.00**	**30241.00**	**25592.54**
DISEASE CONTROL PROGRAMMES OF HEALTH		**2987.00**	**3280.20**	**2745.65**
1	Vector-borne (CSS)	1349.00	1496.03	1186.11
2	Tuberculosis (CSS)	662.00	758.17	756.88
3	Leprosy (CSS)	236.00	288.00	224.54
4	IDD (CSS)	35.00	49.00	42.71
5	Blindness (CSS)	445.00	439.00	458.15
6	Integrated Disease Surveillance (CS)	260.00	250.00	77.26
	GRAND TOTAL	29113.00	33521.20	28338.19

Note: # Includes corresponding H&FW schemes of NRHM up to 2004–05. To accommodate PMSSY, the approved Tenth Plan Outlay of the Department of Family Welfare was reduced from 27125 crore to Rs 26126 crore (Rs 999 crore was transferred to the Department of Health).

Source: MoHFW.

ANNEXURE 3.1.3
Health—State Plan Outlays and Expenditure

(Rs lakhs)

State/UT	Tenth Plan	2002–03		2003–04		2004–05		2005–06		2006–07	
	Outlay	Outlay	Exp.	Outlay	Exp.	Outlay	Exp.	Outlay	Exp.	Outlay	RE
1	2	3	4	5	6	7	8	9	10	11	12
Andhra Pradesh	133024.00	24309.00	22008.16	40995.00	35362.36	40995.44	31427.72	43269.24	33964.48	53574.24	53574.24
Arunachal Pradesh	23129.00	2181.00	2181.01	2201.00	2099.23	2781.35	3185.00	1828.82	1478.36	1970.00	3850.00
Assam	57069.00	8648.00	8194.35	7682.00	7882.00	6529.00	6529.00	5687.00	4203.54	21399.00	21399.00
Bihar	107920.00	13703.00	10731.11	13699.00	12343.11	14182.02	14389.78	12721.80	15426.00	13700.00	13822.00
Chhattisgarh	43418.00	6935.00	5550.00	8083.00	8083.00	15076.00	12462.52	14287.44	10035.86	33249.90	25165.69
Goa	13135.00	1895.00	1888.48	3175.00	2568.54	3521.33	3149.21	4132.99	4579.65	4495.00	4495.00
Gujarat	116616.00	21387.00	15192.32	25221.00	21472.13	25294.00	25294.00	43494.00	43494.00	45994.00	45994.00
Haryana	96062.00	6280.00	2233.22	7800.00	5757.51	7124.00	5843.76	10200.00	10000.50	11450.00	11450.00
Himachal Pradesh	78772.00	13414.00	12905.15	19517.00	18066.07	18295.79	19734.27	18476.60	19629.56	19948.92	19948.92
J&K	79666.00	13000.00	12861.04	14864.00	13752.90	16330.87	17748.78	21061.70	21954.04	21864.25	21864.25
Jharkhand	65000.00	11575.00	6498.00	9700.00	6339.98	14040.00	13371.59	15000.00	14020.07	26800.00	16225.00
Karnataka	153052.00	19247.00	17715.31	13974.00	19189.66	18011.51	15731.51	33239.29	26602.68	34098.61	48151.64
Kerala	40840.00	7135.00	7916.65	9748.00	5170.31	10130.00	6813.87	10035.00	10196.62	9650.00	9650.00
MP	71533.00	14016.00	14520.93	18105.00	15444.43	20298.09	17763.95	20587.00	20747.97	16961.91	23193.47
Maharashtra	110666.00	40740.00	21632.92	76435.00	33244.78	18663.93	31192.05	77874.10	35138.73	88228.54	88228.54
Manipur	8173.00	1415.00	304.23	2280.00	940.96	1915.91	789.52	499.00	558.20	2837.00	3215.00
Meghalaya	18000.00	3020.00	3219.79	3550.00	3773.09	4042.00	4071.31	4484.00	4676.31	4750.00	4750.00
Mizoram	12370.00	2860.00	2725.99	2975.00	4185.67	3000.00	2950.10	3480.00	3378.10	4000.00	4102.06
Nagaland	7965.00	1548.00	1562.14	2383.00	2514.00	2207.15	2114.87	2263.00	1991.93	2363.00	2578.00
Orissa	52139.00	12777.00	7283.09	21694.00	9256.11	11739.19	10281.41	14348.19	7659.27	4052.20	3002.20
Punjab	53081.00	9298.00	6483.49	10450.00	5971.99	7508.93	2133.32	2743.13	1247.13	5019.10	5019.10
Rajasthan	56892.00	12778.00	4034.19	8236.00	5434.80	10811.56	9736.64	18605.59	15384.70	20615.60	21822.16
Sikkim	8000.00	1600.00	1408.04	1606.00	1454.87	2210.00	2200.56	1840.00	1984.87	1690.00	1790.00
Tamil Nadu	70000.00	10440.00	14285.27	16314.00	15963.39	19400.66	17402.60	26874.17	39745.00	46564.75	38074.55
Tripura	25072.00	1480.00	1407.34	2013.00	2243.86	2535.36	3040.42	2662.21	4831.84	6459.60	8376.42
UP	240543.00	27826.00	25950.00	33927.00	19745.93	33009.00	38352.82	85421.00	91526.63	188763.00	189570.00
Uttaranchal	38767.00	4286.00	5768.50	7359.00	6302.53	8759.31	9978.76	8790.92	17710.21	18600.00	18600.00
WB	103618.00	27898.00	14137.89	21193.00	18590.41	23739.80	15392.06	40207.80	25440.14	44289.68	38482.68
A&N Islands	11400.00	2050.00	2119.64	2150.00	2312.26	2390.00	2382.96	3321.00	2832.22	3657.00	3657.00
Chandigarh	22426.00	3803.65	3944.93	3111.00	3546.75	3477.00	3355.33	3392.00	2983.27	3587.00	3587.00
D&N Haveli	1225.00	238.00	269.57	266.00	301.67	343.00	403.20	400.00	561.27	470.00	470.00
Daman & Diu	1750.00	194.15	217.68	228.00	282.85	290.00	301.03	350.00	462.84	414.00	424.50
Delhi	238150.00	38970.00	33043.43	42692.00	38942.11	53775.00	46989.16	60600.00	54336.37	69120.00	76160.30
Lakshadweep	901.30	275.20	232.33	227.00	264.90	225.00	166.73	242.00	236.70	178.00	178.00
Pondicherry	16360.00	3272.09	3000.21	3205.00	3259.04	4160.00	4196.59	5635.00	5665.74	9485.00	12681.40
Total	2176734.30	370494.09	293426.40	457058.00	352063.20	426812.20	400876.40	618053.99	554684.80	840299.30	843552.12

Note: RE stands for Revised Estimate.
Source: Planning Commissioin.

ANNEXURE 3.1.4
Maternal Mortality Ratio—India and Major States

(per 100000 live births)

India & Major States	MMR 1998	MMR 2001–03	Eleventh Five Year Plan Goal
India	407	301	100
Assam	409	490	163
Bihar/Jharkhand	452	371	123
MP/Chhattisgarh	498	379	126
Orissa	367	358	119
Rajasthan	670	445	148
UP/Uttarakhand	707	517	172
Andhra Pradesh	159	195	65
Karnataka	195	228	76
Kerala	198	110	37
Tamil Nadu	79	134	45
Gujarat	28	172	57
Haryana	103	162	54
Maharashtra	135	149	50
Punjab	199	178	59
WB	266	194	64

Source: 2001–03 Special Survey of Deaths, RGI (2006).

ANNEXURE 3.1.5
Sex Ratio (0–6 Years) (India and States/UTs)

S. No.	State/UT	Current Level	Goal by 2011–12	Goal by 2016–17
1	2	3	4	5
	India	927	935	950
1	A&N Islands	957	965	981
2	Andhra Pradesh	961	969	985
3	Arunachal Pradesh	964	972	988
4	Assam	965	973	989
5	Bihar	942	950	965
6	Chandigarh	845	875	900
7	Chhattisgarh	975	983	999
8	Dadra & Nagar Haveli	979	987	999
9	Daman & Diu	926	934	949
10	Delhi	868	875	900
11	Goa	938	946	961
12	Gujarat	883	891	905
13	Haryana	819	850	875
14	Himachal Pradesh	896	904	918
15	J&K	941	949	964
16	Jharkhand	965	973	989
17	Karnataka	946	954	969
18	Kerala	960	968	984
19	Lakshadweep	959	967	983
20	MP	932	940	955
21	Maharashtra	913	921	936
22	Manipur	957	965	981
23	Meghalaya	973	981	997
24	Mizoram	964	972	988
25	Nagaland	964	972	988
26	Orissa	953	961	977
27	Pondicherry	967	975	991
28	Punjab	798	850	875
29	Rajasthan	909	917	932
30	Sikkim	963	971	987
31	Tamil Nadu	942	950	965
32	Tripura	966	974	990
33	UP	916	924	939
34	Uttarakhand	908	916	931
35	WB	960	968	984

Source: Curent Level, Census 2001.

ANNEXURE 3.1.6
Infant Mortality Rate—India and States/UTs

(per 1000 live births)

S. No.	State/UT	Current Level	Eleventh Five Year Plan Goal
	India	58	28
1	Andhra Pradesh	57	28
2	Assam	68	33
3	Bihar	61	29
4	Chhattisgarh	63	30
5	Delhi	35	17
6	Gujarat	54	26
7	Haryana	60	29
8	J&K	50	24
9	Jharkhand	50	24
10	Karnataka	50	24
11	Kerala	14	7
12	MP	76	37
13	Maharashtra	36	17
14	Orissa	75	36
15	Punjab	44	21
16	Rajasthan	68	33
17	Tamil Nadu	37	18
18	UP	73	35
19	WB	38	18
20	Arunachal Pradesh	37	18
21	Goa	16	8
22	Himachal Pradesh	49	24
23	Manipur	13	6
24	Meghalaya	49	24
25	Mizoram	20	10
26	Nagaland	18	9
27	Sikkim	30	14
28	Tripura	31	15
29	Uttarakhand	42	20
30	A&N Islands	27	13
31	Chandigarh	19	9
32	Dadra & Nagar Haveli	42	20
33	Daman & Diu	28	14
34	Lakshadweep	22	11
35	Pondicherry	28	14

Source: Current level—SRS Bulletin, Vol. 41, No. 1, October 2006.

ANNEXURE 3.1.7
Total Fertility Rate—India and Major States

S. No.	State	Current Level	Eleventh Five Year Plan Goal
	India	2.9	2.1
1	Andhra Pradesh	2.1	1.8
2	Assam	2.9	2.3
3	Bihar	4.3	3.0
4	Chhattisgarh	3.3	2.4
5	Delhi	2.1	1.8
6	Gujarat	2.8	2.2
7	Haryana	3.0	1.9
8	Himachal Pradesh	2.1	1.8
9	J&K	2.4	2.0
10	Jharkhand	3.5	2.5
11	Karnataka	2.3	1.8
12	Kerala	1.7	1.7
13	MP	3.7	2.6
14	Maharashtra	2.2	1.9
15	Orissa	2.7	2.1
16	Punjab	2.2	1.8
17	Rajasthan	3.7	2.6
18	Tamil Nadu	1.8	1.7
19	UP	4.4	3.0
20	WB	2.2	1.8

Note: Figures for other States are not available.
Source: Current level—Statistical Report, RGI (2004).

ANNEXURE 3.1.8
Schemes under Health and Family Welfare

S. no.	Ministry/ Department	No. of Schemes Towards the End of Tenth Plan	Weeded/Transferred Towards the End of Tenth Plan	To be Continued During Eleventh Five Year Plan	New Schemes During Eleventh Five Year Plan	Total Schemes During Eleventh Five Year Plan
Central Sector Schemes (CS)						
1	Health	49	3	6 (Ongoing Schemes clubbed as 6 Schemes)	6	12
2	Family Welfare	14	Nil	– (Ongoing Schemes clubbed with above)		
Centrally Sponsored Schemes (CSS)						
1	Health	14	3	6 (Ongoing Schemes merged into 6 Schemes)	7	13
2	Family Welfare	14	1	– (Ongoing Schemes merged with above)		

ANNEXURE 3.2.1

State-wise/System-wise Number of AYUSH Hospitals with their Bed Strength in India as on 1.4.2007

S. No.	States/UTs & others	Ayurveda		Unani		Siddha		Yoga		Naturo-pathy		Homoeo-pathy		Total	
		Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1	Andhra Pradesh	9	584	6	310	0	0	0	0	1	120	6	300	22	1314
2	Arunachal Pradesh	1	10	0	0	0	0	1	10	0	0	1	50	3	70
3	Assam	1	100	0	0	0	0	1	25	0	0	3	105	5	230
4	Bihar	11	1356	4	459	0	0	0	0	0	0	11	510	26	2325
5	Chhattisgarh	8	365	1	90	0	0	0	0	1	50	3	100	13	605
6	Delhi	10	643	2	111	0	0	2	65	4	125	2	150	20	1094
7	Goa	1	40	0	0	0	0	0	0	0	0	1	25	2	65
8	Gujarat	48	1855	0	0	0	0	0	0	0	0	14	873	62	2728
9	Haryana	8	835	1	10	0	0	0	0	0	0	1	50	10	895
10	Himachal Pradesh	24	420	0	0	0	0	0	0	1	10	1	25	26	455
11	J&K	2	155	3	200	0	0	0	0	0	0	0	0	5	355
12	Jharkhand	1	160	0	0	0	0	0	0	0	0	2	82	3	242
13	Karnataka	122	8147	13	402	1	10	3	15	5	276	20	896	164	9746
14	Kerala	124	3987	0	0	2	170	0	0	1	40	33	1130	160	5327
15	MP	34	1626	3	250	0	0	0	0	0	0	20	1105	57	2981
16	Maharashtra	51	7673	6	635	0	0	0	0	0	0	44	3080	101	11388
17	Manipur	0	0	0	0	0	0	0	0	2	65	1	10	3	75
18	Meghalaya	1	10	0	0	0	0	0	0	0	0	7	70	8	80
19	Mizoram	0	0	0	0	0	0	0	0	1	14	0	0	1	14
20	Nagaland	0	0	0	0	0	0	0	0	0	0	1	10	1	10
21	Orissa	8	488	0	0	0	0	0	0	0	0	6	185	14	673
22	Punjab	15	1214	0	0	0	0	0	0	0	0	6	270	21	1484
23	Rajasthan	100	914	3	30	0	0	1	20	2	22	8	205	114	1191
24	Sikkim	1	10	0	0	0	0	0	0	0	0	0	0	1	10
25	Tamil Nadu	7	580	1	54	275	2131	0	0	0	0	9	460	292	3225
26	Tripura	1	10	0	0	0	0	0	0	0	0	1	10	2	20
27	UP	1771	10288	209	1585	0	0	0	0	0	0	8	350	1988	12223
28	Uttrakhand	7	319	2	8	0	0	0	0	0	0	1	50	10	377
29	WB	4	409	1	60	0	0	0	0	0	0	12	630	17	1099
30	A&N Islands	1	10	1	5	1	5	0	0	0	0	1	10	4	30
31	Chandigarh	1	120	0	0	0	0	0	0	0	0	1	25	2	145
32	Dadra & Nagar Haveli	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Daman & Diu	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	Lakshadweep	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	Puducherry	1	10	0	0	0	0	0	0	0	0	0	0	1	10
36	CGHS	1	25	0	0	0	0	0	0	0	0	0	0	1	25
37	Research Council	24	600	12	280	2	85	0	0	0	0	6	85	44	1050
38	Ministry of Railways	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	Ministry of Labour	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	Ministry of Coal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	2398	42963	268	4489	281	2401	8	135	18	722	230	10851	3203	61561

Note: Figures are provisional; Hosp. = Hospitals.

Source: State governments and certain Central Government organizations.

ANNEXURE 3.2.2
State-Wise/System-wise Number of AYUSH Dispensaries in India as on 1.4.2007

S.No.	States/UTs and Others	Ayurveda	Unani	Siddha	Yoga	Naturopathy	Homoeopathy	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Andhra Pradesh	620	193	–	–	–	283	1096
2	Arunachal Pradesh	2	–	–	1	–	44	47
3	Assam	380	1	–	25	2	75	483
4	Bihar	311	144	–	–	–	179	634
5	Chhattisgarh	634	6	–	–	–	52	692
6	Delhi	148	25	–	4	2	98	277
7	Goa	11	–	–		–	3	14
8	Gujarat	501	–	–	1	8	216	726
9	Haryana	472	19	–	–	–	20	511
10	Himachal Pradesh	1105	3	–	–	–	14	1122
11	J&K	273	235	–	–	–	0	508
12	Jharkhand	122	30	–	–	–	54	206
13	Karnataka	589	51	–	–	5	42	687
14	Kerala	740	1	6	–	–	580	1327
15	MP	1427	50	–	–	–	146	1623
16	Maharashtra	490	25	–	–	1	0	516
17	Manipur	0	–	–	–	–	9	9
18	Meghalaya	12	–	–	–	–	10	22
19	Mizoram	0	–	–	–	–	1	1
20	Nagaland	–	–	–	–	–	–	0
21	Orissa	624	9	–	35	30	603	1301
22	Punjab	507	35	–	1	–	107	650
23	Rajasthan	3496	92	–		4	147	3739
24	Sikkim	1	–	–	–	–	1	2
25	Tamil Nadu	32	21	435	1	1	43	533
26	Tripura	55	–	–	–	–	93	148
27	UP	340	49	–	–	–	1482	1871
28	Uttrakhand	467	3	–	–	–	60	530
29	WB	295	3	–	–	–	1220	1518
30	A&N Islands	1	–	–	–	–	8	9
31	Chandigarh	6	–	–	–	–	5	11
32	Dadra & Nagar Haveli	3	–	–	–	–	1	4
33	Daman & Diu	1	–	–	–	–	–	1
34	Lakshadweep	2	–	–	–	–	1	3
35	Puducherry	16	–	16	–	–	7	39
36	CGHS	31	9	2	3	3	34	82
37	Research Council	6	5	2	–	–	40	53
38	Ministry of Railways	39	–	–	–	–	129	168
39	Ministry of Labour	127	1	3	–	–	29	160
40	Ministry of Coal	28	–	–	–	–	–	28
	Total	13914	1010	464	71	56	5836	21351

Note: Figures are provisional; – = Nil.
Source: State governments and certain Central Government organizations.

ANNEXURE 3.2.3
Department of AYUSH—Scheme-wise Tenth Plan Outlay and Expenditure

(Rs in crore)

S. No.	Name of Scheme	2002–07 Tenth Plan Approved Outlay	2002–07 Sum of Annual Outlay	2002–07 Sum of Actual Expenditure
1	2	3	4	5
1	Development of Institutions	120.00	155.72	120.81
2	Hospitals and Dispensaries	59.00	243.85	310.15
3	Drugs Quality Control	45.40	43.56	56.67
	Total CSS	224.40	443.13	487.63
1	Strengthening of Department of AYUSH	22.50	28.56	27.02
2	Statutory Institutions	2.65	2.75	0.69
3	Hospitals and Dispensaries	28.94	61.69	15.72
4	Strengthening of Pharmacopoeial Laboratories	26.50	36.17	9.97
5	IEC	19.00	18.71	19.27
6	Educational Institutions	116.50	147.75	125.18
7	Research Councils	140.50	206.78	195.64
8	Medicinal Plants	93.50	134.21	141.47
9	Other Programmes and Schemes	100.46	134.20	6.95
10	New Initiatives	0.05	0.05	0.01
	Total CS	550.60	770.87	541.92
	Total: (CSS + CS)	775.00	1214.00	1029.55

ANNEXURE 3.2.4
Schemes under Department of AYUSH

S. No.	Ministry/ Department	Number of Schemes towards the end of Tenth Plan	Weeded/ Transferred towards the end of Tenth Plan	To be continued during Eleventh Plan	New Schemes during Eleventh Plan	Total Schemes during Eleventh Plan
Central Sector Schemes (CS)						
1	AYUSH	10	0	5 (Ongoing Schemes clubbed as 5 Schemes)	3	8
Centrally Sponsored Schemes (CSS)						
1	AYUSH	3	0	1 (Ongoing Schemes merged into 1 Scheme)	2	3

4

Nutrition and Social Safety Net

4.1 FOOD AND NUTRITION

Introduction

4.1.1 At the beginning of the Eleventh Plan period there are serious concerns around food and nutritional security. Agriculture has performed well below expectations during the two recent Plans. Cereal production has declined in per capita terms. The number of the poor has barely declined by 20 million people over three decades, 1973–2005, from 320 million to 300 million; and most of this decline has occurred during the most recent decade (1993/94–2004/05). Low and stagnating incomes among the poor has meant that low purchasing power remains a serious constraint to household food and nutritional security, even if food production picks up as a result of interventions in agriculture and creation of rural infrastructure (discussed in Volume III).

4.1.2 Outcomes in terms of protein-energy malnutrition (PEM) speak for themselves: in 1998–99, according to National Family Health Survey-2 (NFHS-2), as much as 36% of the adult population of India had a body mass index (BMI) below 18.5 (the cut-off for adult malnutrition); eight years later (2005–06) that share had barely fallen to 33% of the population, despite a decade of robust economic growth. Similarly, share of the under-weight children under-3 in the total child population under-3 had not fallen at all (47% in 1998–99 and 46% in 2004–05/06). There is a need to look at food security issues not in isolation as being confined to cereal production and consumption, but to examine how nutritional outcomes can be improved for the vast majority of the poor.

4.1.3 Ensuring food and nutritional security, however, cannot be enough. There are far too many vulnerabilities in the lives of the poor and those just above the poverty line. Around 93% of our labour force works in the informal sector, without any form of social protection, especially against old age. With growing migration of younger rural residents to urban and fast-growing rural areas, elderly parents are often left behind in the village to cope on their own, or are dependent upon women who also have to tend to the family farm, as agriculture feminizes with growing male migration. Old-age pension is thus becoming a crying need for those dependent on insecure employment in the informal economy as well as for parents left behind. Moreover, vulnerability in respect of health arises from the under-funding of the public health system and its inability to provide comprehensive care, which is a major concern for the majority of the population.

Malnutrition: A Conceptual and Empirical Analysis

Some Conceptual Issues

4.1.4 Malnutrition reflects an imbalance of both macro and micro-nutrients that may be due to inappropriate intake and/or inefficient biological utilization due to the internal/external environment. Poor feeding practices

in infancy and early childhood, resulting in malnutrition, contribute to impaired cognitive and social development, poor school performance, and reduced productivity in later life. Malnutrition therefore is a major threat to social and economic development as it is among the most serious obstacles to attaining and maintaining health of this important age group.

4.1.5 When poor nutrition starts in utero, it extends throughout the life cycle, particularly in girls and women. This not only amplifies the risks to the individual's health but also increases the likelihood of damage to future generations, through further foetal retardation. Low birth weight increases the risk of infant and child mortality and those who survive are usually undernourished, fall ill frequently, and fail to develop optimally, both physically and mentally. Further, undernourished adults are functionally impaired and unable to sustain productive physical activity throughout the day. Nutrition-related disabilities, such as memory disturbances, osteoporosis, etc., are found among elderly.

4.1.6 When nutritional needs are not met, recovery from an illness also takes longer. Malnutrition is also linked to the growing HIV/AIDS pandemic. Malnutrition makes adults more susceptible to the virus. Inadequate infant feeding aggravates its transmission from mother to child; and evidence suggests that malnutrition makes ARV drugs less effective. In addition, good nutrition can help to extend the period when the person with HIV/AIDS is well and working. There are also new dimensions to the malnutrition problem. The epidemic of obesity and diet-related NCDs is spreading in India slowly but steadily. India is beginning to suffer from a double burden of undernutrition and obesity. This phenomenon, called 'nutrition transition', means that the national health systems now have to cope with the high cost of treating diet-related NCDs and at the same time, fight under nutrition and the traditional communicable diseases.

4.1.7 Therefore the challenges that still remains include:

- High levels of adult malnutrition affecting a third of the country's adults,
- Inappropriate infant feeding and caring practices,
- High levels of undernutrition, particularly in women and children,
- Micronutrient undernutrition,
- Emerging diet-related diseases,
- Inadequate access to health care.

Empirical Evidence

4.1.8 The absolute weights and heights of Indians on average have not shown significant improvement over the last 25 years. A staggering percentage of babies in India are born with LBW, a problem that began in utero. A mean deficit of 1.4 to 1.6 kg in weight at one year worsens to a deficit of about 9 kg at 10 years and 13–18 kg when adults. A similar trend is seen in the case of heights (where a deficit of 1cm at 1 year reaches 12–13 cm when adult). It is therefore, not surprising that about half of children are under weight (moderate to severe under nutrition) or are stunted. There are no differences in the nutritional status between girls and boys; however, the mean heights and weights of children from SC/ST and other marginalized sections are below the national mean values. In addition, about 30% of all adults have BMI<18.5 (33% of women and 28% of men), which defines adult malnutrition.

4.1.9 Some of the reasons for this grim picture in India are as follows: With a 500–600 kcal deficit in energy intake (almost 40% of their requirement) and multiple nutrient deficiencies such as fat, calcium, iron, riboflavin, vitamin C (all 50% deficit), and vitamin A (70% deficit), it is not surprising that there is massive inadequacy/hunger leading to malnutrition in children and adolescents. Studies from 10 States show that less than 30% of children have protein-calorie adequacy (Table 4.1.1).

4.1.10 On further scrutiny of the diet surveys, it is obvious that over 70 to 80% of the calories consumed by the children (even though inadequate) are derived from cereals and pulses. This results in two things:

(i) Children cannot consume more cereals to make up for the calorie deficiency because of its sheer monotony and lack of energy density.
(ii) In the absence of fats, milk, eggs, and sources of iron, children starve themselves. The resultant

TABLE 4.1.1
Distribution of Children by Protein-calorie Adequacy Status

(%)

Age (yrs)	%	
1–3	31.8	
4–6	28.2	
7–9	28.1	
	Boys	Girls
10–12	26.0	32.9
13–15	34.7	43.1
16–17	50.2	64.0
Adult Sedentary	Men—68.8	Women—81.8
Pregnant Women	64.3	
Lactation Women	62.2	

Source: National Nutrition Monitoring Bureau (NNMB) Reports 2002.

iron deficiency anaemia (IDA), further worsens their appetite.

4.1.11 Therefore in the absence of foods other than cereals and pulses in the diets of children and the inability of children in the age groups of (1–18 years) to derive and satisfy their protein-calorie and other nutrient needs from cereals, the malnutrition scenario can only get worse. Even fats that provide energy density in the diets are not available in adequate quantities (normally fats should provide 30–40% of calorie needs). It is therefore not surprising that there is massive hunger leading to multiple nutrient deficiencies. This is not hidden hunger; it is hunger for nutrient-rich foods.

Trends in All-India Pattern of Consumption Food Expenditure since 1972–73

4.1.12 Per capita cereal consumption of the Indian population has been declining in both rural and urban areas over the past two or three decades. Table 4.1.2 gives per capita quantity of cereal consumption per month in 15 major States as estimated from the 50th (1993–94), 55th (1999–2000), and 61st (2004–05) rounds of NSS, (Ministry of Statistics and Programme Implementation, GoI). It shows that the decline is spread over all the major States

TABLE 4.1.2
Changes in Average per capita Cereal Consumption in 15 States in Physical Terms over the Last Decade in Major States

Year	RURAL Monthly per capita cereal consumption (kg.) in							
	AP	ASM	BHR*	GUJ	HAR	KTK	KRL	MP#
1993–94	13.3	13.2	14.3	10.7	12.9	13.2	10.1	14.2
1999–2000	12.65	12.63	13.75	10.19	11.37	11.53	9.89	12.94
2004–05	12.07	13.04	13.08	10.07	10.66	10.73	9.53	12.16
	MAH	ORS	PUN	RAJ	TN	UP^	WB	IND
1993–94	11.4	15.9	10.8	14.9	11.7	13.9	15.0	13.4
1999–2000	11.32	15.09	10.58	14.19	10.66	13.62	13.59	12.72
2004–05	10.50	13.98	9.92	12.68	10.89	12.87	13.18	12.12
Year	URBAN Monthly per capita cereal consumption (kg.) in							
	AP	ASM	BHR*	GUJ	HAR	KTK	KRL	MP#
1993–94	11.3	12.1	12.8	9.0	10.5	10.9	9.5	11.3
1999–2000	10.94	12.26	12.70	8.49	9.36	10.21	9.25	11.09
2004–05	10.51	11.92	12.21	8.29	9.15	9.71	8.83	10.63
	MAH	ORS	PUN	RAJ	TN	UP^	WB	IND
1993–94	9.4	13.4	9.0	11.5	10.1	11.1	11.6	10.6
1999–2000	9.35	14.51	9.21	11.56	9.65	10.79	11.17	10.42
2004–05	8.39	13.11	9.01	10.84	9.48	10.94	10.39	9.94

Note: *includes Jharkhand; # includes Chhattisgarh; ^ includes Uttaranchal

Source: NSS 50th, 55th, and 61st Rounds.

and affects both rural and urban sectors to a similar extent.

4.1.13 In both rural and urban India, the share of food in total expenditure continued to fall throughout the three decades prior to 2004–05. The overall fall was from 73% to 55% in rural areas and from 64.5% to 42% in urban areas (Table 4.1.3). In urban India, not only the shares of cereals and pulses have fallen, but there has been a fall in the shares of other food groups as well, such as milk and milk products, edible oil, and sugar. In rural India, however, the shares of milk and milk products, egg, fish and meat, and fruits and nuts have increased by about 1 percentage point each, the share of vegetables has increased by 2.5 percentage points, and that of beverages, refreshments, and processed food has increased by 2 percentage points since 1972–73; only the shares of sugar and pulses (the latter, largely during the last decade) have declined noticeably, apart from cereals. In any case, the increase in the share of non-cereals is not enough to compensate for the decline in cereal consumption.

TABLE 4.1.3
Composition of Food Consumption, All-India, Rural, and Urban, 1972–73 to 2004–05

Sector	Year	% share of major food groups in total expenditure									
		All food	Cereals	Pulses	Milk and milk products	Edible oil	Egg, fish and meat	Vege-tables	Fruits and nuts	Sugar	Beve-rages, etc.
Rural	72–73	72.9	40.6	4.3	7.3	3.5	2.5	3.6	1.1	3.8	2.4
	87–88	64.0	26.3	4.0	8.6	5.0	3.3	5.2	1.6	2.9	3.9
	93–94	63.2	24.2	3.8	9.5	4.4	3.3	6.0	1.7	3.1	4.2
	99–00	59.4	22.2	3.8	8.8	3.7	3.3	6.2	1.7	2.4	4.2
	04–05	55.0	18.0	3.1	8.5	4.6	3.3	6.1	1.9	2.4	4.5
Urban	72–73	64.5	23.3	3.4	9.3	4.9	3.3	4.4	2.0	3.6	7.6
	87–88	56.4	15.0	3.4	9.5	5.3	3.6	5.3	2.5	2.4	6.8
	93–94	54.7	14.0	3.0	9.8	4.4	3.4	5.5	2.7	2.4	7.2
	99–00	48.1	12.4	2.8	8.7	3.1	3.1	5.1	2.4	1.6	6.4
	04–05	42.5	10.1	2.1	7.9	3.5	2.7	4.5	2.2	1.5	6.2

The Problem with Child Malnutrition

4.1.14 Sixty years after independence, nearly half of India's children under three are malnourished (see Table 4.1.4). India has the largest number of children in the world who are malnourished. Even more significantly, India's rate of malnutrition is worse than that in Africa on average. In fact, South Asian countries have the world's worst rate of malnutrition, and India's rate of malnutrition is among the worst in South Asia (together with Nepal and Bangladesh). Even the best State in India, Kerala, has a rate of child malnutrition comparable to that for Africa's average rate.

4.1.15 Even more worrying is the fact that the rate of malnutrition, defined as underweight children relative to an internationally accepted reference population, has not declined significantly over the last decade and a half. In 1992–93 (NFHS-1) it was 54%; in 1998–99 (NFHS-2), it was 46%, and in 2005–06 (NFHS-3) it was 46%—hardly any change over a period in which the economy has been growing at over 6% p.a. on average. Naturally, given the increase in population,

TABLE 4.1.4
Trends in Childhood (0–3 Years of Age)—Malnutrition in India

Nutritional Parameter	1992–93 NFHS-1	1998–99 NFHS-2	2005–06 NFHS-3
Stunted	52.0	45.5	38.4
Wasted	17.5	15.5	19.1
Underweight	53.4	47.0	45.9

Note: Figures of NFHS-1 above are for 0–4 years. However, NFHS-1 later generated data for below 3 years children with 51.5% children being underweight.

Source: NFHS surveys, IIPS, MoHFW, GoI.

the number of malnourished is likely to have actually increased.

4.1.16 Bihar, Jharkhand, MP, Chhatisgarh, and UP are the States with malnutrition rates well above the national average of 46% (Annexure 4.1.1). Some of these States have actually seen an increase in the share of malnourished children in the 0–3 year-old child population between 1998–99 (NFHS-2) and 2005–06 (NFHS-3). A concerted effort is planned, therefore, in the Eleventh Plan to reduce the child malnutrition rate in each State to the extent identified in Annexure 4.1.2.

4.1.17 NFHS-3 shows that anaemia among children and women is on the rise. As much as 74.2% of the children of 6–35 months were anaemic (NFHS-2) that has increased to 79.2% (NFHS-3). Similarly, the percentage of married women in the age group 15–49 who were anaemic has increased from 51.8% in 1998–99 to 56.2% in 2005–06 and that of pregnant women of 15–49 years has increased from 49.7% in 1998–99 to 57.9% in 2005–06 (see later section on Micronutrient deficiencies).

A Summary of the Situation Analysis

4.1.18 In other words, what emerges is that first, per capita availability of cereals has declined, and second, the share of non-cereals in food consumption has not grown to compensate for the decline in cereal availability. Even if the latter has grown there may well be a problem for significant sections of the population who may be feeling the distress caused by falling per capita cereal availability, and who also do not have the purchasing power to diversify their food consumption away from cereals.

4.1.19 In any case, the significant point is that overall per capita intake of calories and protein has declined consistently over a 20-year period from 1983 to 2004–05, according to NSS data (see Table 4.1.5). Rural calorie consumption per day has fallen from 2221 to 2047, an 8% decline. Similarly, the urban calorie consumption fell by 3.3%, from 2080 to 2020. The rural protein consumption fell by 8% over the same period and urban consumption remained the same over the 20-year period. Since this data is for households, it does not capture the impact of intra-household food distribution. It is well known that women and girls in poor households receive poorer quality food and less food in a normal, patriarchal household.

TABLE 4.1.5
Per Capita Intake of Calorie and Protein

	Calorie (K cal/day)		Protein (gm/day)	
	Rural	Urban	Rural	Urban
1983 (NSS 38th Round)	2221	2089	62.0	57.0
1993–94 (NSS 50th Round)	2153	2071	60.2	57.2
1999–2000 (NSS 55th Round)	2149	2156	59.1	58.5
2004–05 (NSS 61st Round)	2047	2020	57.0	57.0

Source: NSS Report No. 513, Nutritional Intake in India, 2004–05.

4.1.20 So taken together we have a set of overlapping problems in the country. First, the calorie consumption *on average* in rural areas has fallen way below the calorie-norm for the rural poverty line (2400 calories). It was lower than that norm 20 years ago and it has actually fallen since then on average. Similarly, the poverty line threshold for urban areas for calorie consumption is 2100 and urban consumption too was lower on average than the norm two decades ago and has also fallen. It is obvious that the non-poor consume more calories on average than the poor. Hence, to allow for distributional inequity that prevails in any society, calorie availability on average in the country as a whole should be at least 20% higher than the per capita requirement (i.e. 2100 calories for urban and 2400 calories for rural areas). Even 20 years ago, Indian consumption of calories on average was way below the requirements. So inevitably the poor, let alone the extremely poor, were and still are consuming calories that are way below the norm. And the intra-household allocation, not just among the poor but also among those who are marginally above the poverty line, is likely to be highly skewed against women and girls. When one combines this fact with the well-known fact (established in repeated NFHS since the early 1990s) that women and girls are less likely to access health services when they fall sick, it is hardly surprising that the sex ratio in the population is as low as it is, and falling.

4.1.21 The state of PEM has shown little no or signs of improvement over several decades. It is in this context that the Minimum Support Price (MSP) and the Public Distribution System (PDS) become significant.

Minimum Support Price, Food Procurement Policy, and the Public Distribution System

4.1.22 Food security is the outcome of both production and distribution decisions. Agricultural production issues are discussed in the 'Agriculture' chapter of the Eleventh Plan (Volume III). In fact, the GoI has in 2007 taken the decision to introduce a Food Security Mission, which will focus on increasing production of cereals and pulses. This chapter focuses on the distribution, affordability, and availability issues in respect of calories. This section discusses what changes need to happen in the PDS in order to both improve food security as well as reduce fiscal subsidies.

Minimum Support Price (MSP)

4.1.23 Foodgrains are procured at the MSP fixed by the government mostly in a small number of grain-surplus States in the north of India, which are then transported across the country to deficit States (the latter mostly in the south and west of the country). MSPs are fixed on rates recommended by Commission for Agricultural Costs and Prices (CACP), which are set using mainly cost of cultivation. These grain stocks essentially supply the PDS of the country. Through the PDS, cereals are made available to BPL households, as well as to Above Poverty Line (APL) households—at differential prices. There is a third category of beneficiaries—*Antyodaya* card holders. Under the *Antyodaya Anna Yojana* (AAY), 35 kg of foodgrains are being provided to the poorest of the poor families at the highly subsidized rate of Rs 2 per kg for wheat and Rs 3 per kg for rice.

4.1.24 During the years of accumulation of stocks in the Central Pool until 2001–02, it was believed that excess procurement was on account of the government's decision to fix the MSP for paddy and wheat in excess of the levels prescribed by the CACP. Grain stocks have declined since then.

Stabilization

4.1.25 Given the limited purchasing power of the poor, there is a need to contain cereal price rises. For this purpose government maintains foodgrains buffer stocks through the Food Corporation of India (FCI). Stocks had reached to 256.17 lakh tonnes (rice) and 324.15 lakh tonnes (wheat) for the year 2001–02. But in 2007, the stocks of these two foodgrains fell to 131.71 lakh tonnes (rice) and 45.63 lakh tonnes (wheat), respectively.

4.1.26 To achieve the cereal price stabilization objective of PDS, food stocks with FCI should be at a reasonable level. In recent years, both procurement and stocks with FCI have tended to fall. If the needs of procurement to maintain adequate stocks requires procurement prices to be higher than MSP, a transparent mechanism is needed that enables government to undertake commercial purchases at prices comparable to those paid by private traders. This could be done if the procurement price (i.e. MSP plus bonus) was announced at the beginning of the purchase season, along with a procurement target in terms of quantity. After the procurement target was met, the bonus would be suspended. However, if procurement quantities, even with bonus are not met, FCI should be able to tender from both domestic as well as international markets, after standard procurement operations, to make up the deficit to maintain stocks with the FCI.

Decentralized Procurement

4.1.27 Unlike the mid-1990s, cereal procurement was earlier concentrated in a few northern States. However, under the decentralized procurement scheme introduced in 1997–98, the State Governments themselves undertake direct purchase of paddy and wheat and procurement of levy rice on behalf of the GoI. Purchase centres are opened by the State Governments and their agencies as per their requirements. The State Governments procure, store, and distribute foodgrains under Targeted Public Distribution System (TDPS) and other welfare schemes. In the event of the total quantity of wheat and rice thus procured falling short of the total allocation made by the Central Government, FCI meets the deficit out of the Central Pool stocks. Under this scheme, State-specific economic cost is determined by the GoI and the difference

between the economic cost so fixed and the central issue prices (CIP) is passed on to the State as food subsidy.

4.1.28 The Decentralized Procurement Scheme, which is presently in operation in 11 States, has been very successful in increasing procurement of rice in many non-traditional States, as can be seen below in Table 4.1.6.

4.1.29 There is a need for States to increase procurement to reduce their requirement of foodgrains from the Central Pool. There is also a need for more States with large production, such as Bihar for wheat and rice and Assam for rice, to adopt the Decentralized Procurement scheme. If this were to happen, there could be a considerable saving in terms of transportation costs.

TABLE 4.1.6
Procurement of Rice in DCP States during Kharif Marketing Season

(Figures in lakh tonnes)

S. No.	State	2002–03	2003–04	2004–05	2005–06	2006–07*
1	WB	1.26	9.25	9.44	12.75	5.19
2	UP	13.60	25.54	29.71	31.51	21.01
3	Chhattisgarh	12.91	23.74	28.37	32.65	25.20
4	Uttaranchal	2.32	3.23	3.61	3.36	1.74
5	A&N Islands	-	Neg.	0.01	-	-
6	Orissa	8.90	13.73	15.90	17.85	14.18
7	Tamil Nadu	1.07	2.07	6.52	9.26	10.38
7	Kerala	-	-	0.33	0.94	1.05
8	Karnataka	-	-	0.21	0.48	0.12
	Total (a)	40.06	77.56	94.10	108.80	78.86

Note: *Position as on 19.04.07.

Food Subsidy

4.1.30 Food subsidy is provided in the Budget of the Department of Food and Public Distribution to meet the difference between the economic cost of foodgrains procured by FCI and their sales realization at CIP for TPDS and other welfare schemes. In addition, the Central Government also procures foodgrains for meeting the requirements of buffer stock. Hence, part of the food subsidy also goes towards meeting the carrying cost of buffer stock.

4.1.31 The food subsidy bill of the GoI peaked in 2004–05 and declined as stocks declined. However, with higher MSPs declared more recently, there is a danger that the subsidy is likely to rise (see Table 4.1.7) due to increase in MSP, announcement of bonus, and carrying cost of FCI. The Table 4.1.7 gives the figures of food subsidy of the GoI.

TABLE 4.1.7
Food Subsidy

Year	Food Subsidy (Rs in crore)
1996–97	5166
1997–98	7500
1998–99	8700
1999–2000	9200
2000–01	12010
2001–02	17494
2002–03	24176
2003–04	25160
2004–05	25746
2005–06	23071
2006–07	23827

Public Distribution System

4.1.32 The PDS is a major State intervention in the country aimed at ensuring food security to all the people, especially the poor. The PDS operates through a large distribution network of around 4.89 lakh fair price shops (FPS), and is supplemental in nature. Under the PDS, the Central Government is responsible for the procurement and transportation of foodgrains up to the principal distribution centres of the FCI while the State Governments are responsible for the identification of families living below the

poverty line, the issue of ration cards, and the distribution of foodgrains to the vulnerable sections through FPSs. *PDS seems to have failed in serving the second objective of making foodgrains available to the poor. If it had, the consumption levels of cereals should not have fallen* on average—as it has consistently over the last two decades.

4.1.33 With a view to improving its efficiency, the PDS was redesigned as TDPS with effect from June 1997. The TPDS envisages identifying the poor households and giving them a fixed entitlement of foodgrains at subsidized prices. Under the TPDS, higher rates of subsidies are being given to the poor and the poorest among the poor. The APL families are also being given foodgrains under TPDS but with lower subsidy. The scale of issue under TDPS for Antyodaya cardholders began with 10 kg per family per month, which has been progressively increased to 35 kg per family per month with effect from April 2002.

4.1.34 Under the TPDS, the identification of BPL families was to be carried out by the State Governments based on criteria adopted by the Ministry of Rural Development (MoRD). However, the total number of beneficiaries was to be limited to the State-wise poverty estimates (1993–94) of the Planning Commission projected to the population as on 1.03.2000. Against a total ceiling of 6.52 crore BPL households (as per the poverty estimates of the Planning Commission for 1993–94 and population projection of the Registrar General as on 01.03.2000), more than 8 crore BPL ration cards have been issued. Similarly against the figure of 18.03 crore households in the country (as per the population projections as on 1.03.2000 of the Registrar General of India), the total number of ration cards issued is around 22.32 crore. This does raise problems at the field level.

Major Deficiencies of TPDS

4.1.35 As identified by various studies, the major deficiencies of the TPDS include: (i) high exclusion and inclusion errors, (ii) non-viability of FPSs, (iii) failure in fulfilling the price stabilization objective, and (iv) leakages.

(I) HIGH EXCLUSION AND INCLUSION ERRORS

4.1.36 The Programme Evaluation Organization's (PEO's) Study (2005) establishes large-scale exclusion and inclusion errors in most States (see Box 4.1.1). It also questions the BPL methodology used for

Box 4.1.1
Performance Evaluation of TPDS

- Only 22.7% FPSs are viable in terms of earning a return of 12% on capital.
- The offtake by APL cardholders was negligible except in Himachal Pradesh, Tamil Nadu, and West Bengal.
- The offtake per BPL card was high in WB, Kerala, Himachal Pradesh, and Tamil Nadu.
- The offtake by the poor under TPDS was substantially higher than under universal PDS.
- There are large errors of exclusion and inclusion and ghost cards are common.
- High exclusion errors mean a low coverage of BPL households. The survey estimated that TPDS covers only 57% BPL families.
- Errors of inclusion are high in Andhra Pradesh, Karnataka, and Tamil Nadu. This implies that the APL households receive an unacceptably large proportion of subsidized grains.
- Leakages vary enormously between States. In Bihar and Punjab, the total leakage exceeds 75% while in Haryana and UP, it is between 50 and 75%.
- Leakage and diversion imply a low share of the genuine BPL households of the distribution of the subsidized grains. During 2003–04, it is estimated that out of 14.1 million tonnes of BPL quota from the Central Pool, only 6.1 million tonnes reached the BPL families and 8 million tonnes did not reach the target families.
- Leakage and diversion raised the cost of delivery. For every 1 kg that was delivered to the poor, GoI had to issue 2.32 kg from the Central Pool.
- During 2003–04, out of an estimated subsidy of Rs 7258 crore under TPDS, Rs 4123 crore did not reach BPL families. Moreover, Rs 2579 crore did not reach any consumer but was shared by agencies involved in the supply chain.

identification of households at State level. There are two problems here. One is the criterion used for allocation of foodgrains by the Central Government to States. The Central Government allocates foodgrains to States based on a narrow official poverty line. There is a need to look at this allocation criterion to States. If we go by the official poverty ratio criterion, only 28% of the population is eligible under PDS at all-India level in 2004–05. However, food-insecure households may be much higher than the official poverty ratios. For example, undernutrition among children and households is much higher than this figure. The use of BPL estimates to determine Central allocations should be revisited because there is a significant mass of households just above the poverty line.

4.1.37 A second problem is the use of BPL method for identifying households by the States. This identification differs from State to State. For example, some of the south Indian States do not follow the official poverty ratio for limiting the ration cards. In Andhra Pradesh, more than 70% of the households have ration cards. This is one of the reasons for high inclusion errors in Andhra Pradesh.

(II) VIABILITY OF FPSs

4.1.38 An important institutional concern is that of the economic viability of FPSs, which appears to have been badly affected by the exclusion of APL population from the PDS (which happened after PDS became TPDS in 1997). The virtual exclusion of the APL population has led to a big decline in offtake. With fewer ration cards to serve, lower turnover, and upper bounds on the margins that can be charged to BPL consumers, the net profits of FPS owners and dealers are lower under the TPDS than before. Since there are economies of scale here, for instance, with respect to transport, the distribution of smaller quantities is likely to make many shops unviable. When FPSs are economically viable, there are fewer incentives to cheat.

4.1.39 Some of the steps suggested by the High-level Committee (HLC) on Long Term Grain Policy to revive the retail network were the following:

'Relax restriction on eligibility to be a licensed FPS; make NGOs and village-level retailers eligible to undertake licensed PDS distribution, and in particular, encourage women; remove restrictions on the range of commodities that can be sold in a FPS; and allow registered associations of FPS dealers to purchase the grain allocated directly from the FCI'.

(III) REGIONAL ALLOCATION AND PRICE STABILIZATION OBJECTIVE

4.1.40 One of the objectives of the PDS has always been to ensure price stabilization in the country by transferring grain from cereals-surplus to cereals-deficit regions. Targeted PDS has reduced the effectiveness of this objective. This is because under TPDS, the demand for cereals is no longer determined by State Governments (based on their requirements and in practical terms on past utilization) but on allocations decided by the Central Government (based on poverty estimates prepared by the Planning Commission). The new system of allocation, as pointed out by the HLC, has led to imbalances between actual allocations and 'allocations necessary to meet the difference between cereals production and requirement'.

(IV) LEAKAGES AND DIVERSION

4.1.41 Undoubtedly, in many parts of India, the current system of delivery has weaknesses resulting in leakages at different stages. As the Programme Evaluation Organization, PEO Study (2005) points out, 'the share of leakages in offtake from the Central Pool is abnormally high, except in the States of West Bengal and Tamil Nadu'. Further, 'in terms of leakages through ghost BPL cards, there are fewer problems in Andhra Pradesh, Haryana, Kerala, Punjab, Rajasthan and Tamil Nadu than in other States'. At the FPS level, leakages were found to be high in Bihar, Punjab, and Haryana.

4.1.42 The study goes on to identify the factors associated with relatively low leakages at the FPS level and concludes that 'general awareness of the beneficiaries, high literacy and strong grass root-level organizations (particularly PRIs) have helped States like West Bengal and Himachal Pradesh in minimising FPS level leakage, while in the case of Tamil Nadu, it is the elimination of private retail outlets'. It has been documented that strong political commitment and careful monitoring by the bureaucracy are the key elements of the success of PDS in Tamil Nadu.

4.1.43 Leakages cannot be lowered by finer targeting using official poverty criterion. They require political commitment and participation of the people in the delivery process. The nexus between officials, the mafia, and ration shop dealers must be broken in order to reduce leakages. Monitoring and accountability of TPDS (food security watch) should be improved in a significant way. The TPDS needs to be strengthened by means of the effective use of IT including introduction of a unique ID-based smart card system.

Coverage of Commodities Supplied through TPDS

4.1.44 If nutrition security is one of the considerations of TPDS, the government may explore the possibility of including more commodities under TPDS. For example, cereals such as jowar, bajra, and also pulses could be introduced in TPDS because of nutritional considerations. The consumption of pulses is low for the poor. Operational details of supplying these commodities, particularly, pulses have to be worked out. It is true that presently the country has a shortage of these commodities. However, the introduction of these commodities may encourage production of these crops especially in dry land areas. The National Food Security Mission has identified pulses as an area of focus.

Steps Taken to Strengthen the TPDS and Plan Schemes

4.1.45 The GoI has taken following measures to strengthen TPDS and check diversion of foodgrains meant for TPDS:

CITIZEN'S CHARTER

- A Citizens' Charter has been issued in November 1997 for adoption by the State Governments to provide services in a transparent and accountable manner under PDS. Instructions have been issued for involvement of PRIs in identifications of BPL families and in Vigilance Committee.

PDS (CONTROL) ORDER, 2001

- The Order, inter alia, covers a range of areas relating to correct identification of BPL families, issue of ration cards, proper distribution, and monitoring of PDS-related operations. Contraventions of the provisions of the Order are punishable under the Essential Commodities Act, 1955. Clearly, these do not seem to have had much impact, since the NSSO estimates of 2006 suggest that the extent of leakage and diversion of grain has only increased.

4.1.46 In addition, a number of Plan Schemes have been introduced.

(I) CONSTRUCTION OF GODOWNS

4.1.47 The Scheme was conceived during the Fifth Five Year Plan to build and increase the storage capacity available with FCI for storage of foodgrains.

(II) INTEGRATED INFORMATION SYSTEM FOR FOODGRAINS MANAGEMENT (IISFM)

4.1.48 The main objective of the IISFM project in the FCI, initiated in 2003–04, is to put in place an online MIS that would give the stock position in any depot at any given point of time.

(III) STRENGTHENING OF PDS

Food Credit Cards/Computerization of PDS Operations

4.1.49 A new scheme 'Computerization of PDS Operations' with a token provision of Rs 5 crore was introduced in 2006–07. The computerization of PDS operations would be an improvement on the existing system of ration cards, that is, the present manual system of making entries, etc. The new system will have personal details of all members of the family including their entitlement and the entire network of PDS from taluk to State level will be linked. With this kind of system in place, the objectives of Food Credit Card Scheme of checking diversion of foodgrains and eliminating the problem of bogus ration cards are expected to be met.

Curbing Leakages/Diversion of Foodgrains Meant for TPDS

4.1.50 This is a new scheme introduced during the Eleventh Five Year Plan to strengthen the PDS. The scheme aims at taking effective measures to curb diversion and leakages through Global Positioning System, Radio Frequency Identification Device, etc.

Generating Awareness amongst TPDS Beneficiaries about their Entitlement and Redressal Mechanism and Monitoring

4.1.51 A mass awareness campaign on the rights and entitlements of TPDS beneficiaries is proposed through newspaper advertisements, bill boards, posters, printing of annual calendar on the themes of TPDS, and audio-visual publicity measures such as short spots/quickies, audio jingles/radio spots, TV serials/documentaries.

Training and Awareness of Negotiable Warehouse Receipt System

4.1.52 This is a new scheme for the Eleventh Five Year Plan. The warehousing receipts at present do not enjoy the fiduciary trust of depositors and banks, as there is fear of not being able to recover the loans in events such as fraud or mismanagement on behalf of the warehouse or insolvency of depositor. The legal remedies are also time consuming and inadequate. In this context, it is proposed to develop a negotiable warehouse receipt system for commodities including agricultural commodities. The negotiable warehouse receipt system will result in increase in the liquidity in the rural areas, encouragement of scientific warehousing of goods, lower cost of financing, etc.

(IV) VILLAGE GRAIN BANK SCHEME

4.1.53 The Village Grain Bank Scheme, which was hitherto with the Ministry of Tribal Affairs, has been transferred to the Department of Food and Public Distribution w.e.f. The objective of the scheme is to establish Grain Banks in chronically food-scarce area and to provide safeguard against starvation during the lean period. The scheme is also to mitigate drought-induced migration and food shortages by making foodgrains available within the village during such calamities. During 2006–07, there was a budget provision of Rs 50 crore for setting up 8591 Village Grain Banks in food-scarce areas.

Further Innovations Needed to Strengthen TPDS and the Way Forward

4.1.54 One of the long-standing criticisms of the TPDS has been that offtake of PDS cereals (rice and wheat) by States from FCI does not match with NSS estimates of PDS consumption of those same grains (as we noted earlier). For instance, Table 4.1.8 shows that, according to NSS, over 1993–94, 1999–2000, and 2004–05, consumption of PDS grains rose. It also shows that offtake of PDS grain from FCI by States increased much more than consumption over the same decade. The difference between the two shows the extent of leakage of PDS wheat and rice. This leakage [defined as 1—{ratio of (a) to (b)}] was 28% for wheat and rice together in 1993–94, but it had risen to 54% by 2004–05—a very significant increase in leakage. These facts clearly show that TPDS is in urgent need of reform.

TABLE 4.1.8
PDS Implied Leakage—Offtake vs Consumption

	1993–94	1999–2000	2004–05
(a) NSS PDS consumption (m. tons)			
Rice	7.20	9.30	9.98
Wheat	3.44	2.99	3.55
Total	10.64	12.29	13.53
(b) PDS offtake (m. tons)			
Rice	8.84	11.35	16.62
Wheat	5.86	5.76	13.02
Total	14.70	17.11	29.65
Ratio of (a) to (b)			
Rice	0.81	0.82	0.60
Wheat	0.59	0.52	0.27
Total	0.72	0.72	0.46

Source: NSS.

4.1.55 These facts are further underlined by Annexure 4.1.4, which demonstrates the massive leakage of the fiscal subsidy to the non-poor on the one hand and the ineffective targeting of the poor by the cardholder-based TPDS system.

4.1.56 Annexure 4.1.5 drives home the point about the poor targeting by TPDS benefits. It estimates the benefits in rupees per household of PDS grain beneficiaries [calculated as PDS quantity consumed* (PDS Price—Average Market Price)]. It shows that the benefits to the household are dependent upon whether you have a card or not (and which card you have—APL, BPL, or Antyodaya), and not on whether you are poor or non-poor. In fact, it demonstrates that there is very little difference between the benefits (in Rs/household) of poor and non-poor households

when one compares poor BPL cardholders with non-poor BPL cardholders, or when comparing poor AAY cardholders with non-poor AAY cardholders.

4.1.57 The TPDS in its current form as a anti-poverty programme clearly is not doing very well. Given these facts, a restructuring of the TPDS has been suggested.

4.1.58 In this context, a recommendation of the HLC on Long Term Grain Policy (2000) was that instead of the current distinction between APL, BPL, and Antyodaya in terms of issue pricing for rice and wheat, there should be a single issue price for grain issued by the FCI from its warehouses. This recommendation, sometimes identified with the return to universal PDS from TPDS adopted in 1997, has been criticized on a number of grounds. First, that if the same price for BPL and APL households was charged, this would not be financially viable for the BPL. If existing AAY and BPL cardholders were charged a higher price, there would be a diversion of benefits from the relatively poor to the relatively rich. Second, there might be pressure to keep the uniform CIP low as high common price for BPL and APL would have adverse consequences for the poor. On the other hand, a low CIP would increase even further the fiscal subsidy. Third, any widening in the effective reach of PDS due to its universalization would put unbearable pressures for the supply of grain into the PDS.

4.1.59 It needs, however, to be noted that the HLC had not altogether ruled out the continuation TPDS in States where this might be the best option. Its recommendation was that there should be a single CIP as far as FCI is concerned for each grain fixed at FCI's acquisition cost and that the existing subsidy beyond this should be passed on to the States on the condition that this be used for food based schemes.

4.1.60 The key issue here is whether or not the existing subsidies that the HLC recommended should be given to the States as cash or best targeted to the intended beneficiaries by means of the existing differential pricing system with lowest prices for Antyodaya, slightly higher price for BPL, and higher still for APL cardholders. The view of the HLC was that although this differential pricing system may work well for some States, it was not necessarily the case in most others and that removing the price differentials in PDS would enable FCI to concentrate on its proper role of price stabilization rather than get involved, as it has, with the complexities of an anti-poverty programme. Also, the HLC had pointed out that differential pricing of the same grain is an invitation to corruption and, therefore, to leakages and other deadweight losses—as already shown by the PEO study cited above as well as more recent evidence emerging from the NSSO. The HLC had suggested that large savings were possible if the subsidy on FCI account could be used to expand other food-based schemes like ICDS, Mid Day Meals, and food entitlement in employment programmes. However, as already mentioned, the HLC left this choice to the States allowing them to continue with the existing TPDS if they so wish to do, by having their own differential prices rather than differential price at the FCI stage.

4.1.61 As we have noted in the tables above, data available from the 61st Round of NSS supports some of the concerns expressed by the HLC. NSS 61st Round also enables an assessment of how effectively PDS and other food based schemes such as MDM, ICDS, and Food for Work are able to reach the poor. This shows that: (i) only about 36% of the poor have either BPL or Antyodaya cards, and also that about 40% of such cards are with the non-poor (Annexure 4.1.4); (ii) possession of appropriate cards (e.g. BPL or Antyodaya) rather than actual poverty status is the determinant of the benefits derived from targeted TPDS (Annexure 4.1.5); (iii) in more self-selecting schemes such as MDM, ICDS, and Food for Work, the total number of beneficiaries is similar to the number currently benefiting from a BPL or AAY status and indeed these self-targeted schemes are somewhat better reaching the poor than the assignment of BPL cards (Annexure 4.1.6). Although not conclusive, this observation taken together suggests that the *leakages of physical grain could be reduced without greater fiscal cost and with somewhat better targeting towards the poor by redirecting subsidies currently in the PDS to better funding of the other schemes (i.e. the MDM, the ICDS).* However, it was noted by the HLC that the incident of leakages and the effectiveness of PDS targeting varies considerably from State to State, suggesting that

a one-size-fits-all approach to food and nutrition management is highly mistaken.

Other Measures Needed to Reform TPDS

INTRODUCTION OF FOOD STAMPS

4.1.62 If markets are integrated, food stamps system may be introduced, which is supposed to be more effective than the present system. On food stamps/coupons, the HLC has observed as follows: 'In the long run, as markets get better in tegrated, the PDS function need not remain restricted to designated FPS and a food coupon system valid even outside PDS outlets may become possible. Food coupons may allow wider choice of consumers in terms of commodities and outlets. In the Committee's view, this is a course which should be followed with considerable caution in view of the experience of other countries, and the possibility of counterfeiting. However, the more important reason food stamps have not been successful elsewhere has been the erosion in the value of the coupons where it was fixed in nominal terms. If the coupon system is to succeed the PDS suggested above, the value of the coupon should be indexed to food inflation. The coupon system should not lead to a dilution of the Central Government commitment to food security'. Cash for food subsidies (sometimes known as food stamps) eliminate the need for dual retail marketing mechanisms. This can resolve the endemic problem of uneconomic viability of FPS. As a way of restoring economic viability, the HLC on Grain Policy recommended that FPS should be allowed to sell other commodities. This recommendation of the HLC needs to be considered by the States.

MULTI-APPLICATION SMART CARDS (MASCS)

4.1.63 MASCs is one of the technological breakthroughs of recent times. MASCs facilitate simplification of procedures and enhancing the efficiency in administering various schemes. The National e-Governance Policy fully recognizes the significance of this technological revolution. On-the-spot availability of proof of identity, authentic transaction history, and entitlement details are required at the point of service delivery. It will also allow other innovations/experiments such as the division of the PDS food entitlement between the Head of household and his/her (non-earning) spouse or transfer of entire household entitlement to the housewife/mother. Similarly, different models can be used for kerosene supply and fertilizer supply to farmers. In other words, the precise model for delivery of the subsidy or income transfer to individuals/households can be decided separately and/or modified overtime.

WEB-ENABLED SYSTEMS

4.1.64 Many departments of the Central Government, notably the MoRD, are in the process of developing web-enabled systems that provide information about government programmes to beneficiaries and also details of the benefits received by the targeted beneficiaries. Easy access to such information is the most effective means to empower the beneficiaries and their well-wishers/representatives. Such web-enabled systems can be created for the PDS.

Way Forward

- NSS 61st Round enables an assessment of how effectively PDS and other food based schemes such as MDM, ICDS, and Food for Work are able to reach the poor. This shows that in more self-selecting schemes such as MDM, ICDS, and Food for Work, the total number of beneficiaries is similar to the number currently benefiting BPL or AAY status and indeed these self-targeted schemes are somewhat better reaching the poor than the assignment of BPL cards. Thus the leakages of physical grain could be reduced without greater fiscal cost and with somewhat better targeting towards the poor by redirecting subsidies currently in the PDS to better funding of the other schemes (i.e. the MDM, the ICDS).
- However, a one-size-fits-all approach to food and nutrition management is mistaken. As there are large differences in the efficiency of implementation of the PDS among the States, it may be desirable to introduce State-specific designs and implementation strategies rather than continuing with a uniform design. Separate designs and implementation strategies may be thought of for areas with high concentration of the poor.
- Since some distinction needs to remain between the 'poor' and 'non-poor', the nature of exclusion/inclusion errors suggests that it is much better to

define 'poor' for PDS purposes as much larger than current Planning Commission estimates of the number of poor, and exclude altogether the residual 'non-poor'. If the current allocation of 35 kg per household per month continues, the present PDS offtake (rice + wheat) of about 40 million tonnes would meet PDS requirements of nearly 10 crore households, that is, roughly 60% more households than those defined to be poor by current official poverty estimates.

- The effectiveness of the system can also be improved by better management with the help of IT. Computerization of PDS operations and introduction of a unique ID-based Smart Card System would help in addressing the issues related to bogus ration cards, diversion of foodgrains, etc. The Eleventh Plan will therefore focus on improving the delivery mechanisms and the monitoring arrangements based on IT.
- There is also a need to make concerted efforts for minimizing the operational costs of the FCI from the present high levels through better management practices so that major part of the food subsidy actually accrues to the beneficiaries.
- Attention should also be given to streamlining and standardizing the State level taxes on procurement of foodgrains. Decentralized procurement will be further encouraged and extended to other States with potential for procurement. It is also necessary to strengthen both domestic and international trade in foodgrains by means of appropriate changes in trade policies.

4.1.65 The centralized system involving FCI's stabilization operations would need to be strengthened. This would be helped if FCI is relieved of having to operate the system involving differential prices (i.e. between BPL and APL prices). The total projected GBS for the Eleventh Plan for the Department of Food and Public Distribution is Rs 614 crore (at 2006–07 prices) and Rs 694 crore (at current prices).

Malnutrition: Addressing It through a Revamped ICDS

4.1.66 The ICDS, which has been in existence for over three decades, was intended to address the problem of child and maternal malnutrition, but has clearly had limited impact. Child malnutrition has barely declined at all in a decade and a half, anaemia among women and children has actually risen (see Annexure 4.1.3) and a third of all adult women were undernourished at the end of 1990s and also in 2005–06. It has also had limited coverage. Therefore, the answers are increasing coverage to ensure rapid universalization; changing the design; and planning the implementation in sufficient detail that the objectives are not vitiated by the design of implementation. Besides, all its original six services have to be delivered fully for the programme to be effective: (i) supplementary nutrition programme (SNP), (ii) immunization, (iii) health check-up, (iv) health and nutrition education, (v) referral services, and (vi) PSE.

4.1.67 First, the ICDS has to be universalized. Second, the current scheme does not focus on 0–3 year children. But malnutrition sets in in utero and is likely to intensify during the 0–3 year period, if not addressed. In fact, this window of opportunity never returns in the lifetime of the child. A child malnourished during 0–3 years will be marred physically and mentally for life. The design of the scheme has to address this problem frontally. This has several implications:

- *Mother's malnutrition and its knock-on effects on child malnutrition:* Malnutrition begins in utero, as Indian mothers on average put on barely 5 kg of weight during pregnancy. This is a fundamental reason underlying the LBW problem. They should put on at least 10 kg of weight, which is the average for a typical African woman. Middle class Indian women tend to put on well over 10 kg weight during pregnancy. But this is not the only problem; LBW is also partly explained by low BMI of women in general, prior to their becoming pregnant. Small women (who are small before they become pregnant) give birth to small babies. In 1998–99 as much as 36% of all Indian women (48% in Orissa and Chhattisgarh) had a below normal BMI; the share had barely dropped to 33% in 2005–06 (according to NFHS-3).
- *Breastfeeding in the first hour:* Within the first hour of birth, the infant must be breastfed. Only 23% of Indian babies were breastfed within the first hour

(in 2005–06). If Indian mothers enhance early initiation of breastfeeding within one hour, we can save 250000 babies from death annually by just this action; this would reduce the overwhelming share of neonatal mortality in our IMR.

- *Exclusive breastfeeding for six months* is necessary to avoid unnecessary infections to the baby, develop the baby's immunity, and ensure growth. Only 46% of Indian babies are exclusively breastfed; the remaining half is exposed to unhygienic methods of feeding (see Annexure 4.1.2).
- *Solid food six months on*. The baby must begin to receive solid, mushy food at 6 months (i.e. together with breastfeeds) for the baby to continue to grow in the way nature intended her to grow. Only 56% of mothers introduce appropriate solid, mushy food in a timely manner after 6 months. Not surprising that NFHS-2 data shows that the proportion of underweight children rises from 16% to more than 60% between the ages of 6 months and 2 years. This malnutrition also affects the mental development of the child for life. About 90% of the development of the brain takes place before a child reaches the age of two years (see Annexure 4.1.2).

4.1.68 The ICDS scheme accordingly needs to be restructured in a manner that addresses some of the weaknesses that have emerged and is suitable for universalization. The programme must effectively integrate the different elements that affect nutrition and reflect the different needs of children in different age groups. For the purpose the programme needs to be restructured in a Mission Mode with a Mission Structure at the central level and a similar structure at the State level. The Ministry of Women and Child Development (MoWCD) will prepare proposals for restructuring along the following lines so that the restructured programme can become effective on 1 April 2008.

- 0–3 year old children. Without prejudicing the interest of the 3–6 year olds, the focus of the entire ICDS has to shift to a much greater extent than before to the 0–3-year-olds. The AWWs in all anganwadi centres could focus on children under three years of age, pregnant, and lactating mothers. The tasks of this AWW would include breastfeeding counselling, nutrition and health education and counselling to ensure solid, mushy food is introduced by six months to all infants, growth monitoring, provision of SNP to children in the six months to three years age group and pregnant and lactating mothers, and motivation for ANC, immunization, and related matters.
- 3–6 years. At present SNP is provided to children in the age group of 3–6 years. A major factor adversely affecting the success of ICDS is leakages which at least in part is due to centralized procurement of ready to eat (RTE) foods. Centralized procurement of food has the additional problem of irregular supply of food in the anganwadis, and thrusting food items on beneficiaries irrespective of their taste and preferences. Very often this leads to non-acceptance or rejection of the food distributed. The food distributed has to be hygienically prepared and culturally acceptable. Some States, for example Tamil Nadu and Maharashtra, are successfully serving hot cooked meals.
- Accordingly, it is necessary that the existing mechanism of fund flow to States for implementation of the scheme of ICDS be reviwed and restructured in the Eleventh Plan. In the vision for the Eleventh Plan outlined in Volume I, funds should ideally be released directly by the Centre through States to districts, with DPC and PRI institutions involved. The District Planning process will be strengthened if Gram Panchayats were involved for local level procurement of food items and supervision of AWWs. The Women and Child Development (WCD) prefers a fund release mechanism involving State, district, and block level societies working in Mission mode. The actual restructuring in the Eleventh Plan would need to keep in view both the urgency implicit in the Mission-mode approach and the convergence aspects that are implied in the overall Eleventh Plan vision for effective delivery.
- The feeding components present some choices. One approach is to rely on hot cooked meals according to local taste and provided at the anganwadi centres. Preparation of meals will be entrusted to Self-help Groups (SHGs) or Mothers' Groups, as per decision of the Village Committee. An alternative approach is to rely upon RTE micronutrient

fortified hygienically prepared food. The decision between these two options need to be based on a careful evaluation of pros and cons and will be an important part of the proposed restructuring. The choice between the two could also be left to decentralized decision making.

- Poor sanitation leads to high incidence of diarrhoeal disease in the early years, undermining whatever little poor nutrition the infant taking in; hence, the Total Sanitation Campaign (TSC) must force its pace, particularly in urban areas where the density of population is high and the risk of fecal contamination even higher than in rural areas.
- Convergence between nutrition and health interventions needs to be ensured. An institutional mechanism should be put in place to ensure better delivery of the services through regular periodic meetings of the functionaries of the two programmes at village, block, district, State, and Central level. Even more importantly, joint training of ICDS and Health Department staff, including the Accredidated Social Health Activists (ASHAs), is necessary.
- Micronutrients do not work unless the child and mother are consuming sufficient calories through proper quantity of fat, protein, etc. For children between 3–6 years food diversification is necessary, that is, addition of egg, milk, fruits, leafy vegetables to their meal. There is also need for fortification in the diet of adolescent children especially girls. This is especially needed to address iron deficiency. It would be desirable to have an area-specific approach to the issue of micronutrients, rather than a thin spread across the country. There has been very little research on the efficacy of different forms of fortified foods/micronutrient supplementation for resolving micronutrient deficiencies. There needs to be much greater research into the strategy of providing fortified foods to address micronutrient deficiencies. The Eleventh Plan will support food fortification based on scientific evidence.
- LBW. It is necessary to improve the nutritional status of adolescent girls to make a significant dent on LBW babies and infant/child maternal mortality. The fact that the Mid Day Meal programme is being extended to UPS from 2007–08 will provide SNP to all girls between the ages of 12–14, which will go someway towards meeting the additional calorie requirements of adolescent girls. However, on its own, this intervention will not suffice, and more serious thought needs to be given on how to address the LBW problem.
- Maternity benefit. Poor women continue to work to earn a living for the family right upto the last days of their pregnancy, thus not being able to put on as much weight as they otherwise might. They also resume working soon after childbirth, even though their bodies might not permit it—preventing their bodies from fully recovering, and their ability to exclusively breastfeed their new born in the first six months. Therefore, there is urgent need for introducing a modest maternity benefit to partly compensate for their wage loss. This could be an extension of the scheme of JSY of the MoHFW or part of a restructured ICDS.
- PSE is the weakest link of the ICDS. There is incontrovertible research that preschool education is critical to improve primary school readiness of the child of functionally illiterate parents, and thus improving dropout rates. Keeping in view the potential of PSE in enhancing enrolment and reducing school dropout rates, the component of PSE has to be necessarily strengthened (either under ICDS or in the primary school).

If this is to be done under ICDS, AWWs will need to be provided adequate training to upgrade their skills for imparting Pre-school Education (PSE) at anganwadis and the issues of their work-load and incentives would need to be considered. It may also be advisable to train and involve adolescent girls to impart PSE to supplement efforts of existing AWWs, for which too incentives will be required.

4.1.69 The aim should be to halve the incidence of malnutrition by the end of the Eleventh Plan to the level noted in Annexure 4.1.3 and to reduce anaemia among pregnant women and children to under 10%. There has to be provision made for annual or biennial surveys throughout the country to measure the incidence of underweight (mild, moderate, and severe), stunting, and wasting. There should also be a regular measurement of the status of anaemia among women

and children. This task could be assigned to the National Institute of Nutrition, Hyderabad.

Micronutrient Malnutrition Control: Current Scenario

4.1.70 The National Nutrition Monitoring Bureau (NNMB) Report of December 2006 reveals that the consumption of protective foods such as pulses, green leafy vegetables (GLV), milk, and fruits was grossly inadequate. Consequently, the intakes of micronutrients such as iron, vitamin A, riboflavin, and folic acid were far below the recommended levels in all the age groups. The data from nutritional survey of children under five years shows that the prevalence of signs of moderate vitamin A deficiency (VAD) (Bitot spots on conjunctiva in eyes) and that of B-complex deficiency (angular stomatitis) was about 0.6% and 0.8% respectively among the preschool children. Among the school age children, Bitot Spots were found in 1.9%, and the prevalence of B-complex deficiency and of mottling of teeth (dental fluorosis) was 2% each.

4.1.71 We look at some of the specific micronutrient deficiencies in the country that are of a magnitude that causes public health concerns.

Anaemia

4.1.72 IDA is the most widespread micronutrient deficiency in the world affecting more than a billion people. It affects all age groups irrespective of gender, race, caste, creed, and religion, with higher incidence among vulnerable groups in developing world. Anaemia is associated with increased susceptibility to infections, reduction in work capacity, and poor concentration. In India, this silent emergency is rampant among women belonging to reproductive age group, children, and low socio-economic strata of the population. IDA reduces the capacity to learn and work, resulting in lower productivity and loss of wages, limiting economic and social development. Anaemia in pregnant women leads to adverse pregnancy outcomes such as high maternal and neonatal mortality, LBW, increased risk of obstetrical complications, increased morbidity, and serious impairment of the physical and mental development of the child. Anaemia remains one of the major indirect causes of maternal mortality in India. In children, anaemia causes low scholastic skills leading many of them to be below average in classes or premature dropping out from schools. It also triggers increased morbidity from infectious diseases.

4.1.73 It is also seen that children born to mothers who were illiterate or who belonged to scheduled castes/tribes were more likely to be anaemic than their counterparts. Further, children born to moderately and severely anaemic mothers were also anaemic, reflecting the consequences of poor maternal health status on the health of the children. Research studies have suggested that severe IDA during the first two years of life, when the brain is still developing, may cause permanent neurologic damage adding further sense of urgency to the current efforts to prevent IDA in children.

4.1.74 As per District Level Health Survey (DLHS) (2002–04), the prevalence of anaemia in adolescent girls is very high (72.6%) in India with prevalence of severe anaemia among them much higher (21.1%) than that in preschool children (2.1%). In adolescent girls, educational or economic status does not seem to make much of a difference in terms of prevalence of anaemia. Prevention, detection, or management of anaemia in adolescent girls has till now not received much attention. In view of the high prevalence of moderate and severe anaemia in this group and the fact that many of them get married early, conceive, and face the problems associated with anaemia in pregnancy, it is imperative to screen them for anaemia and treat them.

4.1.75 Low dietary intake and poor iron and folic acid intake are major factors responsible for high prevalence of anaemia in India. Poor bioavailability of iron in Indian diet aggravates the situation. High levels of infection such as water—and food-borne infections, malaria, and hook worm infestations further aggravate the situation.

4.1.76 Prevalence of anaemia is very high among young children (6–35 months), ever married women (15–49 years), and pregnant women (Annexure 4.1.3). Overall, 72.7% of children up to the age of three in urban areas and 81.2% in rural areas are anaemic.

Also, the overall prevalence has increased from 74.2% (1998–99) to 79.2% (2005–06). Nagaland had the lowest prevalence (44.3%), Goa was next (49.3%), followed by Mizoram (51.7%). Bihar had the highest prevalence (87.6%) followed closely by Rajasthan (85.1%), and Karnataka (82.7%). Moderate and severe anaemia is seen even among the educated families both in urban and rural areas. There are inter-State differences in prevalence of anaemia that are perhaps attributable partly to differences in dietary intake and partly to access to health care.

4.1.77 While analysing the data for States with anaemia level of 70% among children it was found that, except for Punjab, all other States had more than 50% prevalence of anaemia among pregnant women. This again reiterates the strong relationship between anaemia levels of mothers and children.

4.1.78 India was the first developing country to take up a National Nutritional Anaemia Prophylaxis Programme (NNAP) in 1972 to prevent anaemia among pregnant women and children. However, coverage under the programme needs improvement as only 22.3% of pregnant women consumed iron and folic acid for 90 days and only 50.7% had at least three antenatal visits for their last child birth (NFHS-3, 2005–06).

4.1.79 The current strategy, included as part of RCH Programme under NRHM, recommends that pregnant and lactating women, 6–12 months infants, school children, 6–10 year olds, and adolescents (11–18 year old) should be targeted in the NAPP as per the recommended dosage.

Iodine Deficiency Disorders (IDD)

4.1.80 IDD is a major public health problem for populations throughout the world, particularly for pregnant women and young children. They are a threat to the social and economic development of countries. The most devastating outcomes of iodine deficiency are increased perinatal mortality and mental retardation. Iodine deficiency is the greatest cause of preventable brain damage in childhood, which is the primary motivation behind the current worldwide drive to eliminate it. The main factor responsible for iodine deficiency is a low dietary supply of iodine. It occurs in populations living in areas where the soil has low iodine content as a result of past glaciation or the repeated leaching effects of snow, water, and heavy rainfall. Crops grown in this soil, therefore, do not provide adequate amounts of iodine when consumed.

4.1.81 Goitre is the most visible manifestation of IDD. In severely endemic areas, cretinism may affect up to 5–15% of the population. While cretinism is the most extreme manifestation, of considerably greater significance are the more subtle degrees of mental impairment leading to poor school performance, reduced intellectual ability, and impaired work capacity.

4.1.82 IDDs have been recognized as a public health problem in India since the 1920s. No State in India is completely free from IDDs. A third of all children in the world that are born with IDD-related mental damage live in India.

4.1.83 The Indian National Goitre Control Programme (NGCP) was started in 1962 with a focus on the goitre belt in the country. However, the programme of universal iodization was introduced only in 1984, when all edible salt in the market was required to offer 30 ppm (parts per million) iodine at the production level. This was legalized through the PFA (Prevention of Food Adulteration) Act of 1988 that also banned the availability of crystalline salt (non-iodized) as an edible product. It was accepted variably by the different States, some putting only a partial ban and others none at all. Based on the recommendations of the Central Council of Health, the government took a policy decision to iodise the entire edible salt in the country by 1992. Since 1992, the National Iodine Deficiency Disorders Control Programme (NIDDCP) is the new name given to the erstwhile NGCP. This change has been effected with a view to cover the wide spectrum of iodine deficiency such as mental and physical retardation, deaf-mutism, and cretinism under the programme. Due to various research reports, the Central Government lifted the ban on the sale of non-iodized salt in 2000. The States chose to retain or revoke the ban depending upon their own assessment.

In 2005, a country-wide universal ban on sale of non-iodized salt for human consumption has again been promulgated by the Central Government.

4.1.84 Studies indicate that after a certain level, the prevalence of goitre does not decrease by iodination alone due to role of various other factors like goitrogens in food, pollutants in water, etc. Definite identification of the active agents and knowledge of their biological and physicochemical properties may permit public health officials to develop procedures for eliminating these compounds at the community level and eradicating goitre from endemic areas.

4.1.85 Evidence also provides basis to have a fresh look about: iodine as the sole factor in causality; magnitude of the problem as a major public health problem universally; effectiveness of universalization of iodized salt as a measure that leads to decreasing goitre and other IDD by itself; and possible negative impacts on health like increase in hyperthyroidism and hypothyroidism, and interaction with other minerals like iron.

Vitamin A Deficiency

4.1.86 VAD has been recognized as a major controllable public health and nutritional problem. An estimated 5.7% children in India suffer from eye signs of VAD. Recent evidence suggests that even mild VAD probably increases morbidity and mortality in children, emphasizing the public health importance of this disorder.

4.1.87 Vitamin A is an important micronutrient for maintaining normal growth, regulating cellular proliferation and differentiation, controlling development, and maintaining visual and reproductive functions. VAD is one of the major deficiencies among lower income strata population in India. Human beings cannot produce this micronutrient in the body itself. Hence it has to be externally provided. This deficiency is seen greater in preschool children and pregnant and lactating women due to higher need for this micronutrient. In severe cases it can even lead to total blindness.

4.1.88 Though the prevalence of severe forms of VAD such as corneal ulcers/softening of cornea (keratomalacia) has in general become rare, Bitot spots were present in varying magnitudes in different parts of the country (NNMB 2003). The prevalence was higher than the WHO cut-off level of 0.5%, indicating the public health significance of the problem of VAD. There is huge inter-State variation in the prevalence of VAD among children. It is also a matter of concern that only 21% children of age 12–35 months received a vitamin A dose in last six months. Less than 10% coverage is reported in Nagaland (8.7%) and UP (7.3%). Only States such as Tamil Nadu (37.2%), Goa (37.3%), Tripura (38.0%), Kerala (38.2%), WB (41.2%), and Mizoram (42.2%) have better coverage, though substantially low.

4.1.89 In India way back in 1970 a National Programme for Prevention of Nutritional Blindness was initiated to fight this deficiency. The beneficiaries of this programme were preschool children (1–5 years). Further, the programme was modified in 1992 to cover children in the age group of nine months to three years only. Since Tenth Five Year Plan Vitamin A Supplementation exists as an integral component of RCH programme that is a part of NRHM.

4.1.90 During the past few years, series of expert consultations were held among various stakeholders. In view of disaggregated age-wise prevalence of VAD in children (NNMB reports), all these stakeholders recommended extending the programme to cover children up to five years. Consequently, MoHFW, GoI, issued guidelines to the States in November 2006 extending the programme to cover up to five years.

4.1.91 The programme focuses on:

- Promoting consumption of vitamin A rich foods by pregnant and lactating women and by children under five years of age and appropriate breastfeeding.
- Administering massive doses of vitamin A up to five years.
  - First dose of 100000 IU with measles vaccination at nine months.
  - Subsequent doses of 200000 IU each every six months.

4.1.92 Vitamin A supplementation and nutrition education is being implemented through the PHCs, Sub Centres, and the Anganwadis. The services of ICDS Programme, under the MoWCD, are utilized for the distribution of vitamin A to children in the ICDS blocks and for educa-tion of mothers in prevention of VAD.

Other Micronutrient Deficiencies

4.1.93 Recently, GoI examined the issue of use of zinc in the management of diarrhoea for the children and recommended to administer zinc as part of ORS in the management of diarrhoea for children older than three months. It is expected that introduction of zinc for diarrhoea will go a long way in reducing IMR in the country.

4.1.94 Apart from major macro and micronutrients there exist more than 300 nutrients, which are vital for the body. In recent years micronutrients and phyto nutrients (nutrients in edible plants having anti-oxidant and anti-inflammatory) have acquired centre stage in the field of nutrition. Phyto nutrients in the foods have biological property for disease prevention and health promotion. Truly nutritious diet is one that promotes health and prevents diseases. There is considerable interaction between different micronutrients with respect to metabolic function. Diets of the poor and even of some rich people may be deficient in a number of nutrients. Evidences based on research suggest that consumption of balanced food including protective foods like milk; varied kind of fruits, vegetables, etc. will meet the nutritional needs of the body. However, limited data is available regarding causes of deficiencies, interactions among various micronutrients when given as supplements, modalities of prevention and management of deficiencies, stability of micronutrients in fortified foods, etc.

4.1.95 ISSUES OF CONCERN

- Micronutrient malnutrition continues unabated in the country leading to heavy economic loss.
- Exact mapping of micronutrient deficiencies has not been done for the country.
- Existing programmes do not address the problem in a holistic manner. Only nutrient supplementation programmes are in existence and that too not covering the entire high risk group.
- There is inadequate monitoring of micronutrient deficiencies in the country. NFHS undertaken every six years covers only anaemia levels in women and children under three years and projects only State-level picture. NNMB exists only in few States giving State-level projections for the eight States only.
- Dietary diversification and nutrition education have not been given the required thrust.
- Food fortification has not been studied adequately.
- Nutrition-oriented horticultural interventions to promote production of fruits and vegetables at household and community level are yet to be taken up.
- Awareness generation on consequences of micronutrient malnutrition, its prevention, and management is not being addressed adequately.

TOWARDS FINDING SOLUTIONS

4.1.96 A five-pronged strategy will be adopted during the Eleventh Plan to accelerate the programmes to overcome micronutrient deficiency in the country. These relate to:

(i) Dietary Diversification: It means increasing the range of micronutrient-rich foods consumed. In practice, this requires the implementation of programmes that improve the availability and consumption of, and access to, different types of micronutrient-rich foods (such as animal products, fruits, and vegetables) in adequate quantities, especially among those who are at risk for, or vulnerable to, micronutrient malnutrition. Attention also needs to be paid to ensure that dietary intakes of oils and fats are adequate for enhancing the absorption of the limited supplies of micronutrients. It includes activities that improve production, availability, and access to micronutrient-rich and locally produced foods as a major focus of this type of intervention. Equally important is the use of communication and education activities to motivate changes in behaviour that increase consumption of beneficial foods, increase food production, and improve feeding practice in infants and children. Many dietary diversification activities operate at the

community level where they are more likely to be sustainable and cause enduring behaviour change in micronutrient consumption. Such efforts are primarily to be taken up by the Ministries of Health and Family Welfare, WCD, and Information and Broadcasting.

(ii) Nutrient Supplementation: It concerns the Ministries of Health and Family Welfare, WCD, and Department of School Education and Literacy and could be achieved through biannual campaigns for administration of vitamin A to children between nine months to five years, providing iron and folic acid supplements to children from six months to two years and to adolescent girls of 10–19 years, administering iron tablets to all pregnant and lactating women and by emphasizing breastfeeding of infants up to six months under the NRHM implementation plans. While single supplements for various deficiencies are being used world over, evidence for a shift to multiple micronutrient supplementation is conflicting.

(iii) Horticulture Intervention: Although India is one of the leading producers of vegetables; GLV constitute only 16% of the total vegetable production. Horticulture intervention will include increasing the nutrient-rich crops to meet the requirements. Promotion of home gardening is important to increase availability at the household level. Emphasis should be put on perennial varieties of GLVs that are relatively easy to grow. It includes training farmers in agriculture technologies to improve production and also providing them incentives to move away from cash crops. There is a need to develop a mechanism of coordination between the various departments involved in horticultural and educational activities for optimum benefit of the community. The activities also include increasing both production and productivity through adoption of improved technologies for ensuring quality, post-harvest activities, and food processing. Horticulture Intervention will also involve the Ministry of Agriculture for the supply of seeds, extension, and storage support.

(iv) Public Health Measures: These will involve the Ministries of Health and Family Welfare, WCD, Commerce, Rural Development, and Urban Development. This would require streamlining procedures of procurement and supply, building institutional capacity in organizations for monitoring and mapping micronutrient deficiencies, deworming children at regular intervals, and providing safe drinking water and sanitation.

(v) Food Fortification: The activities involve the addition of one or more essential nutrients to a food, whether or not it is normally contained in it, for the purpose of preventing or correcting a demonstrated deficiency of one or more nutrients in the population or specific population groups. Examples of food fortification include adding specific micronutrients to commercially processed staple foods, such as vitamin A in sugar and margarine, iron and B vitamins in wheat and corn flour, and iodine in salt. The activities would involve the Ministries and Department of Health, Food Processing Industries, Food and Public Distribution, Consumer Affairs, Finance, Panchayati Raj, and State Governments. While fortification of foods supplied by the PDS has been suggested by some, the implications of this are not yet clear. The effects of fortification when there is a calorie gap are suspect. There are definitely some issues regarding the proposed forms of food fortification such as providing fortified atta instead of grain under the PDS; as grain can be stored for a longer period. Clearly, there needs to be much greater research into the strategy of providing fortified foods to address micronutrient deficiencies. The Eleventh Plan will support food fortification based on scientific evidence.

4.1.97 During the Eleventh Plan importance would be given to the following strategies and measures:

- High priority to micronutrient malnutrition control, specifically so to tackle anaemia, will be accorded at Centre and State levels. The goal is to reduce anaemia among women and girls by 50% by the end of the Eleventh Plan. State-specific goals have also been suggested (Annexure 4.1.1).
- DLHS of RCH Programme will recognize malnutrition including micronutrient as a serious public health problem and monitor prevalence of micronutrient deficiencies on priority.

- NNMB of ICMR will be expanded to all States/UTs to assist in monitoring micronutrient deficiencies through existing programmes.
- Existing Iron and Folic Acid Supplementation Programmes under RCH (NRHM) to cover infant and young children, by providing IFA in syrup form, and adolescent girls (10–19 years) by providing weekly iron supplements with immediate effect.
- Vitamin A Supplementation Programme to cover all children between nine months to five years of age and existing low coverage to be brought to 90% by 2009.
- Promotion of breastfeeding will be taken up for prevention of VAD.
- The NIDDCP will balance between preventing the ill-effects due to iodine deficiency and aggravation of other forms of hypothyroidism or hyperthyroidism that have been ignored until now. Multi-causality and regional diversity requires a range of approaches rather than a universal mono-solution. Based on this epidemiological understanding, the rational approach will be used to evolve a differential strategy for regions above and below the threshold levels.
- Research will be encouraged regarding causes of micronutrient deficiencies, understanding the complex web of causality, preventive strategies, and health behaviour regarding diet need to be carried out for a holistic view.
- Studies will be undertaken for collection of evidence regarding interaction amongst micronutrients, taste, smell, and shelf life of fortified foods, regional variations in deficiency, differing requirements of individuals, etc. before implementation of any multiple micronutrient supplementation and food fortification strategies.
- Community and household level production of fruits and vegetables will be promoted.
- Public health measures like deworming of all children every six months will be undertaken through schools and ICDS.
- Environmental sanitation and hygiene will be promoted vigorously and safe drinking water to be made universally accessible.
- A vigorous awareness campaign in the form of *Poshan Jagriti Abhiyan* will be launched utilizing all available channels of communication.
- A high level inter-agency coordination mechanism will be set up to enable policy directions to the concerned sectors.

4.2 SOCIAL SECURITY

Issues in Social Security for Workers

4.2.1 In India, traditionally, the aspects of social security were taken care of by the set up of family/community. Rapid industrialization/urbanization that began in the early twentieth century has largely led to the collapse of the joint family set up, thus necessitating institutionalized intervention in the form of State-cum-society regulated social security arrangements. The need has been felt for social security arrangements for workers and their families to enable them to deal with transient poverty/vulnerability caused by shock/adversity. Social protection could be instrumental in motivating the workers to work better and to increase productivity insofar as it would enable them to work free from domestic worries to a great extent. Indisputably, the best strategy to improve the condition of unorganized labour is to improve the demand for labour. Employment is the best form of social protection.

4.2.2 Institutionalized social security was available in India before 1947 to only a handful of government employees who had the benefit of retirement pension or contributory provident fund together with other complementary support for them and their family members. Few of the industrial/commercial sector establishments had extended certain measures in this regard on voluntary basis for their employees. The majority of workers remained uncovered and were left to fend for themselves. The situation worsened with the weakening of family support system due to various social and economic factors. The need assumes greater relevance with longer life span and the changing economic environment.

4.2.3 The concept of social security is to provide a safety mechanism through series of public intervening against the economic and social distress that is caused by the stoppage or substantial reduction of earnings resulting from sickness, maternity, employment injury, occupational distress, unemployment,

invalidity, and old age. In the Eleventh Plan social security will be treated as an inclusive concept that also covers housing, safe drinking water, sanitation, health, educational, and cultural facilities for the society at large. It is necessary to ensure living wages, distinct from the concept of minimum wages, which can guarantee the workers a decent life. A number of schemes implemented by the government, both in the rural and urban areas seek to provide many services that supplement incomes of the people, which otherwise are fairly low.

Constitutional Provision

4.2.4 Articles 39(a) and 41 of the constitution require that the State should within the limits of its economic capacity, make effective provision for securing the right to work, to education, and to public assistance in case of unemployment, old age, sickness, and disablement. Though social security is not viewed as a fundamental right, Article 42 requires that the State should make provision for securing just and humane conditions of work and for maternity relief. Article 43 states that States shall endeavour to secure to all workers—agricultural, industrial, or otherwise, a living wage, such conditions of work that ensure a decent standard of life. Article 47 requires that the State should, as its primary duty, raise the level of nutrition and the standard of living of its people and improve public health.

Legislative Support

4.2.5 Currently, there are contributory and non-contributory social security laws in our country. The contributory laws are those that provide for financing of the social security programmes by contributions paid by workers and employers and in some cases supplemented by contribution/grants from the government. The important contributory schemes include the Employees State Insurance Act, 1948 and the Provident Fund, Pension and Deposit linked insurance schemes framed under Employees Provident Funds and Miscellaneous Provisions Act, 1952. The major non-contributory social security measures are provided for under the Workmen's Compensation Act, 1923, the Maternity Benefit Act, 1961, and the Payment of Gratuity Act, 1972.

Existing Social Security Scenario

4.2.6 The existing social security system in India exhibits diverse characteristics. There are a large number of schemes, administered by different agencies, each scheme designed for a specific purpose and target group of beneficiaries, floated as they are by the Central and State Governments as well as by VO in response to their own perceptions of needs, of the particular time. The result is often ambiguous. Many a time some scheme(s) might be responsible for creating 'exclusion' of the large number of those 'in most critical need for support from the planning process', on grounds of practicability or to protect the interests of those who are already 'in'. There are wide gaps in coverage (a large population is still uncovered under any scheme) and overlapping of benefits (a section of the population is covered under two or more schemes). In the existing system, coverage varies from scheme to scheme, with different groups of people receiving different types of benefits. In other words, no one is insured against all risks of life.

4.2.7 Over the years, both Central and State Governments have been taking initiatives for the welfare and social security of the workers in the unorganized sector. The Ministry of Labour and Employment is implementing welfare schemes for certain categories of unorganized sector workers like beedi workers, cine workers, and certain non-coal mine workers. Similarly, several insurance/poverty alleviation schemes are being implemented by various ministries/departments, as well as by States like Kerala and Tamil Nadu, which have constituted Welfare Funds for some occupational groups. Some States have launched group insurance schemes for their workers. Yet, some States like West Bengal initiated State-Assisted Provident Fund Schemes for the unorganized workers.

Workers with Institutionalized Social Security Cover

4.2.8 The organized sector includes primarily those establishments that are covered by the Factories Act, 1948, the Shops and Establishments Acts of the States, Industrial Employment Standing Orders Act, 1946, etc. This sector already has a structure through which social security benefits are extended to its workers. While some of them such as Provident Fund, pension,

insurance, medical and sickness benefits are contributory (workers alone, or workers and employers, sometimes supported by the State), others like employment injury benefits, gratuity, maternity benefit are purely non-contributory and are met by the employers alone. Most workers under the organized sector are covered under the Institutionalized social security provided through Employees Provident Fund Organization (EPFO), and the Employees State Insurance Corporation (ESIC).

4.2.9 The EPFO is one of the largest provident fund institutions in the world in terms of members and volume of financial transactions that it has been carrying on. The EPFO caters to: (i) every establishment that is engaged in any one or more of the industries specified in the Act or any activity notified by Central Government, employing 20 or more persons, (ii) all cinema theatres employing five or more persons, other than those under the control of Central/State/local government that provide equivalent/better benefits of social security, and co-operative societies employing less than 50 persons and working without the aid of power, and (iii) any other establishment seeking coverage under the scheme voluntarily. As on 31.03.2006, 429.53 lakh persons were members of the Employees' Provident Fund, while 323.89 lakh persons were members of the Pension Fund.

4.2.10 The ESI Act was originally applicable to non-seasonal factories using power and employing 20 or more persons; but it is now applicable to non-seasonal power using factories employing 10 or more persons and non-power using factories employing 20 or more persons. The ESI Scheme has now been extended to shops, hotels, restaurants, cinemas including preview theatre, road motor transport undertakings, and newspaper establishments employing 20 or more persons. The existing wage limit for coverage is Rs 10000 per month (with effect from 1.10.2006). The ESI Scheme is being implemented area-wise by stages and it now covers all the States except Nagaland, Manipur, Tripura, Sikkim, Arunachal Pradesh, and Mizoram; and in Union Territories of Delhi, Chandigarh, and Pondicherry.

4.2.11 A scheme for providing employment to persons with disabilities in the organized sector has been proposed to be launched. The main objective of the scheme is to provide incentives to the employers in the organized sector for promotion of regular employment to persons with disabilities. Under this scheme, the government would reimburse the employers' contribution of EPF and ESI for the first three years, aiming at creation of one lakh jobs for the physically challenged persons.

Workers without Institutionalized Social Security Cover

4.2.12 Workers in the informal economy include: (i) the vast majority of the workers in the unorganized/informal as well as; (ii) the workers employed in an informal capacity in the organized sector—the two together account for 93% of workforce. This category of the workforce is excluded from the institutionalized social security cover referred to above.

4.2.13 A number of schemes and systems are in operation in the nature of social security to workers in the informal economy, following four different major models. However, the major deficiency in this approach is the limited coverage (geographical areas and industrial activity). The benefits are confined to only about 5–6% of the informal sector workers. The National Farming benefit scheme that provides an assistance of Rs 10000 in the event of death of family breadwinner and the National Old Age Pension to destitutes above 65 years of age are other elements of existing social security structure.

4.2.14 The Social Insurance Schemes available to the unorganized sector are operated through the LIC such as Social Security Group Insurance Scheme. All persons in the age group of 18 to 60 years belonging to the 24 approved occupation groups, that is, beedi workers, brick-kiln workers, carpenters, cobblers, fishermen, hamals, handicraft artisans, handloom weavers, handloom and khadi weavers, lady tailors, leather and tannery workers, papad workers attached to Self-Employed Women's Association (SEWA), physically handicapped self-employed persons, primary milk producers, rickshaw pullers/auto drivers, safai karmcharies, salt growers, tendu leaf collectors, urban poor, forest workers, sericulture, toddy tappers, powerloom workers, women in remote rural hilly

areas are covered. The most important and comprehensive scheme that has been launched is the Janashree Bima Yojana providing insurance cover of Rs 20000 in case of natural death, Rs 50000 in case of death or total permanent disability due to an accident, and Rs 25000 in case of partial disability. The premium for these benefits is Rs 200 per beneficiary, of which 50% of the premium, that is, Rs 100 is contributed from the 'Social Security Fund' and 50% contributed by the beneficiary/State Government/nodal agency. Janashree Bima Yojana is available to persons in the age group of 18 to 60 years and living below or marginally above the poverty line. The scheme is extended to a group of 25 members or more. The limited reach of the schemes' benefits to the unorganized workers and the absence of direct link between a beneficiary and LIC have been the major drawbacks of these schemes.

Need for an Inclusive Social Security System

4.2.15 More than 91% of India's workforce consists of informal workers working either in the unorganized informal sector (85%) or in the organized formal sector (6%). A large majority of them face the problem of 'deficiency' or capability deprivation (of basic needs) as well as the problem of 'adversity' (arising out of such contingencies as sickness and accidents). As stated earlier, the social security schemes that are currently in place hardly cover even 5 to 6% of the estimated number of total informal workers of 362 million (as of 1999–2000). With the exception of a small number of States with some social security cover for workers in the unorganized sector, a majority of the States do not offer any cover, especially for addressing such core concerns as health care and maternity. Among the Central and State Government initiatives that address the social security needs of the population, there are very few schemes addressed specifically for the unorganized workers. Kerala and Tamil Nadu are the only States that offer some reasonable coverage of both old age pension for the aged poor and other protective social security schemes for the workers in the unorganized sector. Some States like Maharashtra, Gujarat, West Bengal, Punjab, Haryana, Tripura, Karnataka, and Goa have a number of schemes for the aged poor and vulnerable population, but except in MP, no State has social security schemes specifically meant for the unorganized sector workers.

Issues on Social Security in the Context of Inclusive Growth

4.2.16 The majority of workers in the unorganized/informal sector come from the socially backward communities. Viewed in this light, the provision of social security to these workers should be seen as a form of social uplift. Further, the absence of a viable and comprehensive social security arrangement is not merely the problem of individual workers and their families. It also has wider ramifications for the economy and society. Economically speaking a worker with no social security cover is likely to have more domestic worries than the one with a reasonable cover. This, as noted above, debilitates the worker's efficiency and productivity. Lack of purchasing power, as a result of low earning power, along with vulnerabilities will have the effect of reducing the aggregate demand in the economy. Socially, the demonstration effect of the prospering section is likely to lead the uncovered section to disillusionment, dissatisfaction, and disaffection. The overall well-being of the country as measured by health, education, longevity of life, and access to resources will be affected adversely, at times manifesting itself in crimes and other illegal activities.

Provision of Social Security in the Perspective Period—Recent Initiatives

4.2.17 The Recent Initiatives on Social Security consist of the Unorganized Sector Workers Social Security Bill, 2007, the *Aam Admi Bima Yojana* (*AABY*), 2007, and Health Insurance Scheme for Unorganized Sector BPL workers, 2007. The major features are listed below:

Unorganized Sector Workers Social Security Bill, 2007

4.2.18 The Unorganized Sector Workers Social Security Bill, 2007, which has been introduced in the Rajya Sabha, seeks to provide statutory backing to the various social security schemes of the Central government included in the Schedule to the Act. These relate to: (i) life and disability cover, (ii) health and maternity benefits, (iii) old age protection, and (iv) any other benefits to be determined by the Central government. The State Governments may formulate schemes for: (i) provident fund, (ii) employment injury benefits, (iii) housing, (iv) educational schemes for children,

(v) skill upgradation of workers, (vi) funeral assistance, and (vii) old age homes. There will be a National Social Security Advisory Board and State Social Security Advisory Boards to make recommendations to the governments on suitable schemes for different sections of unorganized workers. The Boards will also monitor the administration of the schemes, review the processes of registration, issue of identity cards, recordkeeping, and the expenditure under the schemes, and also advise the governments on administration of the schemes. The benefits shall be admissible to all persons above 14 years of age based on a self-declaration that he/she is an unorganized sector worker. Upon an application to the District Administration in the prescribed form, such persons will be given an identity card in the form of a smart card. The law also requires the governments to make their contributions under the schemes regularly. The Schedule to the Act will have 11 schemes including the AABY and the Health Insurance Scheme for Unorganized Sector BPL workers.

Aam Admi Bima Yojana (AABY), 2007

4.2.19 Group Insurance Schemes do not attract unorganized sector workers or the organizations working for their welfare and development because the schemes do not provide the annuity in the cases of survivor members. All categories of unorganized workers are not covered under the existing schemes of social security. Further, lack of awareness about schemes amongst rural population and the poor delivery mechanism at the village level contribute to the ineffectiveness of the programmes.

4.2.20 Taking the above factors into account, the government has announced the AABY. The members of All Rural Landless Households, in the age group of 18–59 years will be eligible. The premium of Rs 200 per member will be borne by the Centre and States equally. The State Government will be the Nodal Agency. A sum of Rs 30000 in case of natural death and Rs 75000 in case of accidental death will be payable. A compensation of Rs 75000 will be payable in case of total permanent disability and of Rs 37500 in case of partial permanent disability. The scheme also has a provision for the payment of a scholarship of Rs 300 per quarter per child for two children of the beneficiaries studying in 9th to 12th standard for its beneficiaries.

4.2.21 The AABY scheme also proposes the creation of a fund of Rs 1000 crore to be operated by LIC for meeting the liability of Central government towards its share of premium payment. As per the NSS, the number of rural landless households in the country is 1.5 crore. It is expected that in the first year approx. 70 to 80 lakh of rural landless households would be covered under the scheme requiring an expenditure of Rs 70–80 crore by the Central government towards its share of 50% premium. With an 8% per annum return expected on the Rs 1000 crore fund, the amount would be sufficient to meet the liability of premium payment.

4.2.22 A separate Rs 500 crore fund will be created for the purpose of providing scholarships to children of beneficiaries. This will make available Rs 40 crore for the full year at 8% per annum return. This amount would suffice for the coverage of 333000 children of the beneficiaries.

4.2.23 This scheme would extend the benefit of life insurance coverage as well as coverage of partial and permanent disability to the head of the family or an earning member of the family of rural landless households in the States and also educational assistance to their children studying from 9th to 12th standard as an extended benefit.

Health Insurance Scheme for Unorganized Sector BPL Workers, 2007 (Rashtriya Swasthaya Bima Yojana)

4.2.24 In order to provide accessible, affordable, and accountable quality health services to households in rural areas, the government has launched the NRHM. The principle thrust of NRHM is to make public system fully functional at all levels and to place a framework that would reduce the distress of households in seeking health care system through Health Insurance Scheme. Many efforts in the past for providing health insurance for the rural poor have not been successful because of inadequacies in design and implementation. The cost of insurance coupled with lack of perception of the benefits in the target group, and the

procedure for claiming reimbursements have posed serious challenges in the administration. A transparent scheme that lists the entitlements, administered through a smart card obviating the need for out-of-pocket expenses is expected to streamline the administration, ensuring the benefits. With these objectives in view, the government has introduced the *Rashtriya Swasthya Bima Yojana* to cover all BPL unorganized sector workers and their families (of five members), whose identity will be verified by the implementing agency and be issued a smart card. The cost of smart card will be borne by Central government, and the beneficiary will be required to pay Rs 30 per annum as registration/renewal fee. The prescribed premium of Rs 750 per member-family will be borne by the Central and State Governments in the ratio of 75:25. The package of benefits will include: (i) cashless attendance to all covered ailments; (ii) hospitalization expenses, taking care of most common illnesses, (iii) all pre-existing diseases to be covered, (iv) transportation costs subject to prescribed limits payable to the beneficiary. Flexibility is provided to the States to add to the benefits by meeting the additional premium requirements from their own resources. State governments would decide the Implementing Agency and also bear the administrative costs.

4.2.25 There are 6 crore BPL families. They will be covered in five years (1.2 crore per annum). The total cost of the scheme over the Eleventh Five Year Plan is estimated at Rs 7078.25 crore.

Extension of National Old Age Pension Scheme (NOAPS)

4.2.26 The National Social Assistance Programme (NSAP) came into effect from 15 August 1995 as a 100% Centrally Sponsored Programme, with three components namely, NOAPS, National Family Benefit Scheme, and NMBS. The NMBS has since been transferred to the MoHFW with effect from 1.4.2001. The NSAP aims at providing social security in case of old age, death of primary breadwinner, and maternity. The main objective of the NOAPS is ensure a minimum national standard of social assistance in addition to the benefit that States are already providing, without displacing the expenditure by States on social protection schemes. The scheme is aimed at senior citizens, that is, over 65 years or above, who are destitute in the sense of having little or no regular means of subsistence from his/her own sources of income or through support from family members or other sources. Major modifications in NSAP are being proposed in the Eleventh Plan to provide more comprehensive coverage to the old (details in Chapter 3, Vol. III).

Unorganized Sector Workers—Conditions of Service Law

4.2.27 The unorganized section of agricultural sector (consisting of crop cultivation and other agricultural activities such as forestry, livestock, and fishing), not protected under the Plantations Workers Act, has neither formal system of social security nor regulation of conditions of work. The government has taken note of the concerns expressed by the NCEUS and is examining the desirability of enacting laws regulating the minimum conditions of work of agricultural wage workers and provide a measure of social security to agricultural wage workers and marginal and small farmers in the unorganized sector. Similar provisions would be made for other workers in the non-agricultural unorganized sector as well as informal/unorganized workers in the organized sector consisting of wage workers, independent self-employed, and workers who are self-employed at home, whose minimum conditions of work are not regulated by any other legislation. The provision of a statutory package of National Minimum Social Security to which all unorganized (agricultural and non-agricultural) workers are entitled need to be considered. There may be Social Security Advisory Boards and dispute resolution mechanisms to oversee and monitor the implementation and ensure that each such worker has the sense of being provided with what is due to him/her.

Social Security: Approach and Strategy for the Eleventh Five Year Plan

4.2.28 A protective social security mechanism, taking care of the adversity aspects of ill-health, accidents/death, and old age would be established at the core. The other vulnerability aspects due to in-built deficiencies as they exist now, such as lack of access for the poor to credit/finance (especially for the self-employed),

loans for upgrading skills, loans for housing, children's education, etc. shall be tailored to meet the social security concerns of workers qua workers in the unorganized/ informal sector, subject to the availability of resources. The National Old Age Pension presently covers persons who are destitute and old aged. Some States cover the old aged BPL persons. NSAP would be made more comprehensive.

4.2.29 Considering the achievements made by the ESIC and the EPFO in providing institutionalized social security cover to a majority of the workers in the organized sector, attempt would be made to widen their coverage and strengthen them. To cover more number of beneficiaries, measures should be taken to enhance the capability of these institutions to cope with the workload. To reduce harassment and corruption in these institutions, the government will strive to streamline the delivery system in these institutions.

4.2.30 A national policy for fixing minimum wages would be crystallized and made effective. Discrimination in wages based on gender and age would be abolished/penalized. The recovery of minimum wages would be simplified and be equated with recovery due of land revenue. An information network will also be built to promote awareness, to educate employers (some of whom do alternate as wage labour too), and to prevent malpractices (perpetrated by design or by ignorance) with the help of the media, NGOs, and PRIs.

4.2.31 Assigning an identity to the beneficiary is an essential condition to create empowerment to lay a claim to what one is expected to receive. The National Social Security Numbers schemes shall be extended to all citizens in the country, so that the most vulnerable people who need it the most, including migrant labour and nomads could use it. In fact, considering that such persons do not even get the rations under the PDS, which is an important social security measure, this exercise will be taken up urgently.

ANNEXURE 4.1.1
Malnutrition of Children (0–3 Years), by State

S.No.	State	Current level of Wt-for-age below–2 SD	Eleventh Plan Goal-redn. by 50%
1	Andhra Pradesh	36.5	18.3
2	Arunachal Pradesh	36.9	18.5
3	Assam	40.4	20.2
4	Bihar	58.4	29.2
5	Jharkhand	59.2	29.6
6	Goa	29.3	14.7
7	Gujarat	47.4	23.7
8	Haryana	41.9	21.0
9	Himachal Pradesh	36.2	18.1
10	J&K	29.4	14.7
11	Karnataka	41.1	20.6
12	Kerala	28.8	14.4
13	MP	60.3	30.2
14	Chattisgarh	52.1	26.1
15	Maharashtra	39.7	19.9
16	Manipur	23.8	11.9
17	Meghalaya	46.3	23.2
18	Mizoram	21.6	10.8
19	Nagaland	29.7	14.9
20	Orissa	44.0	22.0
21	Punjab	27.0	13.5
22	Rajasthan	44.0	22.0
23	Sikkim	22.6	11.3
24	Tamil Nadu	33.2	16.6
25	Tripura	39.0	19.5
26	UP	47.3	23.7
27	Uttarakhand	38.0	19.0
28	WB	43.5	21.8
29	Delhi	33.1	16.6
	INDIA	45.9	23.0

Note: 1. Figures for current level are that of NFHS 2005–06.
2. For State level figures, pro-rata reduction has been applied on the basis of targeted reduction at All India level. Figures for other States are not available.

Source: NFHS 2005–06.

ANNEXURE 4.1.2
State-wise Malnutrition Rate of Children in Various Age Groups

State	Children age 0–5 months exclusively breastfed (%)	Children age 6–9 months receiving solid or semi-solid food and breast milk (%)	Children under 3 years who are underweight (%)
India	46.3	55.8	45.9
Andhra Pradesh	62.7	63.7	36.5
Arunachal Pradesh	60.0	77.6	36.9
Assam	63.1	59.6	40.4
Bihar	27.9	57.3	58.4
Chhattisgarh	82.0	54.5	52.1
Delhi	34.5	59.8	33.1
Goa	17.7	69.8	29.3
Gujarat	47.8	57.1	47.4
Haryana	16.9	44.8	41.9
Himachal Pradesh	27.1	66.0	36.2
J&K	42.3	58.3	29.4
Jharkhand	57.8	65.3	59.2
Karnataka	58.0	72.5	41.1
Kerala	56.2	93.6	28.8
Maharashtra	53.0	47.8	39.7
MP	21.6	51.9	60.3
Manipur	61.7	78.1	23.8
Meghalaya	26.3	76.3	46.3
Mizoram	46.1	84.6	21.6
Nagaland	29.2	71.0	29.7
Orissa	50.2	67.5	44.0
Punjab	36.0	50.0	27.0
Rajasthan	33.2	38.7	44.0
Sikkim	37.2	89.6	22.6
Tamil Nadu	33.3	77.9	33.2
Tripura	36.1	59.8	39.0
UP	51.3	45.5	47.3
Uttaranchal	31.2	51.6	38.0
WB	58.6	55.9	43.5

Source: NFHS-3 (2005–06), IIPS, MoHFW, GoI.

ANNEXURE 4.1.3
Anaemia among Women (15–49 Years)

S. No.	State	Current Level	Eleventh Plan Goal: reduction by 50%
	India	56.1	28.1
1	Delhi	43.4	21.7
2	Haryana	56.5	28.3
3	Himachal Pradesh	40.9	20.5
4	J&K	53.1	26.6
5	Punjab	38.4	19.2
6	Rajasthan	53.1	26.6
7	MP	57.6	28.8
8	Chattisgarh	57.6	28.8
9	UP	50.8	25.4
10	Uttarakhand	47.6	23.8
11	Bihar	68.3	34.2
12	Jharkhand	70.4	35.2
13	Orissa	62.8	31.4
14	WB	63.8	31.9
15	Arunachal Pradesh	48.9	24.5
16	Assam	69.0	34.5
17	Manipur	39.3	19.7
18	Meghalaya	45.4	22.7
19	Mizoram	38.2	19.1
20	Nagaland	30.8	15.4
21	Sikkim	46.8	23.4
22	Goa	38.9	19.5
23	Gujarat	55.5	27.8
24	Maharashtra	49.0	24.5
25	Andhra Pradesh	62.0	31.0
26	Karnataka	50.3	25.2
27	Kerala	32.3	16.2
28	Tamil Nadu	53.3	26.7
29	Tripura	67.4	33.7

Notes: 1. Figures for current level are that of NFHS 2005–06.
2. For State-level figures, pro-rata reduction has been applied on the basis of targeted reduction at All India level.
3. Figures for other States are not available.
Source: NFHS 2005–06.

ANNEXURE 4.1.4
Distribution of Cardholders among Poor and Non-poor

	% poor having no ration card	% of poor having BPL/AAY cards	% BPL/AAY cards with non-poor	% non-poor having BPL/AAY cards
J&K	7.9	55.1	85.4	17.2
Himachal Pradesh	3.3	45.1	73.6	13.7
Punjab	15.8	19.5	83.0	8.5
Uttranchal	6.1	35.2	34.2	12.0
Haryana	4.4	32.6	74.8	15.2
Rajasthan	5.0	23.6	65.2	12.1
UP	16.4	22.9	48.7	10.6
Bihar	25.5	21.2	45.1	12.6
Assam	25.7	23.3	56.0	7.6
WB	11.2	40.5	60.7	20.6
Jharkhand	22.1	31.9	42.4	17.0
Orissa	29.3	54.8	38.1	29.4
Chhatisgarh	24.1	47.9	47.0	29.4
MP	30.0	41.9	46.2	22.2
Gujarat	10.9	48.1	71.2	24.2
Maharashtra	19.2	39.9	51.1	18.4
Andhra Pradesh	24.1	66.8	81.3	50.3
Karnataka	20.7	59.6	65.6	36.5
Kerala	10.0	48.4	74.8	25.0
Tamil Nadu	9.0	29.7	63.1	15.0
All India	19.1	36.0	59.8	20.7

Source: NSS, 61st Round, 2004–05.

ANNEXURE 4.1.5
PDS Benefits—Rice and Wheat

(Rs per Household)

	Poor				Non poor			
	No card	APL card	BPL card	Antyodaya card	No card	APL card	BPL card	Antyodaya card
J&K	33.73	78.19	278.72	333.96	22.77	53.89	206.43	286.26
Himachal Pradesh	0.00	43.83	124.94	262.10	2.72	21.84	122.38	204.55
Punjab	0.00	0.00	1.96	111.54	-0.58	-0.07	1.38	0.00
Uttranchal	0.00	8.32	88.22	202.61	0.06	10.52	54.73	115.10
Haryana	0.00	0.04	12.09	114.36	0.00	0.00	11.61	75.15
Rajasthan	6.23	6.42	70.93	169.27	-6.18	3.77	54.35	93.80
UP	2.48	0.92	39.96	132.88	0.17	0.68	23.79	107.40
Bihar	-0.29	0.32	3.86	47.27	-0.05	0.01	6.10	44.26
Assam	8.27	4.71	81.33	184.81	2.45	1.43	47.98	21.30
WB	50.69	-0.03	30.78	86.65	14.82	0.31	24.15	46.06
Jharkhand	0.00	0.48	30.43	112.80	0.15	0.94	10.84	65.06
Orissa	2.17	3.09	31.93	129.92	0.25	0.81	12.04	120.67
Chhatisgarh	5.72	13.69	70.05	213.53	2.97	6.36	43.01	104.49
MP	4.27	8.02	60.37	146.03	0.80	1.42	40.20	100.32
Gujarat	4.38	1.99	86.17	182.58	0.57	1.86	79.17	29.02
Maharashtra	3.02	8.75	97.16	192.23	1.87	4.25	80.77	158.83
Andhra Pradesh	1.71	56.75	113.67	260.27	4.17	31.23	95.72	249.61
Karnataka	8.79	63.08	199.43	230.81	1.29	46.29	180.99	231.85
Kerala	22.04	68.16	166.06	242.23	4.82	18.33	94.03	209.85
Tamil Nadu	43.83	182.85	198.06	349.04	13.56	126.08	177.58	314.68
All India	6.69	15.64	81.45	176.18	2.28	12.56	74.59	146.92

Source: NSS 61st Round, 2004–05.

ANNEXURE 4.1.6
Beneficiaries of any Programme (Annapurna, FFW, ICDS, MDM)

(%)

	Poor			Non-poor		
	No card	APL	BPL/AAY	No card	APL	BPL/AAY
J&K		4.5	12.7	1.0	2.1	7.8
Himachal Pradesh	23.3	70.0	72.2	23.8	34.7	37.8
Punjab		6.2	13.9	1.8	3.3	8.3
Uttranchal	33.9	41.9	57.5	6.2	20.4	37.0
Haryana	13.8	37.1	31.3	9.6	19.5	34.3
Rajasthan	19.2	29.8	54.5	9.2	24.6	45.2
UP	21.8	24.1	31.5	10.5	13.7	27.5
Bihar	7.1	18.4	23.6	6.9	13.1	31.6
Assam	24.5	49.2	42.5	8.5	24.7	28.9
WB	47.3	52.6	52.1	21.8	27.0	43.3
Jharkhand	16.7	13.3	20.2	8.4	9.7	18.4
Orissa	41.9	50.1	56.4	25.3	32.3	46.8
Chhatisgarh	59.8	59.3	73.3	36.9	39.4	50.3
MP	40.5	42.6	52.1	18.9	26.1	42.7
Gujarat	42.0	67.0	65.7	20.8	25.7	37.5
Maharashtra	49.8	38.8	52.6	25.9	22.5	39.2
Andhra Pradesh	23.5	40.1	50.1	18.1	15.9	33.3
Karnataka	35.5	35.6	62.6	19.4	23.2	44.2
Kerala	56.2	45.2	58.4	30.9	23.4	33.9
Tamil Nadu	54.2	56.7	57.1	26.9	27.1	39.2
All India	31.6	34.2	49.0	17.4	20.6	36.9

Source: NSS, 61st Round, 2004–05.

5

Drinking Water, Sanitation, and Clean Living Conditions

INTRODUCTION

5.1 Provision of clean drinking water, sanitation, and a clean environment are vital to improve the health of our people and to reduce incidence of diseases and deaths. Women and girls spend hours fetching water and that drudgery should be unnecessary. Drudgery is undesirable in itself and it also takes away other opportunities for self-development. Drinking water is less than 1% of the total water demand and should have the first priority among all uses of water.

5.2 Lack of covered toilets nearby imposes a severe hardship on women and girls. Also provision of clean drinking water without at the same time of provision for sanitation and clean environment would be less effective in improving health. The two should be treated together as complementary needs.

5.3 The status of provision of water and sanitation has improved slowly. According to Census 1991, 55.54% of the rural population had access to an improved water source. As on 1 April 2007, the Department of Drinking Water Supply's figures show that out of a total of 1507349 rural habitations in the country, 74.39% (1121366 habitations) are fully covered and 14.64% (220165 habitations) are partially covered. Further, present estimates shows that out of the 2.17 lakh water quality affected habitation as on 1.4.05, about 70000 habitations have since been addressed for providing safe drinking water. Also, from the reported coverage, there are slippages in the prescribed supply level, reducing the per capita availability due to a variety of reasons.

5.4 Water supply in urban areas is also far from satisfactory. As on 31 March 2004, about 91% of the urban population has got access to water supply facilities. However, this access does not ensure adequacy and equitable distribution, and the per capita availability is not as per norms in many areas. Average access to drinking water is highest in class I towns (73%), followed by class II towns (63%), class III towns (61%), and other towns (58%). Poor people in slums and squatter settlements are generally deprived of these basic amenities. The population coverage in the past decades and as of March 2004 is as shown in Table 5.1 below:

5.5 The quantity of urban water supply is also poor. Water is supplied only for few hours of the day that

TABLE 5.1
Percentage of Population Covered with Water Supply Facilities

Year	Urban Population (million)	Percentage of Population Covered with Water Supply
1981	152	78
1991	217	84
2001	285	89
2004	308 (projected)	91

leads to a lot of waste as taps are kept open and water is stored not all of which is used. This is so, despite the fact that per capita availability of water in cities like New Delhi exceeds that in Paris, where water is supplied round the clock.

5.6 The access to toilets is even poorer. As per the latest Census data (2001), only 36.4% of the total population has latrines within or attached to their houses. However in rural areas, only 21.9% of population has latrines within or attached to their houses. An estimate based on the number of individual household toilets constructed under the TSC programme (a demand-driven programme implemented since 1999) puts the sanitation coverage in the country at about 49% (as on November 2007). An evaluation study on the programme conducted in 2002 shows 80% of toilets constructed were put to use. This use is expected to be much higher as awareness has improved much since 2002.

5.7 63% of the urban population has got access to sewerage and sanitation facilities (47% from sewer and 53% from low cost sanitation) as on 31.3.2004. As a consequence, open defecation is prevalent widely in rural areas but also significantly in urban areas too.

5.8 We look at the Eleventh Plan approach to deal with the problems of rural water supply, urban supply, rural sanitation, and urban sanitation.

RURAL WATER SUPPLY

Past Programmes and Outlays

5.9 The GoI's major intervention in water sector started in 1972–73 through Accelerated Rural Water Supply Programme (ARWSP) for assisting States/UTs to accelerate the coverage of drinking water supply. In 1986, the entire programme was given a mission approach with the launch of the Technology Mission on Drinking Water and Related Water Management. This Technology Mission was later renamed as Rajiv Gandhi National Drinking Water Mission (RGNDWM) in 1991–92. In 1999, Department of Drinking Water Supply (DDWS) was formed under the MoRD to give emphasis to rural water supply as well as on sanitation. In the same year, new initiatives in water sector had been initiated through Sector Reform Project, later it was scaled up as *Swajaldhara* in 2002. With sustained interventions, DDWS remains an important institution to support the States/UTs in serving the rural population with water and sanitation related services all across India.

5.10 An investment of about Rs 72600 crore has been made (under both State and Central Plans) from the beginning of the planned era of development in rural water supply sector. As per available information, this investment has helped to create assets of over 41.55 lakh hand pumps, around 15.77 lakh public stand posts, around 1.60 lakh mini-piped water supply schemes, and 45000 multi village schemes in the country under the Rural Water Supply Programme. Of these systems, 88.21% hand pumps, 93.49% stand posts, 91.95% mini schemes, and 96.26% multi village schemes are reported functional by the States. During the Tenth Plan, the approved outlay for the programme was Rs 13245 crore. The programme was well funded during the Tenth Plan (being a part of Bharat Nirman Programme) and by the end of March 2007, an amount of Rs 16,103 crore was released to the States under the scheme. On the physical achievement side, 352992 habitations have been reported covered by the States during Tenth Plan.

5.11 The Swajaldhara programme was launched in 2002–03. The programme involves a community contribution of 10% of the project cost to instil a sense of owner ship among the people and also to take over the Operation and Maintenance (O&M) of the schemes constructed under the programme. The Centre provides 90% of the project cost as grant. Under the Swajaldhara programme, out of the 19385 schemes included under the programme with an estimated cost of Rs 1069 crore, only 11046 schemes could be completed in the Tenth Plan with an expenditure of Rs 610 crore. The monitorable target of covering all habitations in the Tenth Plan, which was aimed to be achieved in 2004, could not be achieved. During the Eleventh Plan, the Swajaldhara principles are to be adopted by the State Governments as per local conditions and adequate flexibility has been provided to incorporate such principles under the ongoing ARWSP itself.

Major Issues in Rural Water Supply

5.12 The main problems are of sustainability of water availability and supply, poor water quality, centralized versus decentralized approaches, and financing of O&M costs.

Sustainability

5.13 Habitations that are covered in the earlier years slip back to not covered or partially covered status due to reasons such as sources going dry or lowering of groundwater, sources which are quality affected, systems working below their capacity due to poor O&M, and normal depreciation. Increasing population leading to emergence of new habitations also increase the number of unserved habitation.

5.14 Sustainability of the Rural Water Supply Programme has emerged as a major issue and the Eleventh Plan aims at arresting the slip backs. The rate of habitation slippages from fully covered to partially covered and partially covered to not covered is increasing. In addition to this the increase in the number of quality-affected habitations that are dependent on ground water source is adding to these slippages. This can be gauged from the fact that there are about 6.83 lakh partially covered and not covered habitations as per the 2003 survey. The Mid-Term Appraisal of the Tenth Plan observed that over-reliance on groundwater for rural water supply programme has resulted in the twin problem of sustainability and water quality and suggested a shift to surface water sources for tackling this issue. Restoration of tanks can provide a local solution (see Box 5.1). It is important to apply the principle of subsidiarity to collect water, store water, use water, and manage waste water as close to the source as possible.

Water Quality

5.15 There are about 2.17 lakh quality-affected habitations in the country with more than half of the habitations affected with excess iron (118088). This is followed by fluoride (31306), salinity (23495), nitrate (13958), arsenic (5029) in that order. There are about 25000 habitations affected with multiple problems. About 66 million population is at risk due to excess fluoride in 200 districts of 17 States. Arsenic contamination is widespread in West Bengal and it is now seen in Bihar, eastern UP, and Assam. The hand pump attached de-fluoridation and iron removal plants have failed due to in appropriate technology unsuited to community perceptions and their involvement. Desalination plants have also met a similar fate due to lapses at various levels starting with planning to post implementation maintenance.

5.16 The Bharat Nirman Programme aims at addressing water quality problems in all the quality-affected habitations by 2009. It has given a sign of hope for addressing the issue. While higher allocation (20% of ARWSP funds committed for water quality) of funds is addressed, the next important step is to achieve convergence, ensure community participation, and an

Box 5.1
Success Stories in Sustainability—*Ooranis*—The Lifelines of Rural Tamil Nadu

For the people of Tamil Nadu the traditional ooranis or ponds have truly proved to be a blessing. The ooranis were developed as the main supply systems in Tamil Nadu centuries back. These earthen bunded ponds were constructed by the collective efforts of the people over the ages and have been designed hydrologically to have adequate and assured inflow of surface runoffs. Almost all ooranis are well connected with irrigation tanks called Kanmoi.

In recent years however the ooranis were neglected and dilapidated due to implementation of new water supply facilities such as handpumps, deep borewell, and Combined Water Supply Schemes. Initiatives were taken therefore to improve and strengthen them under the Ministry of Rural Development's RGNDWM, *Pradhan Mantri Grameen Yojana*, ARWSP programmes. These included measures like desilting the pond, treatment of catchment areas, clearing of the supply channel, provision of filter media, and providing draw well arrangements and fencing of the oorani. 360 ooranis have been rejuvenated in several districts with the combined efforts of the government, the community, technical expertise from the Anna University, and NGO participation. Water shortages have now become a thing of the past in these areas, and with the harvested rainwater flowing into the ooranis, a sustainable water supply system has thus become a reality.

IEC campaign. Convergence would offer twin benefits, that is, sustain the source (also provide alternative surface source) and dilute the groundwater chemical contamination.

Decentralization

5.17 Whenever the community has been involved from planning stage, the programme has always become sustainable. While our programmes have elaborate guidelines for community involvement, it is obvious that field-level adoption is far from satisfactory. The 73rd and 74th constitutional amendments have devolved the water supply responsibility to PRIs/local bodies. Due to their inherent weaknesses like funding constraints, low technical ability, etc. the devolution of power is yet to make a desirable impact on the ground. While sporadic success stories are trickling in, this concept has yet to go a long way. States have to play an important role in placing the Twelfth Finance Commission (TFC) grants devolved to Panchayats and placing the implementation agency at the command of local bodies. The second is simply absent in many States.

Financing of the Capital Cost and O&M (Rural Water Supply Programme)

5.18 States have been expressing constraints in providing adequate matching share for availing ARWSP funds. The DDWS has suggested that funding pattern of the programme should change from the current 50:50 (Centre:State) to 75:25 for Non Special Category States and 90:10 for Special Category States.

5.19 The Bharat Nirman Programme has nearly doubled the funds available for the sector through the ARWSP. The Centre is also encouraging external assistance for this sector. The average cost of coverage of not covered, slipped back, and quality-affected habitations have gone up considerably.

5.20 The TFC has provided enough funds for the O&M of the water supply systems in rural areas. Also the rural community is not averse to paying charges for a reliable supply. Convergence of various programmes would also bring additional funds. While the funding for the programme would be provided for through various sources, what is more important for the success of the programme is the change in the approach (community-based local solutions) and mindset (moving away from the pure asset creation towards service delivery approach).

Eleventh Five Year Plan Targets for Rural Water Supply

The Targets

5.21 To 'provide clean drinking water for all by 2009 and ensure that there are no slip-backs by the end of the Eleventh Plan' is one of the monitorable targets of the Eleventh Five Year Plan. The first part of the goal coincides with the terminal year of Bharat Nirman Programme under which it is proposed to provide safe drinking water to all habitations. Under the Bharat Nirman Programme 55067 not covered habitations, 2.8 lakh slipped back habitations, and 2.17 lakh quality-affected habitations are proposed to be covered. The first two years of the Eleventh Plan forms the second-half period of the Bharat Nirman Programme. While the coverage reported by the States under not covered and slipped back habitations are encouraging, the coverage under water quality-affected habitations is far from satisfactory. This would be one of the major challenges during the Eleventh Plan. The States have done well in covering the slipped back habitations (1.63 lakh habitations covered) and not covered habitations (23000 habitations covered). However, achievement in the quality-affected habitations is way below the target. Against 2.17 lakh habitations, as on 1.4.05, about 70000 habitations have since been addressed. The States find it difficult to establish alternate sources of water supply to the quality-affected habitations, as either the source is very far off or simply not available, nearby.

5.22 The government is also committed to provide 100% coverage of water supply to rural schools. The ARWSP includes school water supply also. The DDWS has estimated that by April 2005, there are 2.31 lakh uncovered rural schools in the country, which needs to be covered with water supply. While the ARWSP has provision of water supply to existing schools, the new schools are covered under other programmes like *Sarva SSA* of the MHRD. The funds required to cover the schools at the rate of Rs 40000

per school works out to Rs 924 crore. The coverage of schools could be best achieved by convergence of various programmes of the Department of the Elementary Education and Literacy and the Department of Women and Child Development.

The Way Forward

5.23 The problems of sustainability of water availability, maintenance of supply system, and dealing with the issue of water quality are the major challenges in the Eleventh Five Year Plan. The conjunctive use of groundwater, surface water, and rooftop rainwater harvesting systems will be required to be encouraged as the means of improving sustainability and drinking water security. While convergence of various programmes for funds and physical sustenance is most important, States should put in place an effective coordinating mechanism for attaining success. Otherwise the vicious cycle of coverage and slip back would continue in the next plan also. The Eleventh Five Year Plan proposes to deal with the various issues as follows:

5.24 The TFC awards for maintaining the water supply systems by local bodies must be implemented and schemes transferred to Panchayats. State can share a part of the O&M cost of such Panchayat as a hand-holding support for first few years before the local bodies become self-sustainable. To enable local bodies, an effective MIS for knowing the status of water supply in every habitation in the State should be put in place and every State should earmark funds for this purpose. All the States' information systems should be connected to the all-India server at Delhi and this MIS should be web-enabled for moving to the larger objective of public monitoring. Also adequate training at local bodies' level should be undertaken for enhancing their technical capacities for maintaining the water supply systems. The implementing agencies must be made accountable to the local bodies for providing water supply services. However major engineering schemes can continue to be with the State-level agencies.

Local Participation and Convergence

5.25 In order to universalize access to safe drinking water, it needs to be isolated from agriculture and other uses wherever possible. To prevent lowering of water tables due to excessive extraction, cooperation with agricultural users becomes necessary. A cooperative mechanism of water users and Panchayat representatives has to regulate use within average annual recharge level. All groundwater-based resources should be provided with a recharge structure that would help keep the source alive. Also rainwater harvesting in schools and community buildings should be made compulsory and individual household rooftop rainwater harvesting system like individual household toilets should be promoted, if necessary, special funds should be earmarked for this purpose.

5.26 Where groundwater quality and availability is unsatisfactory, surface water sources need to be developed. Restoration and building of tanks and other water bodies along with rainwater harvesting structures for recharge and for direct collection at community and household levels constitute an attractive option. The Central Government should support the States for tapping the maximum external assistance for this purpose, a part of the assistance could be shared by the Centre as decided in the case of the external assisted Water Bodies Restoration programme (WBRP) wherein 25% grant of the project cost is passed on to the States. The assistance here could be restricted to covering the quality-affected habitations in various States.

5.27 Another alternative is to bunch the habitations into large numbers and involve the technically sound private service providers to cover the quality-affected habitations on an annuity basis for a certain period. Meanwhile parallel efforts to restore the source through water augmentation programme should continue in these habitations as an alternative arrangement, provided such systems are proposed by and have the consent of the PRIs and local bodies.

5.28 Involvement of the community in the monitoring of the water supply works should be made a primary condition for release of funds for completed work. The DDWS has initiated monitoring of the water quality under the National Rural Drinking Water Quality Monitoring and Surveillance Programme (NRDWQMSP) under which the Gram Panchayat/ Village Water and Sanitation Committee provided

with user-friendly field test kits for testing both bacteriological and chemical contaminants followed by testing of the samples at district- and State-level laboratories. Such initiatives need to be extended to the other regular programmes under the ARWSP also. Involving the community in bringing quality and sustainability to the village-level drinking water supply systems should be encouraged, rewarded, and recognized in an appropriate manner along the lines of the *Nirmal Gram Puraskar* that has galvanized communities and local bodies for an enthusiastic and effective response to the TSC of the GoI.

5.29 While our programme guidelines do recognize the role of women in planning and post implementation maintenance with some success stories of women maintaining the hand pumps and tube wells, the success has to spread far and wide. Of late, the country is realizing the potential of women in the form of SHGs. Women SHGs are functioning well in States such as Tamil Nadu and Gujarat. Women SHGs also should be given the responsibility for collection of maintenance funds after the source is handed over to them for maintenance. Women SHGs should be encouraged for taking up the O&M of the existing functional systems. If the source is dysfunctional, the State should incur one-time expenditure to set it right and encourage SHG to take them over.

5.30 The resources required could be easily mobilized if the various programmes can be converged to work in complementary ways.

5.31 The National Rural Employment Guarantee Programme has seven identified work component related to water. The Rural Development Ministry is implementing major watershed schemes through the Department of Land Resources. There are other programmes such as Backward Region Grant Fund, artificial recharge of groundwater schemes and rain water harvesting, restoration of water bodies scheme (both pilot and external assisted) by the Ministry of Water Resources, the National Project for Renovation of Water Bodies and schemes such as the National Afforestation Programme, River Valley Project, Flood Prone River Programme, Integrated Wasteland Development Programme, Grants under TFC, *Hariyali*, and the States' own schemes. Convergence of these programmes should help to augment funds and bring institutions together for sustainable water supply.

URBAN WATER SUPPLY

Past Programmes and Outlays

5.32 The coverage of urban population with water supply facilities in the past had not been very impressive, due to various reasons, including the fact that the investment made in the urban water supply sector had been inadequate. The Tenth Plan projected a requirement of Rs 28240 crore for achieving population coverage of 100% with drinking water supply facilities in the 300 Class I cities by 31.3.2007. The estimated outlay for the Tenth Plan period, however, was only Rs 18749 crore in the State sector, and Rs 900 crore in Central sector making a total outlay of Rs 19649 crore only.

5.33 The Tenth Five Year Plan envisaged augmentation of water supply in urban areas to reach the prescribed norms, higher degree of reliability, assurance of water quality, a high standard of operation and management, accountability to customers, and, in particular, special arrangements to meet the needs of the urban poor, and levy and recovery of user charges to finance the maintenance functions as well as facilitate further investment in the sector. The achievement of these tasks depends to a large extent on the willingness of the State Governments and urban local bodies to restructure water supply organizations, levy reasonable water rates, take up reforms in billing, accounting, and collection, and become creditworthy in order to have access to market funding. Measures were suggested for water conservation, reuse, and recycling of waste water.

5.34 While there were progress in some of the suggestions of Tenth Five Year Plan like adoption of the rainwater harvesting, tariff revision for sustaining O&M, augmenting the water supply, reducing the leakages, etc. This progress is, however, confined to some pockets of the country. Thus, for example, the southern metropolitan water supply and sanitation service

providing institutions of Chennai and Bangalore are meeting their O&M expenditure from the revenue generated from water tariff. The capital city of Delhi's service provider Delhi Jal Board is performing far below the desirable levels both in terms of service provision, persistence of large amount of unpaid and unaccounted for water (UFW) as well as in tariff realization.

5.35 However the Tenth Five Year Plan has triggered the realization that institutions have to be self-sustaining and efficient service is the key to realize that. The lesson to be learnt is in today's scenario, in urban areas, people are willing to pay for the services, provided they are reliable both in quantity as well as in quality. The experience of Bangalore is reflected in Box 5.2 below.

Box 5.2
Urban Slum Water Supply

The Social Development Unit of Bangalore Water Supply and Sewerage Board (BMWSSB) under the AusAID Master Plan project has helped to cover 10000 households with water supply in 43 Bangalore slums. This was made possible by reducing the connection fee, tariff, and effecting changes in the proof of residency. This way the illegal water connections were connected to revenue earning ones. All these connections were metered and with individual connections, dependence on public stand posts reduced. BMWSSB then cut down the wastages also. The most significant part was the assessing the willingness and capacity to pay by slum dwellers and the tariff made acceptable to the community by ensuring reliable service.

5.36 To extend financial support to the State Government/local bodies and to provide water supply facilities in towns having population less than 20000 (as per 1991 census), the centrally sponsored Accelerated Urban Water Supply Programme (AUWSP) was launched in March 1994. These towns are often neglected during normal times and are worst hit during the period of drought.

5.37 So far, water supply schemes for 1244 towns have been sanctioned at a cost of Rs 1822.38 crore under AUWSP since its inception from 1993–94 and 639 schemes have been completed/commissioned. Since 2005–06, no schemes are being sanctioned under the programme since scheme has been merged with the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT). An amount of Rs 828.60 crore (till September 2006) was released to the States and they have reported incurring an expenditure of Rs 805.83 crore and the total expenditure reported is Rs 1412.88 crore.

5.38 An evaluation study carried out in 62 towns in 24 States has shown that the programme has resulted in water supply augmentation and improved health outcomes but indicated the need for some design flexibility and institutional strengthening of local bodies for managing the completed schemes.

Major Issues in Urban Water Supply

Sustainability and Equity

5.39 Sustainability in the urban water supply is addressed mainly through supply side augmentation. Distant perennial sources are identified and long distance piped water transfer to the cities and towns are common. Augmentation plans are generally gigantic and engineering-oriented and has greater acceptability at all levels. The demand management is the least preferred option. However when it comes to payment of water charges, the decision is invariably with the elected government and not with the executing agency, which has to depend on the grants for O&M, for sustaining the quantity and quality.

5.40 It is not uncommon that pockets of urban areas would get higher service levels both in terms of number of hours of water availability as well as per capita availability. The UFW due to leaking water supply systems and illegal tapping reduces water availability. The average water loss in the leaking water supply systems varies from place to place and it is generally between 20–50%. Dedicated efforts to plug the leakages are required in addition to demand management measures for achieving the sustainability and equity.

5.41 Long distance water transfer has brought in the attendant issues of dependence on other States for urban water supply. For example, Delhi depends on Haryana and UP for its water supply. Chennai gets 15 TMC of Krishna River Water from Andhra Pradesh. Bangalore water supply is fully dependent on Cauvery waters. There are a few instances when even within the State people object to transfer of water from one district to another. Some times, these issues have a serious implication on the sustainability of supplies to the cities.

Demand and Supply Management

5.42 There is a huge gap between the demand and supply of water in urban areas, which is also growing due to population and urbanization. Norms for various places depending upon the level of development have been established and it is maximum for metropolitan cities. The regular Plan programmes by the States are heavily tilted in favour of supply side management. Recycling and reuse of water, reducing the water demand through rainwater harvesting, using water-efficient household equipment, including flushing cisterns would go a long way in conserving water and reducing demand. Proper metering of water and rational tariff would reduce water demand and encourage conservation. We need to have a concept of water-efficient homes in urban areas and for this there is a need to have a well-orchestrated information campaign. Long distance piped water transfer and desalination of water in coastal areas as augmentation measures are very capital-intensive. Demand management is necessary to achieve sustainability. An integrated water supply and use strategy such as used in Singapore (see Box 5.3) should be encouraged.

Financing and Institutional Issues

5.43 Provision of water supply in urban areas is basically a responsibility of urban local bodies. The PPP efforts to attract financing of water supply projects are finding its place, though so far only in few cases (see Box 5.4). PPP is important to leverage government investments and to access private sector management efficiencies. Reforms are a necessary precondition for gaining success through PPP. It is paradoxical that urban utilities receive funds from institutions such as HUDCO, LIC, government, etc. without any reform conditionalities but on the other hand, States are given additional financial support towards implementing reforms through schemes like JNNURM.

Box 5.3
Public Utilities Board (PUB) Singapore

PUB is the National Water Agency in Singapore charged with water, wastewater, and storm water management in the city state. The public agency services about 4.5 million people and a number of major industries with intensive water use. The development and implementation of the complete management system is ongoing but has taken over a period of about 40 years.PUB's holistic approach has resulted in a lower dependence on external water sources by diversification of water sources including water reuse, desalination, storm water storage in new water storages, and supply of very high-quality recycled water to industry with some internal reuse of this supply. Singapore presents a challenging environment for water resources management, as it is a small but densely populated island city state.In its own operations PUB has significantly reduced water losses due to leakage in pipes and inaccurate meters. It has 100% servicing of its population with water and waste water services and strong political and public acceptance of its policies and services.It has been accompanied by a major change in water pricing and access policy, which aims to use the rate structure to encourage the more efficient use of water. PUB has been able to provide lowered costs of delivered water of improved higher quality to industry and the community. Reclaimed water branded *NEWater* in Singapore is recognized for its high quality. Singapore has also been able to maintain low water costs for households on the lowest tariff water supply despite the major capital investments in new equipment and systems. Its household directed campaign of 'Water-efficient homes' helps residents to save water at home and reduce their water bills.Through an extensive partnering programme with the water industry in all aspects of implementation it has been a model of outsourcing skills. From this it has developed an industry capable of transferring this knowledge and skills to the region as well as attracting a broad rage of industry skills and capabilities as well as research in Singapore.The PUB story would fit well as a study example in the education of water managers. PUB has won the prestigious 2007 Stockholm Industry Water Award.

PUB website: *www.pub.gov.sg*

Box 5.4
PPP in Urban Water Supply

Tamil Nadu has emerged as forerunner in attracting PPP in urban water supply sector. At 42%, it is a highly urbanized State in the country. The State has already commissioned the 'Tirupur Water Supply and Sewerage project' at a cost of Rs 1023 crore. The cost per kilo litre of water at estimate stage is Rs 30, which is high due to recovery of the sewerage capital cost, operating expenses, and capital cost. The next project on PPP is 100 million litres per day (MLD) desalination project for Chennai Water Supply.

5.44 The large number of institutional issues in water supply sector discussed during the formulation of the Tenth Plan are still valid. The rationale of financing water supply schemes fully or partly as grant, inability of the urban local bodies (ULBs) to raise funds due to low tariff recovery, their weak financial position preventing any augmentation efforts, tossing around the responsibility of water supply from the State level utility to local bodies/Panchayats with large liabilities, etc. are continuing.

5.45 Despite the large grants by TFC for local bodies to maintain the water supply systems, things have yet to improve a lot on the ground. Overlapping of responsibilities between various institutions like ULBs, State-level agencies, and departments dilutes the accountability and responsibility to the customers.

Tariff and O&M

5.46 Evolving realistic water tariff so as to discourage excessive use of treated/potable water is one of the important management tools for demand management. Not much has been done on this important aspect in many urban local bodies in the country except a few larger cities that have undertaken some measures by way of installing water meters for consumers. The major reason for slow progress in this regard is that good quality meters are not available on a large scale since the meter manufacturing facility is vested with small-scale industries at present, which do not have the capacity to produce meters on a large scale.

5.47 Poor O&M due to inadequate financial resources is one of the primary reasons for low sustainability and equity in water supply. The responsibility of operation, maintenance, and revenue collection is generally vested with the elected ULB, while the specialized bodies are not able to raise the water tariff without the approval of the provincial governments. The local bodies generally receive grant assistance ranging from 10% to 60% for capital works on water supply and sanitation from the State Government. Usually, they do not receive any grant assistance for O&M of water supply and sewerage. Municipal bodies in many parts of the country suffer from inadequate resources. Assessment of demand and 'willingness to pay' by the communities would help to arrive at a basis for pricing water management services and to clarify the scope for adopting 'full cost recovery' policies to achieve financial sustainability.

Eleventh Five Year Plan Programmes for Urban Water Supply

5.48 With a view to provide 100% water supply accessibility to the entire urban population by the end of the Eleventh Plan in 2012, it has been estimated that Rs 53666 crore is required. With a view to provide reform-linked infrastructure facilities in the urban areas, the GoI has launched the two new programmes namely—

(i) JNNURM covering 63 cities with population above one million as per 2001 census, including 35 metro cities and other State capitals and culturally important towns.
(ii) UIDSSMT for the remaining 5098 towns having population less than one million to cover all the towns as per 2001 census, irrespective of the population criteria.

5.49 JNNURM is envisaged for implementation over a seven-year period starting from 2005 to 2012 with a tentative outlay of Rs 100000 crore, which includes contribution of Rs 50000 crore to be made by the States and ULBs. Water supply and sanitation is accorded priority under the programme and is likely to receive 40% of plan funds. It is important to tap the other sources like higher Central and State sector outlays, institutional financing, PPP, and external assistance.

5.50 Sea water desalination has emerged as an alternative option for water supply augmentation in coastal areas. Many research institutes have embarked upon this programme for producing cheap water from the abundant source. While the Chennai Desalination Plan of 100 million litres per day (MLD) is large version being tried with PPP mode by the Government of Tamil Nadu, Central institutes such as Bhabha Atomic Research Centre (BARC) and National Institute of Ocean Technology (NIOT) have already established desalination plants at various places (see Box 5.5). The research needs to be advanced to bring down the cost of water produced from such systems.

The Way Forward

5.51 The Eleventh Five Year Plan will address the issues faced by the sector and strive to achieve the goal of universal water supply coverage and sustainability as follows:

Priority for Drinking Water

- While designing and constructing multipurpose dams/reservoirs, adequate care would be taken to reserve/apportion sufficient quantity of water for domestic use in the urban areas. Keeping in view the National Water Policy, topmost priority would be given by the State Governments to the drinking water supply needs of cities and towns from the available water sources. This needs to be operationalized by all States in the form of State Water Policy as desired in National Water Policy, 2002.
- Under JNNURM and UIDSSMT programmes, special attention will be given to towns and cities affected by surface and groundwater contamination due to the presence of chemicals such as iron, manganese, fluoride, salinity, arsenic, pesticides, etc. in excess of the prescribed limits. Such drought-prone and water shortage areas as well as the cities and towns having water quality problems would be given top priority in the selection process by State Governments/ULBs.

Maintenance of Assets

- Adequate thrust may be given to the O&M of the assets created for their optimal and efficient use by evolving suitable strategy and creating adequate infrastructure facilities within State departments/ concerned ULBs.
- Computerized MIS is a must for developing a strong data base at local, State, and Central levels on Urban Water Supply and Sanitation sector for decision making, planning, and mid-course corrections from time to time. In most States, elaborate computerized MIS is not in place. It is recommended that MIS cells may be created with central funding at State and Central levels for exchanging information and to develop good data base for the sector.

Metering of Water for Volumetric Change

- Telescopic water tariff/user charges should be formulated and levied to discourage excessive use of water while providing a basic quantity of water at a low tariff. Metering of water supplies should be made mandatory in a phased manner with a view to conserve water as well as to generate revenue on a realistic basis.

Box 5.5
Sea Water Desalination Initiative by National Institute of Ocean Technology (NIOT), Chennai, Pure Water at Six Paise per Litre

The NIOT, Chennai, has succeeded in putting together and operating a desalination system with a capacity of 1 million litres a day. The quality of water is tested and found above international standards. For instance, the total dissolved solids was found to be less than 10 parts per million (PPM) as against international standard of 500 ppm. The system that works on the principle of flash evaporation works on mounted barge off shore, drawing water from sea at different levels to accomplish the task. The technology involved was turning surface sea water into vapour in a vacuum chamber and then condensing the vapour using the cold water drawn from the sea itself from a depth of 600 m. For transporting the one million litre water from offshore barge to the shore, specially designed water bags of special material were made that could hold and carry 2 lakh litres and could be towed to shore using small fishing boats. The NIOT would now focus on desalination plant with 10 MLD with the help of private sector. The water costs 6 paise per litre. The NIOT has already installed one lakh litre desalination plant at Lakshadweep Island during 2006.

- The ULBs need to be given greater autonomy in respect of fixing tax rates, user charges, etc. and also ensure regular revision of such rates. The 74th constitutional amendment needs to be implemented in its entirety. There is a need for regulatory regime in water supply and sanitation sector to enthuse confidence among the private players.

Reducing Waste and Promoting Conservation

- Intensive leak detection and rectification programme should receive priority. Severe penalties should be levied on those found responsible for leakage and wastage of water. ULBs may be asked to enact necessary changes in the municipal Acts.
- To reduce wastage of water, adoption of low volume flushing cisterns, waste not taps, etc. should be adopted so as to minimize the need for fresh water. Ministry of Urban Development/Town and Country Planning Organization (TCPO) may take up the matter with the States and ULBs to promote usage of such cisterns so as to conserve fresh water. Central Public Works Department may also widely use such cisterns in the buildings constructed by them.

Augmenting Availability

- It must be made mandatory to install rainwater harvesting systems in both public and private buildings including industrial and commercial establishments so as to conserve water. The ULBs should make it a point not to approve building plans having no provision for such systems. It is also equally important to ensure proper implementation of the approved system by the builders.
- The State Governments and ULBs may implement schemes for artificial recharge of ground water as per techniques developed by the Central Ground Water Board.

Water Quality

- Water quality surveillance and monitoring should be given top most priority by the State Governments/ULBs so as to ensure prevention and control of water-borne diseases. For this purpose, water quality testing laboratories have to be set up in every city and town backed by qualified personnel to handle such laboratories and where such labs already exist, they should be strengthened with equipment, chemicals, manpower, etc., if necessary.

Finance

- Efforts should be made to step up the quantum of funds through institutional financing, foreign direct investment, assistance from bilateral, multilateral agencies, newly launched Pooled Finance Development Scheme, tax-free municipal bonds, Member of Parliament Local Area Development (MPLAD) funds, etc. apart from involving private entrepreneurs.

Human Resources

- Trained technical human resources are a must for successful implementation and maintenance of various water supply and sanitation schemes. However, in some States as well on in many ULBs the water utilities do not have adequate trained technical personnel, due to which the sector is affected badly. Under the circumstances, the Public Health Engineering (PHE) training programme of the Ministry of Urban Development has to be toned up further with adequate funds to enable Central Public Health and Environmental Engineering Organization (CPHEEO) to impart training to the various technical personnel of the State Governments/ULBs on a variety of technical subjects and management aspects.

RURAL SANITATION

5.52 Sanitation is to be seen as a basic need, as basic as drinking water or food. A sanitary toilet, within or near home, provides privacy and dignity to women. Mahatma Gandhi emphasized the link between sanitation and health as a key goal for our society.

5.53 Sanitation coverage, which ought to be a way of life to safeguard health, is inadequate in our country. In fact, problems like open defecation continue to remain the only form of sanitation for the majority of the population in rural areas. The practice of open defecation in India is due to a combination of factors—the most prominent of them being the traditional behavioural pattern and lack of awareness of the people about the associated health hazards.

5.54 Recognizing the link between healthy environment and sanitation, the MDGs stipulate, inter alia, halving, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The TSC programme, the flagship programme of the government, has set an ambitious target beyond the MDGs and aims to achieve universal sanitation coverage in the country by the end of the Eleventh Plan.

Performance Review of Rural Sanitation Sector—TSC in Tenth Plan

5.55 The TSC is being implemented in 578 districts of 30 States/UTs with support from the Central Government and the respective State/UT governments. Against a target of 10.85 crore individual household toilets, the toilets reported completed is about 2.89 crore up to January 2007. In addition, about 3.12 lakh school toilets, 8900 sanitary complex for women, and 99150 *balwadi* toilets have been constructed. The approved outlay for the programme in the Tenth Plan was Rs 955 crore and the anticipated financial utilization is about Rs 2000 crore. The Eleventh Five Year Plan targets to complete 7.29 crore individual toilets for achieving universal sanitation coverage in rural areas.

Major Issues in Rural Sanitation Coverage

5.56 Though the current programme emphasis on construction of household toilets is laudable, it needs to reorient itself to a vigorous Information and Education Campaign mode to bring about a change in mindset. The evaluation study of the programme has shown that 20% of the toilets are not used or used for other purposes like storage. The superstructure for the toilet, the one that guarantees privacy and dignity, was provided funds under the programme starting only in March 2006.

5.57 The issue of convergence of the programme with health awareness received a boost only after the launch of the NRHM. While it was introduced earlier at school level, at the community level it was expanded later. However, the school programme had a cascading effect on the individual household and children helped to change attitudes. The awareness is now picking up and the programme needs to capitalize on this for increasing the sanitation coverage. Lack of priority for the programme by many States leading to inadequate provision of funds for the State share for the TSC, lack of emphasis on personal communication on sanitation at the village level, and inadequate capacity building at the grassroot level are some of the common issues seen across the States that hinder expansion of sanitation coverage.

Eleventh Plan Priorities

5.58 While the hardware part of the programme for assisting the States in providing the various types of sanitation would continue, the focus now should be more on changing behaviour patterns. The Nirmal Gram Puraskar (described later) has brought a sea change in the attitudes of the community and it is promoting a healthy competition among the Panchayats for achieving total sanitation. Low-cost technology options for constructing the toilets should be tried and community should be given freedom to choose the various options. The focus on school sanitation needs to continue. In addition, SWM in villages should be the next focus area. Ten per cent of the TSC funds are earmarked for this purpose already. Adequate funding for the programme would have to be provided so that the momentum generated is not lost.

IEC and Nirmal Gram Puraskar (NGP)—Success Stories

5.59 To add vigour to the TSC, in June 2003, the GoI initiated an incentive scheme for fully sanitized and open defecation free Gram Panchayats, blocks, and districts called the NGP. The incentive pattern is based on population criteria. The NGP is given to the following:

- Gram Panchayats, blocks, and districts that achieve 100% sanitation coverage in terms of 100% sanitation coverage of individual households, 100% school sanitation coverage, making the village, block, district free from open defecation and with clean environment.
- Organizations that have been the driving force for effecting full sanitation coverage in the respective geographical area.

5.60 The incentive scheme has caught on like wild fire and the number of Panchayats who have received this Puraskar is steadily going up. From a mere 40 village/block panchayats from six States that received the award in 2005, in the year 2007, the number of awardees have gone up to 4959 from 22 States. Maharashtra, which got 13 awards in 2005, received 1974 awards in 2007—a significant achievement—followed by Gujarat with 576 awards. Box 5.6 highlights the efforts of Suravadi Panchayat in this area.

Beyond Nirmal Gram—Monitoring for Sustainability

5.61 Once the village, block, or district Panchayat has received the Puraskar, there is a responsibility thrust on them, to maintain the Nirmal Gram status. The sustainability features mentioned in the Maharashtra success story on sanitation are worth emulating. Specially, community involvement with women and children would sustain the Nirmal Gram status. Such grams have to move now to the next stage of sustained SWM and proper street drainages.

5.62 The Way Forward

- Open defecation-free status is the basic objective of the programme. The sanitation campaign should focus on creating awareness about the importance of sanitation among people with special emphasis on children. Awareness can spread rapidly from children to parents to community, which will create demand for sanitation. The software component of the programme like IEC, NGP will receive more priority.
- Once individual or community toilets are provided demand for water would increase.
- Rural sanitation has to be promoted on low water, low-cost, and eco-sanitation models without causing further stress on water resources. Such systems will be actively promoted, encouraged, incentivized, and rewarded.

Box 5.6
How Suravadi Panchayat in Phaltan Block in Satara District of Maharashtra won the Nirmal Gram Puraskar (NGP)

This Panchayat that has a population of 2891 people has 412 households out of which 112 are BPL households. The Panchayat has a village primary school, an anganwadi centre, and a Primary Health Centre five km away. There was no community toilet facility in the village. Men, women, and children used to defecate in the open. Out of 47 individual toilets 34 were not in use (used only for other purposes). Village was always highly stinking, no drainage, many ill with diseases like jaundice, flu, cholera, etc. Several village meetings were held for stoppage of open defecation. It looked like a Herculean task in the beginning, as people were not coming forward for construction of toilets.

Things began to change when Sant Gadge Baba Gram Swachhata Abhiyan started in year 2000 and motivational campaign and meetings were organized by Panchayat. The school teachers and students were involved in this campaign. Sanitation campaign started with making a 28-seater complex and few individual units. Persons still going for open defecation were penalized with no distribution of wheat and kerosene from FPS. It was also decided to give Rs 500 to every family to construct its own latrine. Construction of toilets geared up slowly but taken up in later stages by community participation.
The Gram Panchayat and youth group of the same village monitored the sanitation programme.

Everybody is using toilets in the village today. Recognition of community is shown by painting all houses using toilets in pink colour. With the campaign, people also gained knowledge on bio-gas plants and about conservation of sources. The scheme was also linked with and benefited through other rural developmental schemes like Yaswant Gram Samruddhi Yojana.

To sustain the programme women and children get regular knowledge on cleanliness through school. Extra classes have been organized for students on promotion of sanitation and hygiene activities in the schools. The village now has a better school facility and the Panchayat is fully involved, as it had initiated this campaign. There is a feeling of pride with their becoming the first village in the entire State to get the NGP award.

Present sanitation status in the village is as follows:

Number of Households:	412
Status of Toilets:	100% using toilets
	Community Complexes (28 users)
	10 Gobar gas plants linked to toilets

- As an incentive mechanism, the Nirmal Grams should be provided funds under the ARWSP for higher service levels from 40 litre per capita per day (LPCD) to 55–60 lpcd per capita. This should be with commitment for meeting the O&M cost from the society.
- Specific policy directives for sanitation campaigns to include special needs of women, adolescent girls, infants, disabled, and the aged will be given.
- Sufficient focus of rural sanitation should be laid on the needs of disaster-prone areas such as hills, mountains, coastal areas, etc.
- The investments required in training, skill development for production of low-water, low-cost sanitation appurtenances suitable for rural areas, and training of self-groups of women, youth, etc. as masons and mistries for embarking on large-scale simple toilet construction activities throughout the country will be made available. The community should be encouraged to avail soft micro credits from the SHGs and for which a separate revolving fund should be provided.
- There is a need to have a monitoring system for the villages, which received the Nirmal Gram Puraskar award so that the success obtained is sustained. Community monitoring with women and children would be the primary choice. A close monitoring mechanism to oversee the coverage of BPL household and in SC/ST household also should be put in place at every State level.
- Schools provided with sanitation facilities should have a separate rain water harvesting system to meet the water requirement for the sanitation purposes.
- The Nirmal Gram Puraskar model of recognizing and rewarding entire village panchayats and PRIs that have been able to bring about total sanitation in many villages through awareness, peer pressure, and local competitive spirit amongst the PRIs will continue to be promoted.
- Segregation of degradable and non-degradable solid waste, black and grey liquid wastewater, and holistic environmental protection and cleanliness through rural sanitation, solid and liquid waste programmes will be promoted as the next area of focus.
- Decentralized sanitation solid and liquid waste management as business models under various employment and self-employment programmes with appropriate incentives will be encouraged.

URBAN SANITATION INCLUDING SWM

5.63 The major issues in urban sanitation are how to expand sewerage and sanitation facility to cover all the people in all cities and towns; how to find resources to do that; how to create awareness about the importance of sanitation and SWM; how to prepare and execute plans that keep up with growing population; and how to finance the O&M costs of the facilities created?

Status of Urban Sanitation and Solid Waste Disposal

5.64 On the basis of information furnished by the State agencies in charge of Urban Water Supply and Sanitation Sector, about 91% of the urban population has got access to water supply and 63% to sewerage and sanitation facilities (47% from sewer and 53% from low cost sanitation) as on 31.3.2004. However, adequacy, equitable distribution, and per capita provision of these basic services may not be as per prescribed norms in most of the cities. For instance, the poor, particularly those living in slums and squatter settlements, are generally deprived of these basic facilities.

5.65 As per assessment made by the Central Pollution Control Board on the status of wastewater generation and treatment in Class I cities and Class II towns during 2003–04 (Table 5.2), about 26254 MLD of wastewater is generated in 921 Class I cities and Class II towns in India (housing more than 70% of urban population). The wastewater treatment capacity developed so far is about 7044 MLD—accounting for 27% of wastewater generated in these two classes of urban centres.

5.66 The pollution effect of sanitation is enormous. Three-fourths of the surface water resources are polluted and 80% of the pollution is due to sewage alone. Poor sanitation conditions, particularly in slums, are often linked to outbreaks of cholera and gastroenteritis. Water-borne diseases are one of the major causes of mortality throughout India and impose a huge burden in terms of loss of life and productivity.

TABLE 5.2
Status of Water Supply, Wastewater Generation, and Treatment in Class I Cities/Class II Towns in 2003–04

Parameters	Class I Cities	Class II Towns	Total
Number (as per 2001 census)	423	498	921
Population (millions)	187	37.5	224.5
Water Supply (MLD)	29782	3035	32817
Water Supply (LPCD)	160	81	146
Wastewater generated (MLD)	23826	2428	26054
Wastewater generation (LPCD)	127	65	116
Wastewater treated (MLD)	6955 (29%)	89 (3.67%)	7044 (27%)
Wastewater untreated (MLD)	16871 (71%)	2339 (96.33%)	19210 (73%)

Water and sanitation diseases are responsible for 60% of the environmental health burden. The single major cause of this burden of disease is diarrhoea, which disproportionately affects the children under the age of five.

5.67 It is estimated that about 115000 MT of municipal solid waste is generated daily in the country. Per capita waste generation in cities varies from 0.2 kg to 0.6 kg per day depending upon the size of population. An assessment has been made that per capita waste generation is increasing by about 1.3% per year. With growth of urban population ranging between 3 to 3.5% per annum, the annual increase in overall quantity of solid waste generated in the cities is assessed at about 5%. The collection efficiency ranges between 70 to 90% in major metro cities, whereas in several smaller cities it is below 50%. It has been estimated that the ULBs spend about Rs 500 to Rs 1500 per tonne on solid waste collection, transportation, treatment, and disposal. About 60–70% of this amount is spent on street sweeping, 20–30% on transportation, and less than 5% on final disposal of waste, which shows that hardly any attention is given to scientific and safe disposal of waste. Landfill sites have not yet been identified by many municipalities and in several municipalities, the landfill sites have been exhausted and the respective local bodies do not have resources to acquire new land. Due to lack of disposal sites, even the collection efficiency gets affected.

5.68 SWM is a part of public health and sanitation, and according to the Indian constitution, it falls under State list. Since this activity is non-exclusive, non-rivalled, and essential, the responsibility for providing the service lies within the public domain. As this activity is of local nature, it is entrusted to the ULBs. The ULB undertakes the task of solid waste service delivery, with its own staff, equipment, and funds. In a few cases, part of the said work is contracted out to private enterprises. The management of municipal solid waste is one of the most important obligatory functions of the urban local bodies, which is closely associated with urban environmental conditions. The 74th constitutional amendment gives constitutional recognition for local self government institutions specifying the powers and responsibilities.

5.69 Very few ULBs in the country have prepared long-term action plans for effective SWM in their respective cities. For obtaining a long-term economic solution, planning of the system on long-term sustainable basis is very essential. The Ministry of Environment and Forests (MoEF), GoI, has notified Municipal Solid Waste (Management and Handling) Rules, 2000 to tackle this problem. The increase in quantity of municipal solid waste generation with increase in the urban population is quite obvious. Efforts towards waste recycle, reuse, and resource recovery for reduction in waste and adoption of more advanced technological measures for effective and economical disposal of municipal solid waste is the need of the hour.

5.70 There has been no major effort in the past to create community awareness, either about the likely perils due to poor waste management or the simple steps that every citizen can take, which will help in reducing waste generation and promote effective management of solid waste generated. The degree of community sensitization and public awareness is low.

5.71 Since in most of our cities there are many unauthorized housing colonies that are not provided sewerage facilities, their waste go untreated polluting

the water bodies in which it is drained. Cities need to treat the sewage from the entire city.

5.72 Growing urbanization has made storm water draining systems inadequate increasing the frequency of flooding of cities like Mumbai.

Performance Review of the Sector in Tenth Plan

5.73 The Tenth Plan targeted a coverage of providing sewerage and sanitation facilities to 75% of the population from 57% at the beginning of the Plan. An investment requirement of Rs 23157 crore was worked out for sanitation and Rs 2322 crore for SWM. There was no scheme at the beginning of the Tenth Plan to assist the States in the sanitation sector and the Plan recommended an enhanced scope for the AUWSP to include sanitation. With the launch of JNNURM and UIDSSMT, the AUWSP programme is subsumed in UIDSSMT and the scheme now includes funding for sanitation also.

5.74 The Central Scheme of Solid Waste Management and Drainage in airfield towns was also launched in the Tenth Plan. Bird hits are among the major causes of air crashes in our country leading to the loss of costly defence aircrafts and loss of invaluable lives of pilots. An Inter-Ministerial Joint Sub-Group constituted by the Ministry of Defence recommended to provide proper sanitation facilities, including SWM and drainage to over-come the bird menace in the following 10 towns having airfields of the Indian Air Force at Gwalior (MP), Ambala (Haryana), Hindon (UP), Jodhpur (Rajasthan), Tezpur (Assam), Dundigal (AP), Sirsa (Haryana), Adampur (Punjab), Pune (Maharashtra), and Bareilly (UP).

5.75 All the schemes are under execution and are at different stages of execution and were expected to be completed in the Tenth Plan itself, but have not been completed.

Eleventh Five Year Plan Targets for Urban Sanitation

5.76 The target fixed for urban sanitation is 100% population coverage with 70% by sewerage facility and 30% by low-cost sanitation. For SWM 100% population is proposed to be covered with appropriate SWM. It has been estimated that the fund requirement for these programmes is Rs 53168 crore for sanitation and Rs 2212 crore for SWM.

5.77 While funds to the tune of Rs 40000 crore would be available from the JNNURM for water supply and sanitation, at this stage it would be difficult to predict the availability for sanitation and SWM separately. External assistance could be tapped and States/UTs should increase their outlays in their regular budget for these programmes. Some amount of contribution by beneficiaries is desirable as it reflects their need. Leverage of funds through PPP should also be used.

5.78 The importance of effective administration and citizen cooperation in SWM cannot be overestimated. The case of Surat shows what these can be accomplished (see Box 5.7).

5.79 Initiatives Required in Eleventh Five Year Plan

- Recycling and reuse of sewage after the desired degree of treatment (depending upon the end use) for various non-potable purposes should be encouraged. Industries and commercial establishments must be persuaded to adopt reuse of treated sewage and recycle treated trade effluents to the extent possible in order to cut down the fresh water demand.

Box 5.7
Success in SWM—The Case of Surat

The outbreak of a plague-like disease in Surat in 1994 brought solid waste to the attention of the public. The contrast between the scrupulously clean Indian homes and the heaps of rubbish and filth commonly found in the urban public spaces was much discussed in the newspapers of the day. Urban filth was deemed to be bad for both public health and the urban economy.

Accordingly, the situation created an intense political will to clean up the city. Money and professional management was mobilized on a PSP/PPP basis and there was a major cleaning of the urban areas. Today, Surat is one of the cleanest cities in India, indicating how rapidly and effectively this can be achieved if political will and the organization are present.

Moreover, incentives in the form of rebate on water cess, concessions in customs and excise duty on equipment and machinery, tax holiday, etc., should be considered by the GoI for agencies dealing with planning, developing, and operating such reuse treatment plants as well as users of treated sewage and trade effluents. Similarly, for dense urban neighbourhoods, decentralized waste treatment systems that are cheaper and reduce the distance that the sewage is transported form a viable alternative to large treatment plants.

- Targeted subsidy may be made available to the SCs and STs, and other disadvantaged groups living in urban slums on taking house service connections for water supply/sewerage, metering, construction of latrine, subsidized water rates, etc. and accordingly adequate funds may be earmarked for the purpose so as to avoid any possible diversion of funds by the State Governments/ULBs. At the same time internal earmarking of funds for the urban slums under JNNURM/UIDSSMT schemes should be made mandatory. It is also very much necessary to monitor the physical and financial progress of the implementation of such programmes on a regular basis by the funding agencies so as to ensure fulfilment of the envisaged objectives.
- Comprehensive storm water drainage system has to be provided in all the cities and towns based on need, in order to avoid water logging in residential areas/flooding of streets during the monsoon period.
- There is a need to have a national centre for water excellence, which looks at especially the drinking water and sanitation sector in rural and urban water areas.
- We need to find a way to provide sewerage facilities to unauthorized housing colonies without giving them a right to the land by implication.

Solid Waste Management (SWM)

- Urban waste management by ULBs is already under stress because of paucity of resources and inadequacies of the system. Unless concerted efforts are made to improve the flow of resources to SWM and build up systems that incorporate the basic requirements of a proper waste management practice, the problem of urban waste will be further aggravated and cause environmental health problems.
- It is recommended that all the cities and towns have to be provided with appropriate SWM facilities giving due emphasis to the magnitude of the problem.
- Soil fertility is being badly affected by excessive use of chemical fertilizers and inadequate use of organic fertilizers. Large quantities of urban waste can be a useful solution to this problem. Compulsory production of compost from urban solid waste in cities and towns and promotion of application of this organic manure in agriculture and horticulture should be implemented, as this may have a significant positive impact on soil fertility.
- The Report of the Inter Ministerial Task Force on the 'Integrated Plant Nutrient Management using city compost' constituted by the Ministry of Urban Development in March 2005 as per the directive of the Hon'ble Supreme Court of India has recommended technical, financial, qualitative, marketing, and sustainability aspects of utilization of Municipal Solid Waste for compost purpose. Recommendations of the Task Force need to be implemented through provision of various fiscal incentives/concessions.
- Quality standards for compost will have to be prescribed by Bureau of Indian Standards at the earliest. At the same time, it should be made mandatory that compost sold in the market should clearly indicate the exact chemical composition (Nitrogen, Phosphorus, and Potassium, NPK, etc.) on the bags for the benefit of users.
- To the extent possible materials such as metal, glass, plastic, rubber, tin, and paper available in the municipal waste must be recycled back as they have adequate salvage value. Inorganic and inert material such as sand, grit, stones, bricks, concrete, rubble, etc. may also be used for making low-cost bricks, road material, aggregates, etc. As such, efforts should be made to reuse the same and enough incentives in the form of tax concessions, subsidies, etc. may be given to the entrepreneurs dealing with such materials/processes.
- Our cities are littered with uncollected solid waste and no public place or street is free of litter. Though much recycling takes place by rag pickers and waste

collectors, a lot is left to be disposed off. To keep cities clean, citizen involvement is essential to sort waste at source and minimize waste that needs to be collected and disposed. A programme should be implemented to obtain citizens' cooperation. NGOs should be encouraged to provide organizational support and identity to the rag pickers so that better recycling occurs. Adequate land should be earmarked/allotted at the planning stage itself by the respective ULBs for setting up of sanitary landfills, compost plants, and other processing units including provision for future expansion.

- Awareness campaigns on various aspects of water quality, importance of safe drinking water, its handling and storage, water conservation in homes, use of sanitary toilets, separate storage of dry and wet garbage and its hygienic disposal, vector control, personal hygiene, etc. should be mounted.

PPP in Urban Sanitation and SWM

5.80 Though privatization of water supply and sanitation sector could not make significant progress as of now, there is substantial potential and urgent need for the same in near future. By and large, the tariff rates being charged from the consumers are very low and there is a general reluctance for enhancing the same. Under the circumstances, without aiming at full cost recovery, privatization cannot be a successful proposition. It is felt that it would be easier and convenient to introduce privatization in new areas where the private companies will have a free hand to take up the task of planning, designing, execution, O&M, billing, and collection including tapping of raw water from the selected source either on Build Own Operate (BOO) or Build Own Operate Transfer (BOOT) basis. Few examples to infuse confidence in private entrepreneurs are—the successful award of Chennai service contract for O&M of 61 sewage pumping stations in the city, and of Rajkot and Surat contracting out a number of municipal services to private firms as well as community groups.

5.81 There were some public concerns on PPP projects in the water supply sector in the country because of which the projects were either stalled or dropped. If the community could be involved in PPP projects there would be more acceptability to such projects. PPP can be redesigned as Public–Private Community Partnership to overcome the hurdle.

CLEAN LIVING CONDITIONS

Introduction

5.82 Achievement of health objectives involves much more than curative or preventive medical care. Many of the communicable diseases in India can be prevented through a combination of health and non-health interventions. We need a comprehensive approach that encompasses individual health care, public health, sanitation, clean drinking water, access to food and knowledge about hygiene and feeding practice, etc. A direct relationship exists between water, sanitation, and health. Safe drinking water and sanitation are critical determinants, which directly contribute nearly 70–80% in reducing the burden of communicable diseases. Inadequate provision of safe drinking water, improper disposal of human waste, and lack of adequate systems for disposal of sewage and solid wastes leads to unhealthy and unhygienic conditions. This coupled with overall ignorance of personal and environmental hygiene are the main causes of a large number of water-borne diseases in the country.

Clean Water Supply

5.83 The water supply and sanitation sector will face enormous challenges over the coming decades. In India, the groundwater is consumed directly without any sort of treatment and disinfection. Its quality is therefore a cause of concern. The national objectives of reducing morbidity and mortality largely depend on the reduction of diarrhoea, jaundice, etc. In fact, no water supply and sanitation programme can be successful if water-related illnesses are not reduced. It is a matter of concern that despite the progress made with water supply, the level of water-related illnesses continues to be high. Approximately 10 million cases of diarrhoea, more than 7.2 lakh typhoid cases, and 1.5 lakh viral hepatitis cases occur every year (Annexure 5.1). A majority of them are contributed by unclean water supply and poor sanitation. Micro-level studies revealed that availability of clean water; sanitation, and hygiene interventions reduce diarrhoeal diseases on average by between one-quarter and one-third.

5.84 Causes of contamination of water are indiscriminate use of chemical fertilizers and chemicals, poor hygienic environment of the water sources, improper disposal of sewage and solid waste, pollution from untreated industrial effluents, and over-exploitation leading to quality degradation. Thus, the supply of additional quantity of water by itself does not ensure good health, proper handling of water and prevention of contamination are also equally important.

Sanitation

5.85 Sanitation covers the whole range of activities including human waste disposal, liquid and solid wastes from household, and industrial waste. Lack of drains and the presence of ditches create unsanitary conditions, which contaminate water, breed mosquitoes, and cause water-borne diseases. Malaria, typhoid, jaundice, cholera, dengue, and diarrhoea are all connected to unsanitary conditions (Annexure 5.2). Chikungunya fever has emerged as an epidemic outbreak after more than three decades. These diseases can be prevented by appropriate sanitation system. Unfortunately, access to sanitation facilities continues to be grossly inadequate.

5.86 Census 2001 indicates that of the 200 million dwelling units across the country, only some 40 million dwelling units have a toilet inside the house. Only 61% households in urban areas and 17% households in rural areas have access to improved sanitation.[1] While households having bathroom facility within the house is abysmally low in rural areas and urban areas in the poor performing States, the position in respect of connectivity for wastewater outlet is even more alarming. While closed drainage is available in the urban areas at least in the developed States, a large percentage of bathrooms across all States in the country have no drainage system particularly in the rural areas. This percentage is as high as 73.88 in Orissa, 72.69 in Assam and 71.81 in Chhattisgarh. The non-availability of toilets within the house is as high in Bihar (71.94%), Chhattisgarh (76.78%), and in Jharkhand (73.03%). In urban areas, the percentage of households not having toilet is marked in the case of Goa (15.26%), Maharashtra (17.75%), Chandigarh (17.83%), Delhi (19.58%), and Tamil Nadu (14.84%).[2] Top priority needs to be accorded to improving sanitary conditions and ensuring a clean microenvironment at home and at the workplace, which must now include factories, coalmines, quarries, and roads. The TSC aims to eliminate the practice of open defecation completely by 2012.

Environmental Pollution

5.87 Serious environmental health problems affect millions of people who suffer from respiratory and other diseases caused or exacerbated by biological and chemical agents, both indoors and outdoors. Millions are exposed to unnecessary chemical and physical hazards in their home, workplace, or wider environment. Concern about the health effects of the high levels of air pollution observed in many mega cities is growing; moreover, it is likely that this problem will continue to grow because countries are trapped in the trade-offs of economic growth and environmental protection. Population in urban areas are at risk of suffering adverse health effects due to rising problems of severe air and water pollution.

5.88 Cooking and heating with solid fuels on open fires or traditional stoves results in high levels of indoor air pollution. Indoor smoke contains a range of health-damaging pollutants, such as small particles and carbon monoxide.

5.89 Indian women spend nearly 60% of their reproductive life in either pregnancy or breast-feeding.[3] Most of the women keep their children in the kitchen when they are cooking, thereby exposing the children to the pollutants too. This, combined with malnutrition may retard growth and lead to smaller lungs and a greater prevalence of chronic bronchitis. There is an urgent need for the implementation of control programs to reduce levels of particulate and other

[1] Census of India 2001, Registrar General of India.
[2] Census of India 2001, Registrar General of India.
[3] A. Kotwal (2007), Environment and Health, in O.P. Gupta and O.P. Ghai (eds), Text Book of Preventive & Social Medicine, 2nd edn, New Delhi: C.B.S Publishers.

pollutant emissions. To be effective, these programs should include the participation of the different stakeholders and initiate activities to identify and characterize air pollution problems, as well to estimate potential health impacts. A full understanding of the problem and its potential consequences for the local setting is essential for effectively targeting interventions to reduce the harmful impacts of air pollution.

5.90 Monitoring of air and water quality is crucial for devising programmes and policies related to pollution management. Establishing a reasonably adequate monitoring network with contemporary technology will be given priority. Ways of linking treatment of sewage and industrial effluents to the urban and industrial development planning need to be worked out. The goal should be to ensure that by the end of the Eleventh Plan no untreated sewage or effluent flows into rivers from cities and towns.

Strategies during the Eleventh Five Year Plan

5.91 In order to achieve 100% coverage of clean water and sanitation in rural areas, rural sanitation programme will be linked with the NRHM. The strategies include:

- Convergence of health care, hygiene, sanitation, and drinking water at the village level
- Participation of stakeholders at all levels, from planning, design and location to implementation and management of the projects
- Instituting water quality monitoring and surveillance systems by involving PRIs, community, NGOs, and other CSOs
- Increased attention to IEC campaign

5.92 Efforts will be made to launch a *Sarva Swasthya Abhiayan* in the county that will cover the primary health care, safe drinking water, and sanitation in urban areas.

Eleventh Five Year Plan Recommended Outlays

5.93 The full coverage of rural drinking water supply is to be achieved by March 2009 and 100% sanitation coverage by the end of the Eleventh Plan (2012) with mass awareness and NGP. The Eleventh Plan Central sector GBS for rural water supply and sanitation is Rs 41826 crore (at 2006–07 prices) and Rs 47306 crore (at current prices) (including Rs 6000 crore for Nirmal Gram Puraskar) and this provision will draw matching provision in the State Plan to the tune of Rs 48875 crore. Thus the total outlays in the Eleventh Five Year Plan for Rural Water Supply and Sanitation sector would be close to Rs 100000 crore. The total outlay for Urban Water Supply and Sanitation sector would be Rs 75000 crore.

ANNEXURE 5.1
Cases and Deaths due to Water-borne Diseases in Various States

States	Diarrhoeal Disease (2006)		Viral Hepatitis (2006)		Typhoid (2006)	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Andhra Pradesh	1215659	124	17846	28	135550	12
Arunachal Pradesh	32032	30	553	6	9098	23
Assam	..	..	..	..	..	..
Bihar	..	..	..	..	..	..
Chhattisgarh	95202	13	1491	2	21474	6
Goa	7631	0	15	0	68	0
Gujarat	382056	4	9396	16	7290	0
Haryana	285342	42	3983	11	5688	4
Himachal Pradesh	347055	28	835	11	26327	5
J&K	519317	32	5882	0	42369	0
Jharkhand	14752	1	51	0	4707	284
Karnataka	939221	1279	14980	24	96147	5
Kerala	475510	4	7018	6	6219	2
MP	318935	88	2499	9	28654	29
Maharashtra	695723	93	43215	131	39663	8
Manipur	13614	17	346	0	2421	2
Meghalaya	178260	33	294	2	6709	1
Mizoram	18063	20	546	11	1392	2
Nagaland	9176	0	112	0	2328	0
Orissa	373748	40	2687	38	15387	9
Punjab	182451	64	3829	17	17008	3
Rajasthan	318169	21	3869	78	14084	131
Sikkim	51433	8	290	2	428	2
Tamil Nadu	116062	12	4523	0	36973	0
Tripura	150750	47	2520	14	18547	19
Uttarakhand	94746	6	3381	0	15020	2
UP	284709	55	3716	6	42648	13
WB	2622968	964	7433	205	110835	70
A&N Islands	22752	2	213	4	3055	0
Chandigarh	..	..	..	..	..	..
D&N Haveli	74661	4	126	3	646	0
Daman & Diu	109	0	3	0	33	0
Delhi	94398	85	4080	42	13774	18
Lakshadweep	7316	0	86	0	6	0
Pondicherry	137443	8	615	7	1936	1
Total	10079263	3124	146433	673	726484	651

Note: '..' means not reported.
Source: MoHFW, GoI, 2006.

ANNEXURE 5.2
Burden of Major Communicable Diseases in Various States

States	Malaria (2005)		TB (2006)		ARI	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Andhra Pradesh	39099	0	142057	1184	2465743	434
Arunachal Pradesh	31215	0	1593	38	43426	1
Assam	67885	113	..	..	..	..
Bihar	2733	1	..	..	..	..
Chhattisgarh	187950	3	8689	12	132276	25
Goa	3747	1	2228	0	25559	0
Gujarat	179023	54	41730	238	833339	17
Haryana	33262	0	29900	227	1269205	178
Himachal Pradesh	129	0	14705	140	1545057	161
J&K	268	0	2346	28	383069	0
Jharkhand	193144	21	15516	5	23470	1
Karnataka	83181	26	76687	745	2544300	196
Kerala	2554	6	13840	181	7897043	165
MP	104317	44	18866	132	478278	180
Maharashtra	47608	104	52998	795	657432	192
Manipur	1844	3	482	20	12602	1
Meghalaya	16816	41	1900	29	304097	25
Mizoram	10741	74	936	28	41018	26
Nagaland	2987	0	838	0	11792	0
Orissa	396573	255	11443	178	768445	69
Punjab	1883	0	20612	106	601038	66
Rajasthan	52286	22	71180	695	1299772	126
Sikkim	69	0	2155	36	65304	7
Tamil Nadu	39678	0	28979	73	380708	220
Tripura	18008	20	971	27	279702	98
Uttarakhand	1242	0	3522	8	130683	11
UP	105303	0	109898	161	502869	81
WB	185964	175	89276	820	2020983	894
A&N Islands	3954	0	2898	10	32405	13
Chandigarh	432	0	..	..	..	..
D&N Haveli	1166	0	1544	36	118461	0
Daman and Diu	104	0	25	3	0	0
Delhi	1133	0	13544	993	323392	276
Lakshadweep	0	0	39	0	32093	0
Puducherry	44	0	7738	125	584161	1
Total	1816342	963	789135	7073	25807722	3467

Note: '..' means not reported.

Source: National Health Profile 2006, CBHI, DGHS—MoHFW.

6

Towards Women's Agency and Child Rights

INTRODUCTION

6.1 Women are significant contributors to the growing economy and children are assets of the future. Almost 50% of our population today comprises women while 42% is under the age of 18. For growth to be truly inclusive, we have to ensure their protection, well-being, development, empowerment and participation.

6.2 India has committed to meeting the MDGs and is a signatory to many international conventions, including Convention for Elimination of all forms of Discrimination against Women and the Convention on the Rights of the Child. Yet, at the start of the Eleventh Five Year Plan, women and children continue to be victims of violence, neglect, and injustice. The Eleventh Plan will address these problems by looking at gender as a cross-cutting theme. It will recognize women's agency and the need for women's empowerment. At the same time it will ensure the survival, protection, and all-round development of children of all ages, communities and economic groups.

APPROACH TO THE ELEVENTH FIVE YEAR PLAN

6.3 The vision of the Eleventh Five Year Plan is to end the multifaceted exclusions and discriminations faced by women and children; to ensure that every woman and child in the country is able to develop her full potential and share the benefits of economic growth and prosperity. Success will depend on our ability to adopt a participatory approach that empowers women and children and makes them partners in their own development. The roadmap for this has already been laid in the National Policy on Women 2001 and the National Plan of Action for Children 2005.

6.4 The Eleventh Plan recognizes that women and children are not homogenous categories; they belong to diverse castes, classes, communities, economic groups, and are located within a range of geographic and development zones. Consequently, some groups are more vulnerable than others. Mapping and addressing the specific deprivations that arise from these multiple locations is essential for the success of planned interventions. Thus apart from the general programme interventions, special targeted interventions catering to the differential needs of these groups will be undertaken during the Eleventh Plan.

6.5 The gender perspectives incorporated in the plan are the outcome of extensive consultations with different stakeholders, including a Group of Feminist Economists. In the Eleventh Plan, for the first time, women are recognized not just as equal citizens but as agents of economic and social growth. The approach to gender equity is based on the recognition that interventions in favour of women must be multi-pronged and they must: (i) provide women with basic entitlements, (ii) address the reality of globalization and its impact on women by prioritizing economic empowerment, (iii) ensure an environment free from all forms of violence against women (VAW)—physical,

economic, social, psychological etc., (iv) ensure the participation and adequate representation of women at the highest policy levels, particularly in Parliament and State assemblies, and (v) strengthen existing institutional mechanisms and create new ones for gender main-streaming and effective policy implementation.

6.6 The child development approach in the Eleventh Plan is to ensure that children do not lose their childhood because of work, disease, and despair. It is based on the understanding that the rights of all children, including those who do not face adverse circumstances, must be protected everywhere and at all times so that they do not fall out of the social security net. Successful integration of survival, development, protection, and participation policies are important for the overall well being of the child. The essence of the Eleventh Plan strategy for Women Agency and Child Rights is summarized in Box 6.1.

MONITORABLE TARGETS FOR THE ELEVENTH PLAN

6.7 The Eleventh Plan lays down six monitorable targets

- Raise the sex ratio for age group 0–6 from 927 in 2001 to 935 by 2011–12 and to 950 by 2016–17.
- Ensure that at least 33% of the direct and indirect beneficiaries of all government schemes are women and girl children.
- Reduce IMR from 57 to 28 and MMR from 3.01 to one per 1000 live births.
- Reduce malnutrition among children of age group 0–3 to half its present level.
- Reduce anaemia among women and girls by 50% by the end of the Eleventh Plan.
- Reduce dropout rate for primary and secondary schooling by 10% for both girls as well as boys.

Box 6.1
Essence of the Approach

- Recognition of the right of every woman and child to develop to her/his full potential
- Recognition of the differential needs of different groups of women and children.
- Need for intersectoral convergence as well as focused women and child specific measures through MoWCD
- Partnership with civil society to create permanent institutional mechanisms that incorporate the experiences, capacities and knowledge of VOs and women's groups in the process of development planning.

STATUS OF WOMEN: A BRIEF OVERVIEW

6.8 Due to the untiring efforts of the women's movement, the country amended and enacted women-related legislations during the Tenth Plan. The Married Women's Property Act (1874), the Hindu Succession Act (1956) were amended and the Protection of Women from Domestic Violence Act (PWDVA) (2005) was passed. The Union Budget 2005–06, for the first time, included a separate statement highlighting the gender sensitivities of the budgetary allocation under 10 demands for grants. Gender Budgeting Cells were set up in 52 Central ministries/departments to review public expenditure, collect gender disaggregated data, and conduct gender-based impact analysis. Under Women Component Plan (WCP), efforts were made to ensure that not less than 30% of funds/benefits under various schemes of all ministries/departments were earmarked for women. The performance however has been far from satisfactory. The Mid Term Appraisal of Tenth Plan revealed that while 42.37% of the GBS to the Department of Education flowed to women under WCP, only 5% of the GBS of Ministry of Labour (against 33.5% in the Ninth Plan) went to women in the first three years of the Tenth Plan. Several ministries and/or departments that had

Box 6.2
Schemes (major) for Women during Tenth Plan

- *Swayamsidha*—Implemented in 650 selected blocks. Target: 16000 SHGs. Achievement: 1767.
- Support to Training and Employment Programme for Women (STEP)—Target: provide training to 2.5 lakh. Achievement: 2.31 lakh.
- *Swawlamban Scheme*—Target: 5 lakh. Achievement: 2.32 lakh.
- Hostels for Working Women—Target: construct 125 hostels benefiting 12500 women. Achievement: 111 hostels were constructed during the Plan benefiting 6976 women.
- *Swadhar*—To provide shelter, food, clothing, and care to the women living in difficult circumstances. No specific target. Achievement: 21464 women benefited.

earlier reported on the WCP in their sectoral budgets stopped doing so. Within the Ministry of WCD, the financial allocation for women specific schemes during the Tenth Plan was Rs 1246 crore. As a result of this modest allocation of resources and ineffective implementation of existing schemes, we have fallen far short of our Tenth Plan targets. Selected development indicators relating to women may be seen at Annexure 6.1.

Demography

6.9 Female population of the country rose marginally from 48.1% of the total population in 1991 to 48.3% of the total population in 2001, an increase of 89.4 million. At 23.08%, the growth rate of female population for the 1991–2001 decade was slightly higher than the male population decennial growth rate of 22.26%. This is because life expectancy at birth for women has been rising steadily from 58.6 years in 1987–91 to 66.91 years in 2001–06; it is higher than the male life expectancy of 63.87 years. Demographic imbalances between men and women, however, continue to exist, even worsen, in certain regions.

6.10 While the overall sex ratio improved slightly from 927 in 1991 to 933 in 2001, the Child Sex Ratio (0–6 years) plummeted from 945 to 927. At 880, the SRB for 2003–05 was even lower.[1]

6.11 During the decade 1991–2001, 70 districts in 16 States and union territories recorded more than a 50 points decline in sex ratio. Fatehgarh Sahib district in Punjab[2] registered the lowest sex ratio at 754. What is truly worrying is the dip in child sex ratio in economically prosperous States like Punjab (793),[3] Delhi (865), Haryana (820), and Gujarat (878).[4] This negates the popular belief that female foeticide stems from illiteracy and poverty and will cease with economic growth (see Box 6.3). The Census of 2001 and Sachar Committee report (2006) also reveal that the sex ratio varies across communities and social groups. At 950, child sex ratio for Muslims is much higher than Hindus (925).

Health and Family Welfare

6.12 Discrimination against women and girls impinges upon their right to health and manifests itself in the form of worsening health and nutrition indices. Thus, India continues to grapple with unacceptably high MMR, IMR, and increasing rates of anaemia, malnutrition, HIV/AIDS among women. According to NFHS-3, incidence of anaemia has risen from 49.7% to 57.9% in pregnant women and from 51.8% to 56.2% in ever-married women within a period of seven years (1998–99 to 2005–06). This has raised anaemia among children by 5 percentage points (to 79.2%) and is also partially responsible for the high MMR. Maternal mortality has a direct correlation with lack of accessibility to health care facilities. Paucity of resources and age old discriminatory practices deny large number of women access to good nutrition and care before, during, and after child birth, thus increasing their mortality. Only 22% of mothers consume Iron Folic Acid (IFA) tablets for 90 days or more, and less than half of them receive three ANC visits. As many as 51.7% births take place without assistance from any health personnel. Practices such as female foeticide also affect women's health, as they are forced to go through multiple pregnancies and abortions. As a result, although MMR has fallen from 398 in 1998 to 301 in 2001–03 (SRS), we are far from meeting the Tenth Plan target of reducing MMR to 200 per 100000 live births. States like UP(707), Uttaranchal (517), Assam (409), and MP (498) have very high MMRs.[5]

6.13 While the mean age of marriage of women has increased from 15.5 years in 1961 to 19.5 in 1997, 44.5% of women are still married off by the age of 18.

[1] Registrar General of India 2003.

[2] *Missing: Mapping the Adverse Child Sex Ratio in India*, 2003, Booklet compiled by Registrar General of India and Census Commissioner, the M/o Health and Family Welfare and UNFPA.

[3] Sansarwal village of Patiala District, Punjab. A health survey showed an alarming figure of 438 girls for 1000 boys (*Hindustan Times*, 11 November 2007).

[4] *Missing: Mapping the Adverse Child Sex Ratio in India*, 2003.

[5] India, Registrar General and Census Commissioner (2004). Primary Census Abstract Total Population: Census of India 2001, New Delhi, p. iii.

Box 6.3
Learn More, Earn More, Discriminate More

A report by Infochange India (CCDS) uses data from Census 2001 to question the popular belief that literacy rates have a direct bearing on population and that literate people are less prone to gender bias. Although this may be true in some cases like high population growth rates, the same logic does not hold true for child sex ratio.

HAVE MONEY, WILL RAISE ONLY BOYS

	Overall Sex ratio*	Child sex ratio*	Proportion in India's total population**	Overall literacy rate**	Female literacy rate**	Female work participation rate**
Hindus	931	925	81.4	65.1	53.2	27.5
Muslims	936	950	12.4	59.1	50.1	14.1
Jains	940	870	0.4	94.1	90.6	9.2
Sikhs	893	786	1.9	69.4	63.1	20.2
Christians	1009	964	2.3	80.3	76.2	28.7
Buddhists	953	942	0.8	72.7	61.7	31.7
Others	992	976	0.7	47	33.2	44.2

Notes: *as number of females per 1000 males; **as %

THE NORTH–SOUTH DIVIDE

Punjab	798	Kerala	960
Haryana	819	Tamil Nadu	942
Delhi	868	Karnataka	946
Chandigarh	845	Andhra Pradesh	961

Child sex ratio (0–6) as number of girls per 1000 boys

Source: The disappearing girl child—Info Change India News and Features Development News India, October 2004.

Certain States such as Jharkhand (61.2%), Bihar (60.3%), and Rajasthan (57.1%) have a much higher percentage of underage marriage among girls. Among other things, this results in early pregnancies and takes its toll on the health of the woman as well as the child.

6.14 Women also disproportionately lack access to health services. Inaccessibility of health centres and poverty prevent them from getting timely medical aid. Absence of toilets and drinking water adversely impacts their health. NFHS-3 data reveals that only 27.9% households in rural areas and 70% in urban areas have access to piped water. Further, only 25.9% households in rural areas have access to toilets.

6.15 Inadequacies of clean cooking fuels adversely impacts women and children's work burden, health, and nutrition. Till date, 92% of rural domestic energy comes from unprocessed biofuels (firewood, crop waste, cattle dung), and 85% of rural cooking fuel is gathered from forests, village commons, and fields. Women and girls spend a great deal of time gathering fuel, adversely affecting their productivity and education. Use of firewood and inferior fuels such as weeds or crop wastes leads to smoke-related ailments including respiratory diseases, cancer, and cataracts resulting in blindness.

6.16 Then there are sexually transmitted diseases (STDs). NACO estimates that one in three persons living with HIV in India is a woman. The National Council for Applied Economic Research survey shows that women account for more than 70% of the caregivers, 21% of who are themselves HIV positive. Disowned by family and disinherited from property, they are unable to access drugs to prevent mother-to-child-transmission. Nearly 60% of HIV-positive widows are less than 30 years of age and live with their natal families; 91% of them receive no financial support from their marital homes. Thus not only are women more

vulnerable to getting infected, but when they are found positive they face much greater discrimination than their male counterparts.

Education

6.17 The growth rate for female literacy in the last decade has been 3% higher than the growth rate for male literacy resulting in a decline in the absolute numbers of illiterate women—from 200.7 million in 1991 to 190 million in 2001. Gender differential in education, however, continues to be high at 21.7%. This can be attributed to a number of factors—lack of access to schools, lack of toilets and drinking water, parents feeling insecure about sending girl children, poor quality of education in government schools, and high fees charged by the private ones. Also with increasing feminization of agriculture, the pressure of looking after younger siblings, collecting cooking fuel, water and maintaining the household, all fall upon the girl child, putting a stop to her education and development.

Work and Employment

6.18 Entrenched patriarchal norms and customs mean that women's work goes unnoticed and is unpaid for. The double burden of work placed on her (unrecognized household work and low pay in recognized work) coupled with social norms that prevent her from getting the requisite educational and technical skills result in a low female work participation rate, either real or statistical. Female workforce participation rate in India was 28% (2004) as compared to other developing nations like Sri Lanka (30%), Bangladesh (37%), and South Africa (38%).[6] As per NSSO, however, (Table 6.1) work participation rate for female in rural areas has increased from 28.7% in 2000–01 to 32.7% in 2004–05, whereas in urban areas it has increased from 14% in 2000–01 to 16.6% in 2004–05. The work participation rate remains lower for women than for men both in rural and urban areas.

6.19 A sectoral breakdown of women workers reveals that 32.9% are cultivators, 38.9% agricultural labourers (as against 20.9% men) and 6.5% workers in the household industry.[7] Much of the increase in employment among women has been in the form of self-employment; 48% of urban and 64% of rural women workers describe themselves as 'self-employed'.[8] The Tenth Plan has, however, seen a welcome increase in the share of regular employment among female workers in urban India.

TABLE 6.1
Work Participation Rates by Sex (1972 to 2005)

(in %)

Year	Rural		Urban	
	Female	Male	Female	Male
1972–73	31.8	54.5	13.4	50.1
1987–88	32.3	53.9	15.2	50.6
1996–97	29.1	55.0	13.1	52.1
2000–01	28.7	54.4	14.0	53.1
2004–05	32.7	54.6	16.6	54.9

Source: NSSO.

6.20 As in the case of education, women's employment characterization differs across communities. The Sachar Committee Report shows that work participation rate among Muslim women is 25%, and as low as 18% in urban areas. A larger proportion (73%) of Muslim women is self-employed compared to 55% Hindu women. A much smaller proportion of SC/ST women are self-employed; 45% of SC/ST women are casual workers compared to around 20% Muslim and 15% of upper caste Hindu women.

6.21 Another worrying fact is that despite a slight increase in employment, the average earning for rural women has declined between 1999–2000 and 2004–05. This decline is more pronounced among poorer women, that is, illiterate women and women who have dropped out of primary, secondary, or higher secondary (see Table 6.2). The average wage for men has, on the other hand, shown an increase across all categories, leading to a widening of the wage disparity ratio (ratio of female wage/male wage) from 0.89 in 1999–2000 to 0.59 in 2004–05 for rural and 0.83 in 1999–2000 and 0.75 in 2004–05 in urban areas, for all categories.

[6] Gender Statistics, World Bank 2004.
[7] Census of India 2001.
[8] NSSO 2004–05.

TABLE 6.2
Average Wage/Salary Earnings (Rs Per Day) Received by Regular Wage/Salaried Employees of Age 15–59 Years for Different Education Levels

Category	Rural males		Rural females		Urban males		Urban females	
	1999–2000	2004–05	1999–2000	2004–05	1999–2000	2004–05	1999–2000	2004–05
Not literate	71.2	72.5	40.3	35.7	87.6	98.8	51.8	48.7
Literate upto primary	91.6	98.6	161.5	97.8	105.1	111.4	64.4	64.8
Sec/H.Sec	148.2	158.0	126.1	100.2	168.2	182.6	145.7	150.4
Dip/Cert	–	214.4	–	200.4	–	274.9	–	237.0
Graduate and others	220.9	270.0	159.9	172.7	281.6	366.8	234.7	269.2
All	127.3	144.9	113.3	85.5	169.7	203.3	140.3	153.2

Source: NSSO 55th and 61st Round.

Unorganized Sector

6.22 On an average, unorganized sector workers earn one-fourth the wage of organized sector workers, often doing similar jobs. It is estimated that 118 million workers or 97% of the female workforce are involved in the unorganized sector. Agriculture is the main employer of women informal workers. 75% of the total female workforce and 85% of rural women are employed in agriculture as wage workers or workers on own/contracted household farms.[9] As men migrate to non-farm jobs, there has been an increasing feminization of agriculture. But even as the face of the farmer becomes increasingly female, few women have direct access to agricultural land affecting their ability to optimize agricultural productivity.

6.23 The non-agriculture segment of the informal sector engages 27 million workers or 23% of the female workforce.[10] It is estimated that more than half of the 31 million construction workers in India (90% of them informal) are women. The seasonality of work and the lack of alternate avenues lead to exploitation and ensure that these women remain the poorest and most vulnerable.

Home-Based Workers

6.24 Due to lack of qualifications and training, absence of childcare support, loss of formal employment, social and cultural constraints and absence of alternatives, around 57% of working women are home-based workers. As home-based work is sometimes the only alternative for the poorest communities, it inevitably involves children, especially girls.

Services Sector

6.25 The number of women in the services sector has increased. According to NSSO data, in 2000, 12% of the female workforce was employed in the tertiary sector. Women, however, remain underrepresented in higher level and higher paid jobs. The biggest single increase after apparels has been among those employed in private households. More than 3 million women or over 12% of all women workers in urban India work as domestic servants.[11] These women are poorly paid and often are forced to work under harsh conditions. It is also important to note that nearly 60% of the women from the organized sector are employed in community, social, and personnel services.

Government Sector

6.26 Women's representation in government sector has improved from 11% in 1981 to 18.5% in 2004 (Table 6.3). At the grass roots level, women are playing a more active role in Panchayati Raj bodies and their representation in Panchayats has gone up from 33.5% in 1995 to 37.8% in 2005. Women's presence in Parliament has, however, only increased slightly; from 6.1% in 1989 to 9.1% in 2004. The issue of reservation of seats for women in Parliament remains unresolved. In 2004, only six Ministers of State and one Cabinet Minister were women.

[9] Planning Commission: Report of the Sub Group on Gender and Agriculture, 2007.
[10] Jeemol Unni (2003), 'Gender Informality and Poverty', *Seminar*, 531, November 2003.
[11] Women Workers in Urban India, *Macroscan*, C.P. Chandrashekhar and Jayati Ghosh (2007).

TABLE 6.3
Women in the Government Sector

Year	Central government			State government			Local bodies			Total (In million)		
	Female	Total	Female %	Female	Total	Female %	Female	Total	Female %	Female	Total	Female%
1981	0.14	3.19	4.3	0.65	5.67	11.4	0.41	2.04	20.4	1.2	10.91	11
2004	0.25	3.03	8.25	1.46	7.22	20.22	0.58	2.13	27.23	2.29	12.38	18.5

Source: Directorate General of Employment and Training, Ministry of Labour, New Delhi.

Violence against Women (VAW)

6.27 Despite improving education levels and consistent economic growth, every form of violence against women including female foeticide, rape, abduction, trafficking, dowry death, domestic violence, and witch-hunting, has been increasing. We have 10 million missing girls in India and this number is rising. Dowry deaths rose from 6822 in 2002 to 7026 in 2004. In 2005, highest number of dowry deaths were registered in UP, followed by Bihar, and MP. NFHS-3 shows that more than half of all Indian women believe that husbands can beat wives if they have an appropriate reason and 37% admit to being victims of spousal violence. Data from NCRB reveals little or no change in crime trends in rape and molestation. In 84–89% of the rape cases in the years 2002–04, the victim knew the offenders. In 9% cases, the offender was the father, family member, or close relative, highlighting the prevalence of incestuous and child sexual abuse. Abduction and trafficking for sexual and other exploitations accounted for 19.4% and 7.2% cases registered in 2005. Campaigns and stricter laws notwithstanding, 8.3% of registered cases in 2005 were dowry deaths, a fall of 0.3% from 2004.

Despite the high incidence of VAW, reporting is rare and conviction rates for reported cases, abysmally low; conviction rate for cruelty by husband was 19.2% and 25.5% each for dowry and rape.[12]

CHALLENGES IN THE ELEVENTH PLAN

6.28 The challenges for gender equity and the roadmap for the Eleventh Five Year Plan can be clubbed under a five-fold agenda.

(i) Ensuring economic empowerment.
(ii) Engineering social empowerment.
(iii) Enabling political empowerment.
(iv) Effective implementation of women-related legislations.
(v) Creating institutional mechanisms for gender mainstreaming and strengthening delivery mechanisms.

ENSURING ECONOMIC EMPOWERMENT

Employment

WOMEN IN THE UNORGANIZED SECTOR

6.29 The Eleventh Plan recognizes that women in the unorganized sector need social security covering issues of leave, wages, work conditions, pension, housing, childcare, health benefits, maternity benefits, safety and occupational health, and complaints committee for sexual harassment. While it is difficult to tackle some of these issues immediately due to the nature of unorganized enterprises, steps will be taken to ensure safety, childcare facilities, toilets, etc. for women. The Plan will ensure increased availability of micro-credit to women in the unorganized sector.

WOMEN IN AGRICULTURE

6.30 The challenge in the Eleventh Plan is to improve the availability of agricultural inputs, credit, marketing facilities, technology, and skill training for the increasing number of women farmers. Resource pooling and group investment, financial and infrastructural support will be provided. Women in agriculture will be on the top of the Eleventh Plan agenda and a two-pronged strategy will be adopted: (i) ensuring effective and independent land rights for women, and (ii) strengthening women's agricultural capacities.

6.31 A specific scheme will be devised by MoWCD for identifying and helping women in States where

[12] National Crime Record Bureau, 2005.

TABLE 6.4
Women's Political Participation: Global Picture

Country	Women in Government/ Ministerial Level(2005)	Gender Empower-ment measure	Seats in parliament held by women	Female legislator	Female Professional workers	Ratio estimated Female/male earned income
India	3.4	–	9.2	–	–	0.31
Nepal	7.4	–	6.7	–	–	0.50
Pakistan	5.6	0.377	2.04	2	26	0.29
Bangladesh	8.3	0.374	14.8	23	12	0.46
Sri Lanka	10.3	0.372	4.9	21	46	0.42
Malaysia	9.1	0.500	13.1	23	40	0.36
UnitedStates	14.3	0.808	15.0	42	55	0.62
Mexico	9.4	0.597	25	25	42	0.39

Source: Human Development Report 2006, UNDP.

agrarian crisis has ravaged families. Women's vulnerabilities resulting from farmer suicides due to crop failure and inability to pay loans will be addressed.

LAND

6.32 Land rights not only empower women economically but strengthen their ability to challenge social and political inequities. The Eleventh Plan will carry out a range of initiatives to enhance women's land access. It will ensure direct transfers to them through land reforms, anti-poverty programmes, and resettlement schemes. It will include individual or group titles to women in all government land transfers, credit support to poor women to purchase or lease land, records and legal support for women's inheritance rights, incentives and subsidies on women owned land. The group approach to women's ownership of land and productive assets will be explored and appropriate linkages will be made with the SHG movement. In case of displacement, a gender sensitive rehabilitation policy that includes equitable allocation of land to women will be devised. The Eleventh Plan will also ensure the rights of poor, landless, and tribal women over forest land, commons, and other resources.

IMPACT OF GLOBALIZATION AND ELEVENTH PLAN STRATEGY

6.33 Liberalization has led to a paradigm shift in the country's economy. While this has provided many increase in opportunities, it has also posed challenges. We have moved towards technology dominated sectors. Many traditional livelihoods that have high employment potential like handlooms and other home based non-agro enterprises that are women-dominated have become unviable. Wage differentials, job vulnerability, and unpaid work burden for women has increased, while their social safety nets have been eroded. Unequal access for women to schooling, land, credit facilities, alternate employment, skill training, and technology has led to the crowding of women in the lowly paid jobs of most sectors. The Eleventh Plan will examine the impact of globalization on women, especially poor women including gender differentials in wage rates, exploitation of women in the unorganized sector, lack of skill training, technology, and marketing support, etc. While seeking to provide relief to deprived and women-dominated sectors, such as agriculture and small enterprises, the Plan will also work towards mainstreaming women in new and emerging areas of the economy through necessary skill training, vocational training, and technology education. It will work towards a social security policy that mitigates the negative impact of globalization on women.

WOMEN IN THE SERVICES SECTOR

6.34 The challenge in the Eleventh Plan is to promote women's participation, especially in areas where there is a poor gender ratio. This will entail special tax incentives for women headed enterprises, women employees, firms employing more women, and women entrepreneurial ventures. The Plan will encourage public–private partnerships and corporate social responsibility programmes for women's training, capacity building and empowerment.

6.35 In view of the large number of women employed as domestic workers, the plan will make attempts to organize them and frame regulations with respect to hours of work, holidays, etc. for them. Cases of brutality and abuse will be registered immediately and legal support will be provided to the domestic workers to prevent their exploitation.

SKILL DEVELOPMENT

6.36 Globalization has put a premium on skills and higher levels of education, which are often out of reach of women in the unorganized sector. A key issue in the Eleventh Plan is to enable these women to secure higher level and better paid jobs through vocational training and skill development. Women need technology support, credit facilities, and marketing support to take up entrepreneurial activities in new and emerging trades. At the same time, women's traditional skills such as knowledge of herbal plants, weaving, food processing, or providing 'care' will be recognized and marketed.

MAKING EMPLOYMENT AND NATIONAL RURAL EMPLOYMENT GUARANTEE ACT (NREGA) GENDER RESPONSIVE

6.37 Currently, most of the works included under NREGA require strenuous physical labour and women are sometimes effectively 'disqualified'. The Eleventh Plan will ensure that wage works conducive to women and their skills are also included under NREGA.

6.38 It will guarantee that if they demand, women will be provided employment opportunities under NREGA. It will also ensure that the Minimum Wages Act, 1948 and Equal Remuneration Act, 1976 are implemented by all States and that their implementation is monitored by the Ministry of Labour and Employment. It will encourage higher representation of women among Labour Officers. Besides ensuring equal pay for work, it will also ensure that no work is defined as 'man's' work and hence denied to women.

ACCESS TO RESOURCES AND ECONOMIC ASSETS

6.39 International evidence shows that women's access to land or homestead is positively linked to the family's food security, child survival, health, education, and children's exposure to domestic violence. Women with land and house are also at lower risk from spousal violence, have greater bargaining power in the labour market, and are better able to protect themselves and their children from destitution if the father dies from ill health, natural disaster, or HIV/AIDS. Indirectly, it also reduces maternal mortality both by enhancing women's nutrition and medical support and reducing the risk of domestic violence during pregnancy. These synergies and interlinkages are what make asset creation in women's hands a critical part of the Eleventh Plan agenda for women's economic empowerment.

Amenities for Urban Poor Women

6.40 The Eleventh Plan recognizes slum dwellers, most of whom are employed in the informal sector, as important contributors to cities' economy. Even though relocation of slums may sometimes be inevitable, appropriate measures need to be taken to ensure that the slum dwellers, especially women, do not lose access to livelihood opportunities and basic amenities. Today, almost 30–40% of India's urban population lives in slums. Over 62% of this population does not have access to sanitation services and 25% does not have access to water.[13] Since it is generally women who fetch water, they spend much of their time and energy at water pumps, in water queues, or walking to other colonies. The Asian Development Bank (2007) estimates that India's housing shortage is as high as 40 million units, suggesting that more than 200 million people are living in chronically poor housing conditions or on the pavements. In the absence of toilets, poor women are forced to defecate in public places such as railway tracks, parks, open spaces, or even public pavements. Not only do they feel ashamed by this, but it is a serious health and security hazard as they can only use these public spaces in the dark. Thus provision of clean drinking water, toilets, and sanitation in urban slums will be an important challenge for ensuring gender justice in the Eleventh Plan.

Homes and Homesteads for Poor Women

6.41 Home ownership not only provides shelter but also serves as collateral in credit markets and increases social status and security in the event of natural or manmade disasters. As more than half the women workers in the unorganized, non-agricultural sector

[13] World Bank, 2007.

work from their own homes, a home is a productive and wealth-generating asset for millions of low-income women. There is well-documented evidence to show that in both the urban and rural context, women's ownership of housing offers a vital form of security against poverty and enhances associated economic and social status. There are three main sources of access to land: family, State, and market. The challenge in the Eleventh Plan is to tap all these three sources. With the amendment of the Hindu Succession Act we have already taken the first step towards enhancing women's claims through inheritance. This should be strengthened by enacting gender-equal laws, adopting vigilance in recording women's claims, increasing legal awareness, and providing legal aid. All housing provided by the government during the Eleventh Plan should either be half in the name of the woman in the household or in the single name of the woman. Single women, widows, and women in difficult circumstances will be given priority. Finally, the Eleventh Plan agenda will strive to support women's access via banks by developing a system of reaching housing finance at reasonable rates to poor women. This will require provision of subsidized credit, changes in land tenure policies, and in norms for mortgages and housing loans.

ENSURING FOOD SECURITY

6.42 During the Eleventh Plan attempts will be made to strengthen the PDS system and revise BPL census norms to ensure that women in vulnerable situations, particularly widows, single women, internally displaced women, and women in conflict situations are covered.

6.43 The agrarian crisis is taking a heavy toll on women, with farmer suicides leaving women behind to take care of family and indebtedness. The Eleventh Plan will have a comprehensive package of inputs from various sectors like agriculture, rural development, Khadi and Village Industries Commission (KVIC), MoWCD, along with micro-credit facilities, and capacity building inputs for women from affected families.

Self-help Groups (SHGs)

6.44 While strengthening SHG initiatives, policies and schemes the Eleventh Plan will simultaneously increase women's awareness, bargaining power, literacy, health, vocational, and entrepreneurial skills. It will prioritize training, capacity-building inputs, and the creation of backward-forward linkages, which are essential to generate sustainable livelihood opportunities. Given the scale of the phenomenon, there is a need to review the SHG interventions and ground realities to determine how SHGs may better serve the interests of poor women, and suggest changes required in overall SHG policy frameworks. The Eleventh Plan recognizes the importance of this issue and proposes a HLC to conduct a review of SHG-related policies and programmes.

ENGINEERING SOCIAL EMPOWERMENT

Health

6.45 Health care access remains low for many women, especially the poor and marginalized who suffer from multiple exclusions and stigmatized groups such as sex workers and women with alternative sexualities. The

Box 6.4
Ordinary Women Who Did the Extraordinary

Making women partners in their own health care has proved to be an effective strategy for ensuring good health and well-being of the society in general. This is what the experience from places like Gadchiroli (Nagpur, Maharashtra), Ongna (Udaipur, Rajasthan), Khajrana (Indore, MP), and Ganiyari (Bilaspur, Chattisgarh) demonstrates. In Gadchiroli, ordinary women, most of them class 5 or 6 pass, have managed to reduce the NMR by half. They have also managed to bring about an attitudinal change. Women now get better nutrition during pregnancy. Many unhealthy and unsafe practices traditionally carried out during childbirth have been curtailed. In Ongna, a cadre of *Swasthyakarmis* have spread the message of good health and sanitation. They have led to increased coverage of the Directly Observed Treatment Short (DOTS) course programme. In small forest fringe villages in the Achanakmaar National Park in Chhattisgarh, illiterate and semi-literate Baiga, Gond, and other tribal women proudly flaunt their satchels replete with medicines like chloroquine, amoxicin, pictorial charts explaining their use, breath counters for pneumonia detection, dressing for wounds, and pregnancy kits. These women have managed to provide much needed medical relief to the local population. In Khajrana, in Indore, slum women have got together under the Rehbar Society to ensure that slum dwellers get access to medical aid and medicines.

Plan recognizes the gender dimension of health problems and seeks to address issues of women's survival and health through a life cycle approach. Making ordinary women partners in their own health care is an underpinning of Women's Health in the Eleventh Plan.

6.46 The Eleventh Plan agenda is to move beyond the traditional focus on family planning and reproductive health, to adopt a holistic perspective on women's health. For this, allocation towards health is being stepped up. Details of the Eleventh Plan roadmap for women are available in Chapter 3.

6.47 The high rates of MMR and IMR, poor prenatal and postnatal care, combined with the low proportion of institutional deliveries is a grave cause of concern. Empowering adolescent girls through information about health, sexuality, and increased awareness to negotiate rights with families, future partners, and in the workplace is equally important. The challenge is to create an enabling environment with information, services, and health programmes for women to exercise their rights and choices. The Eleventh Plan commitment to reduce MMR and IMR is detailed in Chapter 3.

6.48 The effect on women of HIV/AIDS is a critical area. There is an increase of mother to child transmission of HIV and paediatric HIV cases. The Eleventh Plan will commit resources to move towards a multisectoral, decentralized, gender-sensitive, community-based health service of which HIV/AIDS prevention and treatment is an integral part. It will prioritize information dissemination on a mass scale for prevention and treatment of HIV/AIDS. Resources will have to be made available to address the socio-economic problems faced by HIV positive women, including access to ARV treatment, medical services, child care, and livelihood security. Enacting legislation that protects HIV-positive women against discrimination in education, livelihood opportunities, workplace, medical treatment, and community will be the gender equity agenda for the Eleventh Plan.

6.49 Many other factors affect the health of women. For instance women's risk of mortality from indoor air pollution resulting from use of unprocessed fuels is estimated to be 50% higher than of men. While over time, community investment in low cost clean fuel such as biogas will be encouraged, in the interim, firewood needs to be made available. Provision of clean drinking water and sanitation facilities are also important for good health. Intersectoral convergence to ensure the health and well being of women in this regard is a major challenge before the Eleventh Plan.

Curbing Increasing Violence against Women (VAW)

6.50 During the Eleventh plan period, the justice delivery mechanism as well as the legislative environment under the PWDVA 2005 will be strengthened. VAW will be articulated as a Public Health issue and training will be provided to medical personnel at all levels from public health facilities (PHCs) to premier health facilities. It will be included in medical education because the medical and health establishments are often the first point of contact for women in a crisis situation. Training and sensitization of health personnel will include recognizing and dealing with injuries resulting from VAW and providing psychological support. Multiple forms of sexual VAW in conflict zones and in communal or sectarian violence, where they are specifically targeted as embodiments of community honour are cause for great concern. In the Eleventh Plan period, a National Task Force on VAW in Zones of Conflict will be set up under the National Commission for Women (NCW) with adequate budgetary allocations to make it effective in monitoring VAW in conflict zones and facilitating relief and access to justice for affected women.

MENTAL HEALTH

6.51 Mental health has long been a neglected and invisible area. NFHS-3 shows disturbing evidence that women have internalized domestic violence leading to intense mental illness. The chapter on Health details the Eleventh Plan direction in this regard.

Education

6.52 The challenge in the Eleventh Plan is to retain girls in school and to bridge gender disparities in educational access, specifically for SC, ST, and Muslim communities through allocation of greater resources

Box 6.5
Ensuring Equality for Muslim Women: A Big Challenge

Even today, 59% Muslim women have not attended school and 60% are married by the age of 17. Overall, Muslims have a literacy rate of 59.1%, 5.7 percentage points lower than the national average. While in Haryana, one-fifth of Muslim women are literate, the figure is about one-third in Bihar and UP. In 15 States, the literacy level among Muslim women is less than 50%. Muslims register the lowest work participation rate of 31.3%, and just about 14% of Muslim women are registered as workers. Even in Kerala and Tamil Nadu, which have high literacy rates among all communities, including Muslims, the work participation rate of Muslims is 14 percentage points lower than that of Hindus.

Ensuring that Muslim women get access to education, health, and livelihoods, not just at par with Muslim men but with female and male counterparts from other religions will be a critical challenge for the Eleventh Plan.

and more context-specific programming. This calls for strategies to increase the number of women and girls from these socially disadvantaged communities in professional, technical, and higher education and in posts of teachers.

6.53 The Eleventh Plan will make concerted efforts to examine why young girls, especially those belonging to particular socio-economic and cultural groups, are unable to access education despite the SSA. Through provision of crèches, scholarships, and adequate infrastructure, especially toilets in schools, it will facilitate enrolment and retention of girls in the education system. Details of Education for girl children and women are available in the Education Chapter.

Women and Media

6.54 Much of television programming propagates patriarchal values and portrays women roles in detrimental ways. As the nodal agency for the empowerment of women, one of the important tasks for the MoWCD during the Eleventh Plan will be to curtail the harmful effects of television on women's lives through a gender-informed media policy. It will harness this powerful medium to promote the message of gender equity through positive programming and information dissemination on laws and schemes. For this, the Ministry might engage in a professional PPP with media experts with gender specialization. In order to operationalize an aggressive and professional multi-media strategy, there may be a need to set up a separate media unit within the MoWCD, with the participation of professional media consultants and women's media groups.

Reaching Marginalized and Vulnerable Women

6.55 Intersections between gender and other social and economic variables reinforce vulnerability of more than one type and result in double and triple discrimination amongst women belonging to particular groups. Sectoral planning often fails to capture this. Our ability to recognize these intersections and address the specific deprivations will be the real test of the Eleventh Plan agenda of inclusive growth. For example, women in the NER continue to be excluded from traditional decision-making bodies like Durbars and Village Councils. To attain inclusive growth for them, support services like counselling centres, shelter homes, drug rehabilitation centres, particularly for victims of HIV/AIDs, working women's hostels etc., have to be provided.

Zero Tolerance for Discrimination against SC/ST Women

6.56 It is critical that the Ministries of WCD, Social Justice and Empowerment, and HRD join hands to enforce penalties for blatant violations of the constitution and the Scheduled Caste and Scheduled Tribes (Prevention of Atrocities) Act, 1989. Crimes of caste-based discrimination, untouchability, *devadasi/jogini*, and manual scavenging will be strictly punished according to law. Institutions like NCW, National Human Rights Commission, SC/ST Commission, Safai Karmacharis Commission will be urged to take up SC/ST women's issues as priority. Implementation of the Scheduled Caste Sub-Plan (SCSP) and Tribal Sub-Plan (TSP) will be maximized by earmarking of the funds in proportion to the SC/ST population under all schemes of the various line Departments. Distinct provisions for SC women will be made in the

planning of programmes, allocation of finances, and in distribution of reservation facilities in education and employment.

6.57 An important agenda for the Eleventh Plan is to ensure that the rights of tribal women over community land and forest produce are recognized and established. The economic base of tribal and other villages will be strengthened to prevent migration. The plan also purports to encourage, document, and popularize tribal women's knowledge of indigenous, traditional healing practices. It will try to include voices of tribal women in both national and State-level planning forums that deal with women's issues. Details of Eleventh Plan commitment to SC/ST women are available in the Social Justice chapter.

MINORITY WOMEN

6.58 Minority women are typically engaged in home-based, subcontracted work with lowest levels of earnings. The Sachar Committee Report has pointed out the absence of adequate social and physical infrastructure and civic amenities in Muslim-dominated habitations and the multiple discriminations faced by Muslim women. To fulfil its agenda for inclusive growth, the Eleventh Plan will ensure that Muslim localities are provided with universal benefits of primary and elementary schools, water, sanitation, electricity, public health facilities (PHCs), anganwadis, ration shops, roads, transport facilities, access to government development schemes and facilities, such as BPL cards and widow pensions. Education will be made accessible for Muslim girls by locating educational institutions near Muslim areas, establishing some girls' schools, and increasing scholarships for Muslim girls. The challenge is to make technical and higher education opportunities available to minority women and to link them to employment. Access to low interest credit, markets, technical training, leadership training, and skill development for Muslim female home-based workers and entrepreneurs will be ensured. Representation of religious minorities in public employment will be increased and minority women will be provided access to institutional and policy level decision-making.

6.59 In view of the double discrimination faced by Muslim women, the Prime Minister's 15-point programme for the minorities is a critical statement of intent. To further this agenda of inclusive growth, MoWCD will work on a pilot scheme for 'Minority Women' to empower them and place them in the forefront of making the government system at the grassroots responsive to the needs of the minority community. Such a scheme will provide critical learning and benchmarks to launch more ambitious programmes for minority women in subsequent plans. In addition to this, targeted development of SC, ST, and minority women will be made a stated part of implementation strategies of all WCD programmes/schemes and of the SSA. It will be made a mandatory part of their parameters of review and monitoring guidelines.

Box 6.6
Leadership Development of Minority Women: A Proposed Pilot Scheme

To tackle the double discrimination faced by Muslim women, the MWCD will formulate and implement a pilot scheme for 'Leadership Development for Life, Livelihood, and Civic Empowerment of Minority Women'. This scheme will reach out to minority women and provide them with support, leadership training, and skill development so that they can move out of the confines of home and community and assume leadership roles in accessing services, skills, and opportunities that will improve their lives and livelihoods. The scheme will give them training, inputs, information, and the confidence to interact with the government system, banks, and intermediaries at all levels. Implementation of the scheme through NGOs in the initial phase will also encourage the NGO sector to take up work with this neglected community. Initially the pilot scheme can be launched in five States with large minority populations. It is expected that this scheme will reach 35000 to 50000 women directly and hundreds of thousands indirectly.

INTERNALLY DISPLACED WOMEN

6.60 Internal displacement due to social strife and upheaval affects men and women differently. Adult and adolescent males are separated from families and the number of female-headed households increases. Even when families remain together, trauma and stress of displacement may destroy the unit leading to increased incidence of domestic violence and abuse. Internally displaced women are at greater risk of gender-based violence including physical and sexual attacks. They

Box 6.7
Hope for Single Women

Tagore's poem 'Ekla Chalo Re', which exuded confidence in self, truth, and dignity, finds echo in the ideals of the *Ekal Nari Shakti Sangathan*—Association of Strong Single Women established in January 2000 in Rajasthan. This grass roots mass membership organization has widows, separated, abandoned, and abused women as its members. In the last seven years, the Sangathan has sought to address every day issues of these women. It has altered the destiny of many, fighting injustice, red-tapism, and parochial mindsets. By mid-2007, Ekal Nari had 21325 members in 26 of the 32 districts of Rajasthan.

This organization is a mass movement. These Ekal women have achieved the impossible—from closing down liquor shops and revolting against age-old practices to increasing pensions and assistance for widows. The group has also introduced pension for low income, separated women. Using both satyagraha and open defiance as strategy, the Sangathan has ensured employment to women who were facing manipulation and threats. Today the movement has spread to Himachal Pradesh, Jharkhand, and Gujarat.

suffer psychological and physical trauma. The Eleventh Plan is committed to mitigating the negative impact on women of displacement due to natural or manmade calamities, incidents of communal violence, or social upheaval and development projects. It will formulate gender-sensitive relief and rehabilitation policies; women will have joint rights to any land or assets that are part of rehabilitation packages.

WOMEN WITH DISABILITY

6.61 Women with disabilities are considered a financial burden and social liability by their families; denied opportunities of mobility and access to education; viewed as asexual, helpless, and dependant; taken advantage of and abused; denied aspirations for marriage and motherhood; and are isolated and neglected with no hope of a normal life. Although a rights-based approach today defines the disability rights movement, the specific concerns of women with disabilities have to be adequately reflected in the planning process. RCH programmes will pay attention to reproductive health needs of women with disabilities. Violation of their reproductive rights through forced sterilization, contraception and abortion especially in institutions will be dealt with severely. In the Eleventh Plan, women with disabilities will be specifically included in gender equity programmes, both as beneficiaries and as project workers. The Eleventh Plan sensitization prog-rammes of government departments, police, and health care personnel will include sensitization to the needs of women with disabilities. Laws will be strictly enforced in cases of discrimination.

WOMEN AFFECTED BY DISASTERS

6.62 Disasters, both natural and manmade, have the worst impact on women. Their lower social status often results in various kinds of exclusions from rehabilitation and relief benefits. This posits a serious challenge to the Eleventh Plan goal of gender equity and gender justice. To overcome this, disaster management policies in the Eleventh Plan will ensure representation of women in relief committees. Resource allocations will be made for sensitization of government, aid workers, armed forces and all personnel involved in relief work. Social equity audits will be conducted. The Plan will promote the collection and use of gender-disaggregated data to inform relief and rehabilitation policies. It will also examine and review the Relief Code and Disaster Management Bill to ensure gender mainstreaming.

6.63 In addition to the categories of vulnerable and marginalized women discussed above, the Eleventh Plan will also have to pay special attention to other categories including migrant women, urban poor women, and single women to fulfil its commitment of equality and gender justice.

6.64 To tackle the problem of child marriage, the Eleventh Plan will call for compulsory registration of marriages and verification of age at the time of marriage.

ENABLING POLITICAL EMPOWERMENT

A. Panchayati Raj Institutions (PRIs)

6.65 Notable constitutional, legislative, and policy reforms, and continued administrative decentralization

have demonstrated the government's commitment to increase women's grass roots political participation. Although only one-third of seats were reserved for women by the 73rd and 74th constitutional amendments, the actual representation is higher at all levels. Women's increased political participation has yielded a range of positive results, not only for women, but also for their families and communities. Central issues in development such as health, nutrition, family income, and education are finding their way to the top of the agenda for action. Women's participation brings about more inclusive governance and effective community-centred development. Yet in many places, especially in States like UP, Bihar, and Rajasthan, women continue to serve as proxies. The challenge for the Eleventh Plan is to ensure that women panchayat members are empowered to take their own decisions.

6.66 The Eleventh Plan will undertake the following measures to accelerate the process of women's political empowerment and participation in PRIs:

- The no-confidence clause is often used to remove women *sarpanches*. State governments will be advised to ensure that women sarpanches cannot be removed for at least a year and a half by a no-confidence motion. If a no-confidence vote is passed, the replacing incumbent should also be a woman from the same social group as the earlier incumbent;
- States should revisit the two-child norm laws that prevent those who have more than two children from holding office. This law has been repealed across some States because it was found to be used against women in that it disproportionately impacted poor, SC, ST, Muslim, and tribals. More tragically, the norm led to increasing female foeticide;
- Increase resource allocation for capacity building of all PRI members (male and female) in diverse areas pertaining to gender sensitization and women's rights, as well as in the political skill-building of women members of PRIs;
- Greater effort to include poor and other excluded women on State Planning Boards and Commissions;
- Funds for time-series evaluations of the impact of women on PRIs, and on enabling policy conditions and contextual factors for women's political participation;
- Accelerate the State Governments' process of devolution and decentralization of powers, so that PRIs are not handicapped in carrying out their mandated duties.

Effective Implementation of Women-Related Legislations

6.67 During the Tenth Plan period, some important legislations have been passed and amended. For example, besides the Hindu Succession (Amendment) Act 2005 and PWDVA 2005 mentioned earlier, the Dowry Prohibition Act was reviewed. A very active civil society has been relentlessly campaigning on these

Box 6.8
Panchayat Women: Ground Realities

Till some time back, Kanjiguzhy village panchayat in Allepey district of Kerala was a backward area of the district. Today it has an annual turnover of over Rs 10 crore, thanks to an active Panchayat Samiti headed by a dynamic woman *pradhan* Jalaja Chandra. Ask her about the number of families in her area, number of SHGs, employment statistics, net profit, amount spent on different development works and she answers confidently. It is not difficult to see why this village has prospered. Kotli village in Fatehgarh Sahib district of Punjab is headed by Paramjeet Kaur who has managed to convince her villagers to let their girl children live. So in a district that made headlines for having the worst child sex ratio in the country, Kotli now boasts of a positive sex ratio. While these and many such women have clearly demonstrated what political empowerment of women can achieve, in many parts of the country woman panchayat members are yet to get their due.

In Bhimra village of Barmer district of Rajasthan, the sarpanch is a woman. She never opens her mouth; it is always the husband who speaks. The fate of her *ghoonghat*-clad counterpart in a Kol village in eastern UP is no different. Here the *Pradhanpati* makes all decisions. In Bihar, power rests with the MPs and SPs—*Mukhiyapati*s and Sarpanchpatis i.e. husbands of women Mukhyas and Sarpanches. In Ongna village of Udaipur district (Rajasthan), the women panchayat members rue the day they were elected. 'We have no powers; we are never allowed to attend meetings. When villagers come and ask us why we haven't done anything, what do we say?' they question.

issues. Their experiences and recommendations will be taken on board to ascertain that the rights of every woman are enshrined in laws.

6.68 Under the Eleventh Plan budgetary allocations will be made for publicity and for creating the required infrastructure for effective implementation of these legislations. MoWCD will appoint Protection Officers and set up district-level cells to be responsible for monitoring and implementation of Protection of Women from Domestic Violence Act (PWDVA) and other Acts under its charge.

6.69 Ministry of WCD will also try and ensure the enactment of other legislations that benefit women. The government is already contemplating the unorganized sector bill to provide social security to unorganized sector workers; besides this the schemes for life and health insurance have already been introduced. These should be implemented with a special emphasis on safeguarding the interests of women. The DPA will be reviewed to clarify existing provisions relating to the definition of the dowry and penalties for guilty parties. Implementation of PWDVA with DPA will be linked to enable PWDVA protection officers to take action under the DPA. The Eleventh Plan will also have provisions for sensitization of medical professionals on recording of evidence in cases of dowry deaths, training and capacity building of law enforcement functionaries and awareness generation about problems of dowry. Efforts will be made to ensure effective monitoring and enforcement of Pre-Conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) (PC and PNDT) Act, 2002 through Central and State Supervisory Boards and adequate allocation of funds. Public awareness and community mobilization will be generated along with training the authorities to deal with the issue of sex determination and sex selective abortions.

6.70 The MoWCD will ensure the enactment of the bill to prevent sexual harassment at the workplace. The Immoral Traffic (Prevention) Act (ITPA) is already being reviewed to ensure that women in prostitution are not victimized further. In addition to this, the Eleventh Plan will strengthen inter-regional networks to check forced migration and trafficking. Special police officers will be appointed to promote community level vigilance to reduce trafficking. There will be special training modules on trafficking for police, judiciary, and other government personnel. More rehabilitation homes will be established.

6.71 To tackle the conflict-related VAW, the Eleventh Plan will ensure the inclusion of provisions of sexual violence in the draft law on the prevention of communal violence. It will look into setting up Special Courts to deal with cases of VAW in conflict situations, including those involving security personnel. It will encourage women's involvement in peace keeping, community dialogues, and conflict resolution. There will be special measures for compensation, financial assistance, and support to widows and female headed households in conflict areas.

6.72 The Eleventh Plan will foster women's access to legal services through a range of measures. Women will be exempted from paying fees to fight cases of human rights violations. Funds for legal assistance will be provided to poor women seeking legal redress. Legal awareness programmes will be carried out in all States in collaboration with NGOs working at the grassroots level. Legal Aid Cells consisting of committed and gender-sensitive lawyers will be set up at the Panchayat level to provide information and support to rural women, especially poor women. *Lok Adalats* will be organized to encourage alternate dispute settlement mechanisms for efficacious settlement of cases. The Plan will also work towards increasing the percentage of women in police and judicial services. Training on use of gender specific laws will be provided to all Members and Authorities involved in providing legal services. Concept of *Jan Sunwaiye* will be adopted to listen to people's voices.[14]

Creating Institutional Mechanisms for Gender Mainstreaming and Strengthening Delivery Mechanisms

6.73 In the Eleventh Plan, institutional mechanisms will carry forward the process of gender mainstreaming

[14] Jan Sunwaiye is a forum of CSO, Government Functionaries and People for hearing and redressal of grievances.

and will be strengthened. National Commission for Women (NCW) and State Commissions for Women will be strengthened to enable them to effectively play their role as the nodal agencies for the protection of rights of women. Towards this end, efforts will be made in the Eleventh Plan to suitably amend the NCW Act to give the Commission more powers. The States likewise, will be urged to review the powers of their Women's Commissions. In addition to this, more functional and financial autonomy and a statutory base will have to be ensured for these organizations to strengthen their legal status. This will not only ensure that these bodies remain non-partisan, it will also increase their credibility. A mechanism will be created to periodically report to the National Development Council the progress on Women's Plans with respect to the National Policy for Empowerment of Women. Action Plans for Women's Empowerment at national and State levels will be drawn up in consultation with all sectoral agencies and civil society including women's groups, lawyers, activists, women's study centres, etc. Cross-cutting issues such as unpaid work, land and asset entitlements, skill development and vocational training, child care, occupational health, wages, VAW will be mainstreamed. *Parivarik Mahila Lok Adalat*[15] will be organized, which will supplement the efforts of District Legal Service Authority. Resource Centres for women will be set up at national and State levels and linked with Women's Study Centres.

6.74 Gender Budgeting and Gender Outcome assessment will be encouraged in all ministries/departments at Central and State levels. Gender Budgeting helps assess the gender differential impact of the budget and takes forward the translation of gender commitments to budgetary allocations. During the Eleventh Plan efforts will continue to create Gender Budgeting cells in all ministries and departments. Data from these cells will be collated on a regular basis and made available in the public domain.

6.75 Gender outcome assessment of fund flows has been made a mandatory part of the outcome budget prepared by every ministry/department as part of their budget documents. In 2005–06, this exercise covered 10 departments and the total magnitude of the Gender Budget (that is, women specific allocations) was recorded at 4.8% of total Union Government expenditure. In 2006–07, 24 departments of the Union Government were included and the magnitude of the Gender Budget was 3.8% of total budget estimates. It was found that schemes, which do not have a 100% women's component, also found a mention as women specific schemes. The Eleventh Plan will therefore ensure that each ministry/department of both Centre and State should put in place a systematic and comprehensive monitoring and auditing mechanism for outcome assessment. In addition, the Ministry of WCD, Ministry of Finance, and Planning Commission will facilitate national level gender outcome assessments through spatial mapping of gender gaps and resource gaps. They will undertake gender audits of public expenditure, programmes, and policies, and ensure the collection of standardized, gender disaggregated data (including data disaggregated for SC/ST and minority women) at national, State, and district levels.

6.76 In the Eleventh Plan period, the existing system of gender-based planning will be extended to other ministries and departments and not confined only to those that have historically been perceived as 'women-related'. Ministries and departments, such as Education, Health and Family Welfare, Agriculture, Rural Development, Labour, Tribal Affairs, Social Justice, and Empowerment, which have the potential to exceed the 30% WCP requirement, will be encouraged to administer more women related programmes. During the Eleventh Plan, efforts will be made to extend the concept of gender based plan component to PRIs and to the 29 subjects transferred to them under the 73rd constitutional amendment. Recognizing that some women suffer greater deprivation and discrimination than others, the Eleventh Plan will refine the norms of WCP to prioritize the most vulnerable as beneficiaries, particularly SC, ST women, Muslim women, single women, differently abled, and HIV-positive women, among others.

6.77 The Eleventh Plan period will seek to make all national policies and programmes gender sensitive

[15] It is a special court, which is mainly concerned with resolving family disputes separately from general criminal cases.

right from their inception and formulation stages. The MoWCD is the nodal Ministry for Gender Budgeting and the coordination mechanism for gender budgeting will ensure that all policies including fiscal and monetary policies, agricultural policies, non-farm sector, information and technology policies, public policy on migration, health insurance schemes, disaster management policies, media policy, and the legal regime among others are relevant from a gender perspective and are thoroughly examined. It will ensure that all legislations before they are presented to Parliament for enactment are cleared by the Parliamentary Committee on Women's Empowerment.

6.78 The Eleventh Plan is committed to ensuring the participation of women in governance through the smooth passage of the much-delayed Women's Reservation Bill. There will be simultaneous training and inputs for women in the PRIs to enable them to influence gender sensitive local planning and implementation. Gender disaggregated data on the participation of women, especially SC/ST and minority women, in Parliament, State legislative assemblies, Council of Ministers, premier services, and in the overall government sector will be collected and made available in the public domain. The Plan will also make proactive efforts to provide competitive exam training and prioritize recruitment of women to All India Services especially IAS, IFS, and IPS.

6.79 The MoWCD will take the lead in creating and maintaining a comprehensive gender-disaggregated data base, for quantitative and qualitative data. The purpose would be: (i) to base new initiatives on facts and figures, (ii) assess the gender impact of programmes, and (iii) assess the level of women's participation in planning and implementing programmes.

ELEVENTH PLAN SCHEMES

6.80 *Swayamsiddha*, an integrated scheme for women's empowerment through SHGs will be the major scheme to be implemented by the Ministry of WCD in the Eleventh Plan. Swayamsidha Phase-II will be launched as a countrywide programme with larger coverage in States lagging behind in women development indices. The lessons learnt from Swayamsiddha Part 1 and *Swashakti*, especially regarding capacity building of poor women through SHGs, promoting thrift and credit activities amongst the women themselves, emphasizing on participatory approach towards poverty alleviation, and addressing common problems and issues through the SHGs, will be incorporated in the universalized Swayamsidha.

6.81 Support to Training and Employment Programme (STEP), a scheme for skill training of women, will be revamped during the Eleventh Plan based on evaluation results (under way) and will be integrated with Swayamsidha to ensure adequate outlay for countrywide implementation as a CSS. The *Rashtriya Mahila Kosh* will also be integrated with STEP and Swayamsidha for credit linkages, but will be reviewed in the Eleventh Plan period before considering any further expansion.

6.82 A separate Women Empowerment and Livelihood Project assisted by United Nations' International Fund for Agricultural Development will be implemented during the Eleventh Plan in four districts of UP and two districts of Bihar.

6.83 Various social empowerment schemes for women will be implemented during the Eleventh Plan. Condensed courses of education will be run to facilitate skill-development and vocational training of adult girls and women who could not join mainstream education system or were forced to dropout from formal schools. This will improve their social and economic status by making them employable. The Ministry will use mass media to run an Awareness Generation Project on issues relating to the status, rights, and problems of women. Through this project it will also try to ensure a balanced portrayal of women in newspapers, media channels, serials, films, etc.

6.84 The most important programme for women to be run by the Ministry of WCD during the Eleventh Plan will be the provision of Maternity Benefits. The ICDS scheme will have a component of conditional maternity benefits under which pregnant and lactating mothers will be entitled to cash incentives for three months before birth and three months after the birth of the child. This will encourage and enable mothers to avoid physically stressful activities, meet medical and

nutrition supplementation expenses during the last trimester, and spend time with the child after birth. The benefits under the scheme will be conditional to the mother being registered with the Anganwadi, undergoing regular health check up and immunization.

6.85 Ministry of WCD will continue to run its earlier schemes offering support services. Under a revised Working Women's Hostel scheme, financial assistance will be provided to NGOs, co-operative bodies, and other agencies for construction/renting of buildings for hostels to provide safe and affordable accommodations to working women. The scheme of *Swadhar* homes for destitute women and women in difficult circumstance will continue, albeit with modifications. A women's helpline foundation will also be set up. Under the Short-Stay Home Scheme, suitable accommodation with basic amenities and services like counselling, legal aid, medical facilities, vocational training, and rehabilitation will be provided for women and girls who are victims of marital conflict, crime, or homelessness.

6.86 The Central Social Welfare Board (CSWB) will continue financing NGOs for implementation of various women and child-related schemes. But during the Plan, all the existing schemes of the CSWB will be reviewed and restructured in the light of current requirements. If necessary, some of them will also be merged with schemes of WCD.

National and State Machineries

Relief and Rehabilitation of Rape Victims

6.87 The Hon'ble Supreme Court in Delhi Domestic Working *Women's Forum* vs *Union of India* and others writ petition (CRL) No. 362/93 had directed the NCW to evolve a 'scheme so as to wipe out the tears of unfortunate victims of rape'. It observed that given the Directive principles contained in the Article 38(1) of the constitution, it was necessary to set up a Criminal Injuries Compensation Board. Besides the mental anguish, rape victims frequently incur substantial financial loss and in some cases are too traumatized to continue in employment. The Court further directed that compensation for victims shall be awarded by the Court on conviction of the offender and by the Criminal Injuries Compensation Board irrespective of whether or not a conviction has taken place. The Board shall take into account pain, suffering, and shock as well as loss of earnings due to pregnancy and the expenses of child birth if this occurs as a result of rape. Accordingly, NCW has drafted a scheme titled 'Relief and Rehabilitation of Rape Victims'. This scheme will be initiated in the Eleventh Plan as 'Scheme for Relief and Rehabilitation of Victims of Sexual Assault'. For this, the Eleventh Plan will allocate sufficient resources to sensitize law enforcement agencies, medical establishments, etc. It will ensure immediate online filing of FIR and recording of the victim's statement by female police officers. It will set up more forensic labs and DNA testing centres in various districts and provide special care for minor rape victims. It will also ensure the safety of rape victims to testify in courts and appoint a specially designated Judge in the District Court to deal with rape cases.

6.88 These schemes along with the measures suggested above will ensure that when we enter the Twelfth Plan, women are no longer seen as 'Victims', but as agents of socio-economic growth and development for the country.

CHILD RIGHTS

6.89 Development of children is at the centre of the Eleventh Five Year Plan. The Plan strives to create a protective environment, which will ensure every child's right to survival, participation, and development.

STATUS OF CHILDREN: A BRIEF OVERVIEW

Progress during the Tenth Plan

6.90 Some landmark inter-ministerial and intersectoral steps towards child development were taken during the Tenth Plan period. The Sarva Siksha Abhiyan was launched to increase enrolment of children in schools and to ensure that every child has access to quality education. Coverage under the ICDS scheme increased and National Programme for Adolescent Girls was initiated. Schemes like NREGA, TSC, and NRHM were introduced to ensure food security and access to health services for poor households and the children therein.

Box 6.9
Tenth Plan Schemes for Children

Rajiv Gandhi National Crèche Scheme is for children of working mothers. Eight lakh crèches are required to meet the child care needs of an estimated 22 crore women in the informal sector. Till September 2006, 23834 crèches were sanctioned under this scheme.

Integrated Programme for Street Children aims to prevent destitution of children and engineer their withdrawal from streets by providing basic facilities like shelter, nutrition, health care, education, recreation, and protection against abuse and exploitation. During the Tenth Plan, over 2 lakh children benefited from this.

Scheme for Welfare of Working Children in Need of Care and Protection provides non-formal education, vocational training to working children to facilitate their entry/re-entry into mainstream education and prevent their exploitation. The scheme is implemented through NGOs. Between 2005 and 2007, 6996 children benefited from this programme

Scheme of 'Assistance to Homes (Shishu Greh) for Children' provides grant-in-aid through Central Adoption Resource Agency to government institutions and NGOs for increasing and promoting adoptions within the country. During the Tenth Plan period there were 2650 beneficiaries under this scheme.

Nutrition Programme for Adolescent Girls was launched by the Planning Commission, in 51 districts, on a pilot project basis, in 2002–03. The scheme was transferred to MoWCD. It envisages that all adolescent girls (10–19 years) will be weighed four times a year and families of girls weighing less than 35 kg will be given 6 kg of foodgrains/month for three months.

Kishori Shakti Yojana provides self-development, nutrition, health care, literacy, numerical skills, and vocational skills to adolescent girls between 11 and 18 years of age.

Programme for Juvenile Justice provides 50% assistance to State Governments and UT administrations for establishment and maintenance of various levels of institutions for juveniles in conflict with law and children in need of care and protection. Almost 2 lakh children were covered during the Tenth Plan.

ICDS

6.91 In accordance with the NCMP commitment and SC directive for universalization, the coverage under ICDS was expanded from 5652 sanctioned projects at the beginning of the Tenth Plan to 6291 projects and 10.53 lakh anganwadi centres sanctioned up to March 2007. Of this, 5670 projects were operational through 7.81 lakh Anganwadi Centres by the end of Tenth Plan. Until December 2006, 6.62 crore beneficiaries comprising 5.46 crore children and 1.16 crore pregnant and lactating mothers were covered.

6.92 In addition to the above schemes, the Tenth Plan adopted new policies like the National Charter for Children, 2003. In 2005, the National Commission for the Protection of Child Rights Act was passed to provide for the constitution of a National Commission and State Commissions for protection of child rights and for children's courts for speedy trial of offences against children or violation of child rights. The National Plan of Action for Children 2005 was also formulated to address the specific commitments set out in the MDGs. Further important amendments were carried out in the Juvenile Justice (Care and Protection of Children) Act, 2000 in 2006.

6.93 Despite these measures we have fallen short of the Tenth Plan targets, partly because they were unrealistic and partly because of poor implementation of schemes. For instance it took two decades to reduce the gender gap in literacy from 26.62 % in 1981 to 21.69% in 2001, but the Tenth Plan envisaged a reduction by 50% in five years.

6.94 Lack of adequate budgetary allocations (as seen from Table 6.5 below on Sectoral allocation and expenditure in Budget for Children, BFC as percentage of the Union Budget), has also impacted on the country's ability to meet the MDGs with respect to children.

6.95 Table 6.5 on BFC clearly demonstrates that despite the alarming increase in various forms of crimes against children, child protection remains a largely neglected sector.

Box 6.10
State of ICDS

In Tarana village of MP, the AWC is a *kutchcha* house with slush outside. Foodgrains are stored in the house of the AWW who States that, 'There are rats at the centre. So I can't leave food there.' Meanwhile villagers complain that their children fall ill if they eat at the AWC.

In Gohilaon in Bhadohi District of UP, the AWC runs from an empty room with broken furniture in the primary school premises. The registers are missing, AWW is seldom present and grain is stored in the helper's house next door.

Gokarnapur ICDS centre in Ganjam district of Orissa has been running from the AWWs' house for over five years now. A handful of rice and dal provides meal to 30 children. Immunization, weighing scales, growth charts, PSE, etc. are all unheard of here.

In Barmer district of Rajasthan, ICDS workers are illiterate. Some, like the AWW at village Rawatsar can't even fill growth registers. In Chizami village of Phek district in Nagaland, the centre runs from a dank and cold building. Children receive two glucose biscuits as SNP. And six AWCs with 150 children run from a single verandah in Maalab village of Mewat in Haryana.

In Jehangirpuri, in Delhi, ICDS centres do not have weighing scales and they have not received deworming capsules and IFA tablets for 10 years.

In States like Himachal, Kerala, and Tamil Nadu, the ICDS programme is doing better. In Chamba in Himachal, toilets are being built at AWCs. In Tamil Nadu, there is a proper preschool curriculum followed by the AWW. Children are well fed and stay at the AWC for almost six hours. They have sleeping mats, toys, even mirrors to comb their hair and stay clean. In Chamarkundi village of Ganjam district of Orissa, women's SHG supplement the Anganwadi food with eggs and vegetables.

TABLE 6.5
Sectoral Allocation and Expenditure in Budget for Children (BFC) as percentage of the Union Budget

Year	Health		Development		Education		Protection		*BfC*	
	BE	AE	BE	AE	BE	AE	BE	AE	BE	AE
2000–01	0.542	0.38	0.358	0.39	1.466	1.34	0.023	0.02	2.389	2.14
2001–02	0.469	0.37	0.407	0.43	1.414	1.39	0.029	0.03	2.319	2.2
2002–03	0.505	0.35	0.448	0.48	1.452	1.40	0.036	0.03	2.441	2.25
2003–04	0.497	0.40	0.501	0.41	1.468	1.51	0.031	0.02	2.497	2.35
2004–05	0.646	0.52	0.421	0.46	1.644	1.96	0.033	0.03	2.745	2.96
2005–06	0.762	NA	0.659	NA	2.629	NA	0.034	NA	4.084	NA
2006–07	0.837	NA	0.829	NA	3.534	NA	0.035	NA	5.236	NA
Average	0.61	0.41	0.52	0.44	1.94	1.55	0.03	0.03	3.10	2.42

Note: Actual Expenditure is available till 2004–05, so the average for the actual expenditure has been calculated for that period only.
Source: Demand for Grants—All Ministries, HAQ: Centre for Child Rights, New Delhi.

Socio-Economic Indicators

Health

6.96 Almost 2.5 million children die in India every year accounting for one in five child deaths in the world. In almost all cases girl children are 50% more likely to die than boys. India also accounts for 35% of the developing world's LBW babies and 40% of child malnutrition. According to the report on the *State of India's Newborns*,[16] India has the highest number of births as well as neonatal deaths in the world. Inherent in the health system is a strong gender bias against the female at all levels. The report also reveals that for every two sick male newborns admitted to a facility; only one female infant was admitted.

[16] *State of India's New Born*, Report of National Neonatology Forum of India and Save the Children, 2004.

TABLE 6.6
Monitorable Targets for the Tenth Plan and Achievements

S. No.	Indicators	Target Set	Current Status
1.	IMR	45 by 2007 and 28 by 2012	57 (NFHS-3) 58 (SRS 2005)
2.	MMR	2 by 2007 and 1 by 2012	3.01 (SRS 1997–2003)
3.	Gender gaps in literacy	Reduce by at least 50% by 2007	21.70% (Census of India 2001)
4.	Gender differential in wage rates	Reduce by 50% by 2007	Ratio of female wage/male wage reduced to 0.59 for rural and 0.75 for urban areas (NSSO, 2004–05). Therefore indicating increase in gender differential in wage rates
5	Literacy	All children in school by 2003	0.95 crore out of school children
6.	Five years of schooling	For all children by 2007	Drop out rate for Primary level—29%; Middle Level—50.8% (2004–05)

Source: Selected Educational Statistics, MoHRD, 2004–05.

TABLE 6.7
Health Status of Children in India vis-à-vis in Other E-9 Countries

Country Name	Under-5 mortality rate (per thousand)		Progress towards MDG for reducing under-5 and Infant Mortality Rates by two-thirds	%ageof under-5s with stunting (1995–2001)	GDP per capita (PPP US$, 2001)
	1960	2001			
Bangladesh	248	77	On track	45	1610
Brazil	177	36	On Track	11	7360
China	225	39	Far Behind	17	4020
Egypt	282	41	On Track	19	3520
India	242	93	Lagging	46	2840
Indonesia	216	45	On Track	–	2940
Mexico	134	29	On Track	18	8430
Nigeria	207	183	Far behind	46	850
Pakistan	227	109	Far behind	–	–
E9 Average	218	72		29	3717

Source: The State of the World's Children (2003), UNICEF; Human Development Report (2003), UNDP in ECCE in E-9 Countries: Status and Outlook. Prepared for the Fifth E-9 Ministerial Meeting.

6.97 A study by International Labour Organization (ILO) in 2002,[17] found that children of HIV-infected parents are forced to face significant decline in income and heavy discrimination. Children orphaned by AIDS, especially girls, tend to become vulnerable to prostitution due to their disadvantaged socio-cultural status. In India, of the 70000 children in urgent need of ARV treatment, only 1048 (1.5%) are currently receiving this lifesaving therapy.[18] NACO with support from UNICEF, Indian Academy of Paediatrics, Clinton Foundation, WHO, and the GoI has recently launched a new initiative that had, till May 2007, reached out to 4100 children needing ARV.

6.98 India also has the largest percentage as well as the largest absolute number of vitamin A deficient children. Water-borne diseases afflict a large number of children leading to numerous child deaths. Only 42% of Indian households have access to piped water (NFHS-3) and in the absence of potable water, children continue to suffer from stomach ailments. Diarrhoea, often caused by unsafe drinking water or

[17] Assessing the Socio-economic Impact of HIV/AIDS on People Living with HIV/AIDS, ILO, 2002.
[18] Stop HIV/AIDS in India Initiative, 2005.

Box 6.11
Socio-Economic Status of Children

- IMR is as high as 57 per 1000 live births (NFHS-3)
- Birth registration in India is just 62% (Registral General of India, 2004)
- MMR is equally high at 301 per 100000 live births (SRS, 2001–03)
- Only 43.5% children in the age group of 12–23 months are fully immunized
- The number of children orphaned in India is approaching 2 million (World Bank 2005)
- Only 21% children in the age group of 12–35 months receive a dose of vitamin A
- Nearly 60000 newborns are infected every year from 189000 HIV-positive women
- Only 26% children who had diarrhoea got ORS (NFHS-3) as compared to 27% in NFHS-2.

Box 6.12
Child Immunization: South Asia Performance

India has the lowest child immunization rate in South Asia. The proportion of children who have not had a BCG vaccine in India is twice as high as in Nepal, more than five times as high as in Bangladesh, and almost 30 times as high as in Sri Lanka.

Child immunization is virtually universal in Sri Lanka. This success is largely based on public intervention. Sri Lanka has an IMR of only 12 per 1000. The contrast in immunization rates between Bangladesh and India reflecting the proportion of children who have not been vaccinated is two to five times as high in India as in Bangladesh.

National averages often hide major disparities between regions and socio-economic groups. For a child born in Tamil Nadu, the chance of being fully immunized by age one is around 90%. Chances of being fully immunized are only 42% for the average Indian child, dropping further to 26% for the average 'ST' child, and a shocking 11% for the average Bihari child. When different sources of disadvantage (relating, for instance, to class, caste, and gender) are combined, immunization rates dip to abysmally low levels. For instance, among 'ST' children in Bihar only 4% are fully immunized and 38% have not been immunized at all.[19]

poor sanitation, is the second leading cause of death among children. Yet only 58% of children with diarrhoea were taken to a health facility, down from 65% seven years earlier (NFHS-3).

Child Diabetes

6.99 A cause for alarm is that diabetes is now being detected in very small children. According to hospital statistics, in 2002, Delhi alone had about 4000 to 5000 diabetic children and it is estimated that there might be an equal number of undiagnosed cases.

Nutrition

6.100 One of every three malnourished children in the world lives in India; every second child is underweight. NFHS-3 data shows that despite various interventions, incidence of under-nutrition, stunting, and wasting among children continues to be very high with an increase in the number of under-weight children in States of Bihar, Haryana, and Gujarat. As children grow up, poor nutrition and ill health affects their learning abilities and preparedness for schooling. An assessment of diet and nutritional status carried out by the NNMB in 2006 revealed that the proportion of adolescent girls who could be considered 'at risk' due to stunting was 35.5% and those under weight was 38.5%.

6.101 Childhood anaemia below 3 years has gone up from 74.2% in NFHS-2 to 79.2% in NFHS-3 while Bihar has seen an increase of 7% in rates of anaemia in this age group. This is partly because of food insecurity at the household level. Poor breastfeeding practices together with lack of complementary feeding also aggravates child malnutrition.

[19] Infochangeagenda-June 2007.

Education

6.102 The education strategy in primary and secondary schooling is the most important intervention for giving children their due rights. The Eleventh Plan strategy in this respect is discussed in the chapter on Education. The Plan envisions to reach out to all categories of children, including children with disabilities, who are discriminated against in the education system. According to the 2001 Census Report, 1.67% of the total population in the 0–19 age group is differently abled. The SRI-IMRB report (2005) estimates that 38% of CWSN are out of school. The percentage of children with disability, both in primary and upper primary classes, is below 1% of the total enrolment in classes. Yet only 4.50% primary schools and 8.15% integrated higher secondary schools have the provision for ramps.

Exploitation, Violence, and Abuse

6.103 India has the highest number of child labourers.The Census report clearly point to the increase in the number of child labourers in the country from 11.28 million in 1991 to 12.59 million in 2001.[20] Although the number of children employed in the agricultural sector, in domestic work, roadside restaurants and sweet meat shop, automobile mechanic units, rice mills, Indian-made foreign liquor outlets and most such sectors considered as 'non-hazardous', there is ample evidence to suggest that more and more children are entering the labour force and are also exploited by their employers. In many cases such children are forced to work for long durations, without food and for very low wages. Many of the live-in domestic workers are in a situation of near slavery with constant violation of their human rights. There is a need to address the rehabiliatation of these children including shelter, education, food, health and other needs and return to families based on review of their situations.

Box 6.13
Nutrition Status of Children

- Three out of four children in India are anaemic
- Every second new born has reduced learning capacity due to iodine deficiency
- Children (0–3 years) underweight are 46% in NFHS-3, a marginal decrease from 47% in NFHS-2
- Children under 3 with anaemia are 79% (NFHS-3), an increase from 74.2% in NFHS-2
- Only 23.4% children are breastfed within the first hour of birth and 46.3% are exclusively breastfed for 6 months (NFHS-3)

6.104 Crimes against children continue to spiral with rising figures for kidnapping and abduction (3518 in 2005), infanticide (187 in 2005), and foeticide (86 in 2005). Children's vulnerability to physical abuse is exposed in the grim statistics of child rapes that have increased from 2532 cases in 2002 to 4026 cases in 2005.[21] Porous borders and increasing poverty has increased procuring, buying, and selling of girls for prostitution. Falling sex ratios and annihilation of the girl child has led to an increase in child marriages.

6.105 Over 44000 children go missing every year, of which more than 11000 children remain untraced. Traditional forms of violence and abuse against children such as child marriage, economic exploitation, *Devadasi* tradition continues in many parts of the country. Further physical and psychological punishment in the name of discipline is rampant and even culturally acceptable in schools and homes across the country.

6.106 Violent situations, circumstances like forced evictions, displacement due to development projects, war and conflict, communal riots and natural disasters, all take their toll on children and affect their physiological and social development.

Voicelessness

6.107 In spite of legislations in the past, children have no right to be heard in either administrative or judicial processes. This limits their access to information and to choice, and often to the possibility of seeking help outside their immediate circle.

[20] RGI, Census of India 1991, 2001.
[21] NCRB, 2005.

CHALLENGES, STRATEGIES, AND THE ROAD AHEAD

6.108 All strategies for Child Rights and Development in the Eleventh Plan must be cognizant of the slowing decline in poverty, and an unsettling of traditional, 'pre-modern' livelihoods and local economies. This has constrained the caring capacity of millions of families and impacted children. Cosmetic measures targeting only children and not their milieu are therefore not enough to correct this situation.

6.109 Successful integration of survival, development, protection, and participation is closely linked to all aspects of a child's well being. Often, the same child is prone to malnutrition and illness, deprived of early stimulation, is out-of-school, and more likely to be abused and exploited. An immunized child who is constantly beaten will not be healthy; a school-going child taunted and abused for his or her ethnicity won't enjoy a good learning environment; and an adolescent sold into prostitution will not be empowered to participate in and contribute to society. Sexual abuse and violence in schools can be a hidden factor behind low retention rates. Violence can be behind many of the unexplained injuries that are treated at health centres, or even the cause of long-term disability. These links have to be recognized to ensure a holistic approach to child rights, particularly children's right to protection.

6.110 At the same time it is important to remember that while children have equal rights, their situations are not uniform. Their needs and entitlements are area-specific, group-specific, culture-specific, setting-specific, and age-specific and demand different sets of interventions. They live and struggle for growth and well-being in the contextual frame of who they are and where they are located, and how that identity includes or excludes them from social and State provisions and benefits. While some children are in difficult circumstances and have suffered violence, abuse, and exploitation, there are others who are not in any of these adverse situations and yet need to be protected in order to ensure that they remain within the social security net. It is critical that interventions destined for children do not 'exclude' anyone.

6.111 In the light of the above, the following strategies will be adopted during the Eleventh Plan to ensure that every child enjoys her childhood and all her rights without any fear and without the need to work:

- Developing specific interventions to address malnutrition, neonatal, and infant mortality.
- Creating child-friendly protective services.
- Identifying the most vulnerable and marginalized children and ensuring age and situation-specific interventions.
- Reviewing all legal provisions for children and undertaking necessary amendments based on international commitments.
- Ensuring effective implementation of laws and polices by personnel trained to work with children.
- Establishing child impact as a core indicator of Eleventh Plan interventions, with special emphasis on the status of the girl child.
- Creating a protective environment for children through implementation of schemes and programmes based on *the best interest of the child.* Some of the current initiatives only address the needs of children once they have fallen through the protective net. While these initiatives to identify such children and rehabilitate them are critical, there is an equal need for legislative changes and programmatic interventions, so that prevention is foregrounded and children grow up in a protective environment.
- Undertaking a child rights review of all existing developmental policies and plans to assess their impact on children and to ensure that children are not further marginalized.
- Recognizing that crèches and day care are important for child development, empowerment of women, and retention of girls in schools.
- Ensuring survival of the girl child and her right to be born. Shift to 'lifecycle and capability approach' where the girl child's contribution in economic and social terms is recognized.
- Ensuring multi-pronged programme, focusing on preventing children from falling out of the protective net, ameliorative initiatives for children who are already out of the protective net, and ensuring long-term and sustainable rehabilitation by upgrading quality of services and addressing regional imbalances.

- Recognizing that children are best cared for in their own families, strengthening family capabilities to care and protect the child.
- Ensuring institutional care to those children who need the same.
- Involving PRIs, VOs, and urban local bodies in implementation, monitoring, and evaluation by devolving powers and resources to the Panchayat level, and providing them with technical and administrative support.
- Recognizing 'Child Budgeting' as an important policy analysis tool to take stock of development investments for children and identify gaps in resource investment and utilization.
- Strengthening capacity of families and communities, police, judiciary, teachers, PRI representatives, bureaucrats, and other implementation personnel who deal directly with children.

ELEVENTH PLAN INITIATIVES

Defining Age of the Child

6.112 Recognizing everyone below the age of 18 as children and respecting their rights will be an important Eleventh Plan initiative. The challenge will be to amend all legislations and laws to ensure a uniform definition of children, as stipulated under UNCRC and JJ Act. The Child Labour Act and related legislations like The Factories Act, 1948, The Mines Act, 1952, The Plantation Labour Act, 1951, The Merchant Shipping Act, 1958, The Motor Transport Workers Act, 1961, The Beedi and Cigar Workers (Conditions of Employment) Act, 1966, The Bonded Labour System (Abolition) Act, 1976 continue to *prohibit employment of children under 14 years only.* The ITPA, 1956 draws heavily from the Indian Penal Code 1860, which define a child as someone who is less than 16 years of age under ITPA as well.

Ensuring Early Childhood Development and Care

6.113 As per Census 2001, the country has approximately 60 million children in the age group of 3–6 years. The 86th amendment to the constitution, making education for children in the 6–14 age group a fundamental right, leaves out under six years of age. It is for this age group that early childhood care in the form of childcare programmes, crèche programmes, and preschool interventions are critical. Current figures suggest that preschooling under ICDS and other private initiatives covers about 34 million children; approximately 26 million children are left out of preschool activities. Thus, the gap between the number of preschool children and available preschool services is large. Moreover, there are disparities in provision of ECCE in rural and urban areas. As per findings of a study conducted by the National Institute of Urban Affairs (year), though the share of urban population in the country is approximately 27.78% (expected to go up by 33%), corresponding provision of ECCE facilities in these areas is insufficient. Urban slums are under-represented in ICDS.

6.114 Early childhood care and rights of working mothers are interconnected. Exclusive breastfeeding, recommended for the first six months of life, before complementary feeding is introduced, requires constant proximity of mother and child. The Eleventh Plan will, hence ensure Maternity Entitlements to support exclusive breastfeeding.

ICDS

6.115 Currently ICDS is the only programme that reaches out to millions of women and children living in remote villages, *dhani*s (small settlements), and *sapori*s (river islands) in our country. It is and will continue to be the flagship programme of the MoWCD. However, during the Eleventh Plan, ICDS needs to be restructured in a manner that addresses some of the weaknesses that have emerged and is suitable for universalization. The programme must effectively integrate the different elements that affect nutrition and reflect the different needs of children in different age groups. For the purpose the programme needs to be restructured in a Mission Mode with a Mission Structure at the central level and a similar structure at the State level. The MoWCD will prepare proposal for restructuring along these lines so that the restructured programme can become effective on 1 April 2008.

6.116 Universalization with quality entails that the existing ICDS scheme is thoroughly examined and evaluated to identify gaps. Various surveys show that

high expectations from the ICDS scheme along with lack of proper training, implementation, monitoring, and financial resources are the reasons why our anganwadis have been unable to deliver. At present, the AWW is expected to perform 21 tasks. In addition to this, given her proximity to the people in the villages, she is often used for non-ICDS duties. So, in the Eleventh Plan targets for child nutrition, health care, immunization, early childhood education, etc. will be set for AWWs. Since the condition of children and their problems vary from region to region and even within districts in the country, these targets and objectives will be district or block specific. At the district-level a committee comprising the District Collector, District Health Officer, women Panchayat members, and mothers groups will be set up to decide the targets for ICDS. Performance of the ICDS centres will be evaluated against these targets and well-performing centres will be rewarded. Besides, streamlining the work and expectations from the AWW, the new ICDS will also tackle issues of programme design, implementation, and financial allocations.

6.117 In the Eleventh Plan, community involvement will be the strategy for ensuring better functioning of ICDS centres. Communitization of education has proved to be a success in Nagaland. Involving the local community not only creates a sense of ownership and facilitates monitoring, it also ensures that the program-me is tailored according to local needs. A Village Committee comprising mothers or representatives 'of mothers' groups, AWW, ANM, ASHA, women Panchayat members will be constituted to look at issues like appointment of AWWs and helpers (which should take place through an open *Gram Sabha* with at least 60% attendance), content of SNP, procurement and preparation, meeting the targets set for the ICDS, and organization of monthly Mother and Child Health Days. The AWW will be answerable to this committee and the committee should have the power to recommend to the district-level committee (which will have the power to remove non-performing workers) removal of the AWW, ANM, ASHA, or helper by a simple majority. It is this committee that would be entrusted with the proper use of flexi-funds being suggested for AWCs. Since many of the issues are interlinked, the Eleventh Plan proposes the merging of this committee with the VHSC.

6.118 The modalities for the feeding component present some choices. One approach is to rely on hot cooked meals according to local taste and provided at the anganwadi centres. Preparation of meals will be entrusted to SHGs or mothers' groups, as per decision of the Village Committee. An alternative approach is to rely upon RTE micronutrient fortified hygienically prepared food. The decision between these two options needs to be based on a careful evaluation of pros and cons and will be an important part of the proposed restructuring. The choice between the two could also be left to decentralized decision making.

6.119 Since malnutrition sets in before the age of two, it is very difficult to reverse the process. It is this age group (the under threes') that is often left out of the ambit of ICDS. Most centres only provide some form of nutrition to children in the 3–6 years age group. It is therefore, important to recognize the different target groups under ICDS and to understand their varying needs. Malnutrition and the cycle of ill-health often start with the mother. The first task of the ICDS will be to ensure the health nutritional status, ANC, and immunization of pregnant women. It will also address the need of proper counselling, iron, folic acid supplements, vital for the health of both the mother and the child. The AWW and ASHA will promote exclusive breastfeeding for children up to six months of age. For this purpose some form of Conditional Maternity Benefits could be introduced in the Eleventh Plan. Lactating women will also be counselled and provided with adequate nutrition.

6.120 The second important target group for checking malnutrition is children in the six months to three years age group. They need proper care and growth monitoring. Currently, the ICDS programme only provides Take Home Rations (THRs) and in some cases, weaning foods for these children. To tackle malnutrition the Eleventh Plan will introduce an intensive malnutrition control programme within the ICDS scheme. Under this, 6–8 hour crèches for children under three will be provided in the most nutritionally backward

Box 6.14
Balwadis and Phoolwaris: Focussing on Under Threes

Sewa Mandir in Udaipur has been running *Balwadis* for young children under three. For a meagre monthly fee, often Rs 5, poor tribal women leave their children at the Balwadis. The centres run from 6–8 hours; timings are decided by the community. Often other women from the community chip in to help the worker take care of the children.

In the tribal hinterlands of Bilaspur in Chattisgarh, the *JSS* has started *Phoolwaris*. Two to three women from the community volunteer to take care of children below age three. The community provides them with premises. Sarees are made into slings, where the little ones are lulled to sleep by the workers. They have neat little kerchiefs pinned to their front and are fed by the volunteers with love and affection. The doctors who run the programme are confident that this is the way to fight malnutrition. The programme also enables the poor tribal women to carry on with their work so that the family does not lose income.

districts of the country. The Village Health Sanitation and Nutrition Committee will be funded for providing at least three meals per child per day at these crèches. It will also be provided money for crèche workers. From appointment of crèche workers, to crèche timings and constitution of meals, everything will be left to the Village Committee. They will even be allowed to collect a small user fee, if the village Panchayat agrees. The Committee will be responsible for ensuring that the health workers visit the crèche on a monthly basis for immunization and health check-ups of children. Continuation of the scheme in the village will depend on the performance of the village crèches. In areas where the new programme is not introduced, children under three will continue to get THRs and will be provided home-based care through the ASHA.

6.121 PSE for children in the 3–6 years age group is another important issue. The approach paper to the Eleventh Plan had suggested that this component be taken up under SSA to streamline the functioning of ICDS centres. There are varying opinions on this but the basic proposal that children will get preschool education must be implemented.

6.122 The final target group under the ICDS is adolescent girls. It is extremely important to reach out to this segment of the population to break the cycle of ill-health. As of now, however, this group is most neglected. In addition to SNP, and IFA tablets, these girls require proper counselling. The ANM and AWW will conduct a monthly meeting to educate and counsel this group.

Training, Monitoring, and Surveillance

6.123 Recruiting a second AWW or converging the ASHA and ANM alone will not make the AWCs effective. During the Eleventh Plan, the AWW and helper, along with the ASHA, will receive on-going training in child care, health, nutrition, and hygiene.

6.124 The ICDS centres will collect a host of data that can provide valuable insights into the State of health and nutrition in the villages. If collected properly and checked regularly (through random sampling) this data can also indicate the performance of the AWCs. DLHS will be used to gauge the impact of ICDS and other interventions. Based on this information, a performance appraisal system for AWCs will be worked out. Well-performing AWCs will be incentivized. Efficient AWWs and helpers will be encouraged by providing monetary incentives and by getting promotions to senior posts of supervisors, etc. Social audits by NGOs and by Village Level Committees will be encouraged. At the same time, a system of concurrent third party evaluation through professional bodies will be established.

Financial Allocation

6.125 In the Eleventh Plan, allocation of resources under ICDS has been increased substantially to not just expand coverage but to ensure availability of adequate infrastructure. For the proper functioning of an ICDS centre, it should be housed in a building with a kitchen, have baby-friendly toilet, drinking water facilities, and with adequate space for children to play. Availability of toys, utensils, weighing machine, mats, and IFA tablets might be ensured in the Eleventh Plan. Every AWC will be provided with a flexi-fund administered by the Village Committee.

6.126 Finally, NGOs and even corporate houses will be encouraged to adopt local anganwadi centres and

to augment their resources. For instance, they could provide buildings, toys, additional SNP (like a glass of milk or eggs), impart training, sponsor severely malnourished children, offer the services of a teacher to strengthen the preschool component, etc. They could also help with the management of AWCs.

6.127 No amount of restructuring will however be able to bring about a change in the health status of children unless it is supported by parallel measures outside the ICDS system. Diarrhoea caused due to unavailability of clean drinking water is the leading cause of childhood morbidity and consequently malnutrition and death. Providing clean drinking water at Anganwadis is essential but we must remember that the child primarily drinks water at home. Unless clean drinking water is available all day, diarrhoea diseases will continue. Similarly, toilets at ICDS centres are important to inculcate the habit among children, but unless the homes have toilets, children will continue to defecate in the open and be susceptible to worms and diseases. Detection of diseases and referral services at ICDS centre will be effective if and only if there is a functioning PHC where the child can get treatment. Thus ICDS will provide results only in a conducive environment. Currently, there are many schemes to tackle the multifarious problems which assail our villages, towns and cities. Convergence is the key.

Rajiv Gandhi Crèche Scheme

6.128 The scheme in its present form is neither widespread nor able to provide meaningful day care services to children below 6. The Eleventh Plan will therefore review and restructure the scheme. Some changes proposed are:

- Eligibility criteria will be widened to allow diverse agencies/organizations to participate, for example, SHGs, *Mahila Mandal*s, women's organizations, labour unions, cooperatives, schools, panchayats, and tribal associations.
- Programme standards that are measurable through input and process indicators will be laid down.
- Results will be monitored through output and outcome indicators.
- Pattern of funding will be revised.
- Upgrading infrastructure and materials, regular training of crèche workers, lateral linkages with the local PHC or sub-PHC in the area and tie up with the Anganwadi centres for inputs like immunization, polio-drops, and basic health monitoring will be carried out.

Providing Child Protection

6.129 Provision of Child Protection will be a key intervention in the Eleventh Plan. 'Child Protection' refers to protection from violence, exploitation, abuse, and neglect. India has recognized the right to protection for its children through its constitutional commitments and the laws, policies, and programmes it has put in place over the years. It has also recognized that some children are in 'especially difficult circumstances', such as child labour, street children and children under the juvenile justice system, and has made specific programme interventions for them. This

Box 6.15
Child Protection

- Initiation of a new Centrally Sponsored Integrated Child Protection Scheme (ICPS) with adequate allocation
- Review of existing legal provisions and necessary amendments
- Strengthening and implementation of law
- Intersectoral and inter-ministerial convergence for protection of children (such as integration of protection with Creche and Day Care Programme)
- Review and reorganization of Adoption System in India
- Human resource development for strengthening counselling services
- Data systems, research, advocacy, and communication
- Child impact audit to ensure that government interventions do not decrease protection for children making them more vulnerable to abuse and exploitation
- Strengthening the National and State Commissions for the Protection of Child Rights.

recognition is underpinned by the fact that every child has a right to protection, even if he/she is not in difficult circumstances. Thus the Eleventh Plan intervention for Child Protection takes both a preventive and a protective approach.

The Integrated Child Protection Scheme

6.130 During the Eleventh Plan, the Ministry of WCD will launch an Integrated Child Protection Scheme. The existing schemes of: (i) An Integrated Programme for Street Children, (ii) A programme for Juvenile Justice, (iii) Shishu Greha scheme, etc. will be merged with Integrated Child Protection Scheme (ICPS). The proposed scheme is planned to be implemented in the States/UTs. ICPS will be principled on child protection, which is a shared responsibility of government, family, community, professionals, and civil society.

6.131 Its several facets will be the following:

- Reducing child vulnerability by focusing on systematic preventive measures to address protection failures at various levels. Provisions and services of various sectors will be converged—like health, child day care, education to strengthen families and reduce the likelihood of child neglect, abuse, and vulnerability.
- Promoting non-institutional care: Institutionalization will be used as a measure of last resort. Constant review of cases to encourage release from institutions will be carried out.
- Creating a network of services at community level
- Establishing standards for care and protection: All protection services will have prescribed standards, protocols for key actions, and will be monitored regularly.
- Building capacities: Capacities of all those in contact with children will be strengthened on a continuing basis. Thrust will be on strengthening the family's capabilities to care for and protect the child by capacity building, family counselling, and support services and linking it to development and community support services.
- Providing professional child protection services at all levels: Special services for the many situations of child neglect, exploitation, and abuse, including shelter, care, psychological recovery, social reintegration, legal services, etc. will be provided.
- Strengthening crisis management system at all levels: First response and coordinated intersectoral actions for responding to crisis will be established and institutionalized.
- Addressing protection of children in urban poverty: Developing a strong social support and service system.
- Child impact monitoring and social audit: Programmes and services will be undertaken in order to promote transparency.
- Protecting children in conflict situations: Children in conflict-prone areas like Jammu and Kashmir (J&K), NER, and Naxal-affected regions, where they are often victims, must be provided care and protection under the Juvenile Justice Act.

Components of ICPS

6.132 Towards integrating child protection

- 24-hour emergency helpline Childline to be extended to all districts/cities and setting up of drop-in shelters in urban areas.
- Steps to streamline adoption process by addressing identified bottlenecks; reaching out to children whose parents are unable to care for them.
- Setting up of Cradle Baby Reception Centres in each district linked to PHCs, hospitals, *Swadhar* units, short stay homes, and in the office of District Child Protection Unit (DCPU) to receive abandoned babies, those in crisis and vulnerable to trafficking.
- ICPS will support the creation of new institutional facilities and maintenance of existing facilities for children. It will also provide additional components to institutions that cater to CWSN. Further it will support need-based innovative programmes in districts/cities by grant-in-fund to State Child Protection Units, for example, for children of sex workers or for post-disaster rescue and relief.
- Providing financial and human resource support to the States/UTs for setting up statutory bodies under the Juvenile Justice (Care & Protection of Children) Amendment Act, 2006, i.e., Juvenile Justice Boards (JJBs), Child Welfare Committees (CWCs), Special Juvenile Police Units (SJPUs) in

each district and strengthen their service delivery. It will also take up training and capacity building of all personnel involved in child protection sectors throughout the country.

- Facilitating comprehensive research to assess the cause, nature, and extent of specific child protection issues and documentation of best practices.
- Initiating web-enabled child protection data management system and a national website for missing children
- Developing comprehensive advocacy and communication strategy for child rights and protection.

Child Line

6.133 In the Eleventh Plan Childline-1098, will be extended to rural areas and to all districts of the country. Expansion of Childline will require stronger partnership with VO and higher investment of resources and capacity building of the allied systems to reach out to every child in distress.

National and State Commissions for the Protection of Child Rights

6.134 The National Commission for Protection of Child Rights has been notified. The process for setting up the full Commission is underway. One of the major responsibilities of the Commission is to monitor and report on implementation of child rights in India. The Eleventh Plan will ensure that similar Commissions for protection of child rights are constituted in all States and UTs at the earliest.

Ending Discrimination against Girl Child

6.135 The Eleventh Plan will set out proactive, affirmative approaches and actions necessary for realizing the rights of the girl child and providing equality of opportunity. The situation of the girl child in this country is a result of deep-rooted biases that can only improve with a change in attitudes. This will be the overarching philosophy cutting across many schemes of the Eleventh Plan that will entail coordination with other sectors plus monitoring and documentation of the impact of measures undertaken by the State. The status of the girl child and recommendations for the Eleventh Plan have been discussed in the Women's Agency's part of this chapter. Her status will be used to gauge the effectiveness of development measures in reaching out to all children and in removing inequalities. Panchayats, Gram Sabhas, community-based organizations and local self-government bodies will be brought into this surveillance. At district level, the District Magistrate, District Collector will take responsibility for monitoring the overall progress of the girl children. The Eleventh Plan will also examine sectoral communication strategies and how they reflect the rights of the girl child. Ministry of WCD will pilot special measures for this as well as initiate actions for assessing the impact of such measures on the actual condition and status of girls. The following measures will be taken:

Ensuring a Balanced Sex Ratio

6.136 Sex selection/female foeticide will be treated as a crime and not just a social evil. Preventive, corrective/regulatory, and punitive actions to address foeticide and sex selection will be strengthened by ensuring coordination with the MoHFW. It will seek the review of the PC & PNDT Act with law enforcement authorities to ensure its implementation. It will also review the current Appropriate Authorities under the PC & PNDT Act for granting, suspending or cancelling registration of Genetic Counselling Centres and investigating complaints. It will ensure stringent penalties and punitive action against erring persons. Capacity building for State and WCD officials and their participation in Appropriate Authorities for monitoring implementation of the Act will be ensured. The nationwide sensitization and advocacy campaign with specific focus on the girl child will continue.

Education

6.137 Community Vigilance Committees formed at village level under the SSA will ensure that every girl child in the village is enrolled and attends school regularly. The Ministry of WCD will work in close collaboration with Department of Elementary Education and Literacy and ancillary bodies to ensure that curricula and syllabi are gender sensitive. The department will start bridge schools with quality education packages for girl children and street children, child labourers, seasonal migrants and all those who are out of the formal education system.

Pilot Scheme on Conditional Cash Transfer for Girl Child with Insurance Cover

6.138 The Eleventh Plan will introduce a pilot scheme in selected backward districts of the country wherein conditional cash will be provided to the family of the girl child (preferably the mother) on fulfilling certain conditionalities for the girl child, such as birth registration; immunization; enrolment retention in school; and delaying the marriage age beyond 18 years. The scheme will also include a sub-component for providing insurance cover to the girl child. This will be in addition to the various existing incentives provided by the Centre and State. This scheme will be monitored closely to support desirable behaviour and practices and study its impact on community attitudes and practices.

Prevention of Girl Child Abuse, Exploitation and Violence

6.139 The ICPS of the MoWCD along with enabling legislations like Offences Against Children Bill is expected to prevent girl child abuse and violence by strict enforcement of laws for rape, sexual harassment, trafficking, domestic violence, dowry, and other related crimes. Community Vigilance Groups along with Self-Help and Youth Groups will be created to ensure that girl children are protected. These groups will work closely with Panchayats and DCPUs being proposed under ICPS. Public discourse on abuse, exploitation, and violence against the girl child will be promoted to break the silence around these issues. At the same time, well thought out 'rehabilitation packages' for specific types of abuse/violence perpetuated will be prepared with the assistance of VOs.

Trafficking for Commercial Sexual Exploitation

6.140 In the Eleventh Plan, MoWCD will focus on a multi-pronged approach to combat trafficking. This will include reform in the laws, preventive measures, rescue and rehabilitation measures, awareness generation, and sensitization. The Eleventh Plan will address trafficking in women and children through a 'Comprehensive Scheme for Prevention of Trafficking, Rescue, Rehabilitation and Re-integration of Victims of Trafficking for Commercial Sexual Exploitation' that will be based on the results of small pilot projects initiated during the Tenth Plan. Three pilot projects have already been initiated; two in source areas (rural area, where it is a traditional practice) and one in destination area. All projects under the scheme are one-year pilots. The lessons learnt will be replicated and up-scaled for wider outreach during the Eleventh Plan period.

Prohibition of Child Marriage

6.141 Enforcement mechanisms for implementation of the Prohibition of Child Marriage Act, 2006 will be strengthened. MoWCD will partner with Civil Society groups, PRIs, community-based organizations, SHGs, *maulvis*/*pandits*/priests/other religious leaders to mobilize, develop, and promote community initiatives to support delayed marriage. Compulsory Registration of Marriages will be ensured.

Consumerism and the Girl Child

6.142 The Eleventh Plan will fund initiatives that raise awareness to ensure that the market economy, increasing consumerism, and resultant family planning practices do not enhance gender inequality and lead to 'male child planning'.

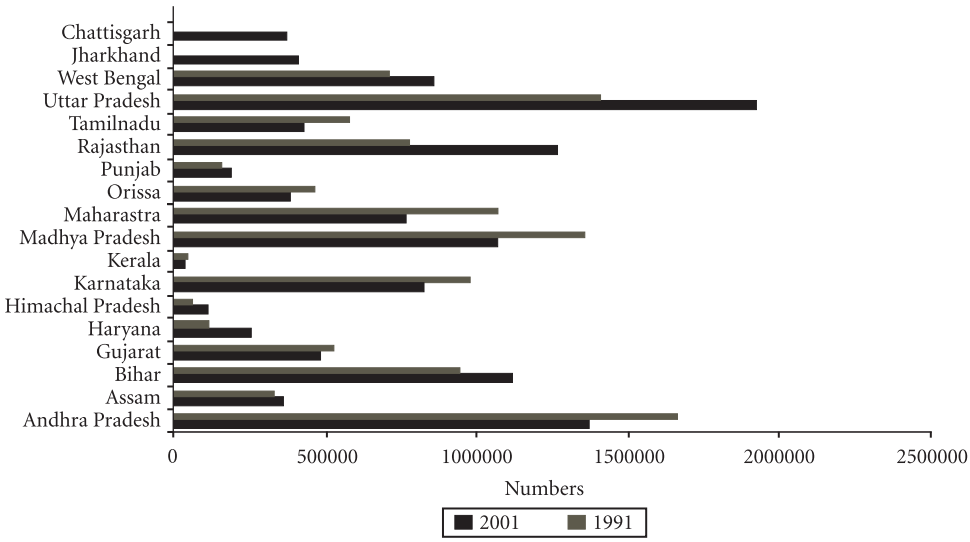
Reaching Out to the Marginalized and Most Vulnerable

Child Workers

6.143 Statistics show that the number of child workers has gone up from 11.28 million in 1991 to 12.66 million in 2001. This increase is primarily attributed to States like Uttar Pradesh, Bihar, Rajasthan, and West Bengal (Figure 6.1).

Eliminating Child Labour

6.144 Child labour as such is not illegal in India except in specific hazardous occupations. With effect from October 2006, the Ministry of Labour has included domestic work and employment in *dhaba*s, tea stalls, and restaurants in the schedule of prohibited occupations under the Act. As a result a large number of children may be laid off, especially in metropolitan cities and big towns. It will be necessary to take adequate measures for the protection, rehabilitation, and education of these children.



Source: Census of India

FIGURE 6.1: Child Workers

Eliminating Child Trafficking, Commercial Sexual Exploitation of Children, Child Pornography, Child Sex Tourism

6.145 NHRC reports[22] that about 44000 children in India go missing every year. They are being trafficked for prostitution, marriage or illegal adoption, child labour, begging, recruitment to armed groups, and for entertainment (circus or sports). With the opening up of the markets and increase in tourism, children have fallen prey to operating paedophiles and sex abusers. With more women being forced into prostitution, the condition of children of sex workers is also a matter of concern. It is necessary to take affirmative action to ensure that these children have access to basic services and rights that will protect them from becoming victims of sexual exploitation. Efforts must also be made towards rehabilitation and reintegration of trafficked children.

HIV/AIDS-Infected/Affected Children

6.146 Among the estimated 5.7 million people in India living with HIV/AIDS, 220000 (15%) are children under 15 years of age.[23] There are many affected children whose parents are infected and alive. Stigma and discrimination, often associated with HIV infection, can lead to exclusion and isolation along with emotional and psychological distress. It ruins a child's chances to receive an education or a normal childhood. Economic hardship resulting from their parents' inability to work may cause children to drop out of school or become child labourers. Children orphaned by HIV/AIDS are exposed to exploitation, abuse, and violence. The challenge in the Eleventh Plan is to end the discrimination and reach out to children affected/infected by HIV/AIDS to ensure that they are protected, treated, and get an opportunity to develop according to their full potential. The chapter on Health details Eleventh Plan commitment in this regard.

Children in Conflict with Law—Social Integration

6.147 The Eleventh Plan will review the conditions of State-run homes and fund their development through the new ICPS scheme. The basic mandate of rehabilitating and reintegrating children in conflict with law will be upheld, by urging training for law enforcement and child welfare officers. The Plan will stress on the protection of children from violence, abuse, and exploitation inside institutions, and will adopt a paradigm that recognizes that children in conflict with law also need care and protection. The challenge for the Eleventh Plan is to condense the long judicial process

[22] NHRC Action Research on Trafficking, Orient Longman, 2005, New Delhi.

[23] UNAIDS 2004.

for children, appoint more child-friendly officers, and ensure the proper implementation of the JJ Act.

Special Provisions for Children in Distress/ Difficult Circumstances

6.148 Migration to cities by families forces children to drop out of schools who then find themselves on the streets. Most are unable to continue their education and end up becoming child labourers or beggars. Away from the secure environment of the villages, many are exposed to substance, drug, and sexual abuse.

6.149 Street children or children living and working on the streets are a common phenomenon in urban India. Yet despite their relatively high visibility, very little information is available on their exact numbers. Given the limited number of shelters in the cities, these children are often exploited and harassed by the police. They are vulnerable to hunger, malnutrition, lack of health care and education, physical and sexual abuse, substance abuse, and STD/HIV/AIDS. There is neither ICDS nor school for them. Many are forced into begging. The Eleventh Plan proposes setting up of walk-in ICDS centres at railway stations and bus stands (where most migrant children arrive and where many street children and beggars are found). These centres will offer food to any child who walks in after a proper health check-up and distribution of appropriate medicines and identity cards.

6.150 Another set of children who are often neglected are the children of prisoners. The fact that a large number of women prisoners are with children (or have children in prisons), means that this category of deprived children suffer from social isolation and absence of healthy interaction. Those separated from their imprisoned mothers and fathers have different problems. Their problems are largely the hidden and uncalculated costs of imprisonment. The National Plan of Action 2005 as well as the Juvenile Justice (Care and Protection) Act has now finally recognized their need for care and protection.

Providing for Special Needs of Differently Abled Children

6.151 Ministries of Social Justice and Empowerment and Health and Family Welfare deal with the subject of disability. Yet it is critical to see disability as a child protection issue as well. Even today, data related to disability among children varies with source. It is estimated that hardly 50% disabled children reach adulthood, and no more than 20% survive till the fourth decade of life.[24] Although there is very little information regarding the nutritional status of children with disabilities, it is recognized that disabled children living in poverty are among the most deprived in the world. Discrimination and often abandonment is a reality for them. Data of disabled children in school reveals that integration of the disabled into the education system is a distant reality. Ensuring access to education, health, and nutrition for children with disabilities is a formidable challenge for the Eleventh Plan. The Plan will ensure among other things, provision of ramps in schools, development of disabled friendly curricula, and training and sensitization of teachers.

Rehabilitating Children Affected by Substance Abuse

6.152 A survey reveals that out of all the children who came for treatment to various NGOs, 63.6% were introduced to drugs before the age of 15 years. According to recent data, among those involved in drugs and substance abuse in India, 13.1% are below 20 years of age.[25] This problem is especially widespread in the NER and Punjab. In the Eleventh Plan, children of this group will get special attention. Measures for rehabilitation backed by proper counselling and sensitive de-addiction camps will be undertaken.

Ensuring Child Mental Health

6.153 At any given time, 7–15% or 65 million Indian children suffer from significant mental disorder.[26] This is in addition to the stress-related suicides and deaths that are a leading cause of mortality among young adults. There is currently no budgetary allocation for

[24] M.L. Kataria, 'War against disability-fighting for the right of the child', 29.5.2002, *www.tribuneindia.com*

[25] UNDOC, Rapid Assessment Survey: The Extent, Pattern and Trend of Drug Abuse in India.

[26] ICMR, 2001; Malhotra, 2005.

child and adolescent mental health. Mental health of children is an issue that the Eleventh Plan will fund and take up on priority basis. Counsellors will be appointed in all schools and helplines will be set up especially during exams.

Simplifying Adoption Procedures and Preventing Unscrupulous Practices

6.154 Despite recognition of adoption as the most important mechanism for provision of alternative care and family to a child, procedures and laws were, till recently, cumbersome and inadequate. Adoptions took place under the Hindu Adoption and Maintenance Act (HAMA) 1956 and Guardians and Wards Act 1890. HAMA's applicability is restricted to Hindus (including Buddhists, Jains, and Sikhs). Since the enactment of the Juvenile Justice (Care and Protection of Children) Act 2000 adoption, both domestic as well as inter-country, is now also possible under it and this amendment allows everyone without any bias of caste, creed, religion, or gender to adopt. The Eleventh Plan will promote adoption under the JJ Act 2000 that ensures adopted child the same status as that of a biological child.

Promoting Inter-Sectoral and Inter-Ministerial Action

6.155 In the Eleventh Plan every ministry/department will review its own policies, programmes, services, laws, budgets, and procedures to examine how it can incorporate and integrate better development and protection of children. Some of the general principles of such a review will include monitoring exclusion/disparity in access by groups and communities, availability of gender disaggregated child data, enforcement of law and guidelines for protection and development of children, integration of children' participation in policies and programmes, and specific provision for the girl child. Further, each sector will be advised to take up child budget analysis and publish reports on the progress of child indicators.

6.156 In order to ensure adequate coordination and convergence for achieving the goals for children, M/oWCD will ensure wider representation and invigorated participation in the National Coordinating Group at the central level; establishment of similar groups at State level will be encouraged. The effective functioning of this mechanism is most important for ensuring better outcomes for children and safeguarding their rights.

Child Budgeting

6.157 The MoWCD has been analysing allocations and expenditures on children since 2002–03. In the Eleventh Plan this exercise in child budgeting will be carried out regularly to monitor the 'outlays to outcome' and examine the adequacy of investments in relation to the situation of children in India.

CONCLUSION

6.158 The Eleventh Plan marks a big step forward in the area of women agency and child rights. It is entrenched in a rights framework that views women and children as agents, not recipients. It recognizes heterogeneity within groups, acknowledges multiple discriminations, and suggests pilots to tackle them. Some of these pilots, it is hoped will develop into full-fledged schemes after the mid-term appraisal of the Plan. The aim of these schemes, pilots and the Plan in general is not just to meet the monitorable targets set out; rather to develop a new paradigm wherein women and children find place within all sectors, ministries, departments, and schemes. This alone can ensure that the status of women and children grows exponentially at the beginning of the Twelfth Plan. This alone can carry forward the momentum for justice and equality set by the government through several Eleventh Plan initiatives.

6.159 The total projected GBS for the Eleventh Five Year Plan for the MoWCD is Rs 48420 crore (at 2006–07 prices) and Rs 54765 crore (at current prices). Details are given in Appendix to Volume III.

ANNEXURE 6.1
Selected Development Indicators Relating to Women

Sl. No.	Indicators	Women	Men	Total	Women	Men	Total
Demography							
1.	Population (in million in 1991 & 2001)	407.07	439.23	846.30	496.4	532.1	1028.6
2.	Decennial Growth (1971 & 2001)	24.03	25.52	24.80	23.08	22.26	22.67
Vital Statistics							
3.	Sex Ratio (1991 & 2001)	927	–	–	933	–	–
4.	Expectation of Life at Birth (1991–96 to 2001–05)	61.7	60.6	–	66.1	63.8	–
5.	Mean Age at Marriage (1991 & 1997)	19.5	23.9	–	19.5	NA	–
Health							
6.	Birth Rate (1991 & 2005)	–	–	29.5	–	–	23.8
7.	Death Rate (1991 & 2005)	–	–	9.8	7.1	8.0	7.6
8.	IMR (1991 & 2005)	–	–	80	61	56	58
9.	Child Mortality rate (1991 & 2005)	–	–	26.5	18.2	16.4	17.3
10.	MMR (1997–98 & 2001–03)	398	–	–	301	–	–
Literacy and Education							
11.	Literacy Rates (1991 & 2004–05)	39.3	64.1	52.2	57.00	77.00	67.30
	Literacy Rates, SCs	23.8	49.9	37.4	41.9	66.6	54.7
	Literacy Rates, STs	18.1	40.7	29.6	34.8	59.2	47.1
12.	Gross Enrolment Ratio (1990–91 & 2004–05)						
	Classes I–V	85.5	114.0	100.1	104.67	110.70	107.80
	Classes I–VIII	70.8	100.0	86.0	89.87	96.91	93.54
	Classes VI–VIII	47.0	76.6	62.1	65.13	74.30	69.93
13.	Dropout Rate (1990–91 & 2004–05 [Provisional])						
	Classes I–V	46.0	40.1	42.6	25.42	31.81	29.00
	Classes I–VIII	65.1	59.1	60.9	51.28	50.49	50.84
	Classes I–X	76.9	67.5	71.3	63.88	60.41	61.92
	SC Classes I–X	83.4	74.3	77.7	74.17	69.11	71.25
	ST Classes I–X	87.7	83.3	85.0	80.66	77.75	78.97
Work and Employment							
14.	Work Participation Rate (1991 & 2001)	22.3	51.6	–	25.7	51.9	–
15.	Organized Sector (No. in lakh in 1991 & 1999)	3.8	23.0	26.7	4.8	23.3	28.1
16.	Government (No. in lakh in 1997)	1.6	9.1	10.7	–	–	–
Decision Making (Administrative & Political)							
17.	Administrative (IAS in 1997 & 2000)	512 (10.2%)	4479	4991	535 (10.4%)	4624	5159
18.	PRIs (Figures in thousand for 2006)				916.61 (42.8% of total)	1225	2141.61
19.	Parliament (No. in 2001 & 2005)	70 (8.5%)	750	820	73 (9.24%)	717	790
20.	Central Council of Ministers (1985 & 2001)	4 (10.0%)	36	40	8 (10.8%)	66	74
Crime against women							
21.	2001 & 2005	143795	–	–	155553	–	–

Source: 1 to 4—Census of India; 5—SRS, Registrar General of India; 6 to 10—Family Welfare Statistics in India, 2006; 11 to 13—Selected Educational Statistics, 2004–05; 14 to 16—Census of India, Registrar General of India; 17, 19, 20—NRCW Website; 18—Statistics on Women, National Institute of Public Cooperation and Child Development 2007; 21—NCRB Website.