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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

Primary Class (I–V)

Upper Primary Class (VI–VIII)

Elementary (Class I–VIII)
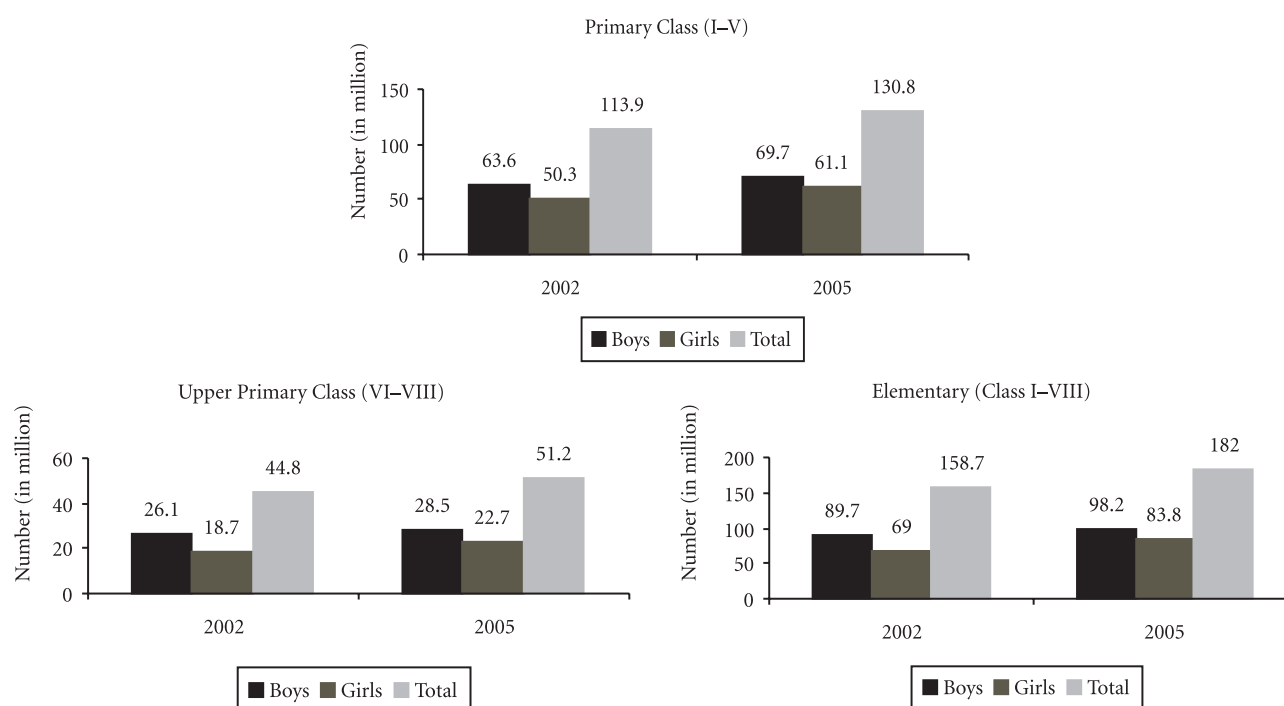
Source: Selected Educational Statistics, 2004–05.

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.
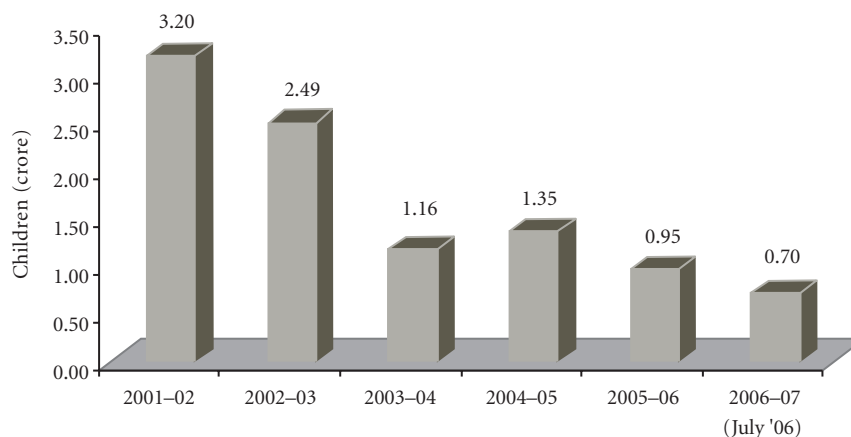
Source: Ministry of Human Resources Development (MHRD).

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 stu-

dents, 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/

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.

- 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	Boys	Girls	Total
	Enrolment (in crore)			
1	Secondary (IX–X)	1.42	1.01	2.43
		(57.39)	(45.28)	(51.65)
2	Hr Secondary (XI–XII)	0.74	0.53	1.27
		(30.82)	(24.46)	(27.82)
3	Secondary & Hr Sec.	2.16	1.54	3.70
	(IX–XII)	(44.26)	(35.05)	(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

	1993–94	2001–02	2004–05
Govt	47	42	41
Unaided	15	24	30
Aided	38	34	29
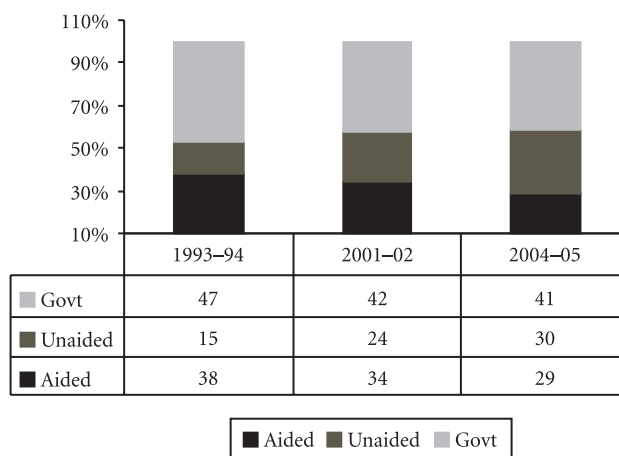
Source: Selected Educational Statistics (2004–05), MHRD.

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 infra-structure 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 de-cades. 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 mea-sured 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 guide-lines 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 develop-ment programme for continuous teacher training and master trainers will be in place. DIETs will develop their own model institutions or set benchmarks in collabo-ration 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 edu-cation 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 in-stitutions. MHRD will create a teacher education por-tal 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 con-tingencies during the Eleventh Plan period will be met by GoI to the extent of 100% in 2007–08 and there-after 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 ex-penditure. The GoI will bear 100% of the new estab-lishment 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

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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.

Major Education Statistics, 2004–05

S. No.	State/UT	Population (Cr) Total Census 2001	6–14 age 2004	Literacy 2001	GER Classes (I–VIII)	Drop-out Classes (I–X)	PTR Primary	PTR UP	Schools per lakh population Elem.	Sec./ Hr Sec	Tenth Plan SSA Exp. (Rs cr)	% of Total	Per capita 6–14 age	Lakh of Population per Institution University	College	Technical
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.*)

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.