Inclusive growth and Education: *An overview of eleventh and twelfth plan*

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INTRODUCTION

Education is the most important lever for social, economic and political transformation. A well educated population, equipped with the relevant knowledge, attitudes and skills is essential for economic and social development in the twenty-first century. Education is the most potent tool for socioeconomic mobility and a key instrument for building an equitable and just society. Education provides skills and competencies for economic well-being. Education strengthens democracy by imparting to citizens the tools needed to fully participate in the governance process. Education also acts as an integrative force in society, imparting values that foster social cohesion and national identity. Recognizing the importance of education in national development, the Twelfth Plan places an unprecedented focus on the expansion of education, on significantly improving the quality of education imparted and on ensuring that educational opportunities are available to all segments of the society.

Recognizing the importance of education, public spending on education increased rapidly during the Eleventh Plan period. Education expenditure as a percentage of gross domestic product (GDP) rose from 3.3 per cent in 2004–05 to over 4 per cent in 2011–12. The bulk of public spending on education is incurred by the State Governments and their spending grew at a robust rate of 19.6 per cent per year during the Eleventh Plan. Central spending on education increased even faster at 25 per cent per year during the same period. Aggregate public spending on education during the Eleventh Plan period is estimated at `12, 44,797 crore for both the Centre and States taken together. Of this, 35 per cent was accounted for by Plan expenditure and 65 per cent by non-Plan expenditure. *About 43 per cent of the public expenditure on education was incurred for elementary education, 25 per cent for secondary education and the balance 32 per cent for higher education. About half of the Central Government's expenditure was incurred for higher education and the remaining for elementary (39 per cent) and secondary (12 per cent) education. In the State sector, about 75 per cent of education expenditure is for school education, of which 44 per cent is on elementary education and 30 per cent on secondary education.*

SCHOOL EDUCATION AND LITERACY

The country has made significant progress in improving access to education in recent years. The mean years of schooling of the working population (those over 15 years old) increased from 4.19 years in 2000 to 5.12 years in 2010. Enrolment of children at the primary education stage has now reached near-universal levels. The growth of enrolment in secondary education accelerated from 4.3 per cent per year during the 1990s to 6.27 per cent per year in the decade ending 2009–10. Youth literacy increased from 60 per cent in 1983 to 91 per cent in 2009–10 and adult literacy improved from 64.8 per cent in 2001 to 74 per cent in 2011.

A good progress has also been made in bridging the equity gap in education. India's educational inequality, measured in terms of the Gini co-efficient1 for number of years of education, has decreased from 0.71 in 1983 to 0.49 in 2010, indicating a large reduction in inequality. The gender gap in elementary education has declined with the female/male ratio for years of education and literacy reaching over 90 per cent in 2009–10. A significant reduction in socio-economic inequality in access to education and a narrowing of the gap between SCs/STs and other social groups has been achieved.

Challenges

Despite many gains during the Eleventh Plan, education in India faces several challenges. The country's mean years of schooling at 5.12 years is well below the other emerging market economies such as China (8.17 years) and Brazil (7.54 years) and significantly below the average for all developing countries (7.09 years). A matter of particular concern is the steep dropout rate after the elementary level. The sharp drop-off in enrolment at the middle school level and the increasing enrolment gap from elementary to higher secondary suggests that the gains at the elementary level have not yet impacted the school sector as a whole. Disadvantaged groups are worse off with the dropout rates for SCs and STs higher than the national average.

While enrolment levels at the elementary level are generally high, studies of student attendance show that there is considerable variation across States in the percentage of enrolled students who are attending school on any given day during the school year. Of particular concern is that some of the most educationally backward States (Uttar Pradesh

[UP], Bihar, Madhya Pradesh [MP] and Jharkhand) have the lowest student attendance rates (below 60 per cent). In the Twelfth Plan, there is a need for a clear shift in strategy from a focus on inputs and increasing access and enrolment to teaching–learning process and its improvement in order to ensure adequate appropriate learning outcomes. In this context, States need to set up transparent and reliable systems for tracking attendance in a meaningful way and work on effective strategies for boosting attendance and sustaining high levels of attendance throughout the school year.

While there has been a decline in the percentage of out-of-school children (OoSC) across gender and social categories, Muslim, scheduled caste (SC) and scheduled tribe (ST) children need greater and focused attention. The number of OoSC who are physically or mentally challenged remains a cause for concern. The proportion of disabled out-of-school children in 2005 was 34.19 per cent and remained unchanged at 34.12 per cent in 2009. It is important to note that the maximum number of OoSC are those with mental disabilities (48 per cent), followed by children with speech disabilities (37 per cent).Neither the school system nor any other institutional mechanism is equipped to address the challenging needs of mentally disabled children who are most disadvantaged both socially and educationally in the system.

There has been a substantial increase in the availability of teachers at elementary level during the

past few years and if all the teacher posts sanctioned under both Sarva Shiksha Abhiyan (SSA) and   State budgets are filled, the pupil–teacher ratio (PTR) at the national level will almost be 27:1. The challenge, however, lies in correcting the imbalance in teacher deployment. The number of schools that do not comply with the Right to Education (RTE) norms for the required PTR is fairly high. School-wise analysis based on District Information System for Education (DISE) 2009–10 indicates that 46 per cent of primary and 34 per cent of upper primary schools have poor PTRs. Another serious challenge is the presence of teachers without professional qualifications approved by the National Council of Teacher Education (NCTE), as is required under the RTE Act. There are about 8.1 lakh untrained teachers in the country with four States—Bihar, UP, Jharkhand and West Bengal— accounting for 72 per cent of them.

The biggest concern in elementary education is the poor level of student learning—both scholastic

and co-scholastic/non-cognitive. Evidence suggests that learning outcomes for children in Indian schools are far below corresponding class levels in other countries, and that the learning trajectories for children who remain in school are almost flat. Clearly, the additional time spent by students in school as they move from one class to another is not translating into much improvement in learning levels.

At the heart of the issue of quality are the weak teaching processes and transactions between teachers and learners that are neither child-friendly nor adopt child-centered approach to curriculum. The capacity, motivation and accountability of teachers to deliver quality education with significant and measurable improvements in learning outcomes of students need to be critically and urgently addressed.

Similar challenges of quality of learning also exist at the secondary and higher education levels. Dropout rates in secondary and higher education continue to be high, especially for socially excluded and economically marginalized groups of learners.

Despite higher levels of enrolment at all levels of education, and a massive increase in physical infrastructure, the value added by formal education is still weak. Poor quality of education resulting in weak learning outcomes at each stage of education is the central challenge facing the Indian education sector today. This is particularly disturbing since both macro- and micro-level evidence suggests that what matters for both national economic growth as well as individual's ability to participate in this growth process is not the total years of education as much as the quality of education and value-addition for each successive year in school as represented by continuously improving learning outcomes and skills. ***Improving learning outcomes is crucial for inclusive growth*** and, ***therefore, a major focus of the Twelfth Plan*** *will be on measuring and improving learning outcomes for all children, with a clear recognition that increasing inputs (number of schools, classrooms, teachers and so on) will by themselves not be enough to ensure quality education for all children.*

Strategies

The Twelfth Plan needs to address these challenges in an integrated and holistic manner. The focus needs to be on meeting the residual needs of access with sharper focus on the needs of the disadvantaged social groups and the difficult-to-reach areas; improving the school infrastructure in keeping with the RTE stipulations; increasing enrolment at the upper primary and secondary school levels; lowering dropout rates across the board; and, broad-

based improvement in the quality of education with special emphasis on improving learning outcomes. The four main priorities for education policy have been access, equity, quality and governance. The Twelfth Plan will continue to prioritize these four areas, but will place the greatest emphasis on improving learning outcomes at all levels.

It is critical for the country to make secondary education much more job-relevant through skills training within the schools. For this, higher investments will need to be made to equip secondary schools with teachers/trainers who have technical skills and equipment (such as workshops, machines, computer equipment) that can be used to impart technical and vocational skills. In countries such as South Korea and Australia, 25–40 per cent of high school students opt for vocational courses, making them job-ready once they finish Grade 12. The vocational credits they earn in secondary schools are recognized by the general education system and a high proportion of these students return to universities to pursue a college degree at a later stage.

Quality

Improvement of the quality of education is strongly linked to the quality of physical space, textual materials, classroom processes, academic support to the teachers, assessment procedures and community involvement. All these areas will continue to receive support during the Twelfth Plan period. While adequate inputs and infrastructure are necessary for the proper functioning of schools, inputs will not automatically translate into effective teaching–learning processes or satisfactory learning outcomes. ***Therefore, the Twelfth Plan will treat improving school inputs as just the starting point in improving educational quality, and will take a more comprehensive view for building a strong systemic focus on teacher capacity, improving school leadership/ management, strengthening academic support system, better community and parents'participation, measuring and improving learning outcomes in a continuous manner. Focus would be on provision for child-friendly schools and systems in teaching and learning processes as well as in improved water, sanitation, hygiene and midday meal practices.***

Box 21.1
Targets for the Twelfth Plan

1. Ensure universal access and, in keeping with letter and spirit of the RTE Act, provide good-quality free and compulsory education to all children in the age group of 6 to 14 years;

2. Improve attendance and reduce dropout rates at the elementary level to below 10 per cent and lower the percentage of OoSC at the elementary level to below 2 per cent for all socio-economic and minority groups and in all States;

3. Increase enrolments at higher levels of education and raise the Gross Enrolment Ratio (GER) at the secondary level to over 90 per cent, at the Senior Secondary level to over 65 per cent;

4. Raise the overall literacy rate to over 80 per cent and reduce the gender gap in literacy to less than 10 per cent;

5. Provide at least one year of well-supported/well-resourced pre-school education in primary schools to all children, particularly those in educationally backward blocks (EBBs); and

6. Improve learning outcomes that are measured, monitored and reported independently at all levels of school education with a special focus on ensuring that all children master basic reading and numeracy skills by class 2 and skills of critical thinking, expression and problem solving by class 5.

ELEMENTARY EDUCATION

Elementary Education comprising primary (Class I–V) and upper primary (Class VI–VIII) forms the foundation of the education pyramid. Unless this foundation is strengthened, it will not be feasible to achieve the goal of universal access to quality education for all. A major achievement in recent years has been the establishment of institutional and legal underpinnings for achieving universal elementary education. The Right of Children to Free and Compulsory Education (RTE) Act, 2009, became operative on 1 April 2010.

REVIEW OF THE ELEVENTH PLAN

With the RTE Act, 2009, becoming operational from 1 April 2010, the vision and strategies of the ongoing SSA were harmonized with the RTE mandate and the programme norms were revised accordingly. Financial outlays were enhanced and the changes approved to the annual work plans to enable government schools to become RTE Act compliant.

Against an estimated child population of 192 million in the 6–14 age group, 195 million children were enrolled at the elementary stage in 2009–10. The GER2 increased from 111.2 per cent in 2006–07 to 115 per cent in 2009–10 and the Net Enrolment Ratio (NER) improved significantly from 92.7 per cent to 98 per cent during this period. The GERs for SCs and STs Range between 130 per cent and 140 percent at the national level and, in some States, these are nearly double that of eligible age group children. GER in excess of 100 per cent at the primary stage indicates presence of overage and underage children in the schools,

and reflects the delayed provision of access to schooling and lack of pre-schooling facilities, particularly in rural areas.

Girls account for the majority (5.3 million) of the additional enrolment of 7.21 million children between 2006–07 and 2009–10. More than half of them (53 per cent) belong to SCs and STs. ***Three initiatives of the Eleventh Plan helped to increase the enrolment of girls. These included (i) setting up of 3,600 Kasturba Gandhi Balika Vidyalayas in 27 States and Union Territories (UTs), (ii) establishment of 7,000 Early Childhood Care Centres in EBBs and (iii) implementation of Mahila Samakhya programme in ten States.***
The GER at upper primary level is low, even though it improved by 11.8 per cent in the four years between 2006–07 and 2009–10. At 62 per cent the NER at upper primary level is also a cause for concern. This varies from 47 per cent in UP and 53.1 per cent in Bihar to 91 per cent in Tamil Nadu and 83 per cent in Himachal Pradesh.4 It is evident that although a larger number of children are entering the educational system, all of them are not progressing through the system and this progression is uneven across the States.

A large number of children are still OoS. Of the 8.1 million OoSC in the country in 2009, UP (34 per cent), Bihar (17 per cent), Rajasthan (12 per cent) and West Bengal (9 per cent) account for 72 per cent although surveys have reported a decline in the proportion of OoSC to the corresponding child population of various communities such as SCs, STs and Muslims, these estimates need to be taken with caution, keeping in mind the steep decline in absolute numbers of OoSC reported in the corresponding period. A recent study for rural India places the proportion of children not enrolled in schools at 3.5 per cent.However, in a few States like Rajasthan and UP, the percentage of OoS girls in the age group of 11–14 years is as high as 8.9 per cent and 9.7 per cent, respectively.

The Eleventh Plan had targeted a reduction in dropout rates from 50 per cent to 20 per cent at the elementary stage. Even though there has been some reduction, progress has not been satisfactory and the national average is still as high as 42.39 per cent. The dropout rates for SC and ST children at 51.25 per cent and 57.58 per cent, respectively, are much higher than that for non-SC/ST children at 37.22 per cent. This clearly suggests the challenge of school retention of children from vulnerable communities.

Having achieved near-universal enrolment at the lower primary level, it is critical to turn the focus on the poor levels of learning outcomes achieved by children who complete five years of primary schooling. Several independently conducted national studies including the ASER (2005 to 2011) and the School Learning Study (2010) have reported very low levels of learning among Indian school children. The ASER 2011 findings illustrate that over half the children in class V are unable to read even at class II level. *In the recent Organization for Economic Co-operation and Development–Programme for International Student Assessment (OECD–PISA) study, India has been placed at the tail-end in international comparisons rating (PISA-2009+). These results underscore the fact that quality of education should be the key focus of attention in the Twelfth Plan.* Improving learning outcomes, with a focus on supplemental instruction for disadvantaged children, will directly contribute to the objective of reducing dropouts, because evidence suggests that children who fall behind grade appropriate learning levels are significantly more likely to drop out. The structure of enrolments in elementary education shows that about 80 per cent of children are enrolled in government and government-aided institutions; therefore, the focus on quality improvement in elementary education has to be on government institutions.

Some progress has been made in preparing children better for primary education. Pre-school enrolment has more than doubled from 21 per cent in 2005 to 47 per cent in 2010. More recent ASER data (2010) indicates that 83.6 percent of 3- to 6-yearolds in rural areas are enrolled in some preschool programme mostly in Integrated Child Development Services (ICDS) centers, including those in private pre-schools. The quality issues of pre-primary education in Anganwadi need serious review.

During the Eleventh Plan, the Sarva Shiksha Abhiyan (SSA) was the flagship programme for impacting elementary education, but the following major Central Government schemes and programmes were also implemented: *National Programme of Nutritional Support to Primary Education (NP-NSPE; commonly known as the Mid-Day Meal Scheme), Teacher Education Scheme; Mahila Samakhya; Schemes for Providing Quality Education in Madrasas (SPQEM) and Infrastructure Development in Minority Institutions (IDMI).*

SARVA SHIKSHA ABHIYAN (SSA)

The SSA is implemented as India's main programme for universalisation of elementary education (UEE). Its overall goals include universal access and retention, bridging of gender and social gaps in enrolment levels and enhancement of learning levels of all children. The

SSA has merged components of the National Programme for Education of Girls at Elementary Level (NPEGEL) and the residential school scheme, Kasturba Gandhi Balika Vidyalaya.(KGBV),that have focus on girls' education. The approved outlay for SSA in the Eleventh Plan was 71,000 crore. Against this, an amount of `77,586 crore was released to the States. Details of cumulative progress made under the SSA up to 2011–12 are given in Table 21.1:

TABLE 21.1
Cumulative Progress under SSA up to 2011–12

S. No.	Item	Sanctions
1	Opening of New Schools	2,09,914
2	Opening of New Upper Primary Schools	1,73,969
3	Construction of Primary Schools	1,92,392
4	Construction of Upper Primary Schools	1,05,562
5	Construction of Additional Classrooms	16,03,789
6	Toilets	5,83,529
7	Drinking Water facilities	2,23,086
8	Teachers	19,65,207

Source: Ministry of HRD.

TWELFTH PLAN STRATEGY

The overarching goal of the Twelfth Plan is to enrol **OoSC,** reduce dropouts and improve learning outcomes across the elementary school years. In order to enrol OoSC, strengthening of institutional capacity, developing an appropriate statistical base, harmonizing the definition of OoSC and finally identification and mainstreaming of all children into age-appropriate class would be needed. Reduction in dropout rates is closely linked to quality. There is a need for a system-wide effort to move the focus of all activity in elementary education from schooling to learning. This entails a shift at every level, macro and micro, whether in planning, resource allocation and implementation or measurement of processes and practices that is designed to achieve significant, substantial and continuous improvement in children's learning outcomes. The entire process of education should be firmly anchored to the notion that every child must be in school and learning well.

A major focus of the Twelfth Plan will be on ***implementing the objectives of the RTE Act*** and aligning the government policies and practices with the overall goal of providing quality schooling for all children until the age of 14 years. The States that have seven-year elementary education cycle (four years of primary education and three years of upper primary education) have begun to realign to eight-year cycle. During the Twelfth Plan this would be implemented throughout the country. All the States have notified State-specific rules under the Act. Pursuant to the RTE Act, notifications of teacher qualifications under section 23 of the RTE Act and the prescription of a Teacher Eligibility Test (TET) by the NCTE have also been issued.

Once basic goals are clearly articulated, all aspects of the elementary education system (such as methods of teaching–learning, use of materials, grouping for effective instruction, optimal use of time, daily instructional time and number of days of teaching, measurement of progress, capacity building and ongoing support for teachers and administrators) will need to be strongly aligned to the achievement of the learning goals. System-level administrators at various levels need to ensure that the activities of the system at every level are aligned to the stated goals. Periodic reviews (at least annually) need to be conducted to track progress and refine and rework strategies to reach the stated goals.

The elementary education system needs to focus on two major tasks. First, children entering school should be prepared and should learn basics by the time they complete class 2 or 3. Second, the proportion of children who are lagging behind in higher grades (class 3, 4 and 5 and also in upper primary) acquire required levels of competencies. There is strong evidence that for children whose home language is different from the textbook language with no supplemental parental guidance at home, problems of 'coping' eliminate them from the system earlier on by class 3. A great deal of attention needs to be paid to such linguistically determined barriers in the passage of children from lower to higher classes. There is a need to develop primers for bridging the home language to the school language from pre-school to class 1 and 2, which is a very effective mechanism to ensure child motivation and 'coping' ability to deal with school texts. Besides, a strong foundational learning support needs to be immediately given to children in class 3–5, and 6–8 who have not even achieved basic skills to negotiate the curriculum of upper primary or secondary schooling to which they will transit. The methodology of Comprehensive and Continuous Evaluation (CCE) mandated by the RTE Act once properly implemented can go a long way in tackling this issue.

To make sure that all the children make progress towards the learning goals, new and innovative strategies will have to be tried in terms of teaching–learning and consequently in preparing and supporting teachers. The overall strategy for elementary education in the Twelfth Plan is summarized in Box 21.2

Box 21.2
Twelfth Plan Strategy for Elementary Education

1. Shift from a project-based approach of SSA to a unified RTE-based governance system for UEE;
2. Address residual access and equity gaps in elementary education by adopting special measures to ensure regular attendance of children in schools and devising special strategy to tackle the problem of dropping out before completing the full cycle of elementary schooling;
3. Integrate pre-school education with primary schooling in order to lay a strong foundation for learning during primary school;
4. Prioritise education quality with a system-wide focus on learning outcomes that are assessed through classroom-based CCE independently measured, monitored and reported at the block/district/State levels;
5. Focus on early grade supplemental instruction to ensure that all children achieve the defined age-/class-specific learning levels by the end of class 2;
6. Articulate clear learning goals that have to be achieved by the end of each class or set of classes. These goals should be understood by parents and teachers;
7. Improve teacher training with an emphasis on effective pedagogy given the realities of Indian classrooms such as multi-age, multi-grade and multi-level contexts. Also, make teachers' professional development a needs-driven process as opposed to top-down decision wherein curriculum design and delivery is centrally driven;
8. Invest in both top-down administrative oversight and bottom-up community-driven monitoring of schools;
9. Focus on strengthening practices of good governance in all schools and related institutions that ensure performance-based internal and external accountability for teachers and administrators at all levels and also ensure holistic assessment-driven development of schools;
10. Invest in strengthening ongoing and continuous field-based systems of academic support to schools and teachers and in strengthening district and block-level capacity for better management and leadership;
11. Support States to set learning goals and invest in independent monitoring of outcomes, but provide States with substantial autonomy in how to achieve these goals, and provide additional results-based financing to States who show the most improvement in educational outcomes;
12. Provide a supportive environment for evaluation of innovative practices, and sharing of best practices across States and districts;
13. Support States towards motivation, capacity development and accountability of community and parents for ensuring regular attendance and quality education; and
14. Ensure convergence with panchayats, Community-Based Organisations (CBOs) and other sectors at school level.

TWELFTH PLAN INITIATIVES

SSA will continue to be the flagship programme for developing elementary education during the Twelfth Plan for realizing the rights to elementary education for each and every child. There would be four strategic areas under SSA during the Twelfth Plan. These are:

- *Strong focus on learning outcomes;*
- *Addressing residual access and equity gaps;*
- *Focus on teacher and education leadership;*
- *Linkages with other sectors and programmes.*

These are described in the following sections:

I.STRONG FOCUS ON LEARNING OUTCOMES: *(A) Strong Focus on Early Years in School, (B) Review of School Textbooks, (C) Enhancing Facilities in Schools, (D) Research for Quality Improvement, (E) Pre-Primary Education, (F) Moving From Grade-Level to Ability-Level Teaching–Learning, (G) Promote State-Level/Local-Level Innovation, (H) Child-Friendly Assessment, (I) Measuring Learning, (J) Learning from International Experience*

II. ADDRESS RESIDUAL ACCESS AND EQUITY GAPS: *(A) Targeting Out-of-School Children, (B) Provision of Residential Schools, (C) Focus on SC/ST Children, (D) Special*

Provision for Children with Special Needs (CWSN), (E) Special Focus for Education of Girls(F) Focus on Educationally Backward Minorities, (G) Focused Efforts in Urban Areas

III. FOCUS ON TEACHERS AND EDUCATION LEADERSHIP

Competence of teachers and their motivation is crucial for improving the quality. This would require a number of initiatives towards (i) addressing teacher shortages, particularly through new and rigorous approaches to imparting teaching certifications,(ii) improving the quality of pre-service teacher education, (iii) improving the quality of in-service teacher professional development and options for their upward career mobility with special attention to Para-teachers in many States, (iv) enhancing the status of teaching as a profession and improving teacher's motivation to teach well and their accountability for ensuring learning outcomes, (v) improving the quality of teacher educators. It is important to align all ongoing teacher capacity and capability building exercises to the achievement of improved learning outcome

IV. LINKAGES WITH OTHER SECTORS

In order to achieve targeted outcomes for elementary education, there is a need to bring in resources and knowledge from related sectors. Several States, particularly those that have acute school infrastructure gaps, will face limitation of funds to implement the RTE Act. A pragmatic approach to meet the goals with limited resources is through convergence with schemes like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS). Appropriate revision in the MGNREGA guidelines would be required to bring about such convergence. Decentralized implementation would ensure that local bodies take up these works on a priority basis and ensure full access to elementary education in a convergence.

IMPLEMENTATION, MONITORING AND EVALUATION

The focus in the Twelfth Pan is to address the weaknesses in implementation that have been a major constraint in achieving the goals of previous Plans. Implementation needs to take into account local conditions, it would therefore be desirable to give States (and even districts) a lot of autonomy.

Consequently, the approach in this Plan would be to provide clear goals and direction to States and education departments, provide considerable operational autonomy to States on how to achieve these goals, and invest in strong and independent monitoring of outcomes by the Central Government.

In implementation, equal emphasis would be placed on provision of inputs for quality education (infrastructure, teachers, training, enrolment and other inputs) as well as ensuring that these inputs translate into improved processes (attendance, instructional time) and outcomes (retention, learning outcomes, equity). States will be encouraged to innovate and experiment with ways of achieving these outcomes effectively. Innovations can cover a very broad range of areas—some of which may include methods for systematic assessment of student learning, improved teacher training, innovative pedagogies in the classroom including those that leverage technology in the classroom, supplemental instruction for first-generation learners, methods for improving teacher motivation and effectiveness, and methods for leveraging resources from third parties for improving education. States may also become partners with appropriate third parties to provide key capabilities that may help these goals. States will be encouraged to carefully document and evaluate these initiatives and to share best practices with other States and with the Centre.

To encourage innovation and sharing of best practices, the Plan will provide a certain amount of untied 'flexi funds to the States and also provide additional amounts of 'results-based financing. States in turn will be encouraged to invest in district-level leadership and provide autonomy and resources to districts and encourage capacity building at the district level to monitor and improve education outcomes. To support this endeavor, the Plan will also dedicate resources to high-quality independent measurement and monitoring of learning outcomes (along the lines of the Annual Health Survey). The annual reporting of learning outcomes at State, district and block levels can in turn be used to encourage a mission-like focus on improving education outcomes in the Twelfth Plan.

A key challenge for e-monitoring is the absence of high-quality data that is updated on a frequent and reliable basis. Infrastructure such as the Unique Identification (UID) could be deployed to keep track of student enrolment, attendance, and dropouts, and biometric authentication could also be deployed to improve teacher attendance. Modern cell phone–based technologies may prove to be a promising way of empowering communities to report real-time data on school performance metrics such as teacher attendance, student attendance, availability of midday meals and so on. Technology platforms such as mobile phones and tablet personal computers (PCs) can also be used for rapid diagnostic testing of student learning, analysis of common mistakes and areas of misunderstanding, and dynamic testing based on performance on initial questions. Several non-profit and third-party organizations are working on building such applications, and States/districts will be encouraged to

experiment with such methods for improved real-time data collection on the performance of the education system.

Finally, it is worth noting that the evidence base for effective policymaking in elementary education is quite limited—especially in crucial areas such as the effectiveness of different types of pedagogy, the effectiveness of using technology within the classroom, the optimal ways to organise children of different initial learning levels in a classroom, and handling multi-grade teaching more generally. The Twelfth Plan will place a high priority on improving research and the evidence base for policymaking, and will provide both funds as well as strong encouragement to States to take up high-quality research studies on primary education in India in partnership with universities and reputed individual researchers. Each State should be encouraged to earmark and spend adequate funds for independent measurement of learning outcomes. While each State may adopt different ways of doing it, some broad central guidelines may be desirable.

MID-DAY MEAL SCHEME (MDMS)

In keeping with the Constitutional provisions to raise the level of nutrition of children and enable them to develop in a healthy manner, the NP-NSPE was launched as a centrally sponsored scheme in 1995. Commonly referred to as MDMS, this was expected to enhance enrolment, retention, attendance of children in schools apart from improving their nutritional levels. This was extended to upper primary (classes VI to VIII) children in 3,479 EBBs in 2007 and then universalized at the elementary level in the year 2008. The scheme is implemented through the States/UTs. MDMS is managed and implemented by School Management/Village Education Committees, Panchayati Raj Institutions, and Self- Help Groups. MDMS now includes madrasas and maktabs supported under the SSA as well as children under the National Child Labour Projects. A detailed survey of implementation of intended nutritional values including calorific value, protein inclusion, additional nutritional supplements and vitamins, as detailed in the scheme, needs to be carried out to ensure that the nutrition scheme is implemented in both spirit and letter.

MAHILA SAMAKHYA (MS)

Mahila Samakhya (MS) launched in 1988–89 is being implemented in 10 States across 105 districts, 495 blocks (including 233 EBBs) and 33,577 villages and has special focus on the EBBs. Successive evaluations have acknowledged Mahila Samakhya as a unique process-oriented programme which has demonstrated ways of empowering rural poor and

marginalized women and thereby enabling their effective participation in the public domain and in educational and learning processes. Through sustained perspective building and training of field staff, it has been possible to keep the focus of MS programme on most marginalized women. Of the 10.5 lakh women that were covered until the end of the Eleventh Plan, 36.74 per cent are SC, 16.33 per cent ST, 27.47 per cent OBC, 9.13 per cent Muslim and only 10.38 per cent are women from the general categories. Continuance of Mahila Samakhya during the Twelfth Plan is crucial due to current thrust on inclusive education through the RTE-SSA. The large pool of trained women associated with MS would be used to achieve goals of the RTE, namely, equity and equality in and through education. Once the external funding is completely utilized, the programme would be brought under RTE-harmonized SSA with 100 per cent internal funding. A National Resource Centre with strong State level or regional units would be set up to bring MS programmes varied insights on women's empowerment, learning, agency, girls education and institution-building to address gender barriers into the mainstream. The programme itself would be strengthened and expanded both in its coverage as well as scope/role during the Twelfth Plan.

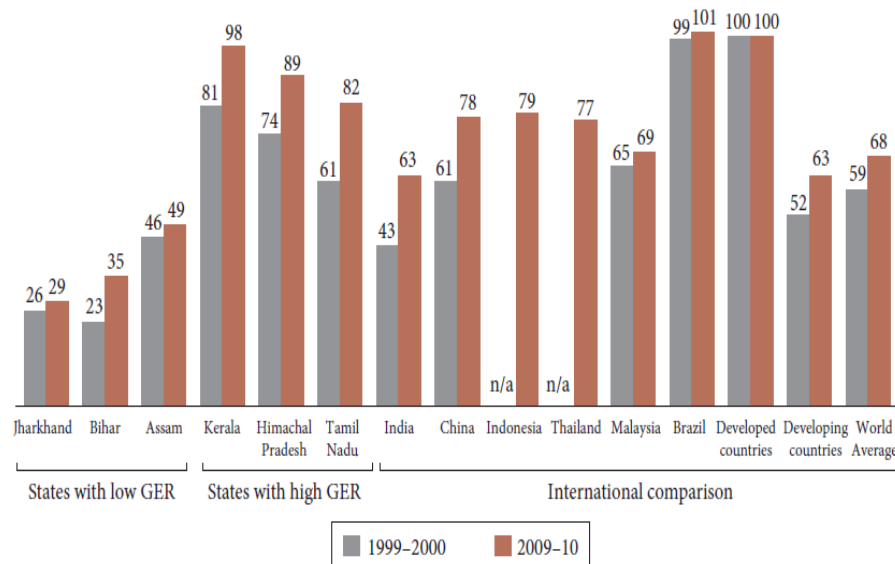## SECONDARY AND HIGHER SECONDARY EDUCATION

With a dramatic growth in elementary education enrolments and improvements in retention and transition rates in recent years, particularly amongst the more disadvantaged groups, there is an increasing pressure on the secondary schools to admit more students. With the enforcement of RTE Act and further improvement in retention and transition rates, demand for secondary schooling will grow rapidly in the coming years. ***Meeting this demand is critical for three reasons. First, the secondary education fulfils large manpower needs of the semi-organised and the organised sectors of the conomy. Second, it is the supply chain for higher education. And, finally, it caters to the needs of teachers for primary schooling.*** Low participation rates and poor quality at the secondary stage are a bottleneck in improving both the higher education participation and the schooling at the elementary stage.

Further, there are both social and economic benefits of secondary schooling. While there are clear improvements in health, gender equality and living conditions with secondary education, investments in secondary schooling have high marginal rates of return. Thus, the country needs to move towards universalisation of opportunity to attend secondary schooling of adequate quality. With enrolment in elementary education reaching near universal levels, there would be an opportunity to move towards universal access to secondary education. The current GER for the combined secondary and senior secondary stages (Classes IX–XII) in

2009–10 at about 50 per cent is woefully low. Thus, the capacity of the secondary schooling system has to be expanded significantly. There are very large inequalities in access to secondary education, by income, gender, social group and geography. The average quality of secondary education is very low. Thus, urgent efforts are needed to improve its quality. The challenge is to dramatically improve access, equity and quality of secondary education simultaneously.

India has a long tradition of partnership between the public and private sectors in secondary education. ***There are four types of schools: (i) government— established by State Governments (as well as some Centrally established institutions); (ii) local body— established by elected local government bodies;(iii) aided schools—private schools that receive State Government grants-in-aid; and (iv) private unaided schools.*** Most of the growth of secondary schools in the private sector in the last two decades has occurred among unaided schools (25 per cent of schools). About 60 per cent of schools are now aided or unaided. It is essential, therefore, that the private sector's capabilities and potential are tapped through innovative public–private partnerships, while concurrently stepping up public investment by the Central and State Governments at the secondary level. And given that the presence of private schools varies considerably across States, context-specific solutions need to be promoted.

While private provision in secondary education should be fostered wherever feasible, the government will have to take the prime responsibility to provide access to disadvantaged sections and to bridge the rural/urban, regional, gender and social group gaps. Simultaneously, government must invest in teacher education and accountability, curriculum reform, quality assurance, examinations reform, national assessment capabilities and management information systems, which will require time and significant institutional capacity building to succeed at a national scale.

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Source: Selected Education Statistics, Ministry of HRD, 2009–10, EFA-GMR-2011 and UIS.

FIGURE 21.1: GER for Secondary Education: By States/Select Countries
(*High/Low GER States and International Comparisons*)

REVIEW OF THE ELEVENTH PLAN

Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

Secondary schooling received a major thrust during the Eleventh Plan with the Central Government support for it increasing several fold. The Rashtriya Madhyamik Shiksha Abhiyan, a centrally sponsored scheme with a funding pattern of 75:25 between Centre and States (90:10 for Special Category and NE States), was launched in 2009–10. The major objectives of the RMSA are to:

 (i) Raise the minimum level of education to class X and universalize access to secondary education;
(ii) Ensure good-quality secondary education with focus on Science, Mathematics and English; and

(iii) Reduce the gender, social and regional gaps in enrolments, dropouts and improving retention.

The interventions supported under RMSA included:

(i) upgrading of upper primary schools to secondary schools; (ii) strengthening of existing secondary

schools; (iii) providing additional classrooms, science laboratories, libraries, computer rooms,

art, craft and culture rooms, toilet blocks and water facilities in schools; (iv) providing in-service training of teachers; and (v) providing for major repairs of school buildings and residential quarters for teachers.

Despite being launched in the third year of Plan, there was good progress under the RMSA during the

Eleventh Plan (see Table 21.4). Against a target of enrolling an additional 3.2 million students, 2.4 million

additional students were enrolled in secondary schools during the Eleventh Plan period.

OTHER SCHEMES

In addition to the RMSA, the following five Centrally sponsored schemes were launched during the Eleventh Plan:

 (i) Setting up of model schools;

(ii) Setting up girl's hostels in secondary and senior secondary schools;

(iii) National Scheme of Incentive to Girls for Secondary Education (NSIGSE);

(iv) Inclusive Education for the Disabled at the Secondary Stage (IEDSS); and

(v) National Meritcum- Means Scholarship scheme (NMMS).

In addition,the ongoing scheme of ICT in Schools was revised. The targets and achievements under these schemes are given in Table 21.5. In addition, the scheme of vocational stream at the +2 stage that was launched in 1988 and revised in 1992–93 was continued after further revision as approved in 2011.

Despite massive infrastructure of 21,000 Sections in over 10,000 schools for vocational

streams catering. to over 1 million students, only about 4.8 per cent of all students are

enrolled in the vocational streams against a target of covering 25 per cent of such students.

There are 1,740 schools (Kendriya Vidyalayas—1,092, Jawahar Navodaya Vidyalayas—586 and Central Tibetan Schools—62) with an enrolment of about 13 lakh students that are directly under the Central Government. These schools usually outperform other schools both academically and otherwise and hence there is demand for more such schools all over the country.

During the Eleventh Plan, over 100 new schools were set up. In addition, there are Sainik Schools and Eklavya Residential Schools under Ministry of Defence and Ministry of Tribal Welfare under the Central Government, respectively.

The apex bodies in school education, National University of Educational Planning and Administration (NEUPA) for policy, planning and data collection, National Council of Education Research and Training (NCERT) for curriculum design, and developing textbooks and teaching–learning materials for school education, Central Board of Secondary Education (CBSE) for affiliation, examination and assessment and National Institute for Open Schooling (NIOS) were very active during the Eleventh Plan and played a key role in school education reforms.

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TABLE 21.4
RMSA: Achievement in the Eleventh Plan

Sl. No.	Items	Target	Achievement (Approved)
1	Sanction of New Schools	11,188	9,636
2	Strengthening of existing Schools	44,000	34,311
3	Additional Classrooms	88,500	49,356
4.	Additional Teachers	1,79,000	59,000
5.	In-Service Training for All Teachers	100 per cent	100 per cent
6.	Annual Grants to Schools	Full coverage	75,394
7.	Minor Repair to Schools	Full coverage	62,221

Source: Department of School Education and Literacy, Govt. of India.

MODEL SCHOOLS

During the first three years of the Twelfth Plan, 2,500 Model Schools in PPP mode would be rolled out in non-EBBs in a phased manner. Instead of setting up of a new organization to

oversee implementation of Model Schools, it is preferable that the additional responsibility is given to KV Sangathan so that the new schools can benchmark the format of KVs. However, the number of Model Schools being substantially large, as compared to existing KVs, the Sangathan needs to be considerably strengthened with resources and their role with regard to Model Schools should be clearly defined. It should also be ensured that these Model Schools indeed serve as exemplars in their blocks and carry out specific activities to share their best practices with other **government schools in** their vicinity.

SCHOOLS UNDER THE CENTRAL GOVERNMENT

During the Twelfth Plan, an additional 500 KVs and 378 JNVs, including 27 for uncovered districts and 2 special NVs in Manipur, will be set up. The intake capacity will be expanded from 80 to 160 students per class and 10 Science Magnet schools will be set up within or in close proximity to the institutions of higher education and other scientific research institutions. The charter of KVs and NVs will be revisited and their scope expanded including provisions for economically weaker section enrolments. About one-third of enrolments could be allowed for wards of non–Central Government employees.

The Twelfth Plan will work towards shaping KVs and JNVs into pace setting schools with specific activities such as acting as Smart Schools. To begin with, about 500 KVs and 500 NVs covering all States will commence pace setting activities by extending their facilities after school hours to students of neighboring State/UT Government schools. The KVs/NVs could use outsourcing model for innovative programmes including training of students for participation in international assessments and allow the use of their premises for the purpose. Arts Departments will be established in KVs to achieve Education excellence in co-scholastic areas such as visual and performing arts.

The KVs/NVs will also be able to avail funding for additional sports activities from the schemes of Urban Sports Infrastructure/PYKKA under the Ministry of Youth Affairs and Sports. Rural KV/NVs will allow rural youths to utilize their facilities after school hours. Neighboring school children will be allowed enrolment in NCC/NSS/Scouts and Guides/Judo/Karate/Yoga/Archery and so on in KVs/NVs. These schools will be hubs for the National Physical Fitness Programme to be launched during the Twelfth Plan with 100 per cent Central Assistance. These new initiatives of KVs/NVs, including hiring of personnel for providing coaching and other recurring expenses, will be supported with budgetary provisions to cover about 20,000 children per year.

All facilities, provisions, and quality initiatives stipulated for JNVs shall be made available to Eklavya and Sainik Schools, which are residential schools. The respective Ministries would be required to provide financial resources for these initiatives. MHRD will coordinate with other ministries and wherever necessary shall provide academic inputs. Similar coordination would also be required with Atomic Energy Education Society.

The Twelfth Plan will strengthen the infrastructure facilities for NIOS and 16 State Open Schools (SOS) under RMSA in order to improve the outreach of open schooling programmes with special focus on skill development and vocationalisation, particularly in the educationally backward districts of the country. An enrolment target of 25 lakh students has been set for NIOS/SOS. The Accredited Vocational Institutes (AVIs) under NIOS will be evaluated and rated before expansion. Examination reforms will be carried out so that year-round facilities are made available for open schooling.

USE OF TECHNOLOGY IN EDUCATION

Most of the secondary schools have limited availability of computer facilities. This constrains the students from acquiring ICT-related skills essential in the knowledge economy and limits teacher's ability to upgrade their subject-matter knowledge and student's ability to access essential learning materials. ICT can potentially make significant difference in improving quality. The National Policy of ICT in School Education envisions and provides for the development of a holistic framework of ICT support in the school system. Mission Mode Project (MMP) on School Education is now under the National e-Governance Plan (NeGP). This would enable comprehensive technology enablement of the school education sector. More specifically, this would cover:

1. Developing ICT skills of all heads of schools, teachers, non-teaching staff and students;

2. Creating a repository of quality-assured digital, contents in English, Hindi and regional languages in all subjects especially in science and mathematics;

3. Training and encouraging teachers to develop and use e-content;

4. Creating provisions for ICT in classrooms or portable facilities like a notebook/laptop/iPad and a projector with rechargeable battery, and implement ICT-integrated education;

5. Enabling provision of ICT-integrated examination and e-governance at the institutional and systemic level including setting up of education portal(s).

The MMP also envisions extensive use of technology to ensure delivery of services to students, teachers, autonomous institutions and partners on an 'anytime-anywhere' basis by leveraging the Common Service Centres (CSC) established up to the village level across the country. This along with the policy on ICT in School Education will enable a holistic and coordinated attempt to optimally use and leverage technology to achieve quality and efficiency in all of the interventions under various schemes.

There would be special focus on Aadhaar linkage of teachers and students databases with a view to remove ghosts, fakes, duplicates and cleaning up databases. This linkage coupled with effective analytics can help in addressing accountability, traceability and measurement-related challenges. It could also be used for tracking students and teachers attendance, tracking deployment, training programme attended by teachers, their skills/capability areas and so on. Using this targeted deployment plan, skill development programme could be developed.

Tagging records of students with those of teachers can help build accountability of teachers. In long run, this may also provide pointers to interventions (made at teachers' improvement areas) that have had a higher impact on improving learning outcomes. Aadhaar seeding would be used in tackling scholarship funds misuse. Recently, Andhra Pradesh has used it to identify fake student enrolments, same student enrolments in multiple colleges/courses, same faculty teaching in a large number of institutions. Aadhaar-enabled payment system could be used for transferring and managing scholarship payments.

TEACHER EDUCATION

There is a large number of teacher vacancies in the school system. An estimated 12.58 lakh (5.64lakh old and 6.94 lakh newly sanctioned under SSA) vacancies exist at the elementary level. These are mainly accounted for by six States: UP (3.12 lakh),Bihar (2.62 lakh), West Bengal (1.81 lakh), MP (0.89lakh), Chhattisgarh (0.62 lakh) and Rajasthan (0.51lakh). Several States in the North, East and North-Eastern regions have an acute problem of untrained teachers.

Therefore, pre-service and in-service training of teachers needs to be mounted on a mission mode during the Twelfth Plan. In particular, modular teacher training programmes should be developed so that Para-teachers can attend training courses during the summer and winter

vacations and get formally qualified over a three- to five-year period. In-service training using technology and innovative delivery methods could address the problem of poor quality of existing teachers.

In order to address the issue of availability and quality of teachers for the school system, each State must maintain a detailed district-wise database of teachers, teacher educators and teacher education institutions. National professional standards for teachers and teacher educators must be evolved. These must be used as a basis for designing preservice and in-service training programmes and their performance assessment processes for professional Education development. A system of teacher performance appraisal and feedback needs to be put in place as a tool for their development and empowerment and not as punitive measures. These systems are directly linked to improved classroom teaching and student learning. Rational deployment of teachers and objective and transparent policies for their transfers and placements would help in mitigating teacher shortages. Innovative ways need to be found to attract talent from other streams into the teaching profession. Superannuated qualified teachers may be reemployed in subject areas that have severe shortages. This strategy would be particularly useful in States like Kerala and Andhra Pradesh that have a relatively low retirement age for teachers in the government schools.

Upward career mobility options for teachers should be developed within each stage of education rather than across the stages, and should be linked with achievement of specific in-service certifications and experience criteria. High-quality teachers who wish to remain in active teaching as opposed to taking up administrative roles should have opportunities for career progression. A system of teacher evaluation based on objective measures of performance can be used as a basis for career ladders for teachers for bonuses, increments and promotions. These efforts along with continued professional development of teachers will ensure the teachers are motivated and lead to improving learning Outcomes of the children.

DEVELOP TEACHER EDUCATORS

Availability of adequate number of quality teacher educators will receive high priority during the Twelfth Plan. A large number of teacher educators would be developed by identifying potential teacher educators through a transparent competency-based process. They will then undergo full-time capacity programmes at selected institutions. For this purpose, credible

institutions in both the public and private sectors would be involved. Voluntary professional networks of teacher educators must be facilitated and strengthened to provide forums for professional interaction and development.

New programmes would be conceptualized for teacher educators. Curriculum, duration and structure of the M.Ed. programme would be revamped based on NCFTE 2009 and the new model curricula proposed by NCTE. At least 100 institutions across all States in the country would be identified and prepared to deliver such programmes. Selected multi-disciplinary public and private universities must be facilitated to establish departments/schools of education with direct links to good schools which can serve as a practice ground for honing practical teaching skills. Universities can also provide special courses which could be designed to combine specialized subject knowledge with educational courses and practical learning in an integrated manner, so that the problem of shortage of subject teachers is also addressed.

GOVERNANCE AND EDUCATION LEADERSHIP

Performance-based innovative practices like social audits, linkages with panchayats and municipalities, energizing and empowering village education committees, public reporting of expenditures linked to outcomes and results, and multi-stakeholder dialogues would be used to improve governance in the school system. Most important would be to empower local communities so that they have better oversight over schools and teachers. Local community could be given authority to hire, pay, and renew the contracts of community-based contract teachers (hired over and above the stipulated number of regular teachers), who can focus on supplemental and remedial instruction after school hours or during summer camps.

 Overall strategy in governance reforms would be to strike a right balance between mandating and persuading. While efforts should be made to listen to stakeholders and embrace their concerns, a line must be drawn when it came to pushing through a reform or in ensuring commonality across the system. At the initial stage, the reforms are almost always driven from the Central agencies. Later, as the system improves, the locus for improvement shifts to instructional practices and primarily driven by the teachers and the schools by themselves.

A system of regular assessment of schools for both managerial and pedagogical aspects is needed. This would set the stage for formal accreditation of   schools. In addition, there is a

need to establish a vibrant teacher support system closer to the school setting. Block Resource Centres and Cluster Resource Centres that were conceptualized under DPEP and continued under the SSA would be revamped and repositioned so that these can work effectively for improving teacher performance. Their role could be Twelfth Five Year Plan extended to the secondary schools. Finally, systemic improvement requires integration and coordination across different levels. The Twelfth Plan would focus on such integration and ordination.

 Seven specific interventions are proposed in the Twelfth Plan. First is to improve functioning and strengthening of existing institutions such as the SCERT, SIEMAT, and DIETs. These entities would develop and disseminate best practices for effective classroom instruction, support teachers in effective pedagogy and efficient organization of resources at school level (that is, people, teachers and students, space and time) so as to optimize learning opportunities for all children. A key goal will be to identify highly effective teachers for positions of educational leadership and mentoring, and to identify less-effective teachers for coaching and support.

Second would be on training of district and block-level education officers as well as head teachers for better management practices, on using data to better monitor and support school performance, and to mobilize community resources and efforts to improve school performance. Good performance of schools and teachers should be recognized and rewarded to motivate teachers and administrators to achieve excellence. This recognition can be either financial or non-monetary, but the system as a whole should show that effort and performance is valued and rewarded. Third is to ensure full functioning of the already established National Centre for School Leadership and setting up of four Regional Centres of Educational Management co-located in existing institutions.

Fourth, the parents have to be more effectively engaged so that they demand better quality education and result-oriented teaching–learning process. For this, effective functioning of SMCs and Parent Teacher Associations (PTAs) is essential. These are central to the formation of School Development Plans and effective working of the schools. Special efforts and innovative approaches would be needed to enable illiterate, semi-literate or less-educated parents to partner with schools in their children's learning process.

Fifth is focus on the role of community-based structures and the complementary and mutually reinforcing nature of their responsibilities in support of government machinery in monitoring of schools. Given the technical requirements, while the government can go deeper into the issue of inclusive classroom, some simple indicators could be developed for monitoring by community based institutions.

Sixth, good schools could act as exemplars for neighborhood schools and a system of mentoring of schools, particularly in educationally backward regions, would be institutionalized. A system of sharing of best practices would also be introduced. This means that schools should match the best practices from a variety of perspectives from other schools in the same region. All Kendriya Vidyalayas and Navodaya Vidyalayas, along with newly set up Model Schools, should undertake pace setting activities for neighborhood schools.

Seventh, sensitization and re-orientation programme for national, State and field-level functionaries of the education departments would be conducted to bring quality and learning outcome focus in their work. Quality indicators need to be included in the agenda of review meetings at all levels. This would include attendance of students and teachers, learning outcome, supportive supervision provided by the field functionaries, graduation/dropout rate and so on. Revamping MIS/reporting systems having Specific provision for reporting on quality issues and active involvement of parents in the monitoring of quality of education imparted in the schools will also be ensured.

TABLE 21.6
Roles in System Improvement

Stakeholder	Key Role
Teachers	Deliver classroom instruction Collaborate with peers to develop, and share pedagogical practices that raise learning outcomes Engage parents as needed to advance student performance
School Administrators	Define and drive school improvement strategy, consistent with direction from district/State headquarters Provide instructional and administrative leadership for the school Involve school community to achieve school improvement goals
District/Sub-district School Leadership	Provide targeted support to schools and monitors compliance Facilitate communication between schools and the State Encourage inter-school collaboration Buffer community resistance to change
State Leadership	Set system strategy for improvement Create support and accountability mechanisms to achieve system goals Establish decision rights across all system entities and levels Build up skills and leadership capacity at all system levels

Source: Adapted from 'Education: How the World's Most Improved Systems Keep Getting better' by Mona Moursled, Chinezi Chijioke

SAAKSHAR BHARAT

During the Eleventh Plan, Saakshar Bharat, a Centrally Sponsored Scheme that focused on women in particular and the disadvantaged groups in general,was launched. Saakshar Bharat is currently in operation in 372 districts. Under this scheme, functional literacy would be provided to 70 million adults(60 million women and 10 million men) in the age group of 15 years and above. Besides 3 million adults,half of them under basic education programme and the other half under vocational education andskill development programme are aimed to be covered. The scheme is anchored with Panchayati Raj Institutions and local self-government bodies and adopts a targeted approach with focus on women,SC, ST, and minorities; gives emphasis on quality;user context and group specific approach; promotes convergence and partnership and effectively uses ICT in implementation. ***Saakshar Bharat is using the concept of total quality management and is developing core curriculum framework for adult literacy.***

Though Saakshar Bharat is conceived as a variant of National Literacy Mission (NLM), yet due to hiatus during the Tenth Plan period, management structures under the NLM had become moribund. Thus, galvanizing the lamentation machinery for Saakshar Bharat was a huge challenge. Now that it is in third year of its operation, significant support for Saakshar Bharat has been mobilized. Through large scale countrywide environment building and mass mobilization campaigns, voluntary teachers/perks have been motivated and trained in large numbers

and community has been mobilized. A meaningful synergy between schemes of adult education, school education, departments of adult education in the universities, and other departments is being created.

HIGHER EDUCATION

 Higher education is critical for developing a modern economy, a just society and a vibrant polity. It equips young people with skills relevant for the labour market and the opportunity for social mobility. It provides people already in employment with skills to negotiate rapidly evolving career requirements. It prepares all to be responsible citizens who value a democratic and pluralistic society. Thus, the nation creates an intellectual repository of human capital to meet the country's needs and shapes its future. Indeed, higher education is the principal site at which our national goals, developmental priorities and civic values can be examined and refined.

It is estimated that developed economies and even China will face a shortage of about 40 million highly skilled workers by 2020, while, based on current projections of higher education, India is likely to see some surplus of graduates in 2020. Thus, India could capture a higher share of global knowledge based work, for example by increasing its exports of knowledge-intensive goods and services, if there is focus on higher education and its quality is globally benchmarked. The country cannot afford to lose time. The demographic bulge evident in India's population pyramid is encountering lower fertility rates, leading to a rapid slowdown in population growth rates and a looming decline of the population in the prime educable age up to 25 years within the next couple of decades.

Despite considerable progress during the Eleventh Plan, less than one-fifth of the estimated 120 million potential students are enrolled in HEIs in India, well below the world average of 26 per cent. Wide disparities exist in enrolment percentages among the States and between urban and rural areas while disadvantaged sections of society and women have significantly lower enrolments than the national average. The pressure to increase access to affordable education is steadily increasing with the number of eligible students set to double by 2020. At the same time, significant problems exist in the quality of education provided. The sector is plagued by a shortage of well-trained faculty, poor infrastructure and outdated and irrelevant curricula. The use of technology in higher education remains limited and standards of research and teaching at Indian universities are far below international standards with no Indian university featured in any of the rankings of the top 200 institutions globally.

The key challenge is to find a path to achieve the divergent goals for the growth of higher education in India. Combining access with affordability and ensuring high-quality undergraduate and postgraduate education are vital for realizing the potential of the country's 'demographic dividend. Future expansion should be carefully planned so as to correct regional and social imbalances, reinvigorate institutions to improve standards and reach international benchmarks of excellence, match demand with supply by improving employability, and extend the frontiers of knowledge.

GOVERNANCE

The government needs to play a sensitive and less intrusive role in the governance and regulation of higher education than it does at present. In place of a uniform regulatory role in respect of all institutions, the government's role could be calibrated according to the type of institution involved. While, the government could have a promotional and evaluative role for

upper-tier institutions, it may play a steering role in mid-tier institutions, and should actively regulate the lower-tier institutions. The governance structure should also enable institutions to increasingly differentiate themselves through course diversity, multi-disciplinary programmes and other approaches. Enabling differentiation requires a new regulatory structure that encompasses all fields of education rather than the current structure that separates the regulation of technical fields from other fields. In this context, a paradigm shift in governance is needed. It should shift from inspection-based processes to Autonomy and accountability through independent third-party validation, regulation by mandatory self- disclosures, and objective evaluation schemes. The overall approach is to allow institutions to make their own policies and decisions within a broadly defined memorandum of understanding on performance. National-Level Governance

Based on the recommendations of the National Knowledge Commission (2005) and the Committee on Renovation and Rejuvenation of Higher Education (2009), steps were initiated during the Eleventh Plan to create a new legislative framework and provide a new governance structure for higher education in the country. For this purpose, several new laws are currently under consideration:

(*i*) *The Prohibition of Unfair Practices in Technical Educational Institutions, Medical Educational Institutions and Universities Bill aimed at checking unfair practices relating to capitation fees and misleading advertising through mandatory disclosures by academic institutions;*

(ii) The National Accreditation Regulatory Authority for Higher Educational Institutions Bill that seeks to make accreditation by independent accreditation agencies mandatory for all higher educational institutions;

(iii) The Education Tribunals Bill to create a Central tribunal and State-level tribunals for expeditious resolution of disputes relating to institutions, faculty, students and regulatory authorities;

(iv)Foreign Educational Institutions (Regulation of Entry and Operations) Bill to enable quality foreign education institutions to enter and operate in India and regulate operations of foreign education providers;

(v) National Commission for Higher Education and Research (NCHER) Bill to create an umbrella regulatory authority subsuming the UGC, and current regulators, AICTE, NCTE and DEC; and

(vi)The National Academic Depository Bill, 2011, to create a repository of all academic credentials in the country

These new laws together reflect the Government's focus on quality, accountability, access, and inclusion and on preparing the country's higher education system for a more competitive globalizing world. These reforms would enable and facilitate innovative and high-quality institutions to grow, while making it difficult for poor-quality institutions to operate. In the next few years, a new governance structure at the national-level consisting primarily of the NCHER, National- and State-level Tribunals and the National Authority for Accreditation would be in place.

In the meantime, the UGC and other regulatory agencies have an opportunity to revitalize themselves to ensure a smooth transition to the NCHER. In this context, a review of internal processes and staff capabilities is essential and agencies should draw up year-wise transformative action plans. In addition, the UGC could immediately implement a number of innovative financing schemes that could impact the state of higher education significantly. For example,

(i) the UGC could shift from its current scheme-based approach to more effective programmatic

interventions including norm-based financing of institutions;

(ii) it could consider a move from historically determined detailed operational budgets to formula-based funding for general operations;

(iii) it could start strategic funding of innovative programmes to promote certain activities/ changes/investments based on institutional Education proposals evaluated selectively and competitively;

(iv) finally, the UGC or some other Central agency could further play a leading role in longitudinal profiling of students as they transition through the higher educational cycle into the workplace and could also play a role in institutional benchmarking on a longitudinal basis.

State-Level Governance

The structure of governance of higher education and their legislative framework varies widely across the States. All States will be encouraged to undertake a review of their current legislative and governance arrangements with a view to preparing themselves for the unique challenges they face in higher education.

It would be desirable for each State (except small States) to set up a State Council for Higher Education to lead the planned and coordinated development of higher education in the State and to foster sharing of resources between universities, benefit from synergy across institutions, lead academic and governance reforms at the institution level, maintain databanks on higher education and conduct research and evaluation studies. In small States, the main affiliating university can perform this role. Private universities and colleges form a bulk of higher education in several States. States could also establish independent agencies to regulate private HEIs.

Institutional Level Governance

Academic institutions primarily rely on individual initiative and creativity to develop their unique institutional culture and tradition over a long period of time. Principles of academic freedom, shared governance, meritocratic selection, promotion of diversity and institutional accountability are defining features of a well-governed academic institution. Moreover, the oversight, governance and management of HEIs should be closely tied to their mission. For this the current practice of treating all institutions alike will need to be abandoned. There is a need to move away from enforcing standardization of education and processes to allow for diversity in institutional types, missions, resources and privileges. This would require a categorization of institutions of higher education, with each category of institutions being treated differently for purposes of academic regulation, governance and funding.

Empirical evidence suggests that better-run institutions are highly autonomous, especially when autonomy over academic matters vests with faculty. Autonomy in the areas of finance, organizational structure, operations and staffing is also important, but should be consistent with internal systems of evaluation and accountability and tied to the mission of the institution. Recently the Central Government has taken several measures to loosen its grip over institutions funded by it, as in the case of the Indian Institutes of Management, where the government no longer has any role in the selection of Board members. The Board plays the key role in the selection of the Director, though the final decision is still made by the government. The government has also explicitly promoted autonomy in State-funded institutions through programmes like the Technical Education Quality Improvement Programme. This process of freeing public institutions from government controls would be

continued in the Twelfth Plan. This would be based on a framework for autonomy on all its five dimensions.

Institutional autonomy and external discipline arising from competitive grants and competition for students and faculty go hand in hand. For effective institutional governance, there is a need to shift towards smaller and more effective governing bodies that have several external experts that the universities select themselves, faculty representation and alumni that value the reputation of the institution. Given the potential positive contribution that the alumni can make in the growth of institutions, well-established institutions, with over 10 years in existence should have a fair representation of the alumni in their governing bodies. Overall, competition amongst institutions with nimble and professional governing boards responsive to external change would be encouraged in the Twelfth Plan.

FINANCING STRATEGY: *Review of Funding Trends*

India faces a huge challenge to fund its rapidly growing higher education sector. Overall, the country spent about 1.22 per cent of its GDP on higher education in 2011–12. Household spending and investments by the private sector have grown more rapidly than government spending on higher education in recent years. Government pending, and particularly State Government spending, has fallen far short of the funding requirement in the

face of a dramatic expansion of the system and the rising expectations of the people in terms of quality, equity and access. The Central and the State Governments jointly fund higher education. The Central Government's share is about 30 per cent, while the State Governments spend the balance 70 per cent mostly under the non-Plan head. Table 21.13 shows the funding responsibilities of Central and State Governments for the country's universities and colleges.

TABLE 21.13
Funding Responsibility for Universities and Colleges

Funding Responsibility	Universities	Colleges
Central govt. (both Plan and Non-Plan)	152	69
Central govt. (Plan only for State institutions via UGC)	144	6,285
State govt. (both Plan and Non-Plan)	316	13,024
No funding from Central or State Govt(s)	191	19,930

Source: Planning Commission.

Overall, central funding of State institutions is meager. Together the State systems enrolled 15 times more students than Central institutions, but received only one-third of the Plan grants during the Eleventh Plan. Half of the Central Plan funds (`20,630 crore) went to Central institutions, with State universities, colleges and Polytechnics receiving just about `10,446 crore. In addition, Central institutions received about `25,000 crore as non-Plan grants during the Eleventh Plan period, while the State institutions do not receive any non-Plan grants.
Consequently, State universities and colleges face serious financial difficulties that often result in poor
quality.

The government spending on higher education has grown steadily over the years. Central Plan spending grew most rapidly from `1,600 crore in 2005–06 to `13,100 crore (over eight times), while State Plan funding increased much less. On the non-Plan side, while Central spending increased two and a half times, State non-Plan funding just
about doubled during the same period. Thus, State Government spending has been growing slower than
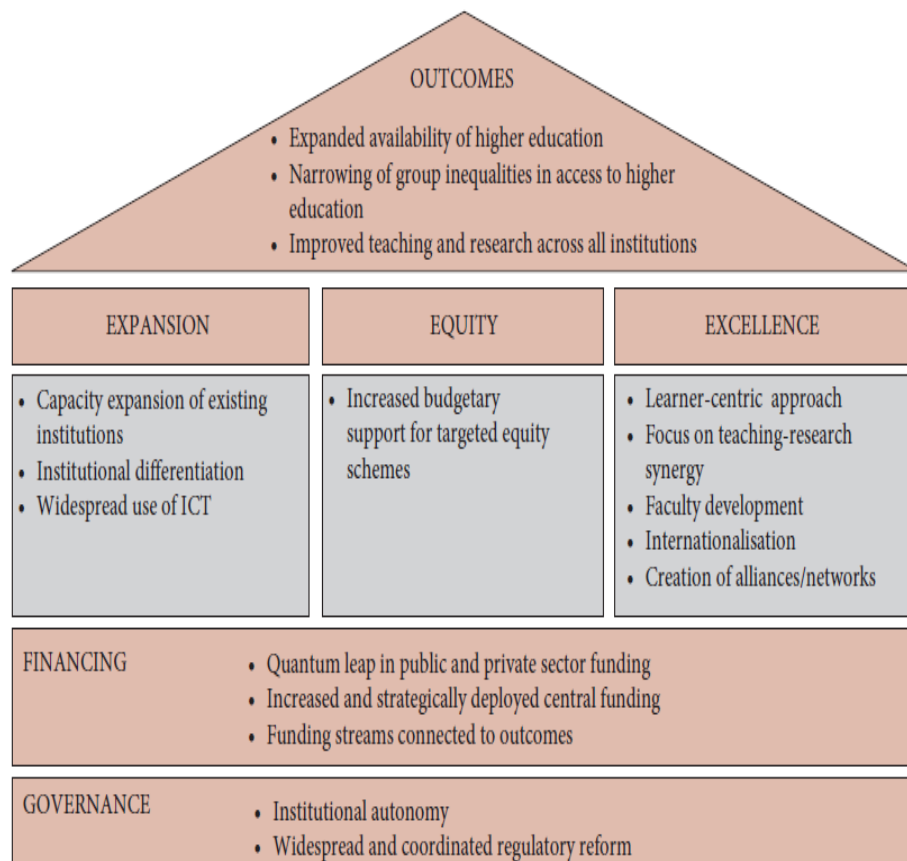Central spending and the rise in funding levels do not match the rapid expansion of the State higher
education systems.

The share of education in total Plan outlay increased from mere 6.7 per cent in the Tenth Plan to 19.4 per cent for the Eleventh Plan, of which 30 per cent was earmarked for higher education. This was a nine-fold increase over the Tenth Plan—`84,943 crore against `9,600 crore during the Tenth Plan. Actual expenditure during the Eleventh Plan has been `39,647 crore (45.6 per cent of the Plan outlay). This was mainly due to the fact that funds were not allocated as per the approved outlays. It may be worthwhile to note that there is a committed investment
of over `53,200 crore for activities initiated in the Eleventh Plan. A large part of this would in new Central institutions established during the Eleventh Plan, where investment so far has been very small.

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Box 21.7
Enrolment Target for the Twelfth Plan

Additional enrolment capacity of 10 million students including 1 million in open and distance learning would be created by the end of the Twelfth Plan. This would enable roughly 3 million more students in each age cohort to enter higher education and raise the country's GER from 17.9 per cent (estimated for 2011–12) to 25.2 per cent by 2017–18 and reach the target of 30 per cent GER by 2020–21 which would be broadly in line with world average.

OUTCOMES

- Expanded availability of higher education
- Narrowing of group inequalities in access to higher education
- Improved teaching and research across all institutions

EXPANSION	EQUITY	EXCELLENCE
• Capacity expansion of existing institutions • Institutional differentiation • Widespread use of ICT	• Increased budgetary support for targeted equity schemes	• Learner-centric approach • Focus on teaching-research synergy • Faculty development • Internationalisation • Creation of alliances/networks

FINANCING
- Quantum leap in public and private sector funding
- Increased and strategically deployed central funding
- Funding streams connected to outcomes

GOVERNANCE
- Institutional autonomy
- Widespread and coordinated regulatory reform

References

1. Gini coefficient is a measure of inequality. Zero value shows perfect equality where all values are the same, while value of one shows maximal inequality.

2. Total enrolment as a percentage of the child population in specified age groups including under-age and over- age children.

3. Percentage of age-specific enrolment to the estimated child population in specified age-groups.

4. DISE, 2010–11.

5. IMRB, 2009.

6. IMRB, 2005, 2009; ASER-Rural, 2011.

7. ASER, 2011.

8. ASER, 2011.

9. UNESCO, 2010.

10. ASER, 2010.

11. NSS, 2007–08.

12. Globally, enrolment in the 18–22 age cohorts is used to measure the GER. Using the global definition GER

increased from 15.2 per cent in 2007–08 to 20.2 per cent in 2011–12.

13. Students enrolled in ODL programmes might not register in each semester/year. They usually take longer than students enrolled in regular programmes to complete their studies, and a large proportion of ODL students are older than those in the traditional age cohort and some of them may also be enrolled in regular programmes.

14. This survey was conducted by the Centre for International Higher Education at Boston College and Laboratory

of Institutional Analysis (LIA) at the Higher School of Economics (Russia). See http://acarem.hse.ru/.