



Indian Education Sector: Teachers' Education in India

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Highlight

India has witnessed several monumental changes in the field of elementary education in the last decade. With the commencement of Right to Free and Compulsory Education Act in 2009, there have been a series of opportunities to strengthen the quality of primary education in India. Schools are accessible to most children, both student enrollment and attendance are at their highest level, and teachers are adequately remunerated. The Right to Education (RTE) Act guarantees a quality education to a wider range of students than ever before. However, challenges in implementing and monitoring high standards in teaching and learning across regional, cultural and socioeconomic subsets prevent India from fully achieving this goal. In addition, teacher support and scalability of high-performing teaching professionals in disparate areas, funding allocation for schools in remote districts and limited use of technology in the classroom remain barriers to reforming primary education.

India has made concentrated efforts to modify and modernize teacher education curricula to suit the requirements of contemporary educational needs of the society and instill greater professionalism and commitment in practicing teachers through pre-service and continuous in-service teacher education programmes. An analysis of the recommendations of various commissions, committees and the education policy of India reveals the efforts of policy planners to bring qualitative improvement in teacher education system along with quantitative expansion of the facilities. Efforts have been made to make teacher education curricula responsive to the contextual needs of emerging society, and break the isolation of teacher education institutions.

Furthermore, in order to develop India as a consumer market of global standards, it is imperative that all of its children reap the full benefits of a high-quality education. Otherwise, large segments of the population in rural India will continue to have low purchasing power, find themselves in highly leveraged scenarios and, more often than not, continue to make a living through agricultural means. While some of this can be attributed to deficiencies in secondary and tertiary education, the root of these issues lies in low-quality primary education.

Background

The Global Education Sector

The education sector, including expenditure on national education systems, is currently the second largest global market after healthcare, with total global expenditure estimated to be ₹270tr in 2012. As a result of demographic change and high levels of expenditure by emerging economies, the sector is forecast to grow by a compound annual growth rate of 7% per year over 2012-17, resulting in a global market size of ₹378tr in 2017. Over two-thirds of the world's 793 million illiterate adults are found in only eight countries (India, China, Bangladesh, Pakistan, Nigeria, Ethiopia, Brazil and Egypt). Extremely low literacy rates are concentrated in three regions, South and West Asia, Sub-Saharan Africa, and the Arab states, where around one-third of the men and half of all women are illiterate. Globally, 570 million children are enrolled in school.

Table 1: Regional Literacy Rate¹

Region	Adult (15+ Years)	Youth (15-24 Years)
	Literacy Rate	Literacy Rate
World	83.7%	89.3%
Africa	63.3%	74.5%
North America	95.8%	97.7%
South America	91.9%	98.0%
Asia	81.9%	90.2%
Europe	99.2%	99.6%
Oceania	93.1%	91.3%

Table 2: Expenditure as a percentage of GDP²

Country	Education Expenditure (% of GDP)	Reported Year
India	3.4%	2012
China	3.5%	2012
USA	5.4%	2010
UK	6.2%	2010
Germany	5.1%	2010
Japan	3.9%	2012
Australia	5.1%	2011

Expenditure per student by educational institutions is largely influenced by teachers' salaries, pension systems, instructional and teaching hours, the cost of teaching materials and facilities, the programme provided, and the number of students enrolled in the education system. Policies to attract new teachers or to reduce average class size or change staffing patterns have also contributed to changes in expenditure per student by educational institutions over time. The highest spending on educational institutions is in Chile, Denmark, Iceland, Israel, Korea, Norway and the United States. Nine out of 36 countries with available data spent 5% or less of GDP on educational institutions; in China, India, Indonesia and the Slovak Republic these shares are at or below 4.0%.

¹GSV EDU Education Sector Fact-book 2012

² <http://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS>

Indian Education Sector: An Overview

Education plays a vital role in the development and growth of a nation. It provides skills and competencies for economic well being. India has made considerable progress in school education since independence with respect to overall literacy, infrastructure and enrolment in schools.

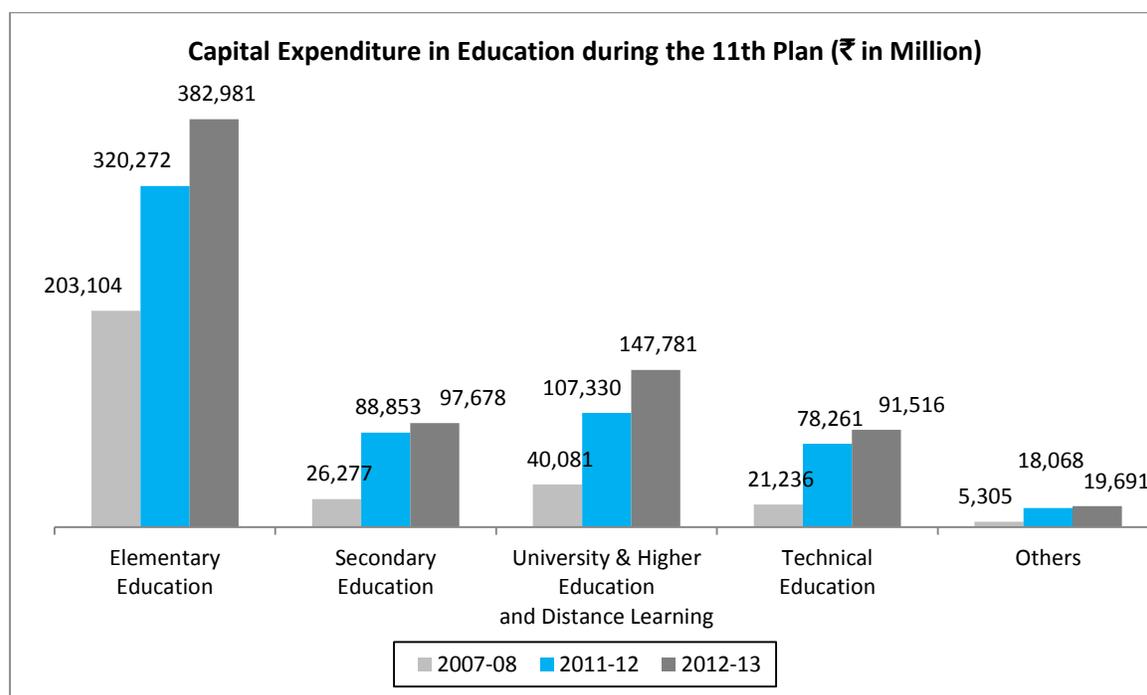
Table 3: Progress of Education Sector in India

Key Education Indicators	1950-51	2012-13
Primary Schools	210000	853870
Upper Primary Schools	13600	147339
Enrolment in Primary	19.2 Million	134.7 Million
Enrolment in Upper Primary	3 Million	64.82 Million
Public Expenditure on Education (% of GDP)	0.68%	3.01%
Literacy Rate	16.6%	74% (As of Census 2011)

India has the one of the largest student population in the world and a low literacy level of 74.04% as per Census 2011. With more than 1.4 million schools and 35,000 higher education institutes, India's education sector's size is ₹3833.1 billion in FY13. It is expected to reach ₹6024.1 billion by FY15 on account of increase in disposable income and increase in awareness levels pertaining to importance of education.

The budgetary allocation and expenditure by the central government has increased significantly between 2007-08 and 2011-12. It has doubled in the case of elementary education and has risen by more than three times for secondary and higher education.

Figure 1: Government spending on the Sector over the years



Almost the entire allocation in the budget for education by the central government is spent through different schemes such as Sarv Sikhsha Abhiyaan, to particular organizations and institutions such as the Kendriya Vidyalaya Sangathan (KVS) to targeted scholarship schemes for girl students.

Elementary Education in India: Recent Developments

Elementary education comprising primary (Class I to IV) and upper primary (Class VI-VIII) form the foundation of the education pyramid. The Government of India initiated a number of programmes to achieve the goal of universalisation of elementary education under which concerted efforts have been made towards strengthening the Educational Management Information System in case of elementary level of education. From 853,601 schools in 2002-03, the number of schools has increased to 1,196,663 schools in 2006-07 to 1,431,702 in 2012-13. Of the total schools, about 85.99 percent schools are located in the rural areas.

Category-wise distribution of schools reveals that majority of the schools (59.64 percent) are independent primary schools. There were as many as 68202 and 239776 schools in 2012-13 being managed by private aided and private unaided management respectively. The percentage of government and government-aided schools is as high as 80.66 which show that eight out of every ten schools imparting elementary education in the country is funded by the government. During the period 2002-03 to 2012-13, as many as 198,113 primary schools have been opened which is 23.20 percent of the total primary schools in the country. More than 95 percent of such schools have a building. Not only has the number of schools and schools with buildings increased but also the average number of instructional rooms has increased across the country which is essential for smooth teaching-learning transaction.

Table 4: Primary Education Performance Indicator

Key Education Indicators	2010-11	2011-12	2012-13
Student Specific Indicator			
- Gross Enrolment Rate-Primary	118.62	-	105.98
- Net Enrolment Rate- Primary	99.89	-	90.78
- Transition Rate from Primary to Upper Primary School	85.17	87.09	86.02
- Retention Rate	73.42	75.94	78.65
School Specific Indicators			
- % primary schools with single teacher	11.80	10.80	11.79
- Pupil Teacher Ratio	32	31	28
- Average Student Classroom Ratio	31	30	27
- Average Number of Teacher per School	3.1	3.1	3.1
- % primary schools with girls toilet		65.40	85.28
- % primary schools with drinking water	91.12	93.73	92.71
Teacher Specific Indicators			
- % primary teachers with education above 12+3 level	22.29	21.43	26.96
- % primary teachers with professional teaching certificate	78.66	79.58	78.58
- % female teachers	45.51	46.27	46.37

India has made huge strides in increasing enrolment at elementary level (Grades 1 to 8) due to the Sarva Shiksha Abhiyaan (SSA) programme and the Right to Free and Compulsory Education Act (2009) which makes education a fundamental right for all children aged 6 to 14 years.

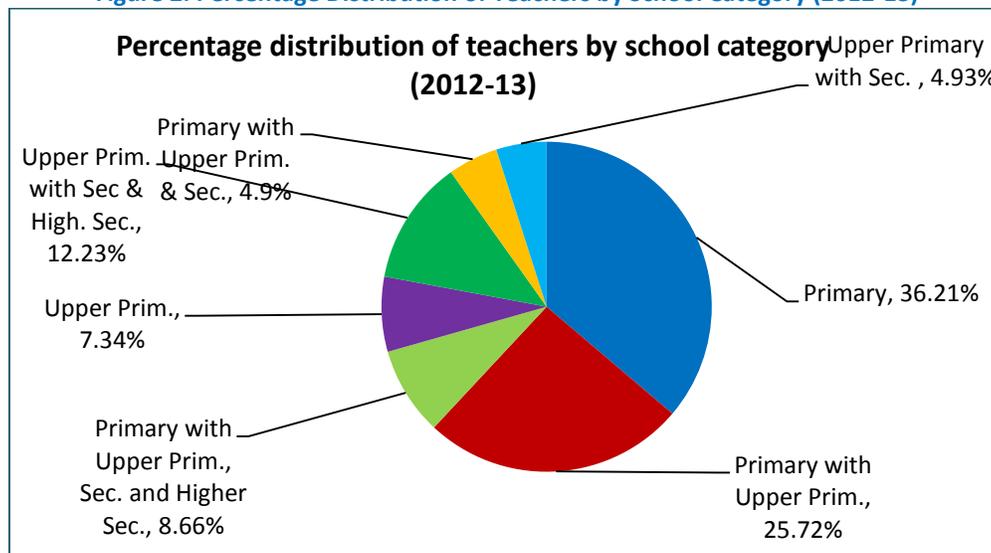
The challenge, however, lies in correcting the imbalance in teacher deployment. School-wise analysis based on District Information System for Education (DISE) 2009–10 indicates that 46 per cent of primary and 34 per cent of upper primary schools have poor Pupil Teacher Ratio (PTR). Another serious challenge 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 percent of them.

Teacher Professional Development

Teachers are undoubtedly the most crucial component of a schooling system. Teachers also happen to be the most costly resource in schools. Hence, no education reform effort may be effective unless the competency of the teachers is ensured. The teacher must be equipped with skills to handle both the teachers and parents so that the children are regular in school and learn.

Figure 2: Percentage Distribution of Teachers by School Category (2012-13)

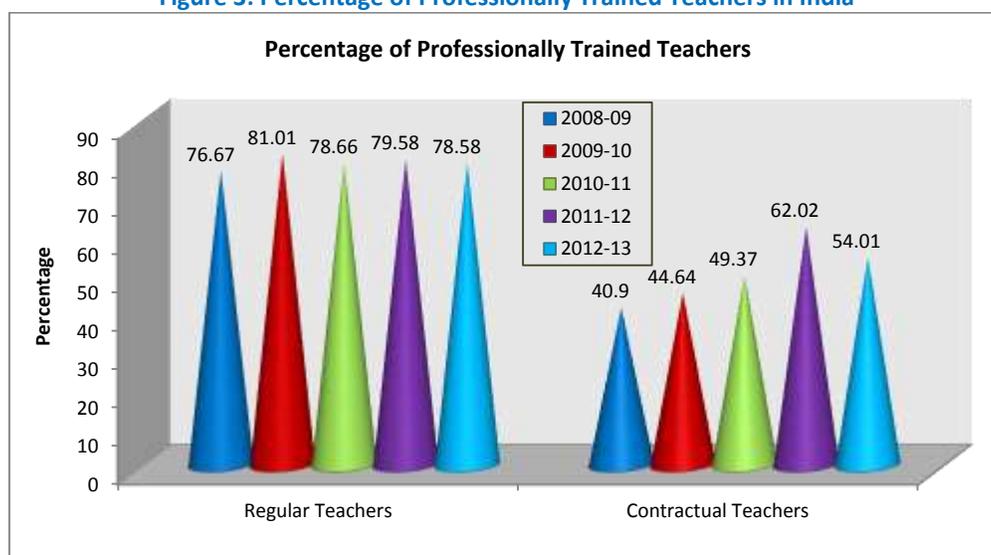


Availability of competent teachers in schools is an important variable for quality education. The total number of teachers in 2012-13 suggests that about 7.35 million (6.70 million in the previous year) of them are engaged in imparting elementary education in the country. Increase in the number of teachers is also reflected in the pupil-teacher ratio which has shown consistent improvement. Overall PTR was hovering around 28 and has reduced significantly from 36 in 2005-06.

Profile of Teachers in India

With the expansion of the government schooling in India, teachers have been recruited massively over the past two decades. As a result, the demographic profile of teachers changed significantly in many ways such as increasing the presence of women, lower age groups, lower caste groups, and more local recruits in the work force. Furthermore, as per the DISE report for elementary education (2012-13) it was revealed that the educational qualifications of regular and permanent recruits are not likely to differ significantly. However, the latter has significantly greater experience in teacher training.

Figure 3: Percentage of Professionally Trained Teachers in India



The DISE reports for 2012-13 also revealed that approx. 46.37% of the teachers are female and this percentage has increased over the years with only 40.33% of female teachers in 2005-06.

Education Background

India has one of the largest systems of teacher education in the world. Besides the university departments of education and their affiliated colleges, government and government aided institutions; private and self-financing colleges and open universities are also engaged in teacher education. Though most teacher education programmes are identical, yet their standard varies across institutions and universities. In certain areas, the supply of qualified teachers far exceeds the demand while in others there is an acute shortage of qualified teachers which results in the appointment of under-qualified and unqualified persons.

Table 5: Percentage distribution of teachers by educational background (2012-13) (Excluding Contractual)

Teachers by Academic Qualification & School Category	Below Secondary	Secondary	Higher Secondary	Graduate	Post Graduate	M. Phil	Ph. D	Post Doctoral
Primary	2.99	15.38	28.72	34.45	17.72	0.48	0.18	0.01
Primary with Upper Primary	3.23	15.69	27.63	35.91	16.68	0.52	0.34	0.01
Primary with Upper Primary, Secondary and Higher Secondary	2.53	4.04	9.54	40.03	41.09	2.19	0.51	0.04
Upper Primary	1.98	5.21	18.52	39.9	33.46	0.56	0.22	0.02
Upper Primary with Sec & High. Sec	0.59	3.98	5.64	37.76	47.66	3.86	0.45	0.05
Primary with Upper Primary & Sec	3.21	6.37	16.25	47.36	25.60	0.69	0.5	0.02
Upper Primary with Secondary	1.13	6.53	9.32	51.69	30.16	0.79	0.36	0.03
All	2.55	11.34	21.42	37.70	25.52	1.10	0.32	0.02

Status of Teachers' Training in India

The National Council of Teacher's Education (NCTE) is the apex regulatory body for teachers' education and setting down the rules for everything from eligibility to facility standards. The NCTE lays down norms and standards for various teacher education courses, minimum qualifications for teacher educators, course and content and duration and minimum qualification for entry of student-teachers for the various courses. It also grants recognition to institutions (government, government-aided and self-financing) interested in undertaking

such courses and has in-built mechanism to regulate and monitor their standards and quality. However, NCTE norms are guidelines and states can adjust as per their local conditions.

For in-service training, the country has a large network of teacher training institutions (TTIs), which provide annual in-service training to school teachers. The spread of these TTIs is both vertical and horizontal. At the National Level, the National Council of Educational Research and Training (NCERT), along with its 6 Regional Institutes of Education (RIEs) prepares a host of training modules and undertakes specific programmes for training of teachers and teacher educators.

Table 6: Percentage Distribution of Teachers Received In-Service Training

	2010-11	2011-12	2012-13
All Schools	29.59	34.23	25.75
All Government Schools	40.21	47.01	36.77
All Aided Schools	32.00	39.15	25.32
All Unaided Schools	1.83	3.26	2.92

As can be depicted by the table above, only 25.75 percent teachers received in-service training in 2012-13 and this has decreased from 34.23 percent in 2011-12. This depicts poor training imparted and can be attributed, partly shortage of faculty for teacher education and partly because of geographical imbalances. In addition, teacher training institutes are concentrated in urban areas. Thus, rural areas – where literacy levels have traditionally been lower – end up with fewer trained teachers.

Key Policies of Teachers' Training in India

National Council of Teacher Education: A statutory body of the Central Government is responsible for planned and coordinated development of teacher education in the country. The NCTE lays down norms and standards for various teacher education courses, minimum qualifications for teacher educators, course, content, duration and minimum qualification for entry of student teachers for the various courses. It also grants recognition to institutions (government, government-aided and self-financing) interested in undertaking such courses and has in-built mechanism to regulate and monitor their standards and quality. For in-service training, the country has a large network of government-owned teacher training institutions (TTIs), which provide in-service training to the teachers.

Centrally Sponsored Scheme on Teacher Education: The main components of the revised Scheme are as under:

- Strengthening and up-gradation of State Councils for Educational Research and Training Institute of Education
- Strengthening of existing Improvement of Institutes of Advanced Education (IASEs) and up-gradation of Departments of Education of Universities into IASEs
- Strengthening of College of Teacher Education (CTEs) and establishment of new CTEs
- Strengthening of existing District Institute of Educational and Training (DIETs) and extending their mandate for training of teachers at the secondary level.
- Establishment of Block Institutes of Teacher Education (BITEs) in 196 identified SC/ST/ Minority concentration districts as elementary pre-service teacher education institutions

Problems Pertaining to Teachers and Teachers' Training

- **Lack of uniformity in the training imparted due to several types of Teacher Education Institutions:** With increasing enrolment and launch of various primary education development programme, there was an unprecedented increase in the demand of the teachers. This led to an increase in the teacher education institutions. Due the proliferation of self-financing institutions for various teacher education courses, there has been no uniformity in terms of curriculum and duration of the training programme. Also it is not certain whether the training imparted by these institutes are able to create the ability, attitude and subject knowledge required for becoming a good teacher. The capacity of Teacher Education Institutes (TEI) is extremely fragmented with over 11 lakh seats in 14,000 TEIs. Most of this capacity is of poor quality that has been created through non-transparent, poorly formulated TEI recognition procedures. Hence, there is a need to create a monitoring mechanism for quality assurance and evaluation of the teacher education process.
- **High Absenteeism of Teachers:** Teacher absenteeism is considered a major obstacle in achieving goals of universalisation of elementary education under RTE Act. Quality of learning in the classroom can only be ensured with full involvement of the teachers. If the teachers are not present on a working day and no teaching takes place in that case, either the prescribed course of any given class will not be completed or it will be completed in an unsatisfactory manner. Teacher training is going to prove helpful in reinenforcing teacher's professional motivation and therefore may lead to improvement in attendance.
- **Uneven Distribution of Teachers in State:** One of the major problems confronting the States with large teacher vacancy is the inadequate number of teacher education institutions (and their annual intake capacity) vis-à-vis the annual demand for teachers. This is particularly true for States of Bihar, Jharkhand, Orissa and Chhattisgarh. The imbalance in respect of these states is evident from the following table.

Table 7: Progress of Education Sector in India

State	Annual Intake for D. Ed.	Annual Intake for B. Ed.	Annual Intake for M. Ed.	Teacher Vacancy
Assam	1320	4310	85	42550
Bihar	2000	6210	75	262351
Jharkhand	1460	5550	100	43839
Orissa	3290	1775	170	25138
Chhattisgarh	2070	10280	520	62466
West Bengal	4180	13505	200	180945

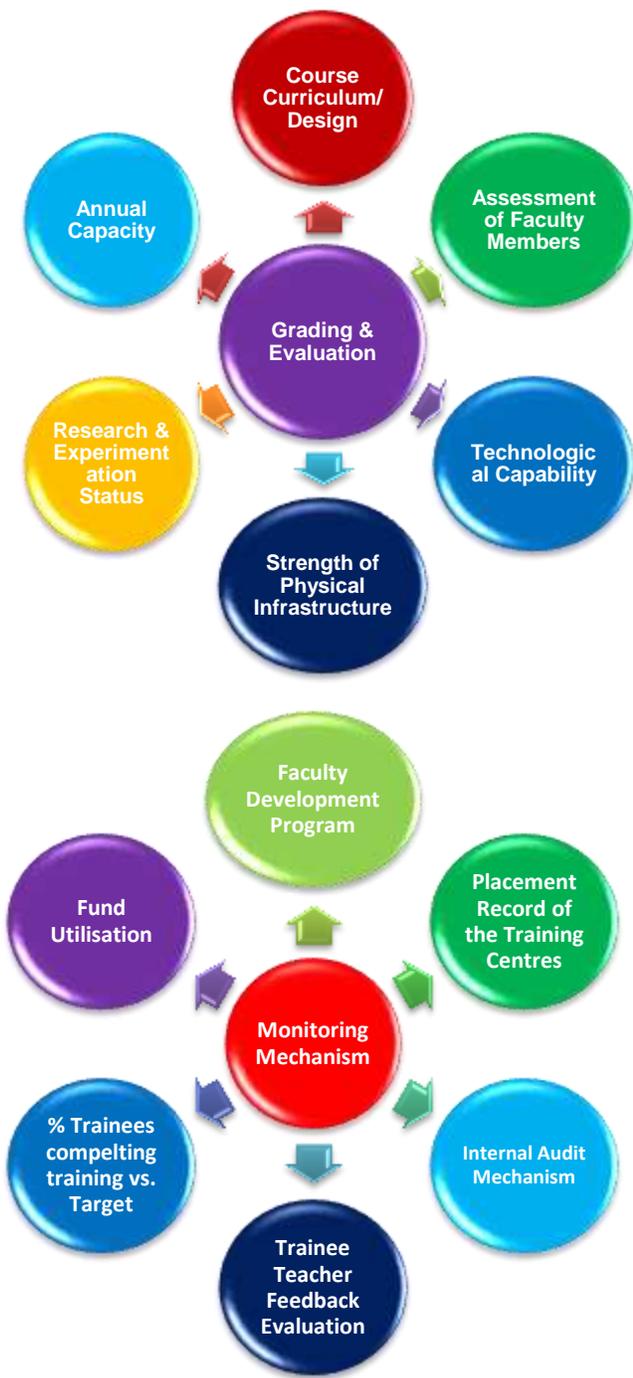
Analysis

Grading and Monitoring of Teacher Education Institute is going to be beneficial in maintaining the quality of training imparted to the student-teachers

Indian policymakers need to focus on improving the quality of teaching in the country, rather than just expanding access to education. Quality teacher education, both pre-service and in-service is a national priority. It is therefore imperative to integrate the planning for teacher education institutions across the country and prioritize and address issues in a manner to address shortage of trained teachers, on-going capacity development of in-service teachers, infrastructure up-gradation of teacher education institutions and functional diversification and rationalization among them.

An integrated monitoring system of the different teacher education institutions for academic monitoring and functioning, assessing the needs of the teachers and building them back into their training needs to be built in. There must be a mandatory and periodic inspection of teacher education institutions so as to keep a check on institutions to ensure that they adhere to recognition norms along with a quality check of the education given to student-teacher.

To conclude, professionalism needs to be instilled in each and every phase of teacher preparation starting from conceptualization to evaluation and appraisal to prepare professionals and improve the quality of education.



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