Ministry of Human Resource Development

National Policy on Education 2016

Report of the Committee for Evolution of the New Education Policy

Government of India

30/04/2016

Committee for Evolution of the New Education Policy

(Ministry of HRD, Government of India)
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T.S.R. Subramanian
Chairman

No.F.01/NEP-2015
April 30, 2016

Dear Minister,

We attach the report of the Committee for the Evolution of the New Education Policy, constituted by your Ministry vide order No. 7-48/2015-PN-II dated 31st October 2015.

The structure of the Report is as follows. After the Preamble, Chapter 2 outlines the methodology followed by the Committee; Chapter 3 provides background information on the Education Sector of India, leading up to the need for a new Policy in Education. These are followed by an analysis relating to school education, higher education, some institutional issues as well as some overarching issues in chapters 5 to 8. The recommendations, outlined in the various chapters, are summed up in Chapter 9, which is the Policy recommended by the Committee; this can also be seen as the Executive Summary of the Report.

It was also envisaged that a framework for action on the recommendations would be part of the report. The Committee feels that it will be more appropriate if the implementation framework can be decided after Government considers the recommendations and the necessary policy decisions are taken.

The Committee would hope that the policy recommendations would lead to improvement in the state of education in the country.

(J.S. Rajput)
Member

(Shailaja Chandra)
Member

(Seva Ram Sharma)
Member

(Sudhir Mankad)
Member

(T.S.R. Subramanian)
Chairman

The Hon'ble Minister for Human Resource Development
Ministry of Human Resource Development
Shastri Bhawan
New Delhi - 110001

Abbreviations and Acronyms

AICTE	:	All India Council for Technical Education
AISHE	:	All India Survey on Higher Education
AIU	:	Association of Indian Universities
API	:	Academic Performance Index
ASER	:	Annual Status of Education Report
AYUSH	:	Ayurveda, Unani, Siddha and Homeopathy System
BCI	:	Bar Council of India
B.Ed.	:	Bachelor of Education
B.A.	:	Bachelor of Arts
B.Sc.	:	Bachelor of Science
B. Pharma	:	Bachelor of Pharmacy
BRCs	:	Block Resource Centres
CABE	:	Central Advisory Board of Education
CBSE	:	Central Board of Secondary Education
CCE	:	Continuous and Comprehensive Evaluation
CCH	:	Central Council of Homeopathy
CCIM	:	Central Council of Indian Medicines
CEHE	:	Council for Excellence in Higher Education
COA	:	Council of Architecture
CLASS	:	Computer Literacy and Studies in Schools
CSO	:	Central Statistical Office
CSIR	:	Council for Scientific and Industrial Research
CWSN	:	Children with Special Needs
DCI	:	Dental Council of India
DEC	:	Distance Education Council
DEO	:	District Education Officer
DIET	:	District Institute of Education and Training
DISE	:	District Information System for Education
U-DISE	:	Unified District Information System for Education
DPEO	:	District Primary Education Officer
DPEP	:	District Primary Education Programme
ECCE	:	Early Childhood Care and Education

EGS	:	Education Guarantee Scheme
FIDC	:	Faculty Induction Development Cell
GDP	:	Gross Domestic Product
GER	:	Gross Enrolment Ratio
GIS	:	Geographic Information System
HEIs	:	Higher Education Institutions
ICAR	:	Indian Council of Agricultural Research
ICDS	:	Integrated Child Development Services
ICSE	:	Indian Certificate of Secondary Education
ICT	:	Information and Communications Technology
IEC	:	Indian Education Service
IEDSS	:	Inclusive Education for Disabled at Secondary Stage
IGNOU	:	Indira Gandhi National Open University
IME	:	Institute of Management and Engineering
INC	:	Indian Nursing Council
IISc	:	Indian Institute of Science
IIT	:	Indian Institute of Technology
IITB	:	Indian Institute of Technology, Bombay
IITD	:	Indian Institute of Technology, Delhi
IITM	:	Indian Institute of Technology, Madras
IIIT	:	Indian Institute of Information Technology
IT	:	Information and Technology
IPRC	:	Identification, Placement and Review Committee
IQA	:	Internal Quality Assurance
IRAHE	:	Indian Regulatory Authority for Higher Education
JNVs	:	Jawahar Navodaya Vidyalayas
JSS	:	Jana Sikshan Sansthan
KVS	:	KendriyaVidyalayaSangathan
MCI	:	Medical Council of India
MCQs	:	Multiple Choice Questions
MDMS	:	Mid Day Meal Scheme
MGDS	:	Millennium Development Goals
MHRD	:	Ministry of Human Resource Development

MIC	:	Modern Indian Language
MI	:	Micronutrient
MME	:	Monitoring, Management and Evaluation
MOOCs	:	Massive Open Online Courses
MSDE	:	Ministry for Skill Development and Entrepreneurship
MWCD	:	Ministry of Women and Child Development
NAA	:	National Accreditation Agency
NAAC	:	National Assessment and Accreditation Council
NAEP	:	National Adult Education Programme
NAS	:	National Assessment Survey
NBA	:	National Board of Accreditation
NCVT	:	National Council for Vocational Training
NCERT	:	National Council for Educational Research and Training
NCFTE	:	National Curriculum Framework for Teacher Education
NCTE	:	National Council for Teacher Education
NER	:	Net Enrolment Ratio
NET	:	National Eligibility Test
NGO	:	Non Governmental Organisation
NIOS	:	National Institute of Open Schooling
NIT	:	National Institute of Technology
NLM	:	National Literacy Mission
NLHE	:	National Law for Higher Education
NPE	:	National Policy on Education
NPNSPE	:	National Programme of Nutritional Support to Primary Education
NRAHE	:	National Regulatory Authority for Higher Education
NSDA	:	National Skill Development Agency
NSDC	:	National Skill Development Corporation
NSQF	:	National Skills Qualification Framework
NUEPA	:	National University of Educational Planning and Administration
NVS	:	Navodaya Vidyalaya Samiti
ODL	:	Open and Distance Learning
OECD	:	Organisation for Economic Cooperation and Development
PCI	:	Pharmacy Council of India

PTR	:	Pupil Teacher Ratio
PWD	:	Persons with Disabilities
Ph.D.	:	Doctor of Philosophy
QCI	:	Quality Council of India
RCI	:	Rehabilitation Council of India
RFLP	:	Rural Functional Literacy Project
RMSA	:	Rashtriya Madhyamik Shiksha Abhiyan
RTE	:	Right to Education
RUSA	:	Rashtriya Uchchatar Shiksha Abhiyan
SC	:	Scheduled Castes
SCERT	:	State Council of Educational Research and Training
SDGs	:	Sustainable Development Goals
SDCF	:	Single Data Capture Format
SET	:	State Eligibility Test
SIET	:	State Institute of Education Technology
SMCs	:	School Management Committees
SOUS	:	State Open Universities
SRCs	:	State Resource Centres
SSA	:	Sarva Shiksha Abhiyan
SSC	:	Sector Skill Council
ST	:	Scheduled Tribes
STC	:	Special Training Centres
TET	:	Teacher Eligibility Test
TLC	:	Total Literacy Campaign
TLF	:	Three Language Formula
TPs	:	Training Providers
UGC	:	University Grants Commission
UPSC	:	Union Public Service Commission
VET	:	Vocational Education and Training

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CHAPTER I

Empowering India through Quality Education

1.1. Introduction

"The most important and urgent reform needed in education is to transform it, to endeavour to relate it to the life, needs and aspirations of the people and thereby make it the powerful instrument of social, economic and cultural transformation necessary for the realization of the national goals. For this purpose, education should be developed so as to increase productivity, achieve social and national integration, accelerate the process of modernization and cultivate social, moral and spiritual values."

Report of the University Education Commission
(Dr. S. Radhakrishnan Commission), 1948-49

1.1.1 The 2016 National Policy on Education, which is being formulated nearly three decades since the last Policy, recognizes the criticality of Education as the most important vehicle for social, economic and political transformation. It reiterates the role of education in inculcating values, and to provide skills and competencies for the citizens, and in enabling him to contribute to the nation's well-being; strengthens democracy by empowering citizens; acts as an integrative force in society, and fosters social cohesion and national identity. One cannot over -emphasize the role of Education as the key catalyst for promoting socio-economic mobility in building an equitable and just society. It is an established fact that an education system built on the premises of quality and equity is central to sustainable success in the emerging knowledge economy. Education is a powerful tool for preparing our citizens in the knowledge society. Education will amalgamate globalization with localization, enabling our children and youth to become world citizens, with their roots deeply embedded in Indian culture and traditions.

1.2. The Education System in India

1.2.1. The Education System which was evolved first in ancient India is known as the Vedic system. The importance of education was well recognized in India, '***Swadeshe pujyate raja, vidwan sarvatra pujyate***' *"A king is honoured only in his own country, but one who is learned is honoured throughout the world.*" The ultimate aim of education in ancient India was not knowledge, as preparation for life in this world or for life beyond, but for complete realization of self. The Gurukul system fostered a bond between the Guru & the Shishya and established a teacher centric system in which the pupil was subjected to a rigid discipline and was under certain obligations towards his teacher. The world's first university was established in Takshila in 700 BC and the University of Nalanda was built in

the 4th century BC, a great achievement and contribution of ancient India in the field of education. Science and technology in ancient and medieval India covered all the major branches of human knowledge and activities. Indian scholars like Charaka and Susruta, Aryabhata, Bhaskaracharya, Chanakya, Patanjali and Vatsayayna and numerous others made seminal contribution to world knowledge in such diverse fields as mathematics, astronomy, physics, chemistry, medical science and surgery, fine arts, mechanical and production technology, civil engineering and architecture, shipbuilding and navigation, sports and games. The Indian education system helped in preserving ancient culture and promoting cultural unity and infused a sense of responsibility and social values. The ancient Indian education system has been a source of inspiration to all educational systems of the world, particularly in Asia and Europe.

1.2.2. During the freedom struggle, several leaders like Gokhale, Ram Mohan Roy and Gandhiji worked for better education for our people, particularly women. Despite their efforts, India's literacy rate at the time of independence was 12%. Subsequent developments in education sector have to be seen in the context of centuries of apathy and neglect.

1.2.3. In the seven decades after independence while much has been achieved, many would genuinely feel that India has not taken its rightful place in the comity of nations. At independence, India had sound institutional infrastructure and an administrative system that was the envy of the developing world; even taking into account the major achievement in standing out as a stable democracy, India seems to have lost its preeminent position mainly because of poor education and health standards, which are both the cause and the effect of the current situation.

1.2.4. Right to Education was recognized by the United Nations as fundamental to man – indeed as the UN was being established, India had argued vehemently in favour of education as a fundamental right. The 1968 and 1986-1992 National Education policies in India recognized education as a precondition for development and set out three critical issues in those policies – equity, accessibility and quality.

1.2.5. In the last twenty years, the educational scenario has seen major changes and new concepts such as rights-based approach to elementary education, student entitlement, shift in emphasis from literacy and basic education to secondary, higher, technical and professional education, the endeavour to extend universalization to secondary education, reshape the higher education scenario. Recent developments include a new impetus to skill development through vocational education in the context of the emergence of new technologies in a rapidly expanding economy in a globalised environment, need for innovative ways of student financing, addressing challenges of globalization and liberalization, recognition of multi-disciplinary and inter-disciplinary nature of learning and knowledge, efficient use of public resources and encouraging ways of enhancing private investment and funding.

1.2.6. Today, we find that as a result of efforts made during the last few decades, while accessibility, infrastructure and literacy levels have improved significantly, there remains much to be disturbed about when one reflects on the continuing inequity, and the poor quality of education.

1.2.7. It will not be an exaggeration to say that our education system is in disarray. Various evaluation studies show a decline in learning levels among school students. Teacher vacancies and teacher absenteeism continue to plague government schools in which dropout rates are still high. There is widespread corruption in appointments and transfers of teachers and also in according approval and recognition to educational institutions. Donations have to be paid for several kinds of admissions and are particularly rampant in engineering and medical education. Examination papers are leaked, copying is widespread and mark sheets are often rigged.

1.2.8. While these issues are elaborated in the report, the Preamble seeks to highlight the focus of the Committee's deliberations which was principally on improving the quality of education, and restoring the credibility of the education system. In an increasingly globalized and digital world, it is imperative for India to significantly change the methods of imparting education, to nurture and develop the qualities that can lead to a meaningful future – both for the individual and society.

1.2.9. There is now recognition that there are several imbalances due to social, gender and regional disparities, which can be remedied through appropriate interventions and a focused strategy. Sustainable development of a nation can be realized only if all sections of the society have equal opportunities and hence the need for a clarion call for multi-pronged, inclusive measures such as provision of educational amenities, student incentives and financing, remedial coaching, special facilities for different disabilities, etc.

1.2.10. About 65% of India's population today is less than 35 years old. A huge demographic dividend will be available, if India revamps the education sector. Not doing so will have serious consequences for the country. Many studies have shown that if a child is provided good quality education and health care in the early years of schooling, it enhances his/her ability to lead a more meaningful and productive life. Children in India have the necessary intelligence and potential; what they need are opportunities to access quality education.

1.2.11. Education is a great leveller, and provides the only sustainable route to reduce disparities. In the past a small proportion of Indians had access to quality education, but even so a large number of Indians managed to distinguish themselves in academics. The country has tremendous potential to become a world leader in several fields if there is a resolve to provide high quality education and health care to its children.

1.2.12. Fortunately, India is at the cusp of major transformation. Due to measures taken over the last few decades, the disparities between urban and rural

areas in terms of infrastructure and facilities have reduced. Even more significantly, Digital India is being rolled out, and could be soon a reality – every Village Panchayat will be digitally connected and the phenomenon of 'remote' schools will diminish rapidly. This is an unparalleled opportunity which needs to be fully harnessed. The education sector, both school and higher education, can greatly benefit by judicious use of Information Communication Technology (ICT).

1.2.13. Technology alone cannot be the solution to the problem of poor quality of education; the human factor is equally, if not more, important. The Committee recognizes that the teacher is the pivot around which the education system revolves; sadly, we have not succeeded in attracting good students to the teaching profession; added to that, most teacher education courses have little substance. The Committee has made several recommendations to improve the quality of teacher training and education because without good teachers, there can be no quality education.

1.2.14. To quote Swami Vivekanand, "*Education is not the amount of information that we put into your brain and runs riot there, undigested, all your life. We must have life-building, man-making, character-making assimilation of ideas. If you have assimilated five ideas and made them your life and character, you have more education than any man who has got by heart a whole library….. …. If education is identical with information, the libraries are the greatest sages of the world and encyclopaedia are the greatest Rishis.*" The statement of Swami Vivekanand assumes much greater significance with the advent of internet and ever expanding digital connectivity.

1.3. The Way Forward

1.3.1. The focus of the proposed New National Policy on Education is on improving the quality of education and restoring its credibility. It seeks to create conditions to improve the quality of teaching, learning and assessment, and promote transparency in the management of education.

1.3.2. The core objectives of education in the coming years should encompass four essential components – i.e. building values, awareness, knowledge and skills. While knowledge and skills are necessarily specific to the objectives of study and largely determined by factors like future employment or the pursuit of a vocation, awareness and values are universal in nature and should be shared by all. Education should aim to develop pride in India and in being an Indian. It should be seen as a powerful route to reduce regional and social disparities, and enabling choice and freedom to the individual to lead a productive life and participate in the country's development.

1.3.3. Value orientation is an over-arching and comprehensive area that needs conscious integration with general education at each stage. An acquaintance with the Indian tradition of acceptance of diversity of India's heritage, culture and history could lead to social cohesion and religious amity. The content and process of education, particularly school education has to be prepared accordingly.

1.3.4 The New National Policy on Education has tried to address the deficiencies and challenges faced by our education system, particularly the urgent need to improve quality of learning across all sectors. It offers a framework for change, make education modern with use of technology, without compromising on India's traditions and heritage.

1.4. The Need for National Commitment

1.4.1. On the *totem pole* of the state management hierarchy, education comes relatively low both in status and recognition. This was part of the administrative ethos bestowed by colonial rulers who had no interest in imparting education to the bulk of Indians. This neglect should no longer be tolerated. Education must be given the highest priority. It is the duty of Central and State Governments to provide necessary resources and create conditions that are favourable for the process of teaching and learning to flourish. Every opportunity needs to be provided to young persons to get good quality education and acquire skills that lead to employment and entrepreneurship.

1.4.2. The basic education infrastructure already exists in India. The Indian child is as resourceful and intelligent as any in the world. New technologies are now available. Governments at the Centre and the States only need to understand the catalytic role they have to play in fostering an atmosphere that enables students to think, to learn, and contribute to the country's development. All that is required is a change in the mindset among stakeholders. Once the importance of ascribing the highest priority to education is recognized, the corresponding responsiveness and sense of accountability will inexorably emerge.

1.4.3. For two-thirds of mankind's history, India as one of the oldest and most glorious living civilizations in the world dominated the world scene in every respect –in philosophy, economics, trade, culture as well as in education. If India does the things now required to be done, in 15 to20 years Indian Education can be transformed. The rest of the 21st century could then belong to India.

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CHAPTER II

Approach and Methodology

2.1 Constitution of the Committee for Evolution of the New Education Policy

2.1.1 The Committee for Evolution of the New Education Policy was constituted by MHRD vide Order F. No. 7-48/2015-PN-II dated 24th November 2015, in amendment of the earlier Order F. No. 7-48/2015-PN-II dated 31st October 2015, and entrusted with the task of formulating a Draft National Education Policy. The Committee commenced work in the first week of November 2015. The MHRD, GOI orders constituting the Committee, also indicating the extension for the period of the work of the Committee from time to time are reproduced in Annex IA (Vol.II).

2.2 Advance Steps Initiated by the MHRD for Preparation of the New Education Policy

2.1.1 Prior to the constitution of above Committee, the Ministry of Human Resource Development had embarked on a detailed process of initiating extensive consultations with various stakeholders in the country interested in the field of education, to elicit views on the reforms in the education sector, and calling for detailed recommendations in this regard.

2.1.2 Starting from the Gram Panchayat level and going up vertically and laterally, panning the entire educational system in the states and including institutions and organisations allied to the Ministry of HRD as well as non-governmental stakeholders and even individuals, all who had interest in the sector had been given by the MHRD an opportunity to contribute to the new policy formulation. Covering 33 identified broad subject areas (as briefly described in Annex IB), draft reports prepared by scores of expert groups and stakeholders were made available to the Committee as background material on which the policy could be based on. Extensive efforts had been made by the MHRD to reach out to every person, organisation and segment of society, affording anyone with an interest in the progress of education in India to contribute in making suggestions which could respond to diverse and emerging needs which had surfaced since 1986/92 when the last education policy was adopted. This year-long process had been embarked upon by the MHRD as the first step in initiating the necessary revision to the education policy of India.

2.1.3 A brief description of the scope, coverage, method and outcomes of the year-long consultation exercise of the MHRD is given in Annex IC, Vol. II. The Committee was provided with a large number of consultation reports, online feedbacks from individuals and institutions and other related material for its reference, the list of which is also given in Annex IIA, Vol. II. All these voluminous literature that emerged through this exercise contained many signals emanating from different parts of the country, from different kinds of stakeholders of the

current state of education, the major need for reforms, and the directions it needs to take. It should be added that the base for the new policy was truly laid through the major preliminary steps undertaken by the Ministry.

2.1.4 Inputs from some of the above listed sources, arising from this exercise, continued to be received well after the Committee's work, had commenced and were nonetheless taken into account by the Committee.

2.3 Approach of the Committee in Calling for Evidence, Data and Opinion

2.3.1 In its first few meetings, the Committee saw the documentation arising from the wide-ranging consultations. The Committee noted that a large number of suggestions, thematic prescriptions, and analytical approaches, were available in the documentation already generated through this exercise; even though much of the documentation was available to the Committee only after a time lag.

2.3.2 The Committee took note that many of the suggestions received through the above process were prescriptive in nature, and which often lacked specificity in terms of dimension of the treatment of the problem or its potential application on a wider scale, nevertheless were important pointers for the New Policy to take, and gave major impetus to the work of the Committee. The Committee also noted that while the suggestions often summarized or prescribed the desired course of action, it was not easy to comprehend the field circumstances underlying the recommendations.

2.3.3 The Committee felt that the mere extraction of ideas and recommendations put forward by stakeholders would have been relatively easy, but the policy would have lacked in-depth analysis in its recommendations, and would not have had sufficient gravitas or wider application possibilities. The Committee was satisfied that it was necessary to reach out to knowledgeable individuals, experts, scholars, and experienced educationists, to comprehend the imperatives which would lead to sufficiently nuanced conclusions, in making the necessary choices in policy making recommendations. The Committee decided to embark on inviting experts, renowned and experienced educationists, organizations and institutions which had experience in operating in the education field, with possibly widely differing perceptions and prescriptions, to understand the basis on which policy recommendations needed to be projected.

2.3.4 Accordingly meetings were organised almost on a daily basis and restricted to one-on-one conversations or small group meetings, which provided opportunities to raise specific questions, engage with the issues posed by the committee and seek specific ideas and suggestions across the table. A number of doubts and contradictions could thereby be ironed out, and simultaneously claims which were based on limited experience could be disregarded. Because the discussions were with a cross-section of experts and experienced practitioners, including people representing different interest groups, it was possible to get a feel to distinguish what was important from a policy point of view, and isolate

them from recommendations which essentially arose from irritants encountered by specific interest groups.

2.3.5 As mentioned, the Committee had decided at an early stage, that it was necessary to meet various experts, academics, administrators, expert groups and other related stakeholders from all over the country to evolve a relevant and meaningful education policy. In fact, the Committee took a conscious decision to invite people likely to have totally different viewpoints on various subjects, to get a bearing on the optimal path to be recommended; even groups with extreme views were invited and heard. All those who were keen to meet the Committee were accommodated. Recommendations and recipes, received in bits and pieces from different protagonists/experts/interest groups were reconceived and taken on board in the appropriate context by the Committee. The Committee expresses its gratitude to all those who helped it, in different ways, particularly by giving new ideas and insights to deal with current challenges in the education sector in India

2.4 Consultations with State Governments and Central Government Officials

2.4.1 Even though the MHRD consultation process included eliciting formal views from all state governments, the Committee was desirous of hearing the views of state governments, first hand, to get a full picture of the main-springs which could lead to revised policy formulation. The Committee recognized that no organisation can provide the feel for the scale and scope of the issues confronting the education sector, as effectively as the state governments who are in daily touch with these issues, and who exercise authority and bear responsibility for the administration of education. Close interactions with the state representatives were therefore organised in batches so that every state in the country got an opportunity of meeting the committee and responding to specific issues raised. The committee was indeed fortunate to have had the opportunity of directly discussing the feasibility of taking forward certain ideas with the senior-most representatives from the state education departments, who were accompanied by selected Vice Chancellors and education experts, particularly in a relatively informal atmosphere. The Committee satisfied that they learnt a lot from the various educational officials and experts and vice chancellors from various states that they came across in the course of this exercise.

2.4.2 The consultation strategy adopted by the Committee included: (a) holding regional consultation meetings at Gandhinagar, Gujarat (for western region), at Raipur, Chhattisgarh (for eastern region), Guwahati, Assam (for north-eastern region), and NUEPA, New Delhi (for both northern and southern regions); (b) Visits to institutions of higher education and school visits in Uttar Pradesh, Chhattisgarh, and Gujarat; (c) consultations with national level institutions like NUEPA, NCERT, AICTE, UGC, NCTE, IGNOU, NIOS, etc.; and (d) consultations with more than 300 educationists, Vice-Chancellors, experts, CSO and NGO representatives, and representatives of education providers in the private sector at NUEPA, New Delhi. The details of regional consultations and consultation

meetings with institutions and individuals by the Committee are given in Annex IIB, Vol. II.

2.4.3 The regional meetings held at various centres and at Delhi, discussed specific issues raised by the Chairman and members of the Committee, and the response elicited from the State representatives; as also to listen to the concerns and prime questions confronting the state authorities. Since parts of these meetings were conducted in a semi-formal format, it was possible to get a feel for the thought processes of the state officials, who were encouraged to express their views in an informal atmosphere. These opportunities facilitated the Committee to test out numerous ideas which had emerged additionally, consider their acceptability, feasibility and the willingness of the states to implement the suggestions, before they could find place in the policy. The State governments on their part used the opportunity to highlight specific strategies and innovative practices which had yielded positive results. Many of these have been referred to and recommended for adoption in the draft policy and framework of action. The Committee needs to place on records its valuable experience in having heard the collective knowledge of the state representatives, who had a vivid picture of the ground level issues confronting them.

2.4.4 The regional visits also enabled the Committee to undertake a number of field visits in Uttar Pradesh, Chhattisgarh, and Gujarat. During its field visits, the Committee visited a number of schools, colleges, universities, state and district level resource organizations and talked to students, teachers, parents, school/college management representatives and local officials. In each regional centre, a series of consultation meetings with educationists, experts, NGO representatives, CSO representatives, private education providers and national level resource and regulatory organizations, which proved to be very valuable to get a cross-section the views of educationists and others of that region.

2.4.5 The Committee also organized detailed meetings separately with the higher education and school education departments of the MHRD, to get a perspective of the issues which the Ministry considered important; and also to get an opportunity to interact with the senior officials of the meeting on various initiatives, issues and problems, and directions for taking the policy forward.

2.4.6 The Committee also consulted all departments of the MHRD, and other related Ministries like the Ministry of Health and Family Welfare, and Ministry of Women and Child Development, the Ministry of Agriculture, the Ministry of Skill Development, and others and had the benefit of the advice and suggestions from them.

2.5 Documents Presented to the Committee

2.5.1 The Committee also received important comments and suggestions for drafting the New Education Policy. In total, the Committee received 107 documents of varying length and substance on various thematic areas concerning

school, higher and technical education, including their governance aspects. The list of inputs/material directly received by the Committee is given in Annex IIC, Vol. II.

2.6 The Committee's Thanks go to a Large Number of People

2.6.1 The Committee has to thank a very large number of people, who have shared in different ways in evolving the draft of the new education policy. Many ideas reflected in the report have emanated from the various experts, educationists, organizations, NGOs, and other stakeholders, who met the Committee; the Committee has borrowed freely from these meetings, the exchange of ideas and information, and also from the suggestions received from those who generously gave the Committee advice. The Committee is unable to thank each one individually; but wishes to emphasize that the work of the Committee has been made easy by so many people who contributed to it.

2.6.2 The MHRD had requested the NUEPA to function as a Secretariat of the Committee. The Committee wishes to express its gratitude to the Vice Chancellor, NUEPA, and through him to the faculty and other staff of NUEPA for rendering them all possible facilities to undertake the meetings and to pursue the work of the Committee to its conclusion in an extremely efficient manner.

2.6.3 Prof. K. Biswal of NUEPA was nominated as the Secretary to the Committee. The Committee acknowledges the dedication and quality of work contributed by Prof. Biswal in this assignment; it expresses its thanks to him for the services rendered.

2.6.4 The Committee received full support in all its aspect of work from the Ministry of HRD; the Committee wishes to thank the Secretary, Higher Education, and the Secretary, School Education, as also all officers of the Ministry for the assistance rendered whenever approached.

2.6.5 Above all, the Committee would like to thank the Honourable Minister for HRD for providing the members, the unique opportunity to study a field of critical importance to the country, and give its recommendations on a theme that constitutes the most significant investment that any country can make in its own future.

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CHAPTER III

Context and Objectives of the New NPE

3.1 Broad Objectives of the New National Policy on Education , 2016

3.1.1 The starting point for the new National Policy on Education (NPE) must necessarily be a clear articulation of the meaning and goals of education in the Indian context. What are the basic objectives which we seek to achieve through the new NPE? What knowledge, skills and other qualities do we seek to instil through education? What kind of citizen should emerge as an end product of the education system? What attributes should an educated citizen possess in order to be able to function as an informed and enlightened member of society?

3.1.2 Discussions on these objectives of education predate the independence of India. In 1938, a Committee on the Wardha Education Scheme (*Nayi Taleem* of Mahatma Gandhi) set up by the Central Advisory Board of Education *(*CABE), worked out the modalities for the implementation of the *Nayi Taleem* in great detail and recommended it for adoption by all provincial governments. This was reiterated by the CABE Committee on "Post-War Plan for Educational Development in India" (1944), also known as the Sargent Plan. This was a Plan to 'Indianise' education; universalize primary education; and improve the quality of education so as to make the Indian education system comparable to the best available elsewhere.

3.1.3 Education has all through been considered a key driver of national development; an essential condition for building a humane society. However, the core objectives of education in the coming years should encompass four essential components – i.e. building values, awareness, knowledge and skills. While knowledge and skills are necessarily specific to the objectives of study and largely determined by factors like future employment or the pursuit of a vocation, awareness and values are universal in nature and should be shared by all. Ideally, these should foster development of personal qualities and behavioural attributes, which will help children, develop into good citizens.

3.1.4 Along with the economic objectives (i.e. creating human capital), education should aim to develop pride in India and in being an Indian. It should foster learning about our ancient history, culture and traditions. Indian society is characterized not only by multi-lingual, multi-cultural and multi-religious diversity, geographical differences and regional disparities, but also by inequalities of income, wealth, opportunity and access to resources. Education should be seen as a powerful route to reduce regional and social disparities, and enabling choice and freedom to the individual to lead a productive life and participate in the country's development.

3.1.5 Education should foster peace, tolerance, secularism and national integration. Towards promoting greater understanding of diversity in India as well as social cohesion, education should inculcate awareness of India's rich heritage, glorious past, great traditions and heterogeneous culture. Education must enhance and sustain the cultural capital in the country, a powerful input for national development. Education must be seen as development and not a means of development; it should find a prominent place in the national development agenda.

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3.2. Inculcation of Values through Education

3.2.1 Value orientation is an over-arching and comprehensive area that needs conscious integration with general education at each stage including adult education, teacher education, and also technical and management education. Education has little meaning without development, nurture and internalization of values.

3.2.2 In an increasingly complex globalized world, the erosion of values is adversely impacting human life in practically every sector of activity. It has resulted in alarming levels of exploitation of human beings and also of the nature. The sensitive man-nature link is in danger of snapping irretrievably. Sufferings inflicted on much of the mankind largely go unnoticed. When values are ignored, humanity suffers; so does the man-nature dependency.

3.2.3 India has suffered serious consequences arising out of increasing threat of terrorism and fundamentalism. Education, in its entirety, has to prepare persons for contributing to a world of peace, harmony, mutual trust and a value-based society.

3.2.4 An acquaintance with the Indian tradition of acceptance of diversity of India's heritage, culture and history could lead to social cohesion and religious amity. The content and process of education, particularly school education has to be prepared accordingly.

3.2.5 Every teacher is to be prepared to internalize that apart from his professional readiness and responsibility, he is a role model, inculcator of values and is expected to lead a value-based life.

3.2.6 For a proper appreciation of secularism and value education, the recommendations of the Chavan Committee Report are particularly relevant. The Parliamentary Standing Committee on Human Resources Development, in its 86th Report submitted to both Houses of Parliament on 26 February, 1999 contained a comprehensive analysis on how education should contribute to character building. Its recommendations referred to the following:

> 8. "*Truth (satya), Righteous conduct (Dharma), Peace (Shanti), Love(Prem), and Non-violence (Ahims) are the core universal values which can be identified as the*

foundation stone on which the value-based education programme can be build-up. These five are indeed universal values and respectively represent the five domains of human personality: intellectual, physical, emotional, psychological and spiritual. They also are correspondingly co-related with the five major objectives of education, namely, knowledge, skills, balance, vision, and identity."

13. "Another aspect that must be given some thought is religion, which is the most misused and misunderstood concept. The process of making the students acquainted with the basics of all religions, the values inherent therein and also a comparative study of the philosophy of all religions should begin at the middle stage in schools and continue up to the university level. Students have to be made aware that the basic concept behind every religion is common, only the practices differ. Even if there are differences of opinion in certain areas, people have to learn to coexist and carry no hatred against any religion."

3.2.7 It is also relevant to recall that the Supreme Court of India in its judgement delivered on September 12, 2002 stated that making children aware of basics of all religion should have been done long time back.

3.2.8 The Justice J.S. Verma Committee Report (1999) expounded that, along with fundamental rights, it is equally necessary that citizens should understand their fundamental duties laid down in the Constitution.

3.2.9 Schools must help inculcate key qualities and attitudes like regularity and punctuality, cleanliness, self-control, industriousness and a spirit of entrepreneurship, sense of duty, desire to serve, responsibility, creativity, sensitivity to greater equality, respect towards women, care for the elderly, a democratic temper and an obligation to preserve the environment.

3.2.10 Creating and maintaining a congenial school environment, and enabling the teachers in inculcating social values to the students, and to get the children to learn that every act, action and activity is equally important. These attributes shall include friendliness, cooperativeness, compassion, self-discipline, courage, concern for the rights of others and keenness to support genuine causes of justice and fairness.

3.2.11 NPE should aim to equip and enable students to remain relevant in a globalized, digital world.

3.2.12 Finally, familiarity with the basics of the Constitution of India, particularly its Preamble and the Chapters on Fundamental Rights and Duties must form part of the education of every citizen.

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3.3 Constitutional & Legal Provisions relating to Education

3.3.1 Education was originally included in the State List of the Constitution of India. Under the 42nd Amendment Act of 1976, education was transferred to the Concurrent List in the Seventh Schedule, within the competency of both the Centre

and the State Governments, but with residual powers vesting with the Union Government. This implies that, in case of a conflict, laws passed by the Parliament shall prevail over those made by State Legislatures, and that, any State law shall be void to the extent of repugnancy**.**

3.3.2 Under Article 246, Entry 2, State Governments are vested with the power to legislate upon "education, including technical education, medical education and the universities…. vocational and technical training of labourers." Entry 66 of the Union List in the Seventh Schedule vests the Central Government with the power to legislate for "co-ordination and determination of standards in institutions for higher education or research and scientific and technical institutions."The Constitution vests the State Governments with powers relating to school education, syllabus, Boards, textbook bureaus and medium of instruction. The regulation and maintenance of the standards of higher education in the country as a whole has been located within the remit of the Central Government. However, because of its concurrent authority, the Central Government has been providing over-arching policy inputs as well as implementing important schemes with shared financial responsibility.

3.3.3 Further, the power of State Governments to establish universities is subject to the power of Parliament to legislate under Entry 66 to maintain the required standards of higher education. This was reinforced by the ruling of the Supreme Court in the landmark case of Osmania University Teachers Association versus the State of Andhra Pradesh and Another in 1987.

3.3.4 Moreover, a number of institutions specified in Entries 63, 64 and 65 of the Union List fall exclusively within the competence of the Central Government. These include the Benares Hindu University; the Aligarh Muslim University; Delhi University; any institution declared by law as being of national importance; institutions of national importance for scientific or technical education financed wholly or partly by the Government of India; and Union agencies and institutions for professional, vocational or technical training, including the training of police officers; the promotion of special studies or research; or scientific or technical assistance in the investigation or detection of crime.

3.3.5 Various apex institutions have been vested by Acts of Parliament with the responsibility to regulate the standards of education. The University Grants Commission (UGC) is empowered to coordinate and maintain minimum standards of university education. The National Assessment and Accreditation Council (NAAC) was established in 1994 to assess the standards of quality and accredit Universities along with their constituent and affiliated colleges. The All India Council for Technical Education (AICTE) was established in 1987 for planned and coordinated development of the technical education system in the country. The National Board of Accreditation (NAB) has been set up to assess and accredit technical institutions in the country and make recommendations for recognition and de-recognition of qualifications.

3.3.6 Further, there are apex statutory bodies, like the National Council of Teacher Education (NCTE), Medical Council of India (MCI), Dental Council of India (DCI), Indian Nursing Council (INC), Council of Architecture, Bar Council of India (BCI), Pharmacy Council of India (PCI), Indian Council for Agricultural Research (ICAR), Rehabilitation Council of India, Central Council of Homeopathy (CCH) and Central Council of Indian Medicine (CClM), Distance Education Council, National Council for Vocational Training, etc., which regulate the standards of education in various professional fields.

3.3.7 Finally, it is important to take note of the changes effected by the 73rd Amendment to the Constitution, enacted in 1992, dealing with the powers of Panchayati Raj institutions. Under this amendment, State Legislatures may by law, endow Panchayats under their jurisdiction with the requisite powers and authority to function as institutions of self-government. Among the subjects which may be devolved to the Panchayats under such State laws are the implementation of schemes relating, inter alia to education, including primary and secondary schools; technical training and vocational education; and adult and non-formal education.(Reference Article 243G, Items 17-19 of Schedule XI). However, in practice it is noticed that in most states such devolution of authority and responsibility has not been formalized to any significant extent.

3.3.8 From the above provisions, it is clear that the Central government has a Constitutional obligation to regulate and maintain the standards of higher education in the country as a whole. However, as an item on the Concurrent List, education also falls within the purview of the State Governments. Accordingly, there has been considerable expansion in the number of universities and colleges established by State Governments, as well as in the number of private universities and colleges in the States. However, many States have not felt themselves responsible for the maintenance of quality and standards. There is thus wide variation in the quality of higher education institutions and many of them are sub-standard.

3.3.9 Over the years the central Government has established important institutions to undertake funding, regulatory and oversight functions but the ground reality is that hundreds of sub-standard institutions have been permitted to be set up over the decades, contributing to a fall in educational standards. Equally, a variety of factors, including lack of resources for maintenance of physical infrastructure, libraries, teacher management and other local and state level factors have contributed to the significant decline in quality of educational standards.

(a) Fundamental Rights

3.3.10 Several provisions relating to Fundamental Rights in the Constitution impact on education. Of these, the most important are the Right to Education, Religious Instruction in Educational Institutions and the Right of Minorities to Establish and Administer Educational Institutions.

(b) Religious Instruction/Worship

3.3.11 Article 28 provides for "Freedom of attendance at religious instruction or religious worship in certain educational institutions" as a Fundamental Right. It mandates that no religious instruction shall be provided in any educational institution wholly maintained out of State funds and that no minor person attending any State-recognized or State-aided educational institution shall be required to take part in any religious instruction or attend any religious worship without the consent of his guardian. However, this shall not apply to educational institutions which are administered by the State but established under any endowment or trust which requires that religious instruction be imparted in the institution.

(c) Non Discrimination in Education

3.3.12 Article 29 (2) provides, as a Fundamental Right, that no citizen shall be denied admission to any educational institution maintained by the State or receiving aid out of State funds on grounds only of religion, race, caste, language.

(d) Rights of Minorities

3.3.13 Article 30 relates to cultural and educational rights of minorities. It lays down that all minorities, whether based on religion or language, shall have the right to establish and administer educational institutions of their choice.

3.3.14 In making any law providing for the compulsory acquisition of any property of an educational institution established and administered by a minority, the State shall ensure that the amount fixed by or determined under such law for the acquisition of such property is such as would not restrict or abrogate the right guaranteed under that clause.

3.3.15 In granting aid to educational institutions, the State shall not discriminate against any educational institution on the ground that it is under the management of a minority, whether based on religion or language.

(e) Education for Weaker Sections

3.3.16 The Constitution makes special provision for safeguarding the educational interests of the weaker, socially and educationally backward sections of society and members of Scheduled Castes and Tribes.

3.3.17 Article 15 empowers the State to make any special provision, by law, for the advancement of socially and educationally backward classes of citizens or for the Scheduled Castes and Scheduled Tribes with regard to their admission to educational institutions, including private educational institutions, whether aided or unaided by the State, with the exception of minority educational institutions.

3.3.18 Article 46 enjoins the State, as a Directive Principle of State Policy, to promote the educational and economic interests of the weaker sections of the

people, and, in particular, of the Scheduled Castes and the Scheduled Tribes with special care, and to protect them from social injustice and all forms of exploitation.

(f) Provisions with Regard to Language

(i) Linguistic Rights of Minorities

3.3.19 Article 29 (1) guarantees the protection of the linguistic rights of minorities. Any section of citizens with their own distinct language, script or culture has the Fundamental Right to conserve it.

3.3.20 Article 350 B provides for the appointment of a Special Officer for linguistic minorities to investigate all matters relating to the safeguards provided for linguistic minorities under the Constitution.

(ii) Instruction in the Mother Tongue

3.3.21 With language emerging as the primary criterion for the demarcation of Indian States, mother tongues have received special emphasis as medium of instruction and subjects of study. Under Article 29 (1), the Constitution recognizes the study and preservation of one's mother tongue as a Fundamental Right.

3.3.22 Article 350 A requires every State and local authority to provide adequate facilities for instruction in the mother-tongue at the primary stage of education to children belonging to linguistic minority groups.

(iii) Promotion of Hindi

3.3.23 Article 351, titled 'Directive for Development of the Hindi language' states that "it shall be the duty of the Union to promote the spread of the Hindi language, to develop it so that it may serve as a medium of expression for all the elements of the composite culture of India and to secure its enrichment by assimilating without interfering with its genius, the forms, style and expressions used in Hindustani and in the other languages of India specified in the Eighth Schedule, and by drawing, wherever necessary or desirable, for its vocabulary, primarily on Sanskrit and secondarily on other languages.

(g) Right to Education (RTE)

3.3.24 The RTE was originally included as a non-justiciable Right under the Directive Principles of State Policy. In the Constitution as originally adopted by the Constituent Assembly in November, 1949, Article 45 stated that: "The State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years." Further, Article 41mandated the State, among other things, to make effective provision for securing the right to education "within the limits of its economic capacity and development."

3.3.25 In Mohini Jain vs. State of Karnataka (1992) the Supreme Court ruled that the RTE is implicit in and flows directly from the right to life under Article 21, thus virtually elevating the RTE to the status of a fundamental right. This was made explicit in Unni Krishnan vs. State of Andhra Pradesh & Others (1993) when the Supreme Court ruled as follows: "The citizens of this country have a fundamental right to education. The said right flows from Article 21. This right is, however, not an absolute right. Its content and parameters have to be determined in the light of Articles 45 and 41. In other words every child/citizen of this country has a right to free education until he completes the age of fourteen years. Thereafter his right to education is subject to the limits of economic capacity and development of the State."

3.3.26 The Constitution (Eighty-sixth Amendment) Act, 2002 inserted Article 21A in the Constitution as a Fundamental Right, mandating that "The State shall provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may, by law, determine."

3.3.27 The consequential legislation envisaged to give effect to Article 21 A was The Right of Children to Free and Compulsory Education Act, 2009 (RTE Act), giving every child the right to full time elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards. With this, education has been moved to a rights based framework with the Central and State Governments having a legal obligation to implement this fundamental child right.

3.3.28 The RTE Act, inter-alia provides for the following:

(i) Right of children to free and compulsory education till completion of elementary education in a neighbourhood school.

(ii) It clarifies that 'compulsory education' means obligation of the appropriate government to provide free elementary education and ensure compulsory admission, attendance and completion of elementary education to every child in the six to fourteen age group. 'Free' means that no child shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing elementary education.

(iii) It makes provisions for a non-admitted child to be admitted to an age appropriate class.

(iv) It specifies the duties and responsibilities of appropriate Governments, local authority and parents in providing free and compulsory education, and sharing of financial and other responsibilities between the Central and State Governments.

(v) It lays down the norms and standards relating inter alia to Pupil Teacher Ratios (PTRs), buildings and infrastructure, school-working days, teacher-working hours.

(vi) It provides for rational deployment of teachers by ensuring that the specified pupil teacher ratio is maintained for each school, rather than just as an average for the State or District or Block, thus ensuring that there is no urban-rural imbalance in teacher postings. It also provides for prohibition of deployment of teachers for non-educational work, other than decennial census, elections to local authority, state legislatures and parliament, and disaster relief.

(vii) It provides for appointment of appropriately trained teachers, i.e. teachers with the requisite entry and academic qualifications.

(viii) It prohibits (a) physical punishment and mental harassment; (b) screening procedures for admission of children; (c) capitation fee; (d) private tuition by teachers and (e) running of schools without recognition.

(ix) It provides for development of curriculum in consonance with the values enshrined in the Constitution, and which would ensure the all-round development of the child, building on the child's knowledge, potentiality and talent and making the child free of fear, trauma and anxiety through a system of child-friendly and child-centred learning.

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3.4 Earlier National Policies on Education

3.4.1 In the Indian context, the fundamental role of education in nation-building, progress, security and social and economic development has been recognized from the outset. Even before independence, Gandhiji had formulated a vision of basic education in India, seeking to harmonise intellectual and manual work. Subsequently, the University Education Commission (Radhakrishnan Commission, 1948-49) and the Secondary Education Commission (1952-53), as well as other Commissions and Committees had reviewed the issues relating to educational reconstruction. The Resolution on Scientific Policy (1958) underlined, inter alia, the importance of science, technology and scientific research in education.

3.4.2 The first National Policy on Education (NPE) was formulated by the Government of India in 1968, based on the recommendations of the Indian Education Commission (1964-66), also known as the Kothari Commission.

3.4.3 Apart from the goal of universalization of education as envisaged in the Constitution, the 1968 NPE dealt with:

(i) measures to ensure that teachers are accorded an honoured place in society;

(ii) training and quality of teachers for schools;

(iii) stress on moral education and inculcation of a sense of social responsibility;

(iv) equalisation of educational opportunity for all sections of society, including girls, minorities, disadvantaged classes, tribal people and in rural areas;

(v) introduction of work-experience, manual work and social service as integral parts of general education;

(vi) science education and research;

(vii) education related to the needs of agriculture, industry and employment opportunities;

(viii) vocationalization of secondary education;

(ix) development of games and sports;

(x) spread of literacy and adult education;

(xi) strengthening of centres of advanced study;

(xii) setting up of a small number of cluster centres aimed at achieving the highest international standards;

(xiii) development of quality or pace-setting institutions at all stages and in all sectors.

3.4.4 The NPE of 1968 aimed to promote national progress, a sense of common citizenship and culture, and to strengthen national integration. It laid stress on the need for a radical reconstruction of the education system, to improve its quality at all stages, and gave special attention to science and technology, the cultivation of moral values and a closer relation between education and the life of the people.

3.4.5 However, the general formulations incorporated in the 1968 Policy were not underpinned by a detailed strategy of implementation, accompanied by the assignment of specific responsibilities and financial and organizational support. Consequently, with the passage of time, it was felt that the problems of access, quality, equity, utility and financial support merited a comprehensive review of the NPE.

3.4.6 The NPE was adopted by the Parliament in May, 1986. This was reviewed and modifications suggested by the Ramamurthi Committee (1990-92) and the Janardhana Reddy Committee (1991-92). After consideration by the Central Advisory Board of Education (CABE), a revised document entitled 'National Policy on Education, 1986 – Revised Policy Formulations' was laid on the Table of the House in 1992.

3.4.7 The NPE of 1986 as modified in 1992 reiterated the centrality of education for all as a national goal and sine qua non of all-round material and spiritual development, national cohesion and national self-reliance.

3.4.8 The 1986-1992 NPE endorsed the concept of a National System of Education in which all students, irrespective of caste, creed, location or sex, would have access to education of a comparable quality up to a given level.

3.4.9 It envisaged a common educational structure and a national curricular framework with a common core along with other components that were flexible and oriented towards occupational and employment requirements.

3.4.10 The common core included the history of India's freedom movement, the constitutional obligations and other content essential to nurture national identity. These elements cut across subject areas and were designed to emphasize India's common cultural heritage, egalitarianism, democracy, secularism, equality of the sexes, protection of the environment, removal of social barriers, observance of the small family norm, inculcation of the scientific temper and an international outlook characterized by peaceful co-existence and understanding between nations, treating the whole world as one family.

3.4.11 The NPE 86/92 emphasized life-long education, universal literacy and provision of opportunities to the youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice, at the pace suited to them through open and distance learning.

3.4.12 The NPE 86/92 also delineated the competencies and sharing of responsibility between the Union Government and the States in terms of the 42nd Constitutional Amendment of 1976, which moved Education to the Concurrent List. While the role and responsibility of the States was to remain essentially unchanged, the Union Government would accept a larger responsibility to reinforce the national and integrative character of education, to maintain quality and standards (including those of the teaching profession at all levels), to study and monitor the educational requirements of the country as a whole in regard to manpower for development, to cater to the needs of research and advanced study, to look after the international aspects of education, culture and Human Resource Development and, in general, to promote excellence at all levels of the educational pyramid throughout the country.

3.4.13 The NPE 86/92 laid special emphasis on the removal of disparities and the equalization of educational opportunity to specific disadvantaged target groups, including removal of women's illiteracy, education of Scheduled Castes and Tribes, Minorities, the disabled and handicapped, neo-literates and through non-formal and adult education programmes.

3.4.14 Recognizing the holistic nature of child development, the NPE accorded high priority to Early Childhood Care and Education (ECCE), which was to be suitably integrated with the Integrated Child Development Services (ICDS) programmes.

3.4.15 The NPE 86/92 advocated a child-centred approach to education, with corporal punishment being firmly excluded and a no-detention policy at the primary stage. Talented students should be given special treatment and access to good quality education regardless of their ability to pay for it.

3.4.16 Vocational education was envisaged to be a distinct stream of education, intended to prepare students for identified occupations after, or even prior, to the completion of secondary education.

3.4.17 The NPE 86/92 proposed that the system of affiliation should be phased out by encouraging the development of autonomous colleges.

3.4.18 The NPE 86/92 envisaged the establishment of a national body and State Councils of Higher Education for policy making, planning and coordination of higher education.

3.4.19 Finally, the NPE 86/92 emphasized the need to raise the outlay on education to six percent of the GDP in the Eighth Five Year Plan (1992–1997) and to uniformly exceed this figure thereafter.

3.4.20 The NPE of 1986-1992 was followed up by a 'Programme of Action' announced by the HRD Ministry. However, with the passage of time, it has become clear that many of the objectives of the 1986 policy could not be achieved due to ineffective follow up on a continuing basis, with little attention being given to the implementation phase of the proposed policies.

3.4.21 This brief survey of the National Education Policies adopted in 1968, 1986 and 1992 underlines that many of the essential elements of these policies retain their relevance and will continue to do so in future. The earlier policies have analysed the ways and means of achieving the national objectives of universalization of education, providing equality of opportunity, improving the quality of learning outcomes, enforcing norms of accountability and benchmarking with international standards exhaustively and in depth. The policy prescriptions set out in these earlier documents are a valuable resource which will guide the new NPE, as it seeks to build on the past experience to refine, revise and attune the education policy to meet the needs of the nation.

3.4.22 In continuation and in furtherance of the objectives of NPEs of 1968 and 1986-92, a number of significant legislative and executive steps have been undertaken over the past two decades – some of these are mentioned in the paragraphs which follow.

3.4.23 The Right to Education Act, 2009 (RTE Act) has imposed legal obligations on the Central and State Governments to provide every child between the ages of 6 to 14 access to full time elementary education of satisfactory and equitable quality in a formal school which satisfies certain essential norms and standards. As against this, over 92 lakh children still remain out of schools as per official records. If one estimates the numbers of these added to the dropouts after one or two years, the number of out-of-school children could easily be around 3 crore. The challenge before the nation is still enormous in magnitude.

3.4.24 Since the adoption of the 1986-1992 NPE, the Central Government has launched several schemes to address issues of equity, access and quality in the

elementary, secondary and higher education sectors. The shortfalls and lacunae in the achievement of the targets laid down in these programmes need to be analyzed and corrective measures taken as appropriate.

3.4.25 The District Primary Education Programme (DPEP) was started in mid-1990s and was, for many years, the flagship programme of the Government of India in elementary education. Indeed, the *Sarva Shiksha Abhiyan* (SSA) programme, which is still an important implementation vehicle, is the successor programme to DPEP.

3.4.26 The *Sarva Shiksha Abhiyan*(SSA) programme, operational since 2000-2001, aims at the universalization of elementary education in a time bound manner. Although the original targets of bridging all gender and social category gaps by 2007 and achieving universal retention at the elementary education level by 2010 have yet to be achieved, the programme remains in force as one of the largest education initiatives in the world.

3.4.27 The *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA), launched in 2009, aims at enhancing access and improving the quality of secondary education by removing gender, socio-economic and disability barriers and making all secondary schools conform to prescribed norms. The principal objectives were to increase the total enrolment rate from 52% in 2005–06 to 75% over the five year period from 2009–2014 by providing a secondary school within a reasonable distance of any habitation. The programme aims to provide universal access to secondary level education by 2017, i.e., by the end of the 12th Five Year Plan and achieving universal retention by 2020.

3.4.28 The *Rashtriya Uchchatar Shiksha Abhiyan* (RUSA) was launched in 2013 as a Centrally Sponsored Scheme to provide norm based and outcome dependent strategic funding to eligible state higher educational institutions. RUSA aims to improve the overall quality of state institutions by ensuring conformity to prescribed norms and standards, adopting accreditation as a mandatory quality assurance framework, promoting autonomy and improving governance in State Universities.

3.4.29 As a party to the Millennium Development Goals (MDGs) adopted by the United Nations in 2000, India was committed, inter alia, to achieving universal primary education, in terms of both enrolment and completion of primary schooling for all girls and boys, by 2015. It was also committed to eliminating gender disparity in primary and secondary education, "preferably by 2005, and at all levels by 2015." Unfortunately, these goals remained unrealised. It is imperative now to work seriously to achieve Sustainable Development Goals (SDGs) by 2030.

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3.5 The State of Education in India

3.5.1 Education in India is currently provided by the public sector as well as the private sector. The central and most state boards uniformly follow the "10+2+3" pattern of education. In this pattern, study of 12 years is done in schools and / or in colleges, and then 3 years of graduation for a bachelor's degree. The first 10 years are further subdivided into 5 years of primary education, 3 years of upper primary and 2 years of high school. This pattern originated from the recommendation of the Kothari Education Commission of 1964–66.

3.5.2 Under the RTE Act, a 'no-detention' policy has been in place since 2010. Under this policy, no child can be held back or expelled from school until Class 8. The larger purpose of this blanket rule is to ensure compulsory education up to the age of 14 years, and prevent students from dropping out from school, a consideration which is particularly important in schools in the rural districts.

3.5.3 The earlier National Education Policies of 1968, and 1986 as modified in 1992, had endorsed a norm of 6% of GDP as the minimum expenditure on education. However, this target has never been met. The expenditure by Education Departments of the Centre and States has never risen above 4.3% of the GDP, and is currently around 3.5%.

3.5.4 As compared to 12% in 1947, the overall literacy rate in India in 2011 was 74%, with a male literacy rate of 82.1% and a female literacy rate of 65.5%. However, the level is well below the world average literacy rate of 84% and India currently has the largest illiterate population in the world. Kerala is the most literate state in India, with 93.91% literacy, while Bihar is the least literate state with a literacy rate of 63.82%.

(a) Elementary Education (Classes I- VIII)

3.5.5 The *Sarva Shiksha Abhiyan* programme for universalization of Education for All, along with the no detention policy, has resulted in a significant enhancement both in the Gross Enrolment Ratio (to over 95%) as well as in the enrolment of girls. Its precursor, the District Primary Education Programme (DPEP), was launched in 1994 with the aim of universalizing primary education in India. With 85% funding by the central government, the DPEP had opened 1.6 lakh new schools, including 84,000 alternative education schools delivering alternative education to approximately 35 lakh children.

3.5.6 In 2014-15, there were 14 lakh schools in the country imparting elementary education, with a total enrolment of 19.77 crore. Of these, Government schools numbering 11 lakh accounted for an enrolment of 11.9 crore at the elementary level; while 3 lakh private schools catered to 8.56 crore students. Additionally, there were 23,529 unrecognised institutions and 3750 unrecognised Madrasas with an enrolment of 33 lakh at the elementary level in 2014-15. There were a total of 80 lakh teachers at the elementary level, including 47 lakh teachers in Government schools. In 2014-15, more than 8.6% of the total teachers at the

elementary level were in private aided schools; 29.9% were in private unaided schools; and 2.6% were in unrecognised schools and *Madrasas* (U-DISE, 2014-15).

3.5.7 The Gross Enrolment Ratio (GER) at the primary level (grades I-V) was 100.1%; it was 91.2% at the upper primary level (grades VI-VIII) in 2014-15. The Net Enrolment Ratio (NER) was 87.4% at the primary level and 72.5% at the upper primary level. However, the Adjusted NER was 92.1% at primary level and 82.4% at upper primary level in 2014-15. Large number of children continues to leave the school before completing elementary education. In 2014-15, the retention rate at primary level was 83.7% and it was as low as 67.4% at the elementary level. Roughly, four in every 10 children enrolled in grade I was leaving the school before completing grade VIII U-DISE, 2014-15).

(b) Surveys Relating to Quality of Education

3.5.8 Currently, two large-scale nation-wide learning assessment surveys have been conducted in India at the elementary stage.

3.5.9 The National Council of Educational Research and Training (NCERT) has conducted National Achievement Surveys (NAS) periodically since 2001 for Classes 3, 5 and 8. The NAS is a school-based national survey covering all States and Union Territories and focusing on specific classes in particular years. It is carried out by NCERT under the mandate of the *Sarva Shiksha Abhiyan* programme to "monitor improvement in children's learning levels and to periodically assess the health of the government education system as a whole".

3.5.10 The NGO, *Pratham* has been bringing out its Annual Status of Education Report (ASER) since 2005, on the basis of extensive household surveys conducted to assess children's schooling status and basic learning levels in reading and arithmetic. In 2014, the surveys covered 577 rural districts, around 17,000 villages and over 6 lakh children between the ages of 3-16. The 2014 survey found that nearly half of the grade V students were not able to read at grade II level; and nearly same proportion of grade V students did not have the basic arithmetic skills, which they should have learned by the end of grade II (ASER, 2015).

3.5.11 It is also necessary to refer to *Gunotsav*, a mass assessment process, first introduced in Gujarat in 2009, but now also implemented with variations in some other states as well. It tries to address the above issues and serves as a starting point to achieve 'quality education' at scale. A key focus of *Gunotsav* is to highlight the levels of student learning (with a focus on basic skills like reading, writing and arithmetic operations in the lower classes and subject knowledge in the higher classes) and provide systematic year-on-year data and insights to improve learning levels in a measurable way.

3.5.12 The surveys indicate that, quantitatively, India is inching closer to the Constitutional and RTE Act guarantee of universal access and participation in elementary education. In 2013-14, the total enrolment at the elementary level (grades I-VIII) in India was 19.89 crore, including 12.1 crore in government

schools, and 1.1 crore in aided schools. Girls share in the total enrolment was 48.2% at primary level, and 48.8% at upper primary level. At the all India level, nearly 39% of children enrolled at the elementary level were attending private schools (DISE 2013-14). ASER (Rural), 2014 found that 96.7% of children in the age group 6- 14 years were enrolled in schools in rural India. The survey also found that around 31% of rural children attend private schools.

3.5.13 Encouragingly, at the all-India level, the percentage of older girls (in the 11-14 age group) not enrolled in school has dropped from 10% in 2006 to close to 5% in 2014. Except for Rajasthan and UP, the figure has dropped significantly for many states, with Bihar showing the steepest decline from 17.6% in 2006 to 5.7% in 2014.

3.5.14 Further, visits to government schools on randomly selected days show an attendance rate of about 71% of enrolled children. However there is considerable variation in daily attendance across states, ranging from 50-59 per cent in Uttar Pradesh, Bihar, West Bengal and Manipur to over 90 per cent in Tamil Nadu and Kerala.

3.5.15 While the Gross Enrolment Ratio (GRE) is satisfactorily high, the quality of education, in terms of learning outcomes, is undeniably poor, particularly in the government school system. This is a matter of serious concern, since approximately 80% of all recognized schools at the elementary stage are government run or supported.

3.5.16 Reading is a foundational skill; without being able to read well, a child cannot progress in the education system. However, reading outcomes are unacceptably poor, particularly in Government and rural schools.

3.5.17 For example, ASER 2014 found that over 75% of all children in Class 3, over 50% in Class 5 and over 25% in Class 8 could not read texts meant for the Class 2 level. At the all-India level, the number of children in rural schools in Class 2 who could not even recognize letters of the alphabet increased from 13.4% in 2010 to 32.5% in 2014. In the last year of their primary education in Class 5, almost 20% of children could only read letters or were not literate even at this level; 14% could read words but not sentences; and 19% could read sentences but not longer texts.

3.5.18 Further, reading levels for children enrolled in government schools in Class 5 showed a decline between 2010 and 2012. While reading levels in Class 5 in private schools were also not high, the gap in reading levels between children enrolled in government schools and private schools appears to be growing over time.

3.5.19 Early childhood years are critically important, when the child's mental and physical development are at their highest, and when many lifelong characteristics are developed; this is when basic skills are acquired for subsequent development. Without a strong foundation in early years, the child's future progress, mental and

physical, is highly circumscribed. The criticality of addressing the child's mental and physical growth in the early years has not been adequately understood or addressed. Available data indicate that in 2014, nearly 20% of children in Class 2 did not recognize numbers from 1 to 9 and nearly 40% of children in Class 3 were unable to recognize numbers till 100. More disturbingly these proportions have grown progressively and substantially since 2010, indicating that learning outcomes are deteriorating rapidly at the primary stage.

3.5.20 In sum, half of all children in Class 5 have not yet learned basic skills that they should have learned by Class 2. Close to half of all children will finish eight years of schooling but will still not have learned basic skills in arithmetic.

3.5.21 Teacher absenteeism, estimated at over 25% every day, has been identified as one of the reasons for the poor quality of student learning outcomes.

3.5.22 At the disaggregated level, the National Achievement Survey (NAS) reveals significant differences in the average achievement levels of students between states, suggesting that the quality of educational outcomes is far from equal across the country. In a number of States, NAS results also show much diversity in achievement between students in the highest and lowest performing categories. Despite the significant differences in methodology, NAS confirms the findings from a number of other studies such as ASER, Educational Initiatives etc. and identifies poor learning outcomes as the biggest challenge facing Indian education. Poor quality of learning at the primary school stage naturally spills over to the secondary stage, where the gaps get wider; and continues to the college years, leading to very poor outcomes in the higher education sector. This inevitably leads to students being rendered incapable of taking full advantage of educational opportunities.

3.5.23 It is noteworthy that the poor quality of education in government schools has been underlined by a recent directive from the Allahabad High Court ordering all government servants in Uttar Pradesh to send their children only to public schools run by the State Basic Education Board.

(c) Secondary & Higher Secondary Education (Classes IX to XII)

3.5.24 At the secondary stage the *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA), is the most important programme rolled out by the HRD Ministry. It has the twin aims of enhancing access to and improving the quality of secondary education in the country.

3.5.25 Enrolment is sought to be increased by providing a secondary school within a reasonable distance of all habitations and by removing gender, socio-economic and disability barriers to education. The prescribed infrastructural and physical facilities include adequate number of class rooms, laboratories, libraries, art and crafts rooms, toilet blocks, drinking water availability, electricity connection, telephone and internet connectivity and disabled friendly amenities.

3.5.26 Equity aspects are sought to be addressed by according special focus on micro planning and preference in opening schools in areas with concentrations of SC/ST/Minorities. Undertaking a special enrolment drive for the weaker sections, providing more female teachers in schools and separate toilet blocks for girls are some of the significant strategies.

3.5.27 The RMSA aims at achieving a GER of 100% by 2017 and universal retention by 2020. While the first target could be seriously addressed, it is highly doubtful if it would be realistic to retain the 'retention' target by 2020, even if major remedial steps are urgently undertaken.

3.5.28 Under the RMSA, the funding pattern between the Centre and the State Governments is in the ratio of 75:25. For the North Eastern States, the Centre meets 90% of the funding requirements. In spite of this, the State universities and their affiliated colleges suffer from severe fund constraints and poor governance, leading to poor quality of outcomes. With the changes in devolution of funds to states based on the recent Finance Commission Report, changes in these percentages have been made for FY 2015-16 – though it is not fully clear if there is full concurrence between states and Centre in this regard.

3.5.29 Over the years, there has been significant and rapid increased participation of the private sector and NGOs, in secondary education. Currently, approximately 51% of the secondary schools and 58% of the higher secondary schools are privately managed.

3.5.30 The RMSA specially aims to improve access and retain the girl child in secondary and higher secondary classes; and to ensure that girl students are not denied the opportunity to continue their education due to distance from school, financial constraints and societal factors.

3.5.31 The Scheme of Inclusive Education for Disabled at Secondary Stage (IEDSS), launched in 2009-10, has now been subsumed under the RMSA. The Scheme provides assistance to enable all students with disabilities who have completed 8 years of elementary schooling, to pursue a further 4 years of secondary schooling from Class 9 to 12.

3.5.32 With its specific focus on removing disabilities, the RMSA has opened up opportunities for children who are not able to enrol themselves in the formal education system through the modality of national and state open schools and by utilising contact-centres and multi-media packages.

3.5.33 The Committee has been given to understand that with the rapid expansion of the school system, access to school education has become near universal; however, children from certain sections of the population, for reasons arising out of poverty, need-to-work, social restrictions or lack of belief in usefulness of education have not been able to take full benefit of the educational opportunities. Many girls are not sent to schools; and many who complete primary levels, are not able to pursue their studies at the secondary levels and in colleges.

3.5.34 From a quantitative standpoint, the gaps in average enrolments between the general population and specific disadvantaged groups like the girl child, Scheduled Castes and Scheduled Tribes, Minorities and Children with special needs have decreased. However, issues of social access and equity remain complex and have been only partially resolved.

3.5.35 Moreover, social and income disparities continue to be reflected in gaps in learning levels, which remain large and seem to be growing. Children from historically disadvantaged and economically weaker sections of society and first generation learners exhibit significantly lower learning outcomes and are more likely to fall behind and drop out of school.

3.5.36 The interventions which are currently being made to bridge these gender and social gaps need to be stepped up, and more focused strategies need to be worked out for effective inclusion and participation of girls and other special category children.

3.5.37 While there has been a rise in the demand for secondary education and increase in the number of secondary schools, the spread of secondary education throughout the country remains uneven. Regional disparities continue, as do differences in access depending on the socio-economic background of students. Absence of teachers; lack of incentives; and low academic standards in government schools have contributed to the rise of the private sector in secondary school education.

(d) Higher Education

3.5.38 There has been an upsurge in the demand for higher education after independence, resulting in a virtual explosion in the number of universities and colleges in the country. Many students join university courses merely to obtain a degree, which has come to be considered as a sine qua non for white (and even blue) collar employment and social status.

3.5.39 The institutions of higher learning in India consist of:

(i) Central Universities established by an Act of Parliament;

(ii) State Universities established by State Legislatures;

(iii) Deemed Universities recognized as such by the Central Government on the recommendation of the UGC;

(iv) Private Universities established by various State Governments through their own legislation; and

(v) Institutes of National Importance declared as such by the Government of India by an Act of Parliament.

3.5.40 All these institutions are empowered to award degrees. A small number of Central and State Universities are stand-alone unitary institutions; however, the vast majority have constituent or affiliated colleges attached to them.

3.5.41 Most colleges in India are affiliated to universities and provide undergraduate education. Some colleges also undertake post-graduate teaching and research. The affiliating universities are expected to oversee the standards of the affiliated colleges, hold examinations and award degrees to successful candidates.

3.5.42 There are at present 46 Central Universities and 128 Deemed to be Universities in the country (UGC Annual Report 2014-15). No institution has been granted Deemed to be University status since June 2009. In January 2010, the Government of India decided to de-recognise 44 Deemed Universities. This decision was challenged and a final decision is still pending in the Supreme Court, which has, in the interim, allowed these institutions to admit new students.

3.5.43 The Indian higher education system, which includes technical education, is one of the largest of the world. The number of Universities has grown from 27 in 1950-51 to 621 in 2010-11 and further to 712 in 2013-14. The number of Institutes has grown from 11,095 in 2010-11 to 11,443 in 2012-13. The number of colleges has shown phenomenal growth, from 578 in 1950-51 to 32,974 in 2010-11; 34,852 in 2011-12; 35,829 in 2012-13. In 2014-15, there were 711 universities, 40,760 colleges (UGC Annual Report 2014-14) and 11922 stand alone institutions in higher education sector in India (AISHE 2014-15).

3.5.44 As against 2 lakh students in 1950-51, the total enrolment in higher education in 2014-15 was 3.33 crore, comprising 1.79 crore boys and 1.54 crore girls. The number of teachers stood at 14 lakh, with 39% female teachers. The Gross Enrolment Ratio (GER) in higher education was 23.6% (24.5% for boys, 22.7% for girls; 18.5% for SCs and 13.3% for STs) (AISHE, 2014-15).

3.5.45 As is to be expected, the largest number of students (around 80%) are enrolled in Under-Graduate courses, followed by Post-Graduate (11.4%) and Diploma (7.2%) courses.

3.5.46 During the academic year 2014-15, out of the estimated total enrolment of about 3.33 crore , 37.41% students were enrolled in Arts, 17.59% enrolled in Science, 16.39% enrolled in Commerce and Management, and the remaining 28.61% were pursuing professional courses, including Engineering/Technology (16.27%), followed by Medical courses (4.02%).

3.5.47 The private sector has played a major role in the growth of colleges and institutions in India. In 2011-12, 63.9% of the total number of colleges and institutes were in the private sector and 58.9% of the total number of students was enrolled in private colleges and institutes. State institutes accounted for 35.6% and Central institutes for 0.5% of the total number of colleges and institutes. Enrolment in these institutions was 38.6% and 2.6% respectively.

3.5.48 The *Rashtriya Uchchatar Shiksha Abhiyan* (RUSA), launched in 2013, aims at providing strategic funding to eligible state higher educational institutions on the basis of a critical appraisal of State Higher Education Plans. The central

funding (in the ratio of 65:35 for general category States and 90:10 for special category states) would be norm based and outcome dependent. The funding would flow from the MHRD through the State Governments / Union Territories to the State Higher Education Councils before reaching the identified institutions.

3.5.49 Regional disparities have increased with the expansion of higher education in India. Inter-state disparities in the Gross Enrolment Ratio (GER) are large and have increased over time. In 2002-03 the GER spread varied between 5% (Jammu and Kashmir) and 29% (Chandigarh). In 2011-12 the variation in GER was much larger, between 8.4 % (Jharkhand) and 53% (Chandigarh).

3.5.50 The utility of higher education in assuring employment is questionable. Many graduate and post graduate students do not get jobs in their respective fields even after spending several years in acquiring higher education. While the problem of educated unemployed youth remains acute, there is also, paradoxically, a shortage of skilled manpower in the labour market. There a clear gap between the focus and quality of education in academia and the actual skills required by industry.

3.5.51 The global ranking of universities is a useful indicator of their institutional performance, based on a relative assessment in the areas of research and teaching, reputation of faculty members, reputation among employers, resource availability, share of international students and activities and other factors.

3.5.52 Indian universities do not find a place in the top 200 positions in the global ranking of universities. Even the top ranking institutions in India figure only in the lower echelons of global rankings.

3.5.53 As per the Times Higher Education Rankings in 2012-13, the top ranked Indian institutions were IIT Kharagpur (234), IIT Bombay (258) and IIT Roorkee (267).

3.5.54 Similarly, the top ranked institutions as per the Quacquarelli Symonds (QS) System in 2012 were IIT Delhi (212), IIT Bombay (227) and IIT Kanpur (278). The Indian Institute of Science (IISc), Bangalore ranks 99th in the world's top 100 universities for engineering and technology. As per 2015/16 QS rankings IISc Bangalore has a rank of 147, IITD 179, IITB 202, IITM 254, IIT Kanpur 271.

3.5.55 Accreditation agencies were established in India in 1994 as a measure of quality assurance in order to enhance standards of higher education. Accreditation was voluntary and institutions of higher education were supposed to approach the accreditation agencies to get their institution or programme accredited. Of the 164 universities recognized by the UGC, 140 have got themselves accredited by the National Assessment and Accreditation Council (NAAC), with only 32% percent being rated as A grade or above.

3.5.56 Among the 4,870 colleges, 2,780 are accredited by the NAAC, with barely 9% making the A or above grade. Among the accredited institutions, 68%of the

universities and 91% of the colleges are rated average or below average in terms of the quality parameters specified by the NAAC. Quality and excellence in colleges clearly leaves much to be desired.

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3.6.1The above represents a brief summary of the significant developments in the education field in the past recent decades. There are many other developments relating to literacy programmes, teacher's training and recruitment system, ICT related applications and variety of other factors not summarized above; these have been addressed in the main Report at the appropriate places.

3.6.2In conclusion of this chapter, the most noteworthy point that emerges is that while issues of accessibility and enrolment have dramatically improved in the past decades, and much advance has been made in relation to equity in opportunities, issues relating to quality of education, both at the school and higher levels have not been addressed adequately either in policy or in practice; indeed, there is a secular decline in the overall quality of education. Necessarily, issues of equity, as also of quality have to be the main focus of any new national policy.

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CHAPTER IV

Need for a New National Policy on Education

4.1 The National Policy on Education, as formulated in 1986 and modified in 1992, has been the guiding document of the policies of the Central Government in the education sector for well over two decades. During this period, significant changes have taken place in India and the world at large. New technologies have transformed the way in which we live, work, and communicate; the corpus of knowledge has vastly expanded and become multi-disciplinary; and research has become far more collaborative. Since the NPE was last reviewed in 1992, there have been momentous changes in the situation in India and worldwide. These need to be taken into account in formulating a new NPE for the coming decades.

4.2 While the earlier policy was robust in conception and orientation, it has not delivered the desired results in terms of acceptable outcomes in the education sector. Despite the stated priority accorded to this sector and the plethora of specific programmes which have been launched, as well as the infusion of massive public outlays over the years, the state of education remains a conspicuous weak spot in the economy, indeed in society at large.

4.3 The earlier NPEs had aimed at a number of overarching objectives, which included 'development of quality', 'pace setting institutions in all stages and all sectors', 'setting up of a large number of cluster centres aimed achieving highest international standards', 'to promote excellence at levels of the educational pyramid', 'a child-centred approach to education recognizing the holistic nature of child development, to accord high priority to Early Childhood Care and Education (ECCE) with suitable integration with ICDS programmes', to mention a few. The previous NPE also emphasized need to raise outlays on education to 6% of GDP by 1992, and 'uniformly exceed this figure thereafter'. The Right to Education Act 2009 created legal obligations to provide education to every child between ages of 6 to 14, as also to sharply improve the infrastructure facilities in schools.

4.4 The earlier policies had laid out clear objectives and goals; however, many of these have not been realized fully or even partially. This has largely been due to absence of a clear workable roadmap and continuing operational guidance being put in place. Even more importantly, heavy politicization at every level of operation of the school system, from the village/block level to state headquarters, as well as increasing corruption, reaching every aspect of school administration have been prominent developments in the past three decades or so. These adverse factors have permeated every aspect of school administration, contributing to the current extremely poor educational conditions at the ground level– negating the noble objectives of the policy of 1986-92.

4.5 The ground reality today is, depressingly, quite different from what was envisaged in the earlier policies. While gross enrolment in schools, as also at higher education institutions, has gone up sharply, these have been accompanied with many undesirable new factors. While the infrastructure facilities in the school system have significantly improved, there has been little corresponding impact on the quality of instruction or learning – on the contrary repeated studies have indicated a worrisome decline in learning outcomes in schools. The perceived failure of the schools in the government system to provide education of minimal quality has triggered entry of a large number of wholly private or aided schools, even in rural areas. Concurrently there has been mushroom growth of private colleges and universities, many of them of indifferent quality; leading up to questions about the quality of degrees generally obtained in the system. In short, while there has been some improvement in infrastructure, and significant gains in respect of enrolment and access, new gnawing worries about the quality of education have increasingly bedevilled the education system. These need urgent attention.

4.6 Education and public health are possibly the two most important development vectors in a democracy. While adequate financing alone will not address the needs of the education sector, governments in successive decades also do not appear to have comprehended the imperative need to ensure minimum essential funding to this area, which offers potentially the best investment opportunities for coming generations. This is a critical gap in overall national policy in the past decades.

4.7 As mentioned earlier, the quality of school education has been steadily on the decline. Inadequate stress in early childhood years has severely contributed to poor learning outcomes at successive secondary and higher education periods. Serious gaps in teacher motivation and training, sub-optimal personnel management in the education sector, absence of necessary attention to monitoring and supervision of performance at all levels – in short an overall neglect of management issues in this field have contributed to the current state of affairs. While it is true that there is wide disparity in this regard between states, with some states having displayed encouraging initiatives and innovative management, the overall picture in the country is unsatisfactory. A renewed look at policies in this regard, as also on a framework for implementation has become imperatively urgent.

4.8 While the RTE of 2009 has led to significant increase in enrolment, as also stress on infrastructure, new issues in the implementation phase have arisen which need to be addressed. In particular the 'no detention policy' needs to be examined, to ensure that it is optimally and judiciously implemented.

4.9 Despite references in the earlier policies to Early Childhood Education, there are no systems firmly in place to ensure this. This gap needs to be addressed effectively and comprehensively, without delay.

4.10 There is no clearly laid out policy in respect of private participation in the education system, both at the school and higher education levels. While there is scope for differential treatment of this issue in different states, the respective roles to be played by private-public players is not currently defined. Issues of regulation, autonomy and fee structure have all been dealt with in an ad-hoc manner, now requiring some baselines to be established. The rapid growth of higher education institutions, many of dubious quality and functioning in grey market, has raised the question of necessary minimal financial conditions to be created to foster institutions of reasonable quality. Issues of transparent quality evaluation of higher education institutions, and revamping the system of affiliation are all issues which need to be currently addressed. The menace of institutions which have sprung up on the philosophy of 'degrees for cash' need to be squarely tackled.

4.11 In an aspirational society, it is natural that parents desire their children to obtain 'good' education. However formally linking the development of skills in vocational fields, bringing an academic equivalence to vocational accomplishments has not been seriously attempted. This also means that avenues for horizontal and vertical mobility of students have not been provided to an adequate degree. Fostering dignity and social acceptability to high quality vocational training is an important goal that begs attention.

4.12 While all higher educational institutions are not expected to engage in academic research, the overall engagement and accomplishments in the field of research leaves much to be desired. Research and innovation are key to promoting a dynamic and vibrant academic scene, with potential to contribute significantly to the economy. This aspect needs to be seriously addressed for appropriate redressal.

4.13 Despite the disparity in women's participation in higher education having been enunciated from the 1968 policy, the situation is far from satisfactory although several laudable efforts have been made leading to higher enrolment of women, including in professional courses.

4.14 Information and Communication Technology (ICT) has made rapid strides in the past couple of decades. New technologies are now available for information dissemination, enhancement of skills of all sorts, not yet suitably adopted to the needs of the education sector. The immense potential for inducting ICT to come to the aid of Indian education in myriad innovative ways has not been harnessed. Many experiments have taken place in the country, and a large body of knowledge has accumulated in this regard. ICT now provides a new and potentially highly effective vehicle for advancing the quality of education at all levels; this issue needs to be seriously explored and the alternatives expounded.

4.15 In short, while much has been achieved, there are serious gaps in implementation at the field level, and a worrisome lack of quality in every element of the entire system; it is necessary to recognize the ground conditions, if any

major improvement is to be attempted. The issues mentioned above need to be diagnosed properly and addressed effectively.

4.16 The Government of India have launched several social and developmental initiatives such as *Swachh Bharat Abhiyan,* Digital India, Skill India, Make in India and Smart Cities. All these initiatives have significant backward and forward linkages with the education sector which need to be taken into account in the new NPE. For example, the induction of ICT also underlines the imperative necessity of providing electricity and connectivity, and making computer hardware, software and technical support available in every school, especially in rural areas. Similarly, Skill India and Make in India require the mainstreaming of vocational education, practical knowledge, hands-on projects and courses oriented towards meeting the needs of industry and employment.

4.17 The rate of change has accelerated. New technologies and disciplines have emerged and new knowledge and insights are being generated at a rapid pace. Social media transmit and disseminate information and opinions almost instantaneously. Individuals, societies, governments and educational and other systems are often behind the curve in keeping pace with these developments.

4.18 Although expenditure on education has languished at well below the 6 per cent of GDP envisaged in the earlier NPE, there have also been pervasive and persistent failures in implementation leading to sub-optimal utilization of the resources provided. The survey of the present situation in the education sector underlines that outside interference, absence of accountability, unregulated commercialization and lack of standards continue to exist and have, indeed, increased substantially during the past two decades. It would not be an exaggeration to say that large segments of the education sector in India face a serious crisis of credibility in terms of the quality of education which they provide, as well as the worth of the degrees which they confer on students.

4.19 While 'equity' and 'access' have been, rightly stressed in the past as the guiding principles in the education field, the issue of quality has hitherto effectively been relegated to the background. It has now become an imperative necessity to lay major emphasis on improvement of quality across the board, without compromising on equity and access.

4.20 It is now time to undertake a comprehensive review of the educational scene in India as it is currently being administered and implemented, and articulate a new NPE.

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CHAPTER V

Governance in Education

5.1 Administration and Management of Education

5.1.1 The Indian Education system is among the largest in the world, with about 26 crore children enrolled in classes 1 to 12, located in 36 states and union territories, 683 districts, about 7300 blocks and more than 82,000 clusters, covering more than 15.1 lakh schools; the total number of teachers functioning in the system (both in public and private schools) is of the order of 80 lakhs. This does not include the enrolment in higher education institutions, which cover more than 3 crore students. In many senses, this is one of the largest areas of direct contact between the state and the citizen, with nearly 1/5th of the population directly involved daily in the teaching / learning process.

5.1.2 Despite the above, the states' political machinery (the chief minister or the cabinet ministers) in general attach less significance in terms of political attention to the education sector, compared to the issues relating to law and order, development administration or farming issues etc., highly important as these are. Perhaps this stems from a number of factors which include (a) the main point of contact is with children, who are below the voting age; (b) education is a long gestation process, where results come over years, whereas the average politician looks for engagement with events or issues which show movement over a much more limited period of time; (c) education is process oriented, not event-oriented; (d) the daily events are repetitive, non-glamorous, and expectedly do not receive public attention, as it is taken as routine; and, (e) it has no visible outcome in the daily run. For these reasons, unless there is some special or noteworthy adverse event that takes place, the education sector is not usually in the political or media limelight.

5.1.3 The Education Department in the states occupies a relatively low position in the hierarchy of departments that get the attention of the political executive; even though there is large interest shown on issues relating to teachers' postings/transfers and recruitment. While no formal studies appear to be available, it can be generally postulated that the overall 'quality' of education is a function of the political attention that the sector has received from the political system. In the composite educational development index (2014-15) for all schools developed by NUEPA, using parameters relating to access, infrastructure, number of teachers and outcomes, it may be observed that by-and-large states leading in educational outcome are also those with relatively higher per capita incomes; the states towards the bottom of the table are also generally speaking those with relatively lower per capita income (many of these in the latter group are also from the heartland of India). While pointing out that this key area is not sufficiently researched by think-tanks and research institutions attached to the MHRD, a very general conclusion can be tentatively drawn that attention from the chief minister

and senior ministers, and the importance given to this sector by the political leadership in a state, is directly related to the quality of education provided by the state. The Committee had occasion to observe the broad validity of the above statement, in its discussions with the state governments.

5.1.4 In addition to the senior political leadership in the state, the political class in general is wary of the teacher community, and is usually reluctant to take rational steps for monitoring and improving the management in the sector; this is possibly due to the general impression that the teacher community being associated with the election process, should be handled with kid-gloves. The general impression is that all parties like to use teachers for political work during elections, as they are perceived to be effective opinion-makers in many rural communities; thus investing the teacher community with political importance. With the legal provision in RTE (Section 27) relating to use of teachers on various administrative unrelated chores, to free them to devote time exclusively for school work, this issue may not be so relevant in future. The states need to consciously take steps in furtherance of this requirement to phase out involvement of teachers in administrative work.

5.1.5 Elsewhere in this report, recommendations have been made relating to the other extraneous work of the tehsil/block being entrusted to teachers. For education standards to improve it should be ensured that the teachers are not pressed into service to aid the general administration at the expense of their primary school-related work; they should be largely left primarily to teaching in schools.

5.1.6 Indeed there is no reason why appropriate effective management mechanisms should not be ushered in the school sector. The Committee's experience is that by-and-large the teacher community consists of sincere persons with potential, where most teachers would perform with dedication, but a small proportion among them takes advantage of the lack of supervision and uses political contact to gain proximity to power and thereby exercise influence on the majority of teachers. This results in standards of discipline and pride in belonging to a noble profession giving way to apathy and negligence of core responsibilities. Ultimately this affects the quality of teaching and learning outcomes. There is need to establish impersonal systems designed to ensure oversight of the work of Principals and teachers – in short management at the school level.

5.1.7 The process of selection, promotion and transfer of teachers and Principals need to be made transparent, on established principles. The teacher education system needs to be drastically revamped. The criteria for approval of new institutions and their regular evaluation need to be strengthened, with new open processes established, along with extensive use of IT. These can help reduce political interference and corruption and restore credibility in the system.

5.1.8 Political intervention from all levels is all pervasive in selecting location of institutions, approval of grant-in-aid status, selection of examination centres, and all senior appointments and in many states from VC to college Principals to

District Education Officers. Any functionary or close observer could give any number of examples from his own experience to substantiate this point.

5.1.9 It is sadly undeniable that there is large scale corruption in appointments, transfers, approval to affiliate and grant recognition of institutions, even going to the extent of manipulation of examination results. A cross-section of stakeholders gave examples of widespread corruption which prevails in the functioning of regulators like AICTE, UGC, MCI and NCTE; the general refrain was that any obstacle can be overcome by contacting the right persons. Commercialisation is rampant and reflected in the extent of charges levied for admissions ranging from tiny-tots to professional courses; some reliable private estimates in such instances go up to very large sums. The proliferation of tuition / coaching classes is a clear index of the lack of credibility of the school system. Most senior officials in the states are apathetic at best, and display lack of probity, a factor undeniable in the entire hierarchy, with honourable exceptions. Compounded with bureaucratic–academic nexus, the pernicious role of regulators, general apathy and the loss of respect for scholarship have all contributed to the diminished credibility of the education system.

5.1.10 It is no wonder that anyone having dealings with the education system has generally lost faith in its credibility. In particular, those who can afford to turn their backs on government schools and colleges reach out to private schools or migrate abroad for study – not that many private schools are significantly superior to their counterparts run by the state. The point in short is that the system is largely sick, and needs rejuvenation – the quality of education, which is critical, has been the main casualty thereby converting the sacred process of education to an unregulated commercial system. The Committee would like to mention a caveat that while the above is the norm, there are many fine institutions, run by motivated altruistic agencies and individuals, which still maintain very high standards – even though, alas, they are too few in number.

5.1.11 The Committee also heard repeatedly in nearly every individual or group discussion at Delhi and during field visits, of 'political interference' as the main reason for poor performance in the education field. Nearly every field education official, at state or district or block level, when asked to analyze the reasons for poor performance in the sector, would invariably point to political interference. During the meetings with national educational institutions at Delhi or informal contacts with state level officials all over India, this was again the single most important reason mentioned by all the respondents. Thus when national accrediting agencies were asked to explain why undeserving educational institutions often received rapid accreditation, while 'more qualified' institutions were left out of the process for long periods, the answer almost invariably would relate to political interference. Thus at the school level (postings and transfers of principals and teachers) at the block level, at the district level, the common refrain of all officials involved in education would relate to 'politics' as the mainspring for non-performance. The Committee cannot ignore this repeated assertion brought to its attention in different forms in diverse circumstances – the clear conclusion is that 'political interference' is almost certainly the most important reason for poor

outcomes. This significant factor negates any effort to administer the system or reward efficiency and dedication.

5.1.12 In many states, past experience has indicated that selection of teachers has been a highly skewed operation, where selection criteria normally include merit. However, extraneous factors relating to improper monetary considerations often become the decisive factor in the selection process. The point also was repeatedly made that the postings of teachers, in many states, did not follow an open transparent policy based on clearly understood principles – it was decided on the whims and fancies of the various authorities, motivated by extraneous monetary and other factors, and also influenced by local political interests – forcing the teacher community willy-nilly to secure positions and postings through political patronage. The Committee also found that in the past, and continuing now, there has been no credible or reliable system of measurement of a teacher's output or performance – promotion or increments have generally had little correlation with merit or performance, the management of the educational manpower being largely non-transparent and arbitrary. It was also repeatedly mentioned that the teacher preparation before joining or in-service periodical training courses were routine, unstructured, and generally irrelevant to enhancing teacher quality; there was hardly any merit-based supervision or logic in the management of the sector. In sum, all the above have contributed to suboptimal performance by the teacher/-principal community, on whose morale, efficiency and initiative the success of the school education sector is dependent.

5.1.13 It should be added that this general criticism is not valid in respect of all states in India; the Committee was pleased to note the high degree of positive interest taken by the political leadership in some states (alas, too few), as well as steps initiated to improve the management of the teacher/principal community, and make the process of decision-making more transparent, predictable and based on clear parameters.

5.1.14 Very similar kinds of comments or allegations or assessments were readily available in informal comments relating to the higher education sector. The Committee heard of institutions charging large capitation fees (illegal), as also colleges readily issuing degrees against payments proffered under-the-table; the general informal comment was that all 'approvals' were 'purchasable'.

5.1.15 Whether or not these adverse comments, severe as they are, largely true or not, the conclusion is inescapable that governance standards at all levels has been poor, to say the least. Processes and procedures have been rolled out without due consideration for verification or ensuring that these are implemented faithfully on the ground. It is also likely that the charge of political interference is often made facilely, more to mask corruption at the official levels, and shift the blame elsewhere. It is equally noteworthy that while nearly every agency or institution at the Centre or in the state talked openly about these factors, no research or regulatory institution or national level statutory bodies attached to the ministry has openly researched these matters, and validated or dismissed these allegations. It is a measure of the pusillanimity of the national institutions attached to the

MHRD, with full time senior academics and professionals, being unable to openly comment on the current state of affairs, without which remedies are not possible. These are not new trends, but the result of weak management, poor control, politicization of sector and the abdication of basic management practices at the Centre or the State, which have allowed major vested interests to develop over the decades. It is also abundantly clear that in those few states which formally recognized lack of governance in the education sector as the key issue, and put in place remedial steps, there has clearly been overall improvement in outcomes.

Recommendations

5.1.16 The Committee concludes that in many parts of the education system, at the school or higher levels, factors other than merit have played and are playing a significant part in the management of affairs; proper governance standards have not been put into place with adequate incentives, checks and balances.

5.1.17 The Committee recommends that all aspects in the hierarchy be reviewed to bring about transparency, clear-cut criteria in operations, establishment of open systems, independent outside verification to ensure compliance; and use of Information Technology appropriately to achieve the above.

5.1.18 Among the major changes required, one can indicate the following:

(i) Independent mechanism for teacher recruitment – the recent TET mechanism (with appropriate safeguards) will ensure good quality recruitment of teachers.

(ii) Creation of an Autonomous Teacher Recruitment Board.

(iii) Revamp of teacher education system and introduction of a four-year integrated B.Ed. Course or a two-year B.Ed. Course after graduation.

(iv) Well thought out teacher preparation systems.

(v) Effective monitoring of teacher performance, with built-in incentive systems.

(vi) Grant of extra-increments, preferred postings and state/district recognition awards need to be related to measurable outcomes in respect of teacher-performance.

(vii) Great care in selection of Principals, and vesting them with appropriate freedom for action.

(viii) Build an effective quality monitoring system, linking the schools on hierarchical management system, at the block / district / state level.

(ix) New transparent system for approval, affiliation and regular evaluation of new institutions, with transparent processes, based on clearly established principles, with full public disclosure.

(x) Bringing accountability at each level of operation.

(xi) *Appropriate use of Information Technology in every aspect of governance of the sector.*

5.1.19 All the above have been separately discussed and course of action recommended in the appropriate sections elsewhere. Elsewhere also the need for coordination within the State, at the State Capital, Division, District, Block, and school levels has been made. Information Technology can be used as a major tool in furtherance of the above objectives. The Committee is satisfied that if substantive steps on the above mentioned lines are taken, the quality of governance will sharply improve, with consequent significant enhancement in the quality of education.

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5.2 Use of ICT for Improving Quality of Education

5.2.1 Major developments in Communication and Information Technology in recent decades have brought in new dimensions in the fields of transmission of data, and use of IT as a vehicle for monitoring and management, among others. In the education sector, this is one fundamental change since the previous Education Policy of 1986-1992. New possibilities have already opened up for use of information technology in different ways, not only to manage the sector, but also directly assist in enhancing the quality of teaching and learning. Many new applications are already in place; as developments in the IT sector advance rapidly, new opportunities constantly keep emerging, which could be appropriately harnessed and adapted to assist in the field of education.

5.2.2 The other significant development relates to the Digital India programme being rolled out under the initiative of the Government of India. As the implementation of this game-changing process advances, the likelihood is that the urban-rural divide will be bridged with a reliable communication information network, proceeding apace now and likely to be fully in place in the next three or four years. This will also sharply improve the quality and speed of delivery of information and many other services to the field, and could dramatically improve two-way exchange of data between the field formations and the management located at district/state/central headquarters.

5.2.3 Some experiments have already taken place, of different dimensions and quality in the education field. As will be seen later, the District Information System for Education (DISE) programme for gathering information and data, which is already in place, can be sharply upgraded for greater reliability and use as a monitoring/management instrument. Many high-end schools, particularly in urban areas are already experimenting with video material to supplement the prescribed text books for use in the classroom. A number of private companies have emerged to create digital material for use in the classroom, as well as for individual learning – the fact that many of them are already successfully functioning as corporates indicate the potential in this regard. Distance learning has made significant progress; the Government of India's initiative in creating

IGNOU is an important landmark in this direction. The potential for using imaginatively information technology for preparation as well as in-service training of teachers, as also to support class-teachers to put together creative teaching material to enhance the learning process needs to be explored, developed and exploited. The following sections indicate the possibilities as they appear today, in the opinion of the Committee. Without doubt, many new potential applications of IT in aid of education will emerge in the coming years.

5.2.4 There is no question that the power of computer technology needs to be harnessed to aid the cause of teaching and learning in the field of education. Many experiments have taken place in the past few years, but a clear picture has so far not emerged as to the specific ways in which Information Technology (IT) is being utilized in the classroom and elsewhere. The Committee notes that while the MHRD has continuously supported new initiatives and experimentation in this field, the large number of expert organizations attached to the Ministry of HRD have not adequately addressed the issue, with research and analysis, to roll out programmes designed to harness IT to improve education in India. This segment touches on the following elements:

- Background: Use of ICT in education.
- IT as aid to the teacher in the classroom
- IT to aid in remedial education.
- IT for use in training of teachers.
- IT for adult literacy.
- IT modules as learning tools in higher education.
- Use of IT for 'big-data' as a management and governance tool.

(a) Background: Use of ICT in Education

5.2.5 India recognized the importance of ICT in education as early as 1984-85 when Computer Literacy and Studies in Schools (CLASS) was introduced as a pilot project. Under this initiative 2598 secondary schools were provided BBC micro-computers during the 8th Plan (1993-98). In 1998 National IT Task Force was constituted by the Prime Minister which made several recommendations for making available computers and educational software to teachers and students. Computers and Internet were to be made available to schools, colleges and polytechnics by the year 2003.

5.2.6 During the last decade, thousands of computers have been installed in upper primary and secondary/higher secondary schools under various programmes of Central and State Governments. Some States have introduced Computers as an optional subject in SSC Board examinations. Government of India also provides assistance to States for production of audio, video and multimedia programmes through State Institute of Education Technology (SIET) set up in 8 States, under the overall guidance and support of Central Institute of Education Technology.

5.2.7 The 'significant role' ICT can play in school education was also highlighted in the national curriculum framework 2005 (NCF). The essential component related to establishment of 'smart schools' designed to become technology demonstrators. Till 2015, 85,127 ICT enabled schools were established in the country under RMSA. The thrust had been essentially on familiarizing the student with the use of computers, and teaching basic operations at secondary levels – the deployment of IT as an aid to education, or as a management tool had not been conceived of or focused on.

5.2.8 Unfortunately, the results of all these initiatives have not had the expected results. While computers have been provided to a very large number of schools, their use remains limited. In many schools hardware remains locked in the headmasters room, in many they remain in their original packing as either there are no teachers to operate them, or the computer rooms have not been made ready, or the school does not have electric power, or grants to pay electricity bills. Even where computers are used, it is mostly to teach programs like Word and MS office. Text books teach the theory of computing, and examinations are conducted to test that knowledge whereas emphasis should have been on hands on practical learning. Most schools do not have internet connectivity and computers are rarely used in Government schools as an aid for teaching and learning.

5.2.9 ICT should be made an integral part of school education where it is used as an aid to teachers and students. For this a beginning has to be made in the Teacher Training Colleges. Unless teachers are comfortable using computers and internet, they will find it difficult to use it as a teaching aid, or to guide students on its use; Teachers have to gradually become facilitators and encourage self-learning by students. Education can no longer be confined to what is in the textbooks; internet has removed all barriers to learning and made available sources of knowledge not accessible so far. The examination system will have to be revamped to test knowledge and understanding and not reproduce the text books. ICT can no longer be treated as a school subject; it has to become a way of learning process.

(b) IT as Aid to Teacher in the Classroom

5.2.10 In the past few years, a number of private initiatives have emerged India, to create video material following the text books in the curriculum of various school boards, or the NCERT suggested texts. Many schools in urban areas already use these aids to the teacher –such use is reported to be increasing particularly in urban schools. In this model, the use of computer is not required by the student, nor even by the teacher; only a video projection or equivalent of text-book material, suitably prepared and adapted, with animation features to make it attractive for young children, is used as a teaching-aid by the teacher in the classroom.

5.2.11 While surprisingly NCERT or NUEPA or any other technical/research agency has not found it necessary to do a study of these developments, the fact that many new corporate initiatives have emerged in this direction indicate that this has significant potential. No formal study is available to establish the efficacy

and value-added potential of such training material in aid of teacher in the classroom; it can be surmised that teachers do find it useful from the fact of exponential increase in such practices. The sceptics may also have a point in speculating that the induction of such technology is merely to impress the parent and the child about how 'modern' the school is in its teaching practices! This factor alone cannot disprove the potential for use of this method of teaching.

5.2.12 It has been said that 'a picture is worth a thousand words' – surely it should be possible to convey simple or even relatively complex concepts and ideas through animation and through pictorial depiction. It is important to pursue this as a potential instrument to sharply enhance the learning process in the classroom, particularly in the secondary schooling sector.

5.2.13 It is now fairly established that teaching material at the primary and secondary class levels, well prepared, and adapted to local conditions, can act as a powerful tool as aid to the teacher, in enhancing the quality of learning to the student. Experiments, particularly at the primary level have clearly indicated that the teacher cannot be substituted – IT cannot by itself deliver the necessary instruction material to the student. However, where the teacher is able to use well-prepared material as aid in the classroom for the teaching process, significant improvements in learning ability have been recorded. The Committee was informed of one such initiative, described below.

The 'Shiksha' Experiment

5.2.14 A private foundation has been implementing 'Shiksha', a project in 340 schools across 244 villages, mostly rural, covering 15,000 students of Grade 1 and 2, in different parts of Uttar Pradesh, for the past two years. An extract from their report (according to them independently verified) is reproduced below:

> "SHIKSHA Initiative" is a unique replicable and scalable program designed to enhance the education standard in primary education (Grade 1 and 2) with high-quality consistent content based on State Board syllabus and a technology-based mode of dissemination to instil learning retention among children. The pedagogy involves teaching with the aid of IT material, assessment of the student, querying, and augmentation – based on a procedure has been developed. The critical metric of the Shiksha Initiative is to ensure that 90% of the students (Grade 1 and 2) under the program retain 90% of the content taught in the classrooms.

5.2.15 According to the Foundation, independent assessment of the programme (the Committee did not have an opportunity to explore the evidence in depth) has demonstrated:-(a) Increased enrolment in schools and increase in attendance percentage; (b) Average attendance increase from 30% to 80% in Government schools and 90% in Private Schools; (c) Increased education standards in grade 1 and 2 – Students now able to write in grade 1, not normally demonstrated by students even in grade 3; (d) increased level of confidence in students: (e) motivated teachers/students; and (f) sharply increased scores in assessments.

5.2.16 The Committee notes that as Digital India is rolled out, cost of delivery system per classroom likely to decline dramatically; high quality teaching material, once prepared, can be reproduced at nearly no cost.

5.2.17 It is clear that the above potentially path-breaking initiative, and perhaps other experiments elsewhere in India, will open new vistas for enhancing quality of learning, particularly in lower classes (primary). Further experiments need to be embarked upon to test the methodology, with suitable adaptation, for higher classes, in the secondary level – the efficacy in conveying concepts relating to say physics or mathematics surely should be explored.

(c) IT to Aid in Remedial Education

5.2.18 Elsewhere, dealing with the school systems, the question of remedial education to help slow learners to come up to the average class level has been discussed. In the context of the RTE stipulation of no detention till class 8, it has become imperative to ensure that the relatively weak learners in each class are appropriately assisted to make up the gaps in their learning, to be generally in line with their cohorts as the schooling years progress. Since detention is a harsh step, and is to be resorted to only after all other attempts to bring a child to minimal acceptable levels in each class is exhausted, the remedial and augmentation modules, through animation and videos assume special significance. This is discussed elsewhere in the school section.

5.2.19 One attempt at remedial coaching may not be sufficient. In most rural areas, as also in urban areas, many parents would not be in a position to support private tuition to bring the child to minimal acceptable levels in each class. Apart from the remedial methods mentioned above, it needs also to be explored whether it is possible to arrange for learning modules, appropriately packaged for each subject relating to each class, be web-broadcast to be utilized on call or at specific timings in remote locations, where the student assisted by parents or teacher or on his own can use this additional option for making up for lost learning, and for coming up to minimal levels. This needs further exploration.

(d) IT as Training Material for Teachers

5.2.20 The generally accepted notion is that a child cannot learn, unaided, through video modules or through the internet; in many parts of the world interested adults have used these devices to study on their own. The Committee surmises that experiments may have been done in different parts of the world in this regard, particularly to prepare teachers as also to equip them to build their classroom lessons. Ministry of HRD has taken several measures to widen the use of ICT in schools, and many of these strategies have already been rolled out. It is suggested that a designated national agency should be encouraged to conduct experiments in this regard, and also monitor various initiatives being taken all over the country; some steps to encourage private initiative also would be useful. The proposed national agency can also be made responsible for tracking the use of software programmes and suggest improvements where possible.

(e) IT for Adult Literacy

5.2.21 There is much potential to use information technology to prepare relevant modules in aid of adult literacy. It is common experience that adults will not spare the time to learn new things, unless they have special interests in acquiring new skills, or are motivated to learn new languages or other material. Thus many illiterate women groups have been motivated to learn banking techniques through such IT video modules. A suitable agency in the Government of India should be encouraged to embark on new experiments in this regard.

(f) IT Modules as Learning Tools in Higher Education

5.2.22 There is immense possibility of harnessing the power of IT in teaching / learning processes in higher education. In many western systems, even from senior school classes onwards, the basic lecture by the teacher is sent on the internet to be seen at home by the student, to be followed up in the classroom by a discussion, question-answer session and analysis – to sharply enhance the learning experience.

5.2.23 IGNOU has been a success in Indian conditions. As elsewhere pointed out, opportunities should now be available for private initiative in spreading E-education. Much experimentation will surely be useful in this regard, using the experience of IGNOU, and nominating IGNOU as the leader of this national initiative, with appropriate safeguards and directions. This theme has been dealt with in Chapter 8.

(g) Other Possible uses of IT in Education

5.2.24 The above are only some of the new directions that need to be taken. As Digital India is rolled out fully, and more experiments are undertaken, it is equally likely that new innovative and imaginative uses of information technology will come to the fore, to be harnessed appropriately. The Committee has to leave this issue with the final thought that technology is only an enabler; it has to be harnessed and applied appropriately in each situation, to deliver new goals.

5.2.25 The above sections have indicated many new paths that need to be broken. As these are explored, further avenues will surely expand. A major thrust to use technology to enable sharply enhanced learning levels at the school and higher levels is now imperative.

(h) Revamping the Information Management System – 'Big data' in Education

5.2.26 The Government of India introduced the District Information System for Education (DISE) in 1994, to be implemented by NUEPA. As conceived at that time this was designed to capture information from every school, routing it through the block level, and aggregating it at the district level for final compilation at the state headquarters. The first data base was released in 1995, covering 18 states and 272 districts. With the launch of *'Sarvashiksha Abhiyan'* (SSA) in 2001, the DISE covered the whole country; by 2005-06 nationwide data was published. Since then

DISE data is now released annually, in both raw and processed form and made available in the public domain.

5.2.27 Under DISE each school is to have a 11-digit ID code, with differentiated coding for elementary secondary and other classes, from classes 1 to 12. It was only from 2012-13 that a Single Data Capture Format (SDCF) was used across the country for entire school education consisting grade 1 to 12, with the code name U-DISE, located in NUEPA.

5.2.28 U-DISE is now the 'Official Statistics' and compiler of data; all other parallel connections for information is now discontinued. NUEPA as nodal agency is responsible for data compilation, but their data is forever mentioned with the disclaimer that the 'accuracy and faithfulness' of the data rests with the State / UT concerned.

5.2.29 In concept, U-DISE is an extremely powerful instrument for gathering data. It must be noted that its validity depends on reliability of the information/data being fed into the system. Since less than 10% schools have computers and reliable source of electricity, most of the data are generated manually and collated at block or district level. Compilation of voluminous data manually and collated at the block level is most likely to result in mistakes and inaccuracies, questioning the validity of the data. Thus the reliability of the total data available at the state or national level could be highly questionable; with wide variations among states.

5.2.30 The Committee got the impression during field visits and discussions with state authorities that DISE data in many states may not be reliable. The Committee observed during its field visits that actual attendance in many primary schools was much less than the average attendance reported by DISE. In recent years, in some states, which have improved the computer capability in rural areas, the enrolment figures have actually shown a decline along with corresponding increase in drop-out rates.

5.2.31 If DISE has to be an effective information, monitoring and management tool, it is imperative that the data captured is dependable. Fortunately, the roll out of Digital India may now help in this regard.

5.2.32 It may be noted that in the next two to three years all blocks will be covered through fibre-glass broadband network, as per the plans of the Ministry of Telecom; the connectivity will also be extended within a short period to 2.5 lakh *Gram Panchayats*, with a local Wi-Fi hotspot for exchange of data. In conjunction with a handheld information device developed in India, with high reliability, it should now be possible in the near future to bring electronic connectivity to every school, however remote.

5.2.33 In short technology will be available within 2 years to populate DISE with fairly accurate data without time-lag, and without major manual data compilation, with relative ease and reliability. Preparations need to start without delay to use this opportunity to update the data collection systems on real-time basis.

5.2.34 The Committee has observed that at NUEPA, which is the focal point for national data compilation and dissemination, the data cell is highly inadequate. It also appears that it does not have competent advisory and technical arrangement with suitable IT expertise.

5.2.35 Once this is rolled out, this system has the potential to be a game changer. Every student (in every school, college, university or higher education institution), every teacher, Principal, school could have a unique identity – with real-time monitoring of education progress of students, teachers' contribution to learning, Principals' performance and the role of school / institution in the education process. This can be an extremely powerful monitoring and management tool, to upgrade the education process phenomenally, in an open and transparent manner.

5.2.36 The DISE system is now geared only to government schools. It needs to be expanded to include some parts of private educational institutions (unique identity and monitoring of each student is a must); and otherwise to capture necessary data relating to each private educational institution. That will complete the process of mounting a reliable educational data process.

Recommendations

5.2.37 Major developments in communication and information technology in recent decades have brought in new dimensions in the fields of transmission of data, use of IT as a vehicle for monitoring and management; also to directly assist in enhancing the quality of teaching and learning. Many new international applications possibilities have emerged; many of these have been tried out in Indian conditions. New possibilities continually keep emerging, which need to be appropriately harnessed and adapted in the field of education. It should also be noted that this will be an ongoing process, requiring initiatives from all stakeholders to contribute to the quality of education in India.

5.2.38 ICT should be made an integral part of school education where it is used as an aid to teachers and students. For this a beginning has to be made in the Teacher Training Colleges. Unless teachers are comfortable using computers and internet, they will find it difficult to use it as a teaching aid, or to guide students on its use, Teachers have to gradually become facilitators and encourage self-learning by students. Education can no longer be confined to what is in the text books; internet has removed all barriers to learning and made available sources of knowledge not accessible so far. The examination system will have to be revamped to test knowledge and understanding and not reproduce the text books. ICT can no longer be treated as a school subject, it has to become a way of learning process. This field is to be explored seriously and rolled out, in an appropriate manner, synchronizing with the Digital India Programme; such an approach will yield major dividends in a relatively short time.

5.2.39 ICT needs to be harnessed and adapted in Indian conditions to meet diverse objectives – in many fields where meaningful experimentation have taken place, as also new as-yet-tried out fields to be covered, including the following:

- *IT as aid to the teacher in the classroom.*
- *IT to aid in remedial education.*
- *IT for use in training of teachers.*
- *IT for adult literacy.*
- *IT modules as learning tools in higher education.*
- *Use of IT for 'big-data' as a management and governance tool.*

5.2.40 The potential for application of ICT in aid of education is immense. It is suggested that a designated national agency should be encouraged to conduct experiments in regard to potential use of ICT in the field of education, and also monitor various initiatives being taken all over the country.

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5.3 Constitution of a Standing Education Commission

5.3.1 The span of activity covered in the education sector in India is vast. In the vibrant aspirational democracy that India is, education should be in the frontline of national attention. With its universal outreach and potential for transforming society, it needs no emphasis that it deserves extra-ordinary attention.

5.3.2 Both in the policy formulation and the operational aspects, a major role is played by the Central Government. While certain aspects have a national focus, the States have considerable flexibility in applying their own norms in almost every segment of the education field. While the Central Government is responsible for overall national policy formulation, it is assisted by a number of a statutory or administrative agencies and institutions, which play a major role in every aspect of implementation; the states have also a number of supporting institutions, mostly autonomous, to assist in the rolling out of policies in the field.

5.3.3 The first post-independence National Educational Policy was announced in 1968; the next NEP 86/92 was in 1992. Subsequently the Right to Education Act was promulgated along with implementation of major programmes, covering the school and higher education sectors, as referred to elsewhere in this report. The sector has grown manifold in the past three decades, with the rate of growth not likely to slow down.

5.3.4 Amidst all these activities, the need for an overarching institution has been felt, which can assist the Central Government in providing a continuing overview, as the national education scene keeps reinventing itself on a nearly continuous basis. As new developments take place with great rapidity, the responses need to keep pace with the changed circumstances. The education sector requires the advice, guidance and assistance of a high quality think-tank, to help it be in touch with the continually emerging challenges, which beckon policy changes to be effected from time to time.

Recommendations

5.3.5 The Committee recommends that a high level standing Education Commission be established, with the mandate to continually study the evolving circumstances, the implementation of progress of policies pronounced, and provide timely advice and guidance to the ministry. It is not expected that the Commission would be an executive body, nor would its recommendations or advice would have any binding character. The Commission may also evolve the practice of issuing a 'National State of Education' report periodically perhaps once in two years. It is expected that the Commission will comprise of a limited number of experts and persons of eminence who have special knowledge and experience of the education sector in India, supported by a small secretariat.

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5.4 Need to Restrict Political and Other Distractions in University and College Campuses

5.4.1 Most students in our colleges and universities enroll themselves for study in courses of their choice; they spend a precious part of their young life in the pursuit of their education, with the intent of equipping themselves for various occupations, or to study a subject which interests them. Most of them spend significant resources, including hard-earned money of their parents; they also expend much emotional energy in preparing for the examinations, and to undertake the necessary steps to get the degree. Most students in almost all colleges and universities could be classified in the above category.

5.4.2 However, one frequently hears of agitations, disturbances, *gheraos* and movements of one sort or the other in various campuses from time to time; it is not infrequent that examinations need to be postponed or in some cases the student even loses a year or more due to unsettled conditions. Many of these adverse circumstances arise out of the activities of various groups of students and other interested parties, whose priority may not be that of the main-line student, but who may have other interests outside academic goals. Many national parties have their 'chapters' in nearly every university campus in India. Many campuses also have caste-or-community-based organizations. Thus one finds unions or associations of subsets of students, or teachers, or other employees, who aggressively pursue their special political or other interests, within the arena of the campus, and the college / university ambit. It is not infrequent that two or more of such groups of students or faculty members come into serious opposition with each other on this or other issue, and have no hesitation in blocking the main-line work of the university; they may have real or imagined grievances, but the collateral damage to the serious students can be heavy indeed.

5.4.3 The Constitution provides every citizen with the right to form groups or associations. However, every right has a corresponding duty implicitly attached to it, that every right is circumscribed to ensure that it shall not adversely affect the interest of others. The Committee finds no major study in this regard, which has

analyzed the activities of such political or sectoral or caste or community organizations or groups or 'clubs' in the campus, and evaluated their impact on the average student, and the cause of education in India – the cost of the damage is rarely estimated in such situations.

5.4.4 Traditionally universities in the US and the western world have encouraged new ideas to flourish, and have never placed any restriction of any kind on freedom of speech or association within their campuses. It should also however be noted that one has rarely heard in the context of US or Europe or other educationally developed countries of postponement of examinations or disruption of academic activities, arising out of groups of students pursuing their 'right' to free speech and association. Thus while intense political activity takes place nationally during an election year in US, like in 2016, and the student groups discuss these issues with much animation, one has never heard of disruption of the academic atmosphere in these universities. India, having its own unique features, needs to learn from other systems, as well as adopt or adapt them to our special needs. The Committee wishes to pose the question, without giving a clear-cut formula, whether the time has come to take this issue seriously and see if some steps are required to safeguard the interests of the vast majority of the students in pursuing their academic goals.

5.4.5 Universities and colleges are temples of learning. Some self-imposed restrictions surely should be in place to ensure that the primary work of the universities should be conducted without hindrance. Ideally the universities ought not to lend themselves as play grounds for the larger national rivalries, inequalities, inequities, and social / cultural fault-lines; these need to be tackled by society as a whole in other fora a such as parliament, courts, elections, etc. The point in short is that it is now essential to review the current situation, and find the balance between free speech and freedom of association guaranteed by the Constitution, the needs of various sections of society, and balance them with the primary purpose for which the universities and institutions of higher learning have been established.

(a) The Lyngdoh Committee

5.4.6 In 2005, the Apex Court asked the Lyngdoh Committee to look into the issue of elections in universities and colleges. The thrust of the Supreme Court conclusions clearly favoured strong restrictions on method, system and procedures of elections to unions within the institution. The Supreme Court accepted a number of recommendations, which inter-alia correspond to curbing the activities of student unions etc., which could potentially disrupt the academic atmosphere. "There shall be no appeal to caste or communal feelings for securing votes." Indeed the use of loudspeakers for the purpose of canvassing was to be prohibited. The thrust of the Apex Court's judgment is clearly to preserve the academic atmosphere in the institution. It is suggested that an examination may be made to extend the principles of the Lyngdoh Committee recommendations, to be expanded to include 'non-recognition to student groups that are explicitly based on caste, religion, or one political party'.

(b) Permission for Period of Stay of a 'Student' in the Campus

5.4.7 One other element need to be stressed. One frequently hears of 'students' who continue for 7 or 8 years or more, enrolled in the university, and occupying the hostels – in general should there not be some guidelines or time limits for enrolment in a particular course or for occupation of hostels; those who stay for long periods start 'owning' the universities, and frequently have an undue influence on the course of non-academic activities in campuses.

5.4.8 The argument is often heard that the universities are the crucibles where 'political leadership' is created in India. There may not be universal acceptance to this thesis, nor even its validity.

5.4.9 The Committee surely does not want to give the impression that it is in favour of curbing free speech or right to association – the Constitution has guaranteed this to every citizen. Indeed the Committee has no immediate prescription to 'solve' the problem. The Committee however strongly recommends that this issue should be the subject of public debate, not only involving the vocal segments of the community who are votaries of 'free speech', but also the large silent mass of students and parents – indeed the community at large – to see if action, if any, is required. This is merely a plea for highlighting the issue, so that some light can be thrown on it through a large public discussion, in a calm and quiet atmosphere.

5.4.10 It should be added that the Committee has consulted at least one senior advocate. The opinion received indicates that reasonable restriction on speech or association, which falls squarely within the ambit of Article 19, may not be deemed to be a violation of fundamental rights. 'Prohibiting such activities within the campuses – or within a radius thereof – will be considered as reasonable'.

Recommendations

5.4.11 The Committee recommends a careful and non-emotional examination of the issue of permitting chapters of national political parties, or caste / community based organizations within campuses of universities. The Committee recognizes the great importance of unfettered generation of ideas, free speech and association in university campuses; it wishes to draw the impact in many circumstances of these on the rights of the students who are keen to pursue their academic goals in a time bound manner, in which they have invested heavily in time, energy and emotions. Should there be an enforceable code of conduct, or a law consistent with Article 19, are issues that could be covered in the discussions.

5.4.12 The Committee also would suggest a debate on the desirability of allowing students to continue in campuses for long periods, even after the normal schedules for each courses, or preparation of working for Ph. D etc. is over; should there be time limits imposed on these elements?

5.4.13 The Committee recommends a revisit of the recommendations of the Lyngdoh Committee as they have found support from the Apex Court. Student groups that are

explicitly based on caste, religion, or any political party should be abjured through the statues governing the universities and institutions.

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5.5 Creation of an All India Education Service

5.5.1 The subject of creation of a Central Service exclusively in the field of education has been suggested from time to time. Education is a field where the Central Government has a significant role to play; equally the states have the flexibility and the autonomy to make policies, create institutions, and manage the sector in the manner best suited. The education sector in India employs nearly one crore personnel at all levels, including the school and higher education segments – this is roughly 8 times the next largest organized employing sector, viz. Railways or the Armed Forces. Looking it at differently, apart from the rural agriculture sector, and the textile sector, which provide the largest employment in the country, (though not on organized wage employment basis), the national education sector is the largest organized employer in the country. The sector also has the maximum public contact from the government – it is estimated that 1/5th of the population is in daily touch with the formal education sector in India.

5.5.2 The attention given to management in the sector, as discussed elsewhere, is not commensurate with the seminal role it plays in national society. The largest segment of employment in this sector relates to school teachers and principals – elsewhere improvement in personnel management to these critical groups of employees is discussed. Again the issue of overall management of the sector is covered in the sub-chapter relating to Governance in the education field.

5.5.3 Many states have created an Education Service, to man the administrative and management posts within the state. By and large, the quality of people in these cadres is reasonably good; the main reason why they are unable to pull their weight in improving management in the sector is due to poor governance factors, discussed elsewhere, as well as the fact that the state cadre officers rarely get to policy-making positions within the state. Even at the Centre, the senior personnel in the ministry dealing with policy generally are from various all India services, with strong representation from the IAS Cadre. The supporting statutory and other institutions of the MHRD, including the universities, have their own cadres, specially recruited, with little mobility to move to other fields in the education sector.

5.5.4 It is also observed that while vertical movement among the various groups of employees in the sector is often restricted, their movement across segments of the education sector is also quite limited. By and large, upward mobility is restricted by the principle of seniority, with little emphasis on merit. The lack of cross-fertilization of ideas stemming from absence of horizontal mobility is a serious constraint on improving the quality of management in the education sector. There is no cadre of high repute and credibility with mobility potential across and within states for managing the sector.

5.5.5 The Committee feels that the time has now come to create an all India service – the Indian Education Service. While this could be patterned on the other All India Services, there could be significant differentiation taking into account the special needs of personnel to function in the sector. The UPSC commands high credibility. It is proposed that the IES (Indian Education Service) could also be recruited through the UPSC.

5.5.6 Pending the commencement of direct national recruitment to the IES, there could be a one-time special recruitment, under the aegis of the UPSC to get the service going, from among the existing cadres in the various states. Creation of an Indian Education Service would require support of the states.

Recommendations

5.5.7 The Committee recommends the establishment of a new Central service, the Indian Education Service (IES), which will function as an All India Service; with the officers being on permanent settlement to various state governments, and the MHRD being the cadre controlling authority. Persons from the cadre would progressively man the higher level policy posts at the state and the Centre; they will be, like other AIS officers, deployed in teaching or managerial positions; there is also the possibility for lending IES officers to education institutions, which will broaden the experience and in course of time enhance their efficacy. Part of the manning of the national institutions attached with MHRD could also come from this cadre.

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5.6 Dealing with Litigation

5.6.1 There are thousands of court cases, at the Centre and in the states, mostly concerning service conditions of teachers and other officials working in the education departments. The highest echelons of the Department spend a lot of time and energy in responding to court matters, which often drag on for long periods, resulting in neglect of other important matters concerning the education sector's core priorities and functions. With the proliferation of Central Universities, as well as institutions like Kendriya Vidyalayas, Navodaya Vidyalayas etc., there is a large backlog of cases in the Central Administrative Tribunal (CAT) and in courts.

5.6.2 In a number of states, posts of school heads are lying vacant for years due to litigation. Many teacher recruitment processes are also inordinately delayed due to litigation. The school education departments and directorates in many states find it difficult to cope with the volume of court cases, particularly in personnel related matters, but also to others arising out of different kinds of administrative decisions. In a number of contempt of court cases, senior officers are often required to attend court personally. The Committee even heard, probably facetiously, that many states have two secretaries in each education department – one to handle the department's work, and the other to attend the High Court and other courts on summons for answering 'contempt' charges; the

point is that this issue has not been hitherto properly addressed. The Committee is satisfied that a new approach to deal with the volume of such litigation needs to be examined, to result in savings in time, energy and cost.

5.6.3 The main reasons for such large number of court cases relate to lack of clarity in procedures, arbitrary action, lack of transparency and indifference towards genuine grievances. Attention needs to be given to address these administrative issues, which would help reduce litigation.

5.6.4 A system needs to be devised to attend to grievances, particularly relating to service matters, as also follow up of administrative decisions, expeditiously and in a fair manner, especially to deal with the volumes of such litigation in states. The Committee suggests that each State Government may consider setting up judicial tribunals at the state headquarters, and even at other centres in the state as required, headed by a retired district judge or high court judge, with two serving or retired state government officers of the secretary level as members. The number of tribunals could increase based on volume of work. These tribunals would be designed to take up first appeals against orders of the concerned state government or their agencies. The above appellate board should not normally entertain an appeal against a departmental decision after the expiry of 30 days of the receipt of the order of the government decision, in respect of a service matter or other executive decision relating to administration of the department's work. The appellate board should be designed to dispose of the appeal normally within three months of lodging. This device should sharply increase focus on early settlement of executive disputes relating to service and other matters of school or college administration. Surely appeal will lie to the relevant higher courts. It is suggested that the above device should significantly help address the burden and cost of litigation involving the state education departments.

5.6.5 It may also be examined whether at the Centre, an appropriate departmental tribunal may be created, presided over by a retired high court judge and comprising of two officers of the rank of secretaries to the government, retired or serving to listen to first appeals against orders of the Central government or their agencies. This decision may be taken based on the volume of pendency of departmental and service cases in CAT and in other fora. The above appellate board shall not entertain appeal against a departmental decision after the expiry of 30 days of the receipt of the order of the government decision, in respect of any service matter or other executive decision relating to administration of the department's work. The appellate board should be designed to dispose of the appeal normally within three months of lodging. This device should sharply increase focus on early settlement of executive disputes relating to service matters or school or college administration. Surely appeal will lie to the relevant higher courts. It is suggested that the above device should significantly help address the burden and cost of litigation involving the MHRD. Additional regional tribunals could be setup as required, based on volume of litigation from time to time.

Recommendations

5.6.6 The Committee notes the very heavy volume of litigation, mainly concerning service matters, but also relating to other administrative disputes, pending in the various wings of the MHRD, and related agencies of the Ministry. Depending on the volume and nature of service disputes covered by the Central Administrative Tribunal (CAT), the Committee proposes establishment of Administrative Tribunals at the Centre and in the states, to be chaired by retired judges and with members drawn from academic and educational administrative sector; these tribunals should be statutorily the first point for hearing service disputes and other administrative matters, to give a finding within a specified schedule (say three months). Appeals will naturally lie to other courts; but this device should sharply decrease the volume of litigation involving the ministry, and consequent expenditure of time, energy and resources.

5.6.7 The Committee similarly recommends that the State Governments may appoint one or more such tribunals at the state headquarters and at other centres in the state, to deal with litigation concerning service matters, and other disputes, with a tight time schedule. It is proposed that these tribunals could be headed by a retired district or high court judge, comprising of two retired or serving secretary level officers. While appeal against the orders of the tribunal will lie to the relevant courts, it is expected that mostly only matters relating to legal issues will be taken up on further appeals, leading to considerable savings in time, energy and resources.

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5.7 Public Expenditure on Education

5.7.1 The earlier NPEs of 1968 and 1986, as modified in 1992, had all recommended 6% of GDP as a norm for the national outlay on education. The 1968 NPE stated that "the aim should be gradually to increase the investment in education so as to reach a level of expenditure of 6 per cent of the national income as early as possible." This target had been endorsed by the 1986 NPE. The modified 1992 NPE went further and stated that "the outlay on education will be stepped up to ensure that during the Eighth Five Year Plan (1992-1997) and onwards it will uniformly exceed six percent of the national income."

5.7.2 Despite these exhortations, however, the expenditure on education has consistently remained well below this level. From 0.64% in 1951-52, the ratio climbed to 3.84% in 1990-91. It briefly breached the 4% threshold at the turn of the millennium but has thereafter reverted to a level of around 3.5% in recent years. Just for comparison, the corresponding level of expenditure in OECD countries is at an average of 5.3% of the GDP of those countries; indeed 11 OECD countries exceed 6%. Note that these are highly developed countries, where income levels are high; the governments consider such expenditure as investment in their people. In India's current state of development, a minimum of 6% of GDP, if not at much higher level, should be essential expenditure in the education sector.

5.7.3 As a percentage of the total government expenditure across all sectors (budgeted expenditure in the revenue account), expenditure of Centre and States/UTs governments on education has been hovering around 8% and 22.5% respectively over the past few years. While share of the expenditure on education by States and UTs as a percentage of their total budget on all sectors has been stagnating over the past few years (i.e. around 22.5%), expenditure on education by the Central Government as a percentage of its total budgeted expenditure on all sectors has been increasing marginally during this period [i.e. from 7.5% in 2011-12 (actual) to 8.6% in 2013-14 (budget estimates)] (Analysis of Budgeted Expenditure in Education, 2013-14).

5.7.4 All states together spent (revenue and capital Rs.3,75,291 crores in 2014-15; the Union Government spent Rs.78,661 crores that year. It is to be noted that over the past ten years the rate of spending of states has declined marginally; while the Central Government share has increased from 13% to 17% in the same period. Latest NUEPA estimates indicate that the highest growth in expenditure in past ten years is in elementary education, largely contributed by expansion of RTE (also presumably due to sharply increased pay scales of teachers based on Finance Commission's recommendations); on the other hand the growth in expenditure in secondary education is much lower. In contrast, allocation for adult education has started falling in recent years.

5.7.5 No clear basis is available to assess the quality of expenditure in education, as also to compare allocations between different regions in India. Using SSA as the proxy, latest NUEPA analysis points out that the Southern states have sharply increased their allocation of the total from 14% to 19%, while during the same time, the Eastern and Middle States lost their share from about 40% to 29%; the Northern states also lost their share from 40% to 36%. Again while numbers available are not fully reliable, research elsewhere indicates that there is a correlation between the expenditure share on education in each state to the quality and growth in education standards.

5.7.6 Due to financial transfer recommended by 14th Finance Commission, the states would get 42% of the tax devolution in FY 2015-16 as against 32% in the previous period, translating into an additional Rs.3,93,912 crores available to states in 2015-16. It is not quite clear as to how this will translate into additional allocation to the education sector. With less budgetary resources with GOI, allocations to education sector in general and school sector in particular may start coming down, in contrast to experience of recent years – indeed this is already reflected in the GOI budget of 2015-16. Besides, the funding pattern for most centrally sponsored schemes has been revised to 60/40, reducing the central share. It remains to be seen if in fact the states' share in education would go up or not – logically it should; only time will tell. Again it has been argued that the 14th Finance Commission award may not indeed result in higher allocation to the states. The key question remains as to what is going to happen to the issue of financing of school sector in totality from 2015-16 onwards – the issue is of critical importance.

5.7.7 The 6% norm is by no means excessive when set against the standards of other developing countries. While Cuba devotes over 18% of its GDP to education, Malaysia, Kenya and even Malawi manage to cross the 6% bench-mark. The global weighted average of Government spending as percent of GDP for all the countries in the world is 4.9%, substantially above that in India.

5.7.8 The Committee reiterates that 6% of GDP is the minimal level of expenditure on education which must be attained almost immediately if there is to be any realistic hope of meeting the needs of the sector.

Imperative need to maintain at least 6% expenditure of GDP on education

5.7.9 Policies in the past decades have visibly increased participation in education by all section of the population, as figures mentioned elsewhere indicate. Both in school education and in higher education, while distribution of students from economically weaker strata has increased, the casualty has been in the quality of education. India's strength is its human resource; this has to be nurtured – education is the simplest and surest way to ensure optimal utilization of India's demographic advantage.

5.7.10 A massive programme for skill development has been embarked by the government, noting that 65% of the population is under 35 years of age. The work force in the next decades need to be adequately educated / trained, for them to play a part in nation building. Indeed if this is not attended to with great care today, the projected demographic 'dividend' may actually turn out to be a 'disaster' in the next decades. This Committee's report recognizes and stresses the urgent need to sharply increase quality in our education system, which includes skills training and vocational education, for which new innovative comprehensive programmes need to be rolled out without delay. It will be short-sighted indeed if this is not recognized today, as we will then be mortgaging our tomorrow by failure to act now.

5.7.11 It is also in the above spirit that the Committee has recommended full roll out of the ECCE, with its unavoidable implications for additional finances. The need for vocational/skill training will also require massive investments. The funds for these have to be found.

5.7.12 The Committee realizes that additional allocations alone on education will not ensure quality – a number of collateral steps are essential, outlined by the Committee elsewhere in the Report. However, the extreme focus on pre-primary and primary education has to be intensified; the secondary sector has been relatively neglected – it has to be provided for adequately. The conclusion is inescapable that a minimum of 6% of GDP needs to be devoted to the education sector (not including the separate needs of skills/vocational training.

5.7.13 The 1968 as well as 1986 policy rightly stressed the minimum 6% expenditure of GDP in education. Successive governments had not heeded to this call. Development of the human resource is a basic national infrastructure; there is

perhaps inadequate recognition that it is even more important than physical infrastructure.

5.7.14 Considering the critical importance of focusing on the school sector, and equally to develop qualitatively and quantitatively the higher education sector, it is now imperative that funds should be found to meet the total needs of the school sector; the resources from the private sector need to be adequately marshalled for the needs of the higher education sector.

5.7.15 The approach to funding programmes in the child education sector must undergo a fundamental change. Programmes must be budgeted from the bottom up, instead of being pruned to fit top down budgetary allocations, as is presently the case.

5.7.16 It is a truism, but nevertheless worth reiterating, that there can be no better investment than in the future of India's children.

Recommendations

5.7.17 The Committee recommends that the outlay on education should be raised to a minimum level of 6% of GDP with immediate effect.

5.7.18 Additional funding needs to be found for meeting the needs of ECCE as recommended elsewhere in the report.

5.7.19 The separate needs for vocational/skills training, in large scale, are also imperative; additional financing, outside the 6% referred to would need to be found.

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5.8 Need for Special Academic and Other Support to Children from Socially and Economically Weaker Sections

5.8.1 The Committee has recorded that over the years, accessibility to education in India has significantly improved. It is also largely true that the equity aspects have dramatically improved, particularly after RTE has come into being. There is now general awareness of the constitutional/ statutory duty that every child should have a substantial period of formal education. While infrastructure deficiencies continue in the school sector and the dropout rates are also unconscionably high – aspects which have been highlighted in this report – the fact is that our school and higher education sectors are now open to segments of society which were not participating hitherto. Indeed the main message of this report is to stress the need for up-gradation of the quality of education, in all its senses, across the board.

5.8.2 The field visits, as well as the interaction that the Committee members had with experts, officials, teachers and other stakeholders, have highlighted the need relating to one aspect which has not been sufficiently recognized or commented upon by observers and researchers, especially in respect of school sector, but also as it partially obtains in the higher education sector. Apart from the infrastructure

and other systemic gaps in management and organization that have been described in the report, there is perhaps inadequate articulation of one key element, relating to the process of 'learning', as it obtains in the Indian scene today.

5.8.3 The Committee has observed that with all the safeguards that the system provides to ensure equity, and equality among all concerned, there is a significant element of handicap suffered by the economically weaker segments, as well as a substantial membership of the socially backward communities relating to inequality in learning opportunity. The reference here is not to the fact that expensive private schools are accessible to the relatively affluent, who also have access to private coaching options to ensure that they get the most of their educational opportunities; there are other certain sociological and circumstantial factors which have not been hitherto sufficiently understood, or not commented upon. In three separate sets of circumstances, the Committee feels that these factors come into play. Some elements of these are mentioned below:

(i) It is well recognized that in the early childhood classes, particularly Class 2 to Class 4 the basic language and arithmetic skills are learned by the child, which becomes the core base to build on for their future education. Indeed there has been a reference to the principle of '90-90' – which refers to the goal in every class that 90% of the students acquire mastery over 90% of what is being taught. This is the ideal, but is rarely achieved. Indeed ASER and other reports have commented on the very substantial percentage of students, even at class 8 level, unable to have mastery of the curriculum of say, class 4. This failure in the early classes will surely handicap a child throughout his educational career, indeed whole life. It is noticed that there is no inbuilt mechanism within the schooling process or in the pedagogy, or the safety-net procedures to keep a watchful eye on laggards, to ensure that they are given a helping hand close the gap to reach to the average level of the class. The Committee has elsewhere referred to 'remedial measures' or 'augmentation' systems – there is no additional focus that in general the children from economically weaker sections and socially disadvantaged groups need special care, attention, from all who oversee the task of looking after the education of these children. In short, the first area where this principle of 'special attention' should apply relates to the earlier primary classes, to target the children from economically weaker segments and from socially disadvantaged classes.

(ii) The next stage where this syndrome, if one may categorize it as such, applies usually around the early periods of class 11, for those who clear the class 10 barrier, particularly those from rural schools. This is the period where education becomes highly intense, and the school authorities / teachers cannot pause to give special attention to those boys and girls, particularly from rural background, who cannot cope up with the pace of the class. In this competitive atmosphere, most children who

would tend to flounder left to themselves, could immensely benefit from assistance to cover a difficult phase in their educational career. Anecdotal experience as heard by Committee repeatedly refer to extra attention – a helping hand – rendered at this juncture, could be a boon to a large number of such children to tide over simple problems – relating to the academic subjects, language difficulty, adjustment and orientation issues – and make them feel comfortable with the pace of their courses and their studies. This is possibly one area where some remedial attention, to identified children could be of great use.

(iii) Finally, the Committee heard repeatedly, in the context of engineering and other technical courses, that the new comers, particularly from rural schools, frequently find themselves unable to cope with the situation, partly for sociological reasons, and also from diffidence that they are unable to adjust with the urban environment and the college atmosphere. Experience has shown that at this critical period in their educational career, young men and women need a helping hand to tide over a difficult phase – cross their mental barrier, after which they effortlessly blend into the normal phase, and rhythm of the course and curriculum. In particular, those from rural schools, who may have learnt their subjects in their mother tongue, frequently, find barriers in crossing the language bridge, and tuning themselves to the 'college' atmosphere – assistance to sort out their real or imagined issues at this juncture could pay dividends.

5.8.4 The Committee feels that those who are in-charge in implementation policy and systems, need to be aware of the special difficulties of certain classes of students at certain phases of their school/college careers; and with appropriately designed remedial/advisory/guidance/training facilities organized, the large unnecessary wastage that one now sees in the educational system could get mitigated to a considerable extent – allowing millions of youngsters to derive full value from their education, on which they have expended so much energy and resources.

Recommendations

5.8.5 The Committee wishes to highlight that there are critical stages in the 'learning' periods of children, where they need a special helping hand to guide them, with some extra training or coaching or advisory facility to enable them fully to use their educational opportunities. This observation relates, in general, to children from economically backward segments, as also socially disadvantaged groups. While such periods for each child cannot be defined accurately, in general, many such children need assistance and help particularly in three stages during their educational career – (a) in the period of primary schooling where it is important to learn the basics of 'language' and 'arithmetic'; (b) in early class 11 phase, where the courses become tougher, a system to help them feel at home in the extra competitive atmosphere of the class; and (c) finally, in the early periods in technical courses, particularly with respect to rural youngsters who did their schooling in their mother tongue, to

acclimatize them to the prevailing circumstances and conditions of urban learning centres.

5.8.6 The Committee recommends that a well thought out programme may be evolved, based on local resources, conditions and circumstances, to assist students in these critical periods. This would be in addition to the overall recommendations made by the Committee in this report to sharply upgrade the processes of learning, across the education system.

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CHAPTER VI

School Education

6.1 Structure and Delivery of School Education

6.1.1 The broad pattern of school education in India has been described in the earlier part of the report; in this section some critical issues relating to structural organization of schools and their impact on cost of education, and its quality are discussed.

6.1.2 There has been massive expansion of school education in India in the last few decades. There are 15 lakh schools in the country as per DISE data for 2014-15. Government owns and manages nearly 75% of elementary, 43% of secondary and 40% of higher secondary schools, the remaining are privately owned and managed. There are 25.95 crore children enrolled in school education, including 19.77 crore at elementary level; 3.83 crore at secondary level; and 2.35 crore at higher secondary level (U-DISE 2014-15). Enrolment in private unaided elementary and secondary schools is around 33% each; and 39% at higher secondary level. Private unaided and aided schools account for nearly 42% of the enrolment in the school sector (grades I-XII).

6.1.3 School education in India is provided mostly in small schools. Nearly 33% of all schools taken together have less than 50 students and 54% less than 100. About 77% of schools have less than 200 students. The proportion of small schools in the government sector is relatively higher than in private. The preponderance of small schools not only affects quality of teaching and learning, but also makes school education inequitable, and expensive in terms of per pupil expenditure. Such schools are neither academically nor financially viable.

6.1.4 Several studies have established that basic infrastructure facilities like availability of class rooms, toilets, and drinking water impact attendance, retention, and quality of learning. The RTE Act lays down the minimum physical and academic infrastructure for a school. Unfortunately, most Government schools, and a large proportion of private schools do not fulfil the norms prescribed by the RTE Act. At elementary level, only 6 out of 10 children enrolled in Grade I reach Grade VIII, 47% children drop out by the time they reach Grade X. Dropout rates for SC/ST and girl students are generally higher. Thus, while there has been improvement in school infrastructure in many states due to initiatives taken under SSA, the overall condition is far from satisfactory. It is not as though conditions are any better at the secondary school level – a matter of equal concern.

Recommendations

6.1.5 The delivery of school education through small, non-viable schools with low enrolment, inadequate teachers, poor facilities and high per pupil cost has adversely impacted the quality of school education in the country. The Committee therefore recommends that the focus of development of school education must now shift from physical expansion to consolidation of existing school system. The Committee recommends that each State undertake a detailed exercise of school mapping to identify schools with low enrolment and inadequate infrastructure.

6.1.6 Wherever possible, efforts should be made to convert existing non-viable schools into composite schools for better academic performance and cost effective management. It will be easier to consolidate, improve infrastructure and provide more teachers when smaller schools located in the same neighbourhood are merged. Ideally, when schools are merged they should be located in the same campus as the secondary/senior secondary school. At other places where very small schools are to be merged with other schools, students will need to be provided transport facility through School Management Committees. With merger and consolidation, teacher availability will improve due to redeployment, and it will also be possible to appoint full time principal/headmaster for schools with viable student population. It will also be possible to provide better sports infrastructure, computer and science labs, and facilities for extracurricular activities. More than the infrastructure availability, children benefit from the sense of belonging in a school, which is well staffed and better equipped. The Committee was informed that some states like Rajasthan, Chhattisgarh and Gujarat have started the process of consolidation, which is yielding good results. The Committee, therefore, recommends that Centre in consultation with States should issue common guidelines for mergers and consolidation without diluting the spirit of easy access laid down by RTE Act.

6.1.7 The Committee is of the view that the consolidation referred to above will enable the country to achieve one class – one teacher norm in a foreseeable future.

6.1.8 The Committee also recommends expansion of open schooling facilities to enable dropouts and working children to pursue education without attending formal schools. The Committee has elsewhere made detailed recommendations for creation of skill schools for improving employment opportunities for high school students.

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6.2 Teacher Management

6.2.1 The teacher is the fulcrum around which school education revolves; it is rightly said that an education system is as good as its teachers. While many initiatives have been taken in the last few decades to improve the process of teacher recruitment, transfers, deployment, and competencies, the system, by and large, continues to be chaotic, and not capable of providing good quality school education.

6.2.2 There are more than 80 lakh teachers in elementary schools, and more than 20 lakh in secondary and higher secondary schools in the country. Around 59% of elementary teachers are in government schools; and yet, around 8% of all elementary schools in the country are single teacher schools.

6.2.3 Indian society and culture has traditionally accorded a position of great respect to teachers. They were respected for their knowledge, wisdom and commitment to their students. Unfortunately teachers have, during the last 30-40 years, have lost that respect, and are not now seen in very favourable light. The Committee believes there is no possibility of improving the quality of our school education unless we restore the credibility of our teachers.

6.2.4 There are many teacher related issues in our school education which need to be addressed. Some of these are:

(a) Teacher Shortages

6.2.5 It is estimated that there is a shortage of more than 5 lakh teachers in elementary schools; nearly 14% of Government secondary schools do not have the prescribed minimum 6 teachers. Typically teacher vacancies are more in tribal areas and far off villages where teachers are reluctant to be posted due to inadequate facilities.

(b) Teacher Absenteeism

6.2.6 Teacher absenteeism has plagued our school system for many years. Teachers are unionized and politically influential as a result of which there is neither political will nor administrative initiative to remedy the situation. Some states are trying to address the malaise by strict vigilance and monitoring, and use of mobile phones and bio-metric attendance recording, but the situation is far from satisfactory.

(c) Teacher Recruitment and Transfers

6.2.7 Teacher recruitment and transfers have become a major source of corruption in many parts of the country. Some states are trying to address the problem by introducing transparent and merit-based processes but elsewhere this remains a blot on the school education system.

(d) Teacher Grievances

6.2.8 There are thousands of cases filed by teachers and pending in courts, mainly concerning their service conditions. Lack of efficient systems to address teacher grievances has affected teacher morale. There is also resentment among teachers against their deployment for several non-academic activities in spite of injunction of the RTE Act.

(e) School Leadership: Role of Headmaster/Principal

6.2.9 Till recently most states did not have an independent position of Headmaster in primary schools; one of the teachers was given additional responsibility of Headmaster. While Government secondary schools did have the post of principal, many remained vacant for years due to delays in recruitment, litigation and administrative apathy. Lack of effective leadership in Government schools has contributed to indiscipline among students and teachers and falling academic standards.

(f) Teacher Education and Training

6.2.10 This has been discussed in another section of the report; suffice to say here that majority of teachers lack adequate subject knowledge and required teaching skills which has resulted in poor quality of classroom transaction and learning levels.

Recommendations

6.2.11 The Committee is convinced that unless there is a competent and committed cadre of teachers, quality of school education cannot improve. The Committee feels there is an urgent need to address the above major issues relating to teacher shortages, absenteeism, recruitment and transfers, teacher grievances, and professional development of teachers in a comprehensive and effective manner. Some directions to approach these objectives are referred to below.

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6.3 Teacher Education, Deployment and Professional Development

6.3.1 The poor quality of school education is a direct result of poor quality of teacher education and teacher training. Teaching which was at one time considered a noble profession is no longer the career choice of our youth, particularly in urban India. Students with better scores at higher secondary and graduate level prefer engineering, medical, management, and commerce courses and generally those who do not get admission in any of these courses join B.Ed. as a last resort.

6.3.2 In their interactions in different parts of the country, the Committee was told time and again of the poor quality of our B.Ed. courses. The one year programme did not equip the future teacher either with subject knowledge, nor teaching skills. For many years B.Ed. degrees could be obtained by correspondence courses until these were shut down. The quality of most other colleges offering B.Ed. programmes was far from satisfactory. State Governments and NCTE became partners in proliferation of such colleges which were nothing but degree shops.

6.3.3 The condition of Primary Teachers Training Colleges has been no better. For many years eligibility for admission to such course was 10th pass and after one year diploma these teachers could teach students of 7th and even 8th! Even today the entry level eligibility for a primary school teacher is only 12th pass, graduation is required for teaching in upper primary level. The rapid expansion of primary education and demand for teachers led to mushroom growth of sub-standard diploma colleges, and many teachers certified by these colleges became teachers in Government primary schools.

6.3.4 For the last 3-4 decades, Government schools have employed teachers with low academic achievement, and inadequate pre-service training. It is only recently that RTE Act has laid down graduation as entry level qualification for teachers of upper primary sections, and NCTE has prescribed compulsory 2 year B.Ed. course which would result in Government schools getting better quality teachers in future; till then the system will have to depend on in-service training of lakhs of not-so-proficient existing teachers for improving learning standards in Government schools.

6.3.5 Our education system has paid a heavy price for neglect of teacher education. The Committee feels that some drastic, even unpopular measures will need to be taken to improve the quality of teacher education and teachers.

Recommendations

6.3.6 Regional Colleges of Education used to offer 4-year integrated teacher education program after 12th. Delhi University and Institute of Teacher Education Gujarat offer similar programmes with good results. The Committee feels that the time has come when integrated 4-year BA/BSc/B.Ed. courses should be introduced in all States. The advantage of this is that the student has to make an affirmative career choice for teaching, the course will be strong in subject content and students will acquire pedagogical skills along with subject knowledge. State Governments should gradually convert existing B.Ed. to integrated courses by offering preferential employment to such graduates.

6.3.7 The Committee also recommends that the possibility of introducing 5-year integrated course after Std X for elementary school teachers, and 5-year course after 12th for higher secondary teachers should be explored. An advanced one-year diploma course for secondary teachers may be prescribed to enable them to teach in higher secondary classes.

6.3.8 For hilly, tribal and inaccessible areas, alternative models of pre-service training need to be explored to improve the quality of teachers. DIETs in these areas can run 5-year courses (or 10+3) exclusively for girls after Std. VIII, with full financial support and job assurance, to address the problem of teacher shortages in these areas.

6.3.9 The Committee recommends that for entry in existing B.Ed. courses, there should be minimum eligibility condition of 50% marks in graduation. The Committee

recommends strict application of TET for recruitment of all teachers. Centre and States should jointly lay down norms and standards for TET.

6.3.10 For existing teachers, Committee recommends 2-month compulsory vacation training every five years.

6.3.11 The Committee has recommended elsewhere that learning outcomes for each class should be laid down and evaluated by periodic internal and external assessments. Teachers should be held accountable for failure to achieve learning outcomes within a prescribed time frame.

6.3.12 The Committee also recommends compulsory licensing or certification for teachers of Government and private schools based on independent external testing, every 10 years, to ensure continuing minimal standards in teacher performance.

6.3.13 SCERTs have to play a critical role in teacher training. Most SCERTs and DIETs do not have the required capability for this. The Committee strongly feels that SCERTs, DIETS, BRCs and CRCs should be strengthened by induction of education experts and capacity-building. The Committee was informed that there are large number of vacancies in SCERTs and its formations which have not been filled for many years.

6.3.14 Another issue affecting functioning of SCERTs, DIETs, BRCs, etc. is that there is no separate academic cadre for teacher trainers. Officers working as DEOs and DPEOs, which are coveted administrative posts, often get posted to DIETs which they consider as a punishment. There is a need to have a separate academic cadre for teacher trainers. Ideally teacher trainers should have the same qualifications as college lecturers, and enjoy the same pay scales. Committee also feels that minimum teaching experience should be prescribed for appointment as teacher trainers.

6.3.15 In order to strengthen the structure of teacher training, the Committee also recommends that good B. Ed colleges and University departments should be used for in-service training of teachers.

6.3.16 The Committee recommends that Teachers Unions and Associations should be encouraged to take up academic responsibilities, and to contribute effectively to curriculum and text book development.

6.3.17 The key to making improvement in learning standards is to invest in preparing better qualified and professionally trained teachers who will be result-oriented and accountable. This area has not been addressed for too long. These are measurable objectives, but unless bench-marks are prescribed for achieving incremental progress from year to year, things are unlikely to improve. Strategies need to be evolved and targets set for improvement in these aspects.

6.3.18 While some states have taken commendable initiatives to streamline the process of recruitment of teachers, the Committee feels that the Centre and States should come together to formulate norms and guidelines to prescribe processes

which are efficient, transparent and merit based for recruitment of teachers in schools. Tamil Nadu has had for many years an independent Teachers Recruitment Board and the Committee was informed about its satisfactory performance. Since every state has to recruit large numbers of teachers every year, the Committee recommends creation of separate Teacher Recruitment Commissions like the Public Service Commission for recruitment of teachers, principals and other academic and management cadres in education institutions. The Committee also recommends that for elementary schools, district cadres should be created for better management.

6.3.19 The Committee feels that after consolidation of non-viable schools, it will be easier to fill up vacancies of headmasters and principals. The Committee recommends leadership training for all HMs and principals.

6.3.20 The Centre and States also need to jointly develop norms for fair and equitable deployment of teachers to ensure that vacancies, if any, are equitably distributed across the state. Shorter tenures and other incentives will need to be offered for postings in tribal, remote and inhospitable areas.

6.3.21 The Committee was impressed by the system adopted by several states for many years in the matter of teacher transfers. Norms for transfers are laid down, applications for transfers invited, and approval given in transfer camps attended by applicants and in the presence of local officials, non officials and media in an open and transparent manner.

6.3.22 The Committee feels that norm based, open, transparent and merit based systems for recruitment and transfers will not only reduce corruption but also improve teacher morale and credibility of school education.

6.3.23 The Committee feels that strong political and administrative will is needed to improve teacher attendance and discipline. Absenteeism and indiscipline have to be handled with utmost strictness. SMCs and headmasters will also need to be empowered to take disciplinary action against errant teachers. States need to follow injunctions of RTE Act and not depute teachers for any non academic activity other than census, election and disaster relief permitted by that Act.

6.3.24 The Committee recommends that Centre and States should jointly prepare norms and guidelines for teacher accountability. The Committee has elsewhere recommended that learning outcomes for each class should be formulated, and monitored through internal and external evaluations. Teachers and headmasters should be held accountable for achieving the prescribed outcomes, and their career progression linked to their academic performance.

6.3.25 Elsewhere, in the context of tracking student outcomes on a continuous basis in schools, a recommendation has been made for creation of live databases so as to facilitate teaching and learning assessments at school level. Structures should be created to integrate student outcomes and relate them to teacher performance – this should be the predominant criterion for making teachers accountable for their performance, after controlling for school quality and demographics.

6.3.26 The Committee has also recommended elsewhere the need to create setting up of education tribunals to redress teacher's grievances.

6.3.27 Teacher absenteeism, teacher vacancies, and lack of teacher accountability have destroyed the credibility of our school education system. These issues can be resolved only with strong political consensus; all efforts would otherwise be ineffective. The Committee therefore recommends formulation of a national agenda and commitment to address these issues.

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6.4 School Governance and Management

6.4.1 A school is a small manageable unit which ought to function efficiently. However the scope for leadership within the school is watered down because of delegation of hardly any local discretion; and it is dependent on a host of agencies and officers who give directions for implementation – leaving little room for local initiative and ownership. When the curriculum, appointment of teachers and their deployment, transfers, other aspects like paper-setting and examination processes are decided centrally, the school Principal naturally loses a sense of individuality. Yet some schools perform better than others mainly because of the leadership provided by Principal or head master. Such leaders motivate teachers, inspire students and seek cooperation of parents and the community to improve the academic levels and infrastructure of their schools.

6.4.2 The Committee in its interactions saw many such examples of self motivation, but observed that majority of schools are content with following instructions from above. Studies have established that school systems with greater local decision-making authority and accountability have better learning outcomes. The Committee is therefore of the view that the system should have the flexibility to encourage initiatives at the school level.

6.4.3 A school-led governance system with an appropriate framework of autonomy with accountability needs to be put in place to enable the school system to respond to changing circumstances, and to initiate remedial action where required. Towards this, schools need to be evaluated, both internally and externally, based on an accepted framework of standards, to measure school quality, and help to develop the professional competency of the school management, the school head and teachers, in a manner which contributes to autonomy, self-appraisal and performance.

6.4.4 For this it is important that all schools have headmasters and principals. 70% of elementary schools were without a regular headmaster as per DISE data for 2013-14. The situation in secondary schools may be only slightly better. The Committee recommends that all vacancies of headmaster and principals should be filled within a short time frame.

6.4.5 The selection of headmasters and principals has also to be done carefully. Promotion based only on seniority is not desirable. The Committee recommends a separate cadre of school principals, selected on merit and aptitude, from among the teachers with at least 5 years of teaching experience. Selected candidates should be required to undergo 2 month vacation training in leadership and school management. Principals should be held accountable for the school to improve its academic performance and achieve prescribed learning levels assessed through internal and external tests. The Committee recommends minimum 7 years of tenure for a principal and higher pay scale for them. They should also be given disciplinary control over teachers, greater administrative powers and academic freedom.

6.4.6 The Committee recognizes that it is important to involve teachers, parents, and the community in the management and development of a school. It is necessary that the Principal and teachers in Government schools interact regularly with parents and community well wishers, and secure their involvement in various school activities.

6.4.7 The Committee was informed that Central Government has recently started a School Leadership Development Program under SSA and RMSA. Under this programme Leadership Academies will be set up at Centre and in States to build leadership capacity in schools and education administration. The major components of the programme include: curriculum and material development; capacity building; networking and institution building; and research and development in areas relating to school leadership development. The Committee hopes that the programme would be rolled-out effectively and would result in creating a management culture of decentralization.

Recommendations

6.4.8 It is generally found that since school systems with greater local decision-making authority and accountability have the ability to ensure improved learning outcomes, the Committee is of the view that the education system should have the flexibility to encourage initiatives at the school level.

6.4.9 It further recommends that a school-led governance system with an appropriate framework of autonomy with accountability needs to be put in place to enable the school system to respond to changing circumstances, and to initiate remedial action where required. Towards this, schools need to be evaluated, both internally and externally, based on an accepted framework of standards, to measure school quality, and help to develop the professional competency of the school management, the school head and teachers, in a manner which contributes to autonomy, self-appraisal and performance.

6.4.10 The Committee recommends a separate cadre of school principals, selected on merit and aptitude, from among the teachers with at least 5 years of teaching experience. Further, Principals should be held accountable for the school to improve its academic performance and achieve prescribed learning levels assessed through

internal and external tests. The Committee further recommends a minimum 7 years of tenure for a principal and higher pay scale for them. The School Principal should also be given disciplinary control over teachers; greater administrative power and academic freedom, thereby further deepening decentralisation of management of school education.

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6.5 ICT as an Additional Tool in School Management

6.5.1 Many states are using IT-based applications for monitoring the performance of schools and student achievement. The Committee was informed about the Delhi experience which is being used successfully since 2005-05.

6.5.2 Schools are first mapped using GIS and satellite imagery, and graded according to distance, connectivity, infrastructure, teacher availability etc. The on-line student management system enables online registration of students for admission, their examination scores and performance analysis, issue of mark sheets and other certificates, including school leaving certificate and health records.

6.5.3 The Committee was informed that these measures resulted in increase in enrolment, reduction of drop-out rates, and increase in teaching days due to time saved on admissions and other paper work which teachers are required to do, in more than 1000 schools of Delhi. The Committee was informed of similar application of IT in other states also.

6.5.4 The data generated by ICT based management system can be voluminous and has to be used intelligently. Exception reports have to be generated for difficult areas like teacher absenteeism, vacancies of teachers, and infrastructure gaps. Exception reports can draw attention of authorities to schools whose performance is below average, for taking remedial action. These reports also provide information about better performing schools and good practices which can be used gainfully by other schools. Such reporting systems could become a powerful tool for improving school management and school performance.

Recommendations

6.5.5 The Committee recommends that tools like GIS mapping, ranking of schools according to remoteness and infrastructure/human resource availability should be done for all schools at district level. By recording the particulars of a student from admission until issue of school leaving certificate online, records get built up and provide data for making periodic intervention. It is recommended that the online maintenance of students' records and teacher attendance should become mandatory for all schools. ICT based reporting system need to be converted to become an effective tool for improving school management and school performance.

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6.6 25% Reservation for Weaker Sections and Disadvantaged Groups

6.6.1 The 'Right of Children to Free and Compulsory Education Bill, 2008', introduced in the Rajya Sabha specifically stated in its 'Objects and Reasons': "The proposed legislation is anchored in the belief that the values of equality, social justice and democracy and the creation of a just and humane society can be achieved only through provision of inclusive elementary education to all. Provision of free and compulsory education of satisfactory quality to children from disadvantaged and weaker sections is, therefore, not merely the responsibility of schools run or supported by the appropriate Governments, but also of schools which are not dependent on government funds."

6.6.2 The Right to Education Act, in section 12 (1)(c), has provided for all schools, including those belonging to any 'specified category', or any unaided school not receiving any kind of aid or grants to meet its expenses from the appropriate government or local authority, to compulsorily admit at Class 1 at least 25% of each class. This provision has been questioned, especially by the sponsors and managements of such schools. A variety of arguments have been put forth on the illegality and impracticability of these regulations, enjoining minimum reservation in each class. This provision, along with the RTE provision for 'no detention' has attracted much discussion and criticism in recent years. The Committee has separately examined the 'no detention' issue, and has made its recommendation.

(a) Constitutionality

6.6.3 The Constitutionality of the clause 12(1)(c) of the Right of children to Free and Compulsory Education Act 2009 is now a settled issue. It was challenged and upheld in the case of '*Society for Unaided Private Schools of Rajasthan vs. Union of India, (2012*).The Constitutionality of the RTE Act 2009 was reiterated in the Pramati Judgment on 7th May 2014.

6.6.4 In '*Society'* the Supreme Court had held that: *"since the Article 19(1)(g) right is not an absolute right as Article 30(1), the 2009 Act cannot be termed as unreasonable. To put an obligation on the unaided non-minority school to admit 25% children in class I under Section 12(1)(c) cannot be termed as an unreasonable restriction. Such a law cannot be said to transgress any constitutional limitation" (Para 10)*

(b) Social Acceptance of Section 12(1)(c)

6.6.5 This clause has been received with acclaim and social approval internationally and nationally. Increasing awareness about this clause has led to a progressively increasing number of applications from the economically weaker and disadvantaged sections for free seats in private schools. National enrolment rates have seen a rise from 21% in 2012-13 to 29% in 2013-14 and 32% in 2014-15 indicating a year-on-year increase in the number of seats being filled through this mandate. It has been estimated that this provision, implemented so far in

50,000 schools has helped more than 20 lakh students cross the socio economic school barrier that segregates and ghettoises them.

6.6.6 An increasing number of schools are coming on board to accept the inevitability of no longer being exclusive to a homogenous socio-economic category. A study from IIM Ahmadabad, found that some educators see quotas 'as their opportunity to enact their role as social change makers', and as a chance for educators 'to act on values and commitments that they otherwise would not have been able to'.

6.6.7 The other side of the picture, which is unfortunately emerging has also been brought to the notice of the Committee, but which is not generally recognized. It is understood that a large number of 'low budget' private schools primarily in rural areas are anxious to go even well beyond the 25% minimum quota, mainly because their average costs are far below the costs of the common schools; they perceive an arbitrage opportunity to financially gain through differential cost structure – note that most common schools follow relatively high Pay-Commission-based compensation structure, as compared to much lower emoluments in the low budget schools. This is clearly an unintended aberration; a measure intended to benefit the socially backward classes is being used by certain private schools for monetary gains. However, this development, per se, need not require a review of the 25% reservation policy. So long as the government schools sharply improve their quality, as is the intention and prescription of this report, the flow to low budget (perhaps low quality) rural schools will automatically reduce. The Committee recommends that nothing needs to be done in this particular regard.

(c) Administrative Lacuna Removal – a Work in Progress

6.6.8 Administrative problems continue in the implementation of this provision, such as conformity of state rules to the intent of the Central Act, admission of genuine beneficiaries, delivery of 'free entitlements' and reimbursement to schools etc.. Not all states indeed have started implementing this legal requirement. The fact that such problems vary from state to state indicates that this is work in progress. The next phase of implementation of this policy needs to focus on removing the anomalies and administrative irritants in implementation of this policy, while accounting for state-wide and local differentials.

(d) Study on Benefits to 75% in Private Schools

6.6.9 Ideologically, and in international literature, diversity in classrooms has been held to be of benefit to all students. In one of the few studies since the implementation of this provision, Rao (2013) found in Delhi that diversity in classrooms "had substantial positive effects on the social behaviour of wealthy students", based on empirical evidence. This is merely a mention; and if valid, is in the positive direction.

(e) Application of EWS Quota to Religious and Linguistic Minority Institutions

6.6.10 Minority (religious and linguistic) schools have been exempted from the RTE by the Supreme Court under Article 30 of the Constitution, as per the finding in the Pramati Educational and Cultural Trust vs. Union of India. Surprisingly even aided minority schools have been given exemption; not surprisingly there has been reportedly a marked increase in schools seeking minority status post this judgement! (Vidhi, Centre for Legal Policy).

6.6.11 Even given the current legal status, the question remains moot about a constitutionally permissible balance involving Article 21 (A), Article 15 (4) and Article 30. It is to be noted that the right under 21(A) has been constricted under the present legal interpretation. Indeed it can be argued with some merit that the responsibility to provide free and compulsory education of satisfactory quality to children from disadvantaged and weaker sections would extend to not only government schools but also on schools not dependent on government funds. There is a likelihood that the present legal dispensation is a result of an earlier apex legal finding relating to higher education, now inducted to include elementary education in its scope and interpretation. Without entering into the legal aspects, it is now important to reconcile the right of the economically weaker sections with the right of the minorities under Article 30 (1); particularly when minority institutions often appear to clutch at any prop to ensure that their obligations, met by other aided or unaided schools, are circumvented. This issue needs further examination and clarification, not only to expand the scope of reaching out to EWS students, but also to ensure that minority institutions are established only for the genuine reasons envisaged by the Constitution – that they are actually designed to meet the basic objective to meet the predominant needs of minorities– that they do not use their 'Constitutional' privilege to manoeuvre out of national obligations established in overall public interest. The same issues need to be addressed in the case of linguistic minority schools, in a likewise manner.

Recommendations

6.6.12 The Committee feels that Clause 12(1)(c) Right of Children to Free and Compulsory Education is designed to conform to the spirit of a common curriculum and a common school system. It can assist in furthering a significant social objective. The operational problems and administrative issues need to be clarified to provide enough flexibility to states to implement the legal provisions in a smooth manner. The Committee does not recommend review of this provision.

6.6.13 The issue of extension of Clause 12 (1) (c) of RTE Act to minority institutions needs a review. The Committee feels that the larger national obligations to meet the rights of economic weaker sections should extend to all institutions including minority (religious and linguistic) institutions.

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6.7 No Detention Policy

6.7.1 The no-detention policy has been in effect since the coming into force of the RTE Act in 2010. Section 30 (1) of the RTE Act provides that "no child shall be required to pass any Board examination till completion of elementary education." Under this policy, no child can be held back or expelled from school until the end of Class 8, when he attains the age of 14 and passes out of the purview of the RTE Act.

6.7.2 In its interactions with officials and experts in the field of school education, the Committee heard several arguments both in favour of and against retention of the no-detention policy. These are summarised below.

(a) Arguments in Favour of the No-Detention Policy

6.7.3 In favour of retaining the policy, it was stated that detaining children at the elementary level damages their self-esteem and give them a permanent inferiority complex. The older student feels humiliated and embarrassed being among students who are junior to him. The social stigma associated with "failing", has deeply damaging effects on the psyche of the child.

6.7.4 Fear of any kind, including that of failing in examinations and being detained, has a detrimental effect on curricular learning for children. Detention leads to children dropping out of school and taking to vagrancy, begging and petty crime. On the other hand, keeping children in school prevents a host of social problems, including juvenile delinquency and child marriage.

6.7.5 A child who is detained has to repeat the entire syllabus of that class, including material which he has already learnt. After having been detained, given appropriate effort from the teacher, the child may be able to cover the gaps in that class in two or three months and be fit to be promoted, but will nevertheless be forced to continue for another nine months in the same class, repeating the syllabus which he already knows.

6.7.6 Learning takes place in a continuum and any pass or fail categorization at a particular point of time is a narrow simplification and educationally invalid.

6.7.7 In rural areas and among below-poverty-line families, educational awareness is missing. Late admission to school is a common phenomenon and the default option is for children to drop out of school if they are left to their own devices. In some cases, children miss school for long periods due to poverty, illness, engagement in child labour or lack of awareness on the part of the parents. They lag behind in their studies and do badly in examinations. Detention will only aggravate these weaknesses and encourage them to drop out and remain unschooled forever. The no-detention policy addresses such issues.

6.7.8 The no-detention policy has resulted in a fall in the drop-out rates in elementary school and has kept children in the learning cycle for 8 years. A

comparison of the results of the Central Board of Secondary Education (CBSE) and other State Boards' for class 10 and class 12 for the years 2009, 2012 and 2013, shows that the pass percentage has increased in respect of most of the States. Similarly, the pass percentage of students of CBSE for class 12 continues to remain high. This empirically validates the utility of the no-detention policy.

6.7.9 Empirically, there has been a steady rise in the GER at the elementary level, for both boys and girls, as well as for Scheduled Castes, Tribes and other marginalised sections since the coming into effect of the no-detention policy. In a deeply fragmented society such as India, this is a significant gain which should not be reversed.

(b) Arguments against the No-Detention Policy

6.7.10 As against this, it was argued that automatically promoting all children to the next class takes away all incentive for them to learn or for teachers to teach. The RTE Act requires that even a student who scores zero in all subjects or has not attended school even for a single day has to be promoted to the next class. It is important to maintain the link between promotion and learning outcomes, objectively measured through criteria such as attendance, test scores or examinations at the end of every class.

6.7.11 When children are assured of promotion to the next class regardless of their performance they become non-serious, inattentive to studies and irregular in attendance. For many students, the mid-day meal is the only incentive to go to school. Teachers too soon lose interest in teaching such non-receptive and unmotivated students. Consequently, while the no-detention policy has certainly resulted in a significant increase in student enrolment, there has been little or no improvement in academic standards or the quality of education.

6.7.12 Moreover, promoting laggards drags down the standard of the whole class handicaps the teacher's ability to teach the curriculum at the expected pace. Students, who are promoted to a higher class without academic validation simply on the basis of the no-detention policy, do not have the required educational competence, knowledge and skill to understand the lessons being taught in the higher class. Not having mastered the syllabus of the previous class, they find it difficult to understand what is being taught and end up by disturbing the class. They tend to fare even more badly and fall back even further in every class.

6.7.13 This comment stresses the great importance of ensuring that the child learns the fundamentals of language (mother-tongue) and basic arithmetic in the primary classes. The importance of this cannot be overstated. Failure to do this will increase the pressure and tension on the child, drift him farther as he advances in the school system from the acceptable levels, at some point leading him to hate the school system.

6.7.14 On the other hand, the brighter students feel frustrated as the pace of the class is determined by the ability of its least competent members. The academic

progress of the whole class is hampered and dragged down to the level of the lowest common denominator. This is not fair to the majority of the students in the class.

6.7.15 Moreover, the apparent reduction in the drop-out rate is an artificial construct and illusion created by the no-detention policy. Promoting children automatically only rolls over and postpones the problem of children dropping out of school. The drop-out rate tends to get bunched and shoots up in Class 8 at the end of the elementary stage of education.

6.7.16 A large number of teachers in Government schools strongly disapprove of the no-detention policy and feel that, instead of helping children, it has ruined the entire learning environment by letting children take promotion for granted. In the past few years, the number of students failing their Class 9 examinations has been on the increase in many States. In Delhi, for instance, the number of repeating students as a percentage of total students enrolled in Class 9 rose from 2.8% in 2010 to 13.4% in 2014.

6.7.17 Many States have sought a review of the no-detention policy. The Government of Delhi NCR has proposed that the no-detention policy be limited up to Class 3. The State Governments of Assam, Bihar, Chhattisgarh, Goa, Haryana, Punjab, Rajasthan, Sikkim and Tripura have requested that the policy be reviewed in representations to the Sub-Committee of the Central Advisory Board of Education (CABE) which was constituted to assess the implementation of the CCE.

(c) Committee's Views

6.7.18 After careful and intensive consideration of the pros and cons, the Committee is of the view that the no-detention policy should be continued, but only till the primary stage of elementary education, up to Class 5, when the child will be 11 years old. There is merit in the view that the child should not be saddled with the burden of failure and detention up to this age. Education should be inclusive and should have a common curriculum, so that all children are familiar with the basic concepts, tenets, principles and ethos of an Indian education.

6.7.19 At the upper primary stage, from Class 5 to 8, for children between the ages of 11 and 14, the Committee recommends that the system of detention of children who are below the requisite minimum standard should be reinstated. This will require a suitable amendment to Section 30 (1) of the RTE Act.

6.7.20 The Committee reiterates that this change should not be seen as being in any way regressive or as taking away a legal right which had been earlier accorded to children. On the contrary, detention should be resorted to after giving the child remedial coaching and at least two extra chances to prove his capability.

6.7.21 Specifically, on the basis of CCE and an end of term examination, the weak students should be identified and provided remedial teaching at the end of the school day or during holidays. The coaching should be conducted by the class

teacher in the class-room after school hours. The student should thereafter be assessed and tested on his knowledge and understanding of the course material. If he fails to clear the bar, the process should be repeated, focussing specifically on areas where he is deficient. Should he again fail to clear the examination, he should be either detained in the same class or given other opportunities of pursuing his education through a vocational stream.

6.7.22 Separately it should be explored whether the advances in technology will provide an additional 'augmentation' avenue to help the slow-learner child make-up for lost ground. Elsewhere in the report possibilities and practical utilization of these are explored.

6.7.23 It is important to give the child adequate academic support and ample opportunity to demonstrate his ability and competence. However, if he is unable to do so, he should not be abandoned by the system, but should have avenues of learning and betterment made available to him in an alternative stream.

Recommendations

6.7.24 The Committee recommends that the no-detention policy should be continued, but only till the primary stage of elementary education, up to Class 5, when the child will be 11 years old. At the upper primary stage, from Class 5 to 8, for children between the ages of 11 and 14, the Committee recommends that the system of detention of children who are below the requisite minimum standard should be restored. This will require a suitable amendment to Section 30 (1) of the RTE Act.

6.7.25 The Committee reiterates that this change should not be seen as being in any way regressive or as taking away a legal right which had been earlier accorded to children. On the contrary, detention should be resorted to only as a last resort and after giving the child remedial coaching and at least two extra chances to prove his capability.

6.7.26 Specifically, on the basis of CCE and an end-of-term examination, the weak students should be identified and provided remedial teaching at the end of the school day or during holidays, for which new arrangements are to be created within the school system. The remedial teaching could be conducted by the school teachers or volunteers after school hours. The student should thereafter be assessed and tested on his knowledge and understanding of the course material. If he fails to clear the bar, the process should be repeated, focussing specifically on areas where he is deficient. Should he again fail to clear the examination, he should be either detained in the same class or given other alternative opportunities of pursuing education.

6.7.27 Separately it should be explored whether the advances in technology will provide an additional 'augmentation' to help the slow-learners make-up for lost ground.

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6.8 Need to Amend the RTE Act, 2009

6.8.1 The Right of Children to Free and Compulsory Education Act (RTE Act) was passed in 2009 and implemented from 1st April 2010. The Act, even after six years, has been only partially implemented in most states.

6.8.2 The Act undoubtedly confers the right to every child for schooling, and surely has contributed to enhancement in 'enrolment'. However, it has been criticized for focusing largely on creation of physical and academic infrastructure, but not addressing the larger issue of improving quality of learning, particularly in Government and aided schools. Experience of last 50 years shows that creation of good facilities and infrastructure does not necessarily result in better quality of education. The Act fails to make any provision which would directly improve learning outcomes of students.

6.8.3 The Act lays down stringent norms and standards which a new school must fulfil before it can get recognition. Existing schools have been given 3 years to fulfil norms, but the Committee was told that many private schools, located in slums and other congested areas, will not be able to do so because there is no space for building additional rooms or providing a playground. Such schools, even if they are providing good quality of education to poor children could face threat of closure. The Committee is of the view that recognition of a school should not depend only on availability of physical infrastructure, but also on assessment of quality of education provided by schools, to be determined by an independent system. The Committee recommends a greater degree of flexibility to be given to States to evolve norms of recognition, taking into account local conditions. India is a vast and divergent country and one set of norms cannot be applied rigidly and uniformly.

6.8.4 It has been rightly pointed out that the norms and standards for recognition have been laid down only for private schools. The Committee observed that in many states Government schools do not have adequate rooms, toilets, drinking water and other facilities; there is shortage of teachers and many teacher vacancies; and therefore the requirement of recognition of schools should also be prescribed by law for all Government schools. The Committee is of the view that Government should in fact set an example by providing required facilities in all its schools before it takes punitive action against private schools for not doing so.

6.8.5 Before the Act came into force, a number of community organizations used to run alternative schools in slums and *bastis* for drop outs and un-enrolled children. Both DPEP and SSA provided funding for such initiatives which fulfilled a social need. The Committee saw one such initiative by *Gyanshala* which runs a large number of very popular learning centres in the slums of Ahmedabad. After the RTE Act, such centres become illegal as they cannot satisfy the norms of a school, their funding under SSA has been stopped and they can be closed any time by authorities. The Committee recommends that separate norms for informal or

alternative schools should be laid down and those which fulfil them should be allowed to continue.

6.8.6 The RTE Act gives enormous powers to Government and its officers, and if past experience is any guide, this can only lead to harassment and corruption. The Committee also feels that conditions in different states are so different that it is not practical to provide the same norms for all. Since the Act has to be implemented by states, greater flexibility should have been given to them to achieve the objective of free and compulsory education. While doing so, it is equally important to ensure that the salutary standards of infrastructure prescribed by the RTE should not be lightly watered-down for relatively trivial reasons; this discretion needs to be applied only taking into account relatively weighty local reasons.

Recommendations

6.8.7 The RTE Act needs to be amended to provide, in addition to infrastructure requirements, norms for learning outcomes which directly affect quality of education.

6.8.8 Infrastructure norms for recognition of private schools should also be applied to Government schools. There should be no discrimination between private and Government schools in the applicability of norms, and punitive action should be ensured for not adhering to them.

6.8.9 States should be given flexibility to determine their own norms for infrastructure requirement consistent with local conditions. One set of norms cannot be applied uniformly to a large and diverse country like India.

6.8.10 *Local norms should be evolved for 'alternate schools', adopted to local conditions as appropriate.*

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6.9 Vocational Education and Training (VET)

6.9.1 The Committee recognizes the need for integrating skills with education, particularly in secondary education and outlines the challenges and broad strategy for the future.

(a) Current Initiatives

6.9.2 The Committee noted that significant amount of work has been done in the area of skill development over the past few years. Some of the important initiatives are mentioned in the following paragraphs.

6.9.3 A comprehensive National Policy for Skill Development and Entrepreneurship was formulated in 2015 and a Mission was set up by Government of India, with the objective of training 40 crore people by 2022. In

order to implement the Mission, necessary institutional frame work has been put in place, which includes: National Skills Qualification Framework (NSQF) and Sector Skill Councils (SSCs) for standards (33 SSCs are operational), National Skill Development Agency (NSDA) for administering the NSQF, National Skill Development Corporation (NSDC) for creating/ augmenting the training delivery capacity an exclusive Ministry for Skill Development and Entrepreneurship (MSDE) for coordination. Around 21 Ministries of the Central Government are involved in implementing Skill Development Schemes for their respective target groups. These Ministries and NSDC together have trained around 86 lakh youth during the financial year 2014-15 alone. The State Governments have also been very active in implementing skill development programmes and many of them have established Nodal Institutions for coordination and implementation of programmes.

6.9.4 A network of private Training Providers (TPs), incubated, supported and monitored by NSDC, capable of implementing industry relevant short term training programmes with job linkages, has evolved in the country. There are 267 such TPs with more than 4000 training centres, where around 65 lakh persons have been trained till now during the last five years.

6.9.5 The industry, public and private sector have also been contributing to skill development programmes by way of participation in SSCs, and financial sponsorship through CSR.

6.9.6 MSDE has taken up a number of measures in strengthening the existing ITIs and creating new ones. It proposes to improve the infrastructure, enhance the quality, and double the existing 18.5 lakh seats by 2022.

6.9.7 National Skill Development and Entrepreneurship Policy, 2015 has envisioned integration of 25% of the schools with the skill development programmes by 2022 in the country. The MHRD, as part of its initiative for vocationalization of secondary education, has taken up a number of steps:

(i) Under RMSA, a scheme has been introduced to impart skills to the students from Class IX onwards through the State Governments and the CBSE. The courses corresponding to NSQF levels I to IV, (duration of about 200 hours in a year) are implemented in schools by the State Education Departments by engaging the services of NSDC approved Training Providers (TPs). Under this Scheme, more than 1.5 lakh students have been trained in different vocational skills subjects in 3000 schools across 16 states.

(ii) A large number of computer labs (approx. 80,000) with good quality IT infrastructure, internet facility and power backup, have come up in secondary/higher secondary schools across the country, under the scheme of ICT @ Schools under the RMSA. Most of these are set up and managed by expert agencies of public and private sector.

(iii) The other initiatives of MHRD in skill development include: scheme for Community Colleges through UGC; Choice Based and Credit Based system; and B.Voc Course through AICTE.

(b) Challenges

6.9.8 While noting the several initiatives taken by the Central/State Governments and industry, the Committee observed that there are several challenges in vocationalization of secondary education. Some of these critical issues include:

(i) Vocational education is not "aspirational" for the students, the parents and the community at large for variety of reasons, social and economic.

(ii) The current initiative of MHRD in introducing vocational education subjects in schools, although a good beginning seems to be inadequate, both in terms of its reach/coverage and integration with the formal academic system.

(iii) The schools do not have the requisite workshops, trainers and the industry linkages to impart high quality and relevant vocational skills.

Recommendations

6.9.9 After taking into account the current initiatives and the challenges, the Committee believes that a two pronged strategy: (a) deepening the coverage of NSQF compliant skills programmes, and (b) mainstreaming of vocational education with the formal academic system, would help in vocationalization of secondary education. Specific recommendations are given in the following paragraphs.

6.9.10 The ongoing initiative of MHRD in implementing NSQF compliant skills programmes in secondary and higher secondary schools, through NSDC approved TPs, needs to be scaled up to cover larger number of students. The Scheme would also need to be reviewed and improved to ensure better quality and sustainability. The courses being offered may also be revisited, to add those based on local economic resources and entrepreneurial opportunities.

6.9.11 The computer labs that are set up in the schools under ICT @ Schools scheme of MHRD may be utilized for imparting vocational skills to the students and the local youth community, post school hours, in partnership with the agencies who operate such computer labs.

6.9.12 The schools which have adequate land and infrastructure may be utilized to set up formal vocational skill centres, in partnership with NSDC Training Partners, offering programmes that suit the needs of the students and youth and relevant to the local economy and the industry. Such centres may operate post school hours to avoid any disruption of normal academic work. The skills programmes offered in these centres should meet the requirements of NSQF and may be supported by

Government sponsored skill development schemes such as Prime Minister Kaushal Vikash Yojana (PMKVY) and others.

6.9.13 All the skill development courses conducted through above means should formally be certified under NSQF, through SSCs, to enable the trainees to move up the chain of qualifications and thereby job enhancement and career progression.

6.9.14 The measures suggested above would not only help the students in the schools to pursue skill development programmes as a preferred choice in a seamless manner, but also enhance the training delivery capacity in the country and thus meet the larger objective of Skill India Mission.

6.9.15 Vocational education subjects (the ones offered in ITIs) may also be offered in the schools from class VIII onwards, as a formal stream along with Science, Maths and other subjects, leading to certification by the respective Boards of Education.

6.9.16 The vocational skills qualifications acquired through ITIs (NCVT courses) may be given certificate of equivalence to Class X or XII, as the case may be, after the concerned student completes the essential bridge course to address the gaps, if any, in the language and knowledge components. Government of Gujarat has already introduced such a system and the MSDE has taken up this for national level notification with the MHRD.

6.9.17 An organised intervention for counselling the students on career options may be designed and introduced in the schools to enhance the awareness about the vocational skills based career opportunities.

6.9.18 The above measures would enable the students, who acquire vocational skills, to be formally certified by the Boards of Education, and thus provide an opportunity to pursue higher academic programmes while allowing them to use the skills they have acquired for wage/self employment. This will result in better integration, career/academic progression and consequent acceptability of the vocational skills programmes by the society at large.

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6.10 Pre-School Education

(a) Present Position

6.10.1 At present, government schools provide education to children from the age of 6 (in some States from age 5) onwards. The legal obligation, as prescribed in the RTE Act, is that every child shall have a right to free and compulsory education in a neighbourhood school from the age of 6 to 14. Consequently, most children, and specially first generation learners, commence their education in primary school from the age of 6.

6.10.2 In practice, Early Child Care and Education (ECCE) up to the age of 6 currently does not form part of the formal education provided under the aegis of

the Central or State Governments. This vacuum has been partly filled by play-schools and pre-schools which have mushroomed in the private sector.

(b) Importance of Early Childhood Years

6.10.3 It is universally recognized that early childhood is a very crucial period of life, when the foundations are laid for cumulative lifelong learning and human development. Psychologists, educationists, paediatricians and sociologists are all agreed that early childhood up to the age of 6 is a period of remarkable brain development that lays the foundation for all future learning and growth.

6.10.4 Research in neuro-science also confirms the importance of the early years in a child's life. It shows that within the span of the early childhood years, there are certain 'critical periods' for development of significant cognitive, linguistic, social and psychomotor competencies, which are known to contribute to later success in life.

6.10.5 The years from birth to 6 constitute a period of both extreme vulnerability and tremendous potential in human life. On the one hand, any damage or impoverishment suffered at this stage is likely to be irreparable; on the other, adequate protection, care and stimulation will provide a firm foundation for the future well-being and all-round development of the child's physical, social, emotional, linguistic and cognitive abilities.

6.10.6 Specifically, between the ages of 3 and 5, children gain physical confidence, strive for independence by doing things on their own, and experiment with objects in the surrounding environment. They show intense and lively curiosity about what is going on around them, enjoy the company of other children, seek to imitate adults, learn to assert themselves as individuals and begin to acquire self control and discipline.

6.10.7 Ensuring an enabling environment in early childhood represents the best opportunity for breaking the intergenerational cycle of multiple disadvantages – chronic under-nutrition, poor health, gender discrimination and low socio-economic status.

6.10.8 The past few decades have been characterised by rapid urbanisation and the breaking up of the joint family system. With the increase in the number of nuclear families and working parents, the cushion which was earlier provided by elders and non-working family members has been steadily eroded over time, forcing many parents to send their children to pre-school. Others do so as a matter of choice, in order to give their children a head-start in primary school. In this way, the essential need to develop the young mind is being responded to in a sporadic manner, often without a scientific and pedagogically acceptable approach.

6.10.9 An effective programme to meet the developmental needs of children in age group 0-5, through a holistic and integrated programme of Early Childhood Education Development, is now imperative. In particular, while the other aspects

need to be strengthened, an educational programme specially geared to the 4-5 year age group needs to be created, for implementation. While this will be executed through the existing governmental machineries as an addition to the current programmes, it is also necessary to reach the private sector agencies operating in this field with appropriate guidance and regulation.

(c) Role of the State

6.10.10 Without making ECCE an enforceable right, the Constitution specifically articulates the intention of addressing the needs of children up to the age of six. Under the 86th Constitutional Amendment Act of 2002, Article 45 of the Directive Principles of State Policy states that "the State shall endeavour to provide early childhood care and education for all children until they complete the age of 6 years".

6.10.11 The RTE Act refines this to make ECCE a quasi-legal right from the ages of 4 to 5. Section 11 of the RTE specifies that, "with a view to prepare children above the age of three years for elementary education and to provide ECCE, appropriate Government may make necessary arrangements for providing free pre-school education for such children ".

6.10.12 Despite the above, it is noted that little has been done to bring education to the 4 – 5 age group hitherto, even though it is a constitutional requirement.

6.10.13 Ministry of Women and Child Development has formulated the National Early Childhood care and Education (ECCE) policy as approved by the Cabinet and notified by the Government of India in the Gazette on 12.10.2013. The vision of National ECCE policy is to achieve holistic development and active learning capacity of all children below 6 years of age by promoting free, universal, inclusive, equitable, joyful and contextualised opportunities for laying foundation and attaining full potential. The WCD Ministry's National ECCE policy includes universal access with equity and inclusion. For a variety of reasons, particularly presumably due to non-allocation of resources, this policy has not been rolled out countrywide in an effective manner.

6.10.14 The Committee recommends that ECCE for children from 4 to 5 years of age should be declared a right, and a programme for pre-school education needs to be implemented without delay.

(d) Modalities

6.10.15 The main interventions by the Government of India in child health and welfare for the age group 3–5 are being made under the **Integrated Child Development Services (ICDS)** programme, under the aegis of the Ministry of Women and Child Development (MCWD).

6.10.16 Launched in 1975, the ICDS scheme aims to improve the nutritional and health status of children by reducing the incidence of mortality, morbidity and

malnutrition and to enhance the health and capability of the mother to look after the normal health and nutritional needs of the child.

6.10.17 The ICDS provides food and primary health-care to children less than 6 years of age and their mothers. In addition to fighting malnutrition and ill health, the programme is also intended to combat gender inequality by providing girls the same resources as boys.

6.10.18 Nutrition and immunization in the early years are of critical importance in ensuring the child's good health and ability to learn throughout his life. Poor nutrition has a negative impact on school enrolment and readiness. Indeed it is well established that lack of micronutrient inputs in early childhood has irreversible life-long adverse impact on many aspects including brain development, physical development/stunting, lack of concentration and so on. Undernourished children are less likely to enrol in school and would drop out, if enrolled. A severe or chronic lack of essential nutrients in childhood impairs language, motor and socio-emotional development. It is highly cost-effective to institute preventive measures, and support for children early on than to compensate for disadvantage as they grow older.

6.10.19 In rural areas, the ICDS services are provided mainly through Anganwadi Centres (AWC), which are typically staffed by women and helpers from local families who do not have permanent jobs with retirement benefits. These Centres provide supplementary nutrition, health education, immunization, health check-up and referral services. While AWCs are also formally tasked with providing non-formal pre-school education, in practice they are not equipped to do so.

6.10.20 Out of the nearly 16 crore children in the age group 0 – 6, the child population between ages 3-6 is 7.54 crore. By end of 2015, 3.6 crore children, in the age group 3–6 were enrolled in 13.47 lakh Anganwadis; while official figures indicate that most of them received pre-school education also, it is most likely that the focus was on nutrition and health, with probably hardly with any education component. The Committee proposes that pre-school education needs to be the required norm for all children in the age group 4–5 and should be treated as a right of the child.

6.10.21 The ICDS is being funded and managed by the MWCD. The implementation of the scheme has tended to focus on nutrition and health, to the detriment of early child education. In order to adequately address all the issues of ECCE in totality and ensure the holistic development of the child, it is necessary to ensure that the different functions are properly co-ordinated and receive adequate attention.

6.10.22 While all states agreed, in their interactions with the Committee, that children attending government schools must have access to pre-primary education, there were differences as to which department should be given this responsibility. One view was that the education component of pre-primary should be made part of ICDS. The other view was that pre-primary education is the

responsibility of education departments and states should gradually introduce pre-primary education in government primary schools, and that Mid-day meal scheme should be extended to pre-primary sections; ICDS programme must continue for children in the age group of 0 to 3.

Recommendations

6.10.23 The Committee recommends that ECCE for children from 4 to 5 years of age should be declared a right, and a programme for pre-school education needs to be implemented without delay.

6.10.24 The Committee recommends that all children in the age group 4 – 5 should now be eligible to be covered for pre-school education; the system needs to be adapted, improved and expanded to cater to all children in this age group – in other words, it is the right of the child in the 4–5 age group to receive pre-school education.

6.10.25 The Committee recommends that a new education component should be introduced in the Anganwadi practices, to ensure that the pre-school children are exposed to elementary education, with a carefully structured curriculum. This element will be blended with the procedures of the WCD, which will continue to be the operating ministry for the Anganwadis. Appropriate funding from the Centre and the States will be required, without leaving any gap in the budget of the WCD Ministry to enable the above to be rolled out. In a limited time period, the system should be expanded rapidly to cover all children of the 4–5 age groups. To the extent feasible the Anganwadi should be located in the premises of the local primary school or immediately adjacent to it.

6.10.26 The Committee recognizes that at present ICDS Aanganwadis are not adequately equipped to provide pre primary education. Following measures are suggested to strengthen Aanganwadis in this respect:

- *(i) NCERT should formulate curricular framework for pre-primary education.*
- *(ii) The suggested schedule of activities should be on the lines of a play school which could even function as a day-care/ crèche –cum-activity centre in the afternoons.*
- *(iii) SCERTs should conduct intensive training programs for selected Anganwadis workers and new teacher-workers to orient them to deal with the new components of handling pre-school children.*
- *(iv) SCERTs should provide training to the fresh as well as other teacher-workers using the NCERT curriculum but also to innovate and use local material to prepare activity related toys and play-things which stimulate young children.*
- *(v) Parents of the children should be encouraged to form management committees so that the effort is participatory and conducive to local needs. The school SMCs of the Primary school should be associated particularly if they have a younger child attending the Anganwadi centre.*

(vi) *The health and nutrition component for Anganwadis will continue and should be fortified as the inputs impact on a child's health, growth and learning ability.*

(vii) *Appropriate funding to meet the additional responsibilities and the costs thereof need to be provided for.*

6.10.27 Issues relating to coordination between the two ministries, and those relating to the State Governments and their field machineries need to be separately outlined.

6.10.28 In rural areas, ideally the Anganwadi should be located in the same premises as the primary school or the larger school complex in the village; this will facilitate utilization of common facilities, including playground etc.; in addition the child will get familiar with the school premises, with going to school becoming an easy habit. In many instances, the new child entering the Anganwadi may have a sibling in the primary school; this is an additional reason to locate the Anganwadi in the primary school premises or adjacent to it.

6.10.29 In urban areas, employers are obliged to provide day-care facilities for children of women working in the organized sector under various legislations, such as the Factories Act 1948, Mines Act 1952, Plantation Act, 1951, Inter-State Migrant Workers Act, 1980 and NREGA 2005. However, these legislations do not address the needs of children of women working in the unorganized sector.

6.10.30 The Committee believes that in due course all Government primary schools should have facilities for pre primary education. For this, it will be ideal if all Aanganwadis gradually get located either in the school premises, or as close to the school as possible. State Governments will have to prepare cadres of pre primary teachers, and create necessary facilities for their pre and in service training. The Committee recommends that the transition from Aanganwadi to pre-primary school should be gradual and seamless, and it should be left to each State to determine the time frame for achieving it.

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6.11 Education of Children with Special Needs

6.11.1 Every child has the right to develop to her full potential and schools are expected to offer a stimulating experience that nurtures learning by all students. But children are different from each other and among them diversities exist on various dimensions. Having special needs is one such dimension. An inclusive approach has long been advocated by education experts. The recognition that learners with different degrees of disability, also referred to as children with special needs (CWSN), which would include varying degrees of visual, speech and hearing, locomotor, neuromuscular and neurodevelopmental disorders, (dyslexia, autism and mental retardation), need to be given the opportunity to participate in the general educational process has yet to become widely acceptable by school managements. The need to provide for students exhibiting difficulty with

behavioural communication or encountering from intellectual, physical or multiple challenges is often treated as something that only special schools can handle.

6.11.2 There is a marked difference between what was earlier envisaged and the prevailing situation on the ground. The National Policy for Persons with Disabilities, 2006 (PWD) voiced the need for mainstreaming of persons with disabilities in the general education system through inclusive education, identification of children with disabilities through regular surveys, enrolment in appropriate and disabled friendly schools till successful completion of education. More recently the *RTE Amendment Act (2012)* stated that "disadvantaged groups" includes children with disabilities and thus all the rights provided to children belonging to disadvantaged group shall apply to children with disabilities also. According to another important provision of the RTE Amendment Act, certain specific excluded categories of disabled children namely children with "multiple" or "severe" disabilities were to be provided with the choice of attaining home based education.

6.11.3 The importance of preparing teachers who can teach in inclusive classrooms following an inclusive pedagogy has been referred to in the National Curriculum Framework for teacher education (NCFTE), 2009. NCERT in various position papers has underscored the need for developing a positive attitude among teachers, administrators, and other students in their attitudes to children with special needs.

6.11.4 Providing special training to every teacher will neither be feasible nor cost-effective. There is a need for a mechanism which can respond to the school Principal or teacher who seeks special training to be imparted to handle children with specific kinds of learning difficulties. Sometimes all that may be needed is professional advice for a limited duration; sometimes it may need more training.

6.11.5 At present there is no structure available which can oversee the uniform application of the precept of including CWSN as integral to the school system. There is also no mechanism through which school managements can draw on a pool of experts when needed. There is therefore a need to provide for the management of this sub-sector of school education in each state, through establishment of a CWSN Board, in a way that provides oversight to the implementation of programmes which are intended for CWSN but which get little attention in the schools and within the classrooms.

6.11.6 The school can refer doubtful cases to an Identification, Placement, and Review Committee (IPRC) which also considers requests for admitting certain children with severe learning disabilities into special schools. Since there is no organisation or dedicated system available oversee that CWSN get due attention, it would be helpful to have a provision in the state acts. Specific procedures can be set out in the regulations of such statutes.

6.11.7 It is recommended that the on-going schemes which are intended to give special assistance to CWSN should continue. However the board referred above should oversee the implementation of the scheme, by obtaining six-monthly reports from the districts. A part-time sub-committee of experts preferably including child and clinical psychologists drawn from the nearest medical college or specialised facility should be set up. Any school or district educational officer can be authorised to refer a case for third-party assessment where needed, or where there is disagreement between the parents and the school management; or even when the school management itself is unsure about how to handle the child.

6.11.8 Fortunately, if detected early and a conducive school environment offered, CWSN can overcome many incapacities to learn and assimilate with other children. By including differently-abled children the advantage of peer learning is known to enhance the possibility of early improvement. It also sensitises children with no disabilities to respect and be tolerant of those with disabilities. This would leave a lasting mark on attitudes towards disability.

Recommendations

6.11.9 It is recommended that the on-going centrally sponsored scheme addressing children with learning difficulties should continue but the funding should have a relationship with the number of children falling in the category and identified by the schools but collated centrally.

6.11.10 An Independent Board may be set up under the state Education Acts to oversee the implementation of the scheme, by obtaining six-monthly reports from the districts.

6.11.11 An organisational structure for managing this segment of children at the district level should be incorporated in the State Education Acts with the regulations explaining the process to be followed for identifying and providing for children with special needs.

6.11.12 Handling children with learning disabilities is a complex task as every child with learning disability is unique. The Committee recommends that the Central Government takes the lead in encouraging the states to establish a nodal entity under the State School Acts which can oversee, intervene and guide schools to address the problem of learning disabilities among children. Government should also make available commensurate resources to tackle the needs of training, by creating part-time expert-cum-oversight Committees who can offer guidance, advice on special training to be given to selected teachers and generally check that the schools are capable of providing a safe and user-friendly environment for differently-abled children to a get the benefit of assimilation in most school activities.

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6.12 Education of Tribal Children

6.12.1 According to Census of 2011, the tribal population of India is 10.42 crores which is 8.6% of total population of the country. In Madhya Pradesh tribals constitute 14.69% of the total tribal population in the country, followed by Maharashtra (10.08%), Orissa (9.2%), Rajasthan (8.86), Gujarat (8.55), Jharkhand (8.29%) and Chhattisgarh (7.5%).

6.12.2 Tribals are in majority in Mizoram, Nagaland, Lakshadweep, Meghalaya, Arunachal Pradesh, and Dadra and Nagar Haveli.

6.12.3 There are over 700 notified Scheduled tribes in the country. Orissa has the largest number (62) notified tribes.

6.12.4 The literacy rate of tribal population compared to rest of the country is much lower as seen in the following table:

Year	Literacy rate of Tribal Population (in %)	India (in %)
1961	8.5	28.1
1981	16.3	43.5
2001	47.1	64.8
2011	58.9	72.9

6.12.5 Tribal population have also suffered from higher infant mortality rate, dropout rate, anaemia among women and other lower HDI Indices compared to rest of the population. (Source: Annual Report of Ministry of Tribal Development 2014-15)

(a) Problems of Education in Tribal Areas

6.12.6 Tribals in most parts of the country live in hilly and forest areas with poor roads and other means of communication. They live mostly in scattered homesteads rather than villages or *mohallas,* which makes it difficult to provide access to schools within short distance for all students. Teachers from non tribal areas are often reluctant to work in schools in tribal areas because of distance from towns, lack of housing and other amenities.

6.12.7 Teachers from other areas are also not familiar with local tribal languages and dialects and are not able to communicate effectively with tribal students, particularly in lower primary sections. Tribal students face difficulties in following prescribed text books which are not in their mother tongue, particularly when the content is not appropriately designed for them. In many states, text-books have been developed keeping in mind tribal dialects and their context.

(b) Education of Tribal Children

6.12.8 Keeping in view the peculiar problems of tribal areas, the main thrust of Central and State Governments has been to provide residential schools, known as

Ashram Shalas. These schools provide free accommodation, food and education to tribal students, and have played a major role in improving access to education to tribal students. Government of India provides financial assistance to States for construction of new hostels and expansion of existing hostels. Government of India also provides pre-matric and post-matric scholarships to tribal students which cover tuition fees, hostel charges and allowance for books. Scholarships/fellowships are provided for studies abroad and research. There are schemes for financial assistance to States and NGOs to set up Vocational Training Centres and payment of training fees to tribal students pursuing vocational training courses.

(c) New Initiatives by States

6.12.9 During its visit to Raipur, the Committee was apprised of some of the initiatives taken in Chhattisgarh and Orissa. Chhattisgarh has launched a massive programme for quality improvement and monitoring under *APJ Abdul Kalam Shiksha Gunvatta Abhiyan*. Nearly 8000 class 1 and 2 officers of State Government periodically visit weaker schools which are provided capacity building and other inputs. Hostels are started in district towns to enable tribal students to complete secondary education. The State passed Right of Youth to Skill Development Act in 2013 under which a youth can demand to be provided within 90 days vocational training facility. Chhattisgarh also merged a number of schools with low enrolment with larger schools thereby reducing teacher shortages. Tribal Education which was part of Tribal Department has been placed under Education Department.

6.12.10 In Orissa text books and other learning material has been prepared for many tribal communities. In Gujarat a number of model residential schools have been started in PPP with reputed NGOs in education sector.

Recommendations

6.12.11 In spite of all the efforts made by central and state Governments, the state of tribal education is far from satisfactory. Their enrolment rate is lower and dropout rate higher than others, they have much lower representation in technical, engineering and medical courses. There have been several complaints of misuse of funds by Ashram Shalas.

6.12.12 The Committee feels that in order to improve access and quality of education for tribal children, greater responsibility should devolve on Government departments directly responsible for education. Tribal Departments do not have the domain knowledge or expertise which Education Departments have; TDDs have several other schemes also like rural development, rural infrastructure and services like provision of drinking water, drainage etc which does dilute their focus on needs of education. Chhattisgarh has already put Tribal Education under Education Department; the Committee recommends that their experience be studied and a dialogue started on the proposal.

6.12.13 However, the decision to give full responsibility to the education department should be taken with caution, as a lot depends on local factors. One key is that the level of supervision of the district administration should be quite high in tribal districts, compared to other districts where the district education system has a normal supervisory role.

6.12.14 In Ashram schools, in many remote pockets, the teachers also live on campus. It will be useful to link a nearby well functioning integrated higher secondary school/Kendriya/Navodaya Vidyalaya or another full-fledged secondary school to have regular operational, advisory, mentoring arrangements. In tribal areas the key has to be higher degree of local flexibility, with much delegation of local initiative, coordination among departments, and asking local agencies/officers to exercise discretion appropriately (with supervision, and accountability).

6.12.15 The Committee also recommends special focus on skill education for tribal areas. Opportunities for skill education need to be woven in the education streams in tribal areas. Since most tribal schools are residential, it will not be difficult, wherever infrastructure is available, to start skill courses after regular school time. NSDC and its associates are running some very successful skill programs in the heart of tribal areas. One such example is in Dantewada in Bastar where a Livelihood College offers nearly 20 skill courses, both in soft and industrial skills, and has created many job opportunities for tribal youth. There are many such examples; the Committee recommends that skill education should become an integral part of tribal education.

6.12.16 In some interactions the Committee was told that tribals find it difficult to understand the regional language which is the medium of instruction. However, the general feeling was that while the medium should be regional language, in the initial grades, it should be taught through local dialect. The Committee was informed that already there are several programmes under implementation in states having a large tribal population where the teacher teaches in tribal dialect of the area. In other states efforts are being made to produce bi-lingual text books. In the initial stages teachers would need training and requisite learning material in local dialects. Besides, additional efforts are required to promote science and teacher education in tribal areas. The school timings in tribal areas need to be made flexible to suit local needs.

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6.13 Language Policy

6.13.1 India is an ancient civilisation characterised by numerous and diverse languages. According to the 2001 Census, India has 122 major languages and 1,599 other languages. As many as 60 major languages are spoken by more than 1 lakh people, and 30 of these are spoken by more than 10 lakh people.

6.13.2 The languages in India come from many different language groups. Apart from the major languages belonging to the Indo-Aryan group, spoken by 75% of the population, and the Dravidian group, spoken by an additional 20%, there are

other languages spoken in India which belong to the Austro-Asiatic, Sino-Tibetan, other minor language groups such as Tai-Kadai and Great Andamanese, as well as isolates. More than three millennia of language contact has led to significant mutual influence among the four predominant language families in mainland India and South Asia.

6.13.3 Hindi is the most prominent and wide-spread language in India. It is spoken by over 40 crore people (2001 Census) and serves as the lingua franca across much of North and Central India. The number of native Hindi speakers is around 25% of the population. However, when other dialects of Hindi spoken in the Hindi belt, such as Braj Bhasha, Haryanvi, Bundeli, Kannauji, Hindustani, Awadhi, Bagheli and Chhattisgarhi, are taken into account, more than 40% of the population speaks the Hindi language.

6.13.4 Article 343 (1) of the Constitution designates Hindi written in the Devanagari script as the official language of the Union. However, Article 343 (2) and the Official Languages Act of 1963 allow for the continuation of English in official work.

6.13.5 The Constitution makes special provision for the propagation of Hindi as the official language of the Union. Article 351 states: "It shall be the duty of the Union to promote the spread of the Hindi language, to develop it so that it may serve as a medium of expression for all the elements of the composite culture of India and to secure its enrichment by assimilating without interfering with its genius, the forms, style and expressions used in Hindustani and in the other languages of India specified in the Eighth Schedule, and by drawing, wherever necessary or desirable, for its vocabulary, primarily on Sanskrit and secondarily on other languages."

6.13.6 In addition the Constitution recognises a number of official regional languages which are listed in the Eighth Schedule, as amended by the 21st, 71st and 92nd Amendment Acts. The Eighth Schedule currently lists 22 such languages, including Hindi.

6.13.7 Communication between States which use Hindi as their official language is required to be in Hindi. Communication between a State whose official language is Hindi and one which uses another official language is required to be in English, or in Hindi with an accompanying English translation (unless the translation is dispensed with by mutual agreement).

6.13.8 The Three Language Formula (TLF) evolved as a negotiated compromise solution to accommodate the strong views of the State Governments and has governed the implementation of language policy for the last 50 years. The TLF was formulated by the then Education Ministry of the Government of India in consultation with the State Governments and enunciated in the 1968 National Education Policy resolution.

6.13.9 Under the TLF, the languages that each child must compulsorily learn in school are as follows:

(i) The First language to be studied by a child must be the mother-tongue or the regional language.

(ii) The Second language – in Hindi speaking states should be some other Modern Indian language (MIL) or English;

(iii) In non-Hindi speaking states should be Hindi or English; and

(iv) The Third language – in Hindi speaking states will be English or a Modern Indian Language (MIL) not studied as the Second language; in non-Hindi speaking states will be English or Hindi not studied as the Second language.

6.13.10 Under the TLF, every child is expected to learn three languages, namely, the mother-tongue, Hindi and English. In Hindi speaking States, children are to be taught Hindi, English and one of the Modern Indian languages.

6.13.11 Not all States are providing education in three languages up to the secondary stage; in fact the variations in so many states, as well as local variations within states are of such nature that it can be even argued that the TLF is observed more in the breach than as a national policy. In some States, only two languages, the State language and English are being taught, presumably for political reasons. In some of the Hindi-speaking States the TLF is often interpreted as providing for the study of Sanskrit in place of any other modern Indian language; indeed contrary to the spirit of TLF no South Indian language is generally taught in most schools in Hindi speaking states. Some Boards of School Education allow students to pass the secondary school examination with only English and another foreign language, permitting them even to avoid learning Hindi or any regional language.

6.13.12 Children are born with an innate language faculty. Most children are able to pick up and internalise the complex rules of one or more languages even before they start their schooling. In many cases, children come to school with the ability to use two or three languages both accurately and appropriately. Even differently-abled children who do not use the spoken language develop equally complex alternative sign and symbol systems for expression and communication with ease and facility.

6.13.13 In implementing a language policy, primacy should be given to the mother tongue as the medium of instruction in the initial stages, before the child enters primary school. This is imperative, as repeated studies have indicated that basic concepts of language and arithmetic are best learnt in one's mother tongue. Indeed, a child learns the mother tongue naturally from her home and societal environment. At the pre-primary level and in Anganwadis, the emphasis should be on reinforcing this knowledge and establishing a sound foundation for all future education based on the children's mother tongue, including tribal languages.

6.13.14 Hindi and/or English could be introduced as languages right from Class 1, preferably only one of these, when the child begins regular school at the age of six. Proficiency in these languages, besides the mother-tongue, will empower the child in due course to communicate outside her own language group for practical purposes like business, tourism, cultural exchange, administration and social work.

6.13.15 While the mother tongue can continue to be the medium of instruction, the study of Hindi is desirable to bring all Indians together as citizens of a single nation. The study of English is equally of importance to enable her to transcend geographical boundaries and function effectively at the national and international level.

6.13.16 For many Indian families, including those in rural areas, acquiring a degree of proficiency in English is an aspirational goal. This is a major reason why parents prefer to send their children to private schools offering English language courses. English is also the predominant language of the internet. These are compelling reasons for the teaching of English in Government schools. Stress should be laid on promoting conversational English and Hindi, so that the child feels comfortable in using these languages in everyday life. Indeed the early teaching of additional language should be conversational based, rather than regress grammar/syntax-based, which often makes learning a language so complicated and difficult at an early age.

6.13.17 Suitable courses in Hindi and English should also be available in universities and colleges with a view to improving the proficiency of students in these languages up to the prescribed university standards.

6.13.18 The Committee agrees with the view expressed in the 1968 NPE that: "The energetic development of Indian languages and literature is a sine qua non for educational and cultural development. Unless this is done, the creative energies of the people will not be released, standards of education will not improve, knowledge will not spread to the people, and the gulf between the intelligentsia and the masses will remain, if not widen further."

6.13.19 The study of Sanskrit requires special emphasis, as it is still inextricably linked with the life, rituals, ceremonies and festivals of the people and is a window to the rich cultural, philosophical, artistic and scientific heritage of India. Knowledge of Sanskrit is a window to languages and cultures in many states.

6.13.20 Keeping in view the special importance of Sanskrit to the growth and development of Indian languages and its unique contribution to the cultural unity of the country, facilities for teaching Sanskrit at the school and university stages should be offered on a more liberal scale.

6.13.21 In some States, Sanskrit is already being taught as a compulsory subject from Classes 6 to 8. Sanskrit may be introduced as an independent subject at a suitable point of the primary or the upper primary stage. At the secondary stage,

Sanskrit may be offered as an additional option and at the higher secondary stage suitable elective courses in Sanskrit may be made available to all those students who wish to study it. Open school courses for Sanskrit may also be designed for learners at all levels.

6.13.22 In designing Sanskrit courses and curriculum, the language should not be treated as a 'classical' language but as a living phenomenon which is still relevant to the general life needs of the people of India. Old timers would remember that teaching of Sanskrit through the Bhandarkar method puts off many students, arising from the undue early stress on grammatical perfection, rather than provide the ability to get a feel for the language through usage, and stress on the 'roots'.

6.13.23 Development of new methods of teaching the language should be encouraged, and the possibility explored of including the study of Sanskrit in those courses (such as modern Indian languages, ancient Indian history, Indology and Indian philosophy), where such knowledge would be useful for an understanding of the subject is useful.

6.13.24 In addition, it would be useful for schools which have the capacity to do so, to offer foreign languages such as German, French, Russian or Arabic at the secondary or senior secondary stages. Every new language provides fresh perspectives and opens new prospects for the learner. However, these should be entirely left to the interest of students to take new languages either for special personal reasons or out of general inclinations.

Recommendations

6.13.25 The Committee recommends that the medium of instruction up to Class V must be the mother tongue or regional language.

6.13.26 The Three Language Formula (TLF) has been a part of the Education Policy of the country right from 1968 and continued through 1986/92. The Committee learnt during its interactions that the Three Language Formula has not been uniformly implemented in many states. With the passage of time the states have responded to local aspirations and preferences voiced by parents who would like their children to possess language communication skills that can facilitate intra-state, intra-regional as well as global mobility. Keeping this in mind, the Committee recommends that as long as the states ensure that the mother tongue or the regional language forms the basis of primary education up to Class V (a fact underscored by the earlier two policies) the choice of the second (at primary level) and third language (at secondary level) should be left to individual states to decide.

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6.14 Sports and Physical Education

6.14.1 The NEP of 1986/92 had laid significant stress on sports and physical education to be part of the schooling process, in the following terms: "Sports and physical education are an integral part of the learning process... A nation-wide infrastructure for physical education, sports and games will be built into the educational edifice. The infrastructure will consist of playfields, equipment, coaches and teachers of physical education… Available open spaces in urban areas will be reserved for playgrounds, if necessary by legislation… Yoga will receive special attention. Efforts will be made to introduce Yoga in all schools." School systems across the world recognize the critical importance of weaving sports and physical education in the education process, for all round development of the student.

6.14.2 The Committee, during its field visits and in discussions with local authorities and school managements, had observed that in general inadequate stress is given to this aspect of schooling. Indeed, the Committee got the impression that overtime, the attention to creation and utilization of sports facilities, and engaging students in sports activities has, progressively received less attention. In particular, with the rapid expansion of schooling all over the country, especially in urban areas, many schools do not have adequate facilities to cater to this important aspect of the education. In general, it was noted that government schools had provision for playgrounds and participation of students in sports activities, although inadequate in most instances; many private schools, both in urban and rural areas, frequently had no provision whatever for such facilities. It was often also heard that even though sports and playground facilities is a requirement for recognition of a school, many private sponsors had circumvented this requirement through subterfuge, and through bringing in improper influence on the regulatory authorities.

6.14.3 The importance of physical development of children is not given the attention it vitally needs. School authorities in states need to bring renewed focus on this aspect. It is time to make a specific, non-divertible budget for sports facilities in government schools, and also in private schools, so that the children are encouraged to build their character in a spirit of competition, through sports and healthy physical activities, as part of the learning process – indeed as preparation for life. In another segment in this chapter, there is reference to creation of a new system of periodical health check-up for school children.

6.14.4 The 1986 Policy had rightly recognized the role that Yoga can play in healthy development of the mind and the body. Yoga, which originated in ancient India, was the integral part of a civilization which led the world in every sphere of human activity for millennia. In recent decades, the international community is rediscovering Yoga and the part it can play for the healthy development of the body and mind. Indeed, only very recently, on the initiative of the Government of India there is renewed recognition of Yoga as a healthy human practice, through the declaration by the UN of the 22nd June of every year as International Yoga Day.

6.14.5 Every school, both public and private should be encouraged to bring Yoga in as part of the schooling process, and facilitate every child to learn the basics of Yoga. Particularly in urban schools, where there is shortage of playground facilities, Yoga can play a significant part in the development of a young student.

Recommendations

6.14.6 The NEP of 1986/92 had laid significant stress on sports and physical education to be part of the schooling process The Committee, during its field visits and in discussions with local authorities and school management, has observed that in general inadequate stress is given to this aspect of schooling. The Committee also observed that many private schools, both in urban and rural areas, frequently had no provision whatever for such facilities. The importance of physical development of children is not given the attention it vitally needs. School authorities in states need to bring renewed focus on this aspect. It is time to make a specific, non-divertible budget for sports facilities in government schools, as also in private schools.

6.14.7 Yoga is an art from ancient India, which the whole world is increasingly adopting for healthy development of the body and the mind. The United Nations has recently declared an annual International Yoga Day, recognizing its potential vital role in nurturing the body and the spirit. Every school, both public and private, should be encouraged to bring Yoga in as part of the schooling process, and facilitate every child to learn the basics of Yoga. Particularly in urban schools, where there is shortage of playground facilities, Yoga can play a significant part in the development of a young student.

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6.15 Curriculum Renewal and Examination Reforms

(a) Curriculum Reforms and Renewal

6.15.1 The success of the New NPE would require a robust, comprehensive and futuristic curriculum that would prepare young persons to face the challenges of 'change'.

6.15.2 It is necessary to integrate curriculum in the content and pedagogy. It is the conceptualization, nature and design of the extent of dynamism inbuilt in the curriculum that has the strength to transform the education system as one "rooted to culture and committed to progress", which is the universally accepted premise. For example, education now needs to equip the learners on issues of climate change, global warming, pollution, depletion of water resources, various facets of environmental degradation, generating questions like: "How long will the planet Earth Survive?" Curriculum must inspire and offer hope, encourage to learner to act and find solutions. The challenge also is to link the curricular content with local needs and aspirations.

6.15.3 The main objective of our education system currently, unfortunately, is to prepare the children to do well in the examinations. Classroom behaviour and dynamics are guided by this overarching goal. Our examination system is based on rote memory; questions are asked from text books and students who are able to reproduce what is written in the text books manage to get high scores. The Committee understands that memory and recall are an integral part of any education system, but endorses the views of several experts that the focus of education should be more on critical thinking; the examination system should be geared to test understanding rather than ability to reproduce the text-book script.

6.15.4 The Committee has made several recommendations for reforms in the examination system, which if implemented, would make class room learning more broad based rather than confined to a text book. The earlier curricular frameworks had observed that instead of just one set of approved text books for all schools, flexibility of choice from multiple text books should be given to schools and teachers keeping in mind regional and cultural needs. The Committee has observed elsewhere that text books are no longer the sole source of knowledge; Internet has made available information and knowledge on an unprecedented scale, and teachers and students should make full use of it. The focus of class room transaction should now shift to self-learning from a variety of learning materials and teacher should become a facilitator and guide in this process.

Coaching Classes

6.15.5 It is also important to refer to the major issue of curricular load reduction; and in this context to the proliferation of private tuition and coaching arrangements. It is not generally recognized that the formal curriculum needs to respond and take into account the growing dependence on tuitions and the frightening levels of emergence of coaching institutions.

6.15.6 It is a well-recognized global phenomenon that private coaching supplements the formal educational system – this practice is widely prevalent in a large number of countries. Indeed for very talented children or those who are relatively backward, systems for private coaching exists in many countries, in a fairly organized way. A recent study by Bray in 2015 has indicated that the coaching sector in the 6 to 14 age group is strong, and is growing in India, and is now a substantial 'industry.'

6.15.7 Private coaching (for a consideration or a fee) as a supplement to formal education may help the child in certain circumstances to keep up with the class; however left to market forces, it has been well established that private coaching increases disparities between classes of students; the relatively well-off segments of the student population can benefit through supplementary coaching, whereas the educationally and socially backward classes generally cannot afford supplementary coaching classes. In a country like India, where large inequities exist, including in the matter of educational opportunities, it can be postulated that private coaching exacerbates disparities in general. The study (Bray) inter-

alia points to rural schools in India, where 2.8% of children from Chhattisgarh could avail of private coaching, whereas in the capital of West Bengal, Kolkata, 73% of the students could avail of private coaching – this may be an extreme picture, but clearly points to the disparities in learning opportunities in India, stressing the need for major correction measures.

6.15.8 The need for outside coaching also is an indication of the weakness of the formal coaching levels in schools, and is a reflection of the failure of the teacher community to fulfil their due role in imparting education. It also is often a reflection of improperly structured curriculum and undue load on the student, pointing to need for curriculum reform. The Committee has elsewhere referred to the need to improve the performance of the teacher in schooling; it is no less important to focus on curriculum reform.

6.15.9 The Committee has elsewhere stressed the need for remedial coaching as well as systems to augment the process of knowledge acquisition by the child, particularly in the context of the 'No Detention Policy'. While one cannot wish away the existence of private coaching, it needs to be understood that the prime requirement is to improve formal coaching standards in schools, and also create structures for assisting children in school to keep up with the median levels of each class, through special support measures. It is also important to stress, in this context, the need for adherence to the '90-90' principle – 90% of each class should assimilate 90% of the curriculum content – this needs to be set as the benchmark for testing the validity of curriculum reform, as well as the success of teaching in the class.

6.15.10 The task of ensuring comparability of curricula across the School Education Boards, Central and also in States has been entrusted to the NCERT. The expectation was that when learners move from one place to another, they do not suffer any disadvantage. The NCERT prepared curriculum frameworks in 1975, 1988, 2000, and 2005. As an advisory body, it prepares curriculum frameworks with active and intensive involvement of state functionaries and experts. The immediate task is to initiate the process of Developing the New Curriculum Framework for School education that would respond to the new National Policy of Education. This exercise needs to be conducted after every five-year interval; last prepared eleven years ago, it has already lost its relevance.

(b) Examination Reform

6.15.11 The broad objectives of education are to provide knowledge and skills, create a spirit of inquiry, and instil values to become a good human being and a good citizen. The sole objective of Indian education system, as it has evolved in the last few decades, appears be to prepare students for the Board examinations.

6.15.12 The Indian examination system is criticised, often with some justification that it suffers from every malpractice human ingenuity can think of. Papers are leaked, copying is rampant, examiners are compromised, and mark-

sheets manipulated. The problem is more serious in some states, in others also the situation is not satisfactory.

6.15.13 Many initiatives have been taken to curb examination malpractices. Shift to objective type and multiple choice questions, bar coding of answer sheets to protect student identity, strict vigilance and video recording at examination centres to prevent copying, grading instead of aggregate marks, computerized tabulation and preparation of mark sheets, online announcement of results have helped in improving the system.

6.15.14 The core underlying issues are deeper than just the process of conduct of examinations. Some of these are discussed in the following paragraphs.

6.15.15 The Indian examination system is based on rote memory; questions are asked from text books and students who are able to reproduce what is written in the text books manage to get high scores. As part of examination reforms, many boards have introduced objective type and multiple choice questions, but these also often test memory more than understanding, analysis and application. The Committee recognizes that the memory and recall are an integral part of any education system, but is strongly of the view that the focus of education should be more on understanding and the examination system should be geared to test understanding rather than regurgitating text-book script.

6.15.16 The evaluation of a student should not depend entirely on performance in end of the year examination. Weightage needs to be given to performance in periodic tests, classroom participation and quality of assignments throughout the year, for which objective and transparent criteria need to be laid down.

6.15.17 Credibility of examinations is questioned because the marking system is shrouded in secrecy. After every public examination, an open-access website must show Item-wise expected answers and other performance analysis. This could be in the form of a moderated blog so that teachers-educators, teachers and even others could share their comments.

6.15.18 It is necessary to ensure that the results of Board Examinations are correct and reflect the reality. A large number of candidates score marks above 99% and many score 100% too; the same students often do poorly in Entrance Tests for Engineering or other technical courses. This also renews doubts about the logic of the examination system.

6.15.19 Many Boards follow a practice of awarding grace marks to students to enable them to pass the examinations, and to inflate overall pass percent. The students who pass out of such a 'diluted' system would either not be able to compete with students from elsewhere or not perform well in their future jobs. Practices like 'grace marks' serve little purpose.

6.15.20 Scaled scores and percentiles are the modern scientific methods to provide the most accurate results of a large scale examination like a Board Exam.

Marks are inadequate as they do not reflect the difference in difficulty across subjects and years. Grades indicate a band in which students lie, but are inaccurate, for example, at the border of these bands. Scaled Scores and percentiles adjust for the varying difficulty of different questions and tests and provide comparable results across students.

6.15.21 The Committee also recommends that a system of online on-demand board examinations should gradually be tried out as this will offer flexibility and reduce year end stress for students and parents. A National Level Test open to everyone having completed class 12 form any School Board should be designed – this should make the successful candidates eligible for admissions to various courses, without a multiplicity of entrance tests. (This has been referred in Chapter 8.)

6.15.22 Secondary Examination Boards lack the capacity to adopt modern scientific methods of question-setting and revaluation. Assessment capacities in CBSE, ICSCE and the State Examination Boards need to be strengthened. There is a need to build a discipline focused on developing appropriate questions for assessing learning. Improved and modernized evaluation systems would achieve results only when teachers are adequately prepared professionally, are regularly oriented and re-oriented through in-service education programmes; and free from non-academic duties.

6.15.23 The Committee is of the view that public examination system serves a useful purpose, and cannot be dispensed with. Though some education commissions and reports have called for the abolition of public examinations, the Committee does not recommend them being made optional. Among other factors, public examinations hold teachers and schools accountable for student performance.

Recommendations

6.15.24 Reforms to curriculum need to relate to the emerging aspirations and national needs that include social cohesion, religious amity and national integration.

6.15.25 There is need to reduce curriculum load and avoidable emphasis on rote learning – the focus has to be on making learning joyful, creative, participatory, and stimulate and encourage the child to think.

6.15.26 The Committee notes that left to market forces, it has been well established that private coaching increases disparities between classes of students; the relatively well-off segments of the student population can benefit through supplementary coaching, whereas the educationally and socially backward classes generally cannot afford supplementary coaching classes. The prime requirement is to improve formal teaching standards in schools, and also create structures for assisting children in school to keep up with the median levels of each class, through special support measures.

6.15.27 The Committee recommends that the Guiding Principles for curricular reform enunciated by NCF 2005 are valid and need to be implemented vigorously. Teachers and students should have access to multiple sources of knowledge rather than only the prescribed text book. Examinations should be designed to test wider awareness, understanding and comprehension, and not merely ability to reproduce text book script. Curriculum should be broad based and aim for overall development of students in an increasingly technology driven environment.

6.15.28 The Committee is satisfied that the examination system needs serious reform. In the first place, the necessary political will needs to be summoned, and all decision-makers in this sector need to be convinced that the rampant malpractices need to be addressed with great urgency. Reform of examination process needs to be put on national agenda and the Centre and the States have to work together to put in place processes, which will restore confidence in the system. In addition, wide ranging technical reforms to clarify the purpose and objectives of different types of examination – whether this is for conferment of a degree or qualification to assess the quality of learning or whether it is competitive in nature, on the lines suggested in the following paragraphs are equally essential.

6.15.29 The present examination system focuses on testing the student's memory; questions are asked from the text books and students who can reproduce what is written in the text books get high scores. Many State Education Boards have introduced objective-type questions, but these also test memory rather than understanding, analysis and application. The Committee recognizes that memory and recall are an integral part of any education system but is strongly of the view that the focus of education should be more on understanding and the examination should be designed to test understanding rather than regurgitating text book script.

6.15.30 The performance of a student should not be judged only by results in the Board examinations. Credit should be given to periodic classroom tests and evaluation. The process of continuous evaluation should be transparent and the result should be shared with students and parents.

6.15.31 There are always questions in the minds of students and parents about the criteria and process of marking answer-sheets followed by the education Board. The evaluation criteria should be transparent and in public domain. After every public examination and open access website should show item-wise expected items and other performance analysis. This could be in the form of a blog in which parents, teachers and students can share their comments and feedbacks.

6.15.32 It is important to ensure that results of Board examinations are correct and reflect reality. Instances where students score 99 or even 100% marks in Board examinations, but do poorly in Entrance Tests for technical courses, raise issues about the credibility of evaluation quality of Boards.

6.15.33 Many Boards also follow the practice of granting grace marks to artificially inflate pass percentage. The Committee recommends that this practice should be discontinued.

6.15.34 Many countries have discontinued the system of giving marks and grades and instead give scaled scores and percentile which is the modern scientific method to provide accurate results of large scale examinations like the Board examinations. Scaled scores and percentiles adjust for the varying difficulty of questions and tests and provide comparable results across students, states and even years. The Committee recommends experts should examine the feasibility of percentile system for our Board examinations.

6.15.35 The Committee also recommends that a system of online-on-demand Board examinations should gradually be tried out as this will offer flexibility and reduce year end stress for students and parents. A National Level Test open to everyone having completed class 12 from any School Board should be designed. It should make the successful candidates eligible for admissions to various courses without appearing in different entrance tests.

6.15.36 Assessment capacities in CBSE, ICSCE and State Examination Boards need to be strengthened. Teachers and educators need to be trained on developing appropriate questions for assessing and learning.

6.15.37 *The Committee is of the view that Board examinations serve a useful purpose and should be continued.*

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6.16 Restructuring Class 10 Examination

6.16.1 National Curricular Framework 2005 states that 'The fact that learning has become a source of burden and stress on children and their parents is an evidence of a deep distortion in educational aims and quality. While urban middle-class children are stressed from the need to perform extremely well, rural children are not sure about whether their preparation is adequate even to succeed. The high failure rates, especially among the rural, economically weaker and socially deprived children, forces one to critically review the whole system of evaluation and examination. For if the system was fair and working adequately, there is no reason why children should not progress and learn.'

6.16.2 India is a large country. There are wide variations in the quality of education facilities, competence of teachers, social background of and opportunities to students. It is unreasonable to expect that all students should demonstrate the same level of competence in each subject in order to reach the next level of education. In the light of the urban–rural gap in India, this expectation is also socially regressive.

6.16.3 It is well documented that much of the higher failure and dropout rates in rural schools can be attributed to poor performance in two subjects – Maths and English. It has been suggested that some subjects can be offered at a higher and lower level and students can choose which level they wish to write. For example, a student who does not expect to study Mathematics further may choose the basic

(lower) level, while another may choose the advanced (higher) level. Accordingly, it is suggested that at the Class X level, the provision to test the students at two levels of difficulty, particularly in mathematics and science subjects should be introduced.

6.16.4 The Committee suggests reform of Class 10 examinations, in the following lines:

(i) Class 10 Board Examination in every subject to be in 2 parts: Part A and Part B. Part A to be compulsory for all students. Specifically, students who wish to complete their studies with class 10 and pursue options other than Class 11 or certain diploma courses, should appear for Part A only, in selected mathematics/science subjects.

(ii) The requirement that students who only wish to earn a class 10 completion certificate and exit the system (to pursue other options including vocational courses and jobs) will reduce the anxiety and stress on such students and their parents. This will benefit a number of students including many in rural areas.

(iii) Part B may be required only for students who want to study further in class 11 or onwards or seek admission to a diploma course or any other course requiring a class '10th completion certificate'. However, no student who wishes to write Part B should be prevented from writing it for any reason. At the time of registration for the examinations, students must specify if they wish to write Part B.

(iv) In line with NCF recommendations, the typology of the questions should be such that reasoning and creative abilities replace memorization as the basis of evaluation. Basic tables and formulae, and other information that no longer need to be memorized should be provided in the question paper itself, so as to focus on the HOTS (higher order thinking skills) of application, analysis, synthesis and evaluation.

(v) A lot of stress and anxiety comes from an examination which is based more on rote memory and less on understanding. It is this excessive emphasis on memory that encourages practices like tuitions, which further add to the stress. The changes suggested to the type of questions, if implemented, will also help reduce student and parent stress and anxiety significantly.

Recommendations

6.16.5 Failure rate among students in Board Examinations is traditionally high. It is well documented that much of the higher failure and dropout rates can be attributed to poor performance in two subjects — Mathematics and Science. Various Education Commissions have suggested that some subjects can be offered at a higher and lower level, permitting students to choose the level at which they wish to write Class X Board Examination. For example, a student who does not expect to study

Mathematics further may choose the basic (lower) level, while another may choose the advanced (higher) level.

6.16.6 The Committee recommends that Class X Board Examination in Mathematics and Science should be in 2 levels: Part A at higher level and Part B at a lower level. Students who wish to complete their studies at Class X need, by choice, to appear in Part B only.

6.16.7 While the syllabus for all students will be same, the examinations in Mathematics and Science subjects in Part B would be of a lower level than examinations for Part A. Students should have the freedom to exercise their choice and there should be no compulsion on them to select either of the options. Students who opt for Part B need to keep in mind that their eligibility to pursue future courses incorporating higher mathematics and science could get limited.

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6.17 Protection of the Rights of the Child

6.17.1 India ratified the United Nations Child Rights Convention in 1992.In 2005 the Commission for Protection of Child Rights Act 2005 was enacted. Two years later the National Commission for the Protection of Child Rights was established and all states have since established statutory State Commissions which have a wide mandate. The RTE Act 2010 also lays down that the concerned Commission would examine the issues connected with child rights and deal with complaints about the violation of the Child Protection Act.

6.17.2 Child protection goes beyond personal safety of children. In the environs of a school the whole arena of the dignity of the child and prevention of verbal or any physical punishment besides the child's right to a safe and clean environment come up. Often, there is friction between the need to enforce discipline and how it is to be handled in the face of a rights based approach. The rights of the child when juxtaposed with the managements' and teachers' responsibility to insist on certain standards of behaviour, dress and language, often get subjugated. Precisely because a child has no voice there is a need to view situations from the child rights point of view. That will only happen if the right kind of environment which shows receptivity to child rights and child protection is in place.

6.17.3 To start with every Principal and teacher needs to be made aware of the provisions of the Act and what constitutes a violation of a child's rights. Through them the School Management Committees have to be sensitized periodically. School Counsellors have a direct role in keeping a lookout for children who might be facing trauma on account of physical or mental abuse and to act on the information.

6.17.4 The difference between the rights of the child to many freedoms can come into conflict with the school rules on punctuality, discipline and dress. Local

solutions will emerge once the subject is discussed. Guidelines need to be evolved by the State Governments.

6.17.5 Principals must be encouraged to set a personal example by showing zero tolerance for any untoward incident involving a child's rights and enjoined to take pro-active interest in protecting the rights of every student in the school.

6.17.6 The Adolescent Education Programme and National Population Education Programme need to be extended to all schools as early as possible.

Recommendations

6.17.7 *To start with every Principal and teacher needs to be made aware of the provisions of the Act and what constitutes a violation of a child's rights. Principals must be encouraged to set a personal example by showing zero tolerance for any untoward incident involving a child's rights and enjoined to take pro-active interest in protecting the rights of every student in the school.*

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6.18 School Children and Public Health

6.18.1 School children represent the future wealth of the nation. Good education is possible only when the child is in reasonably good health and is able to utilize the learning opportunities provided to him/her. The situation relating to healthcare, including preventive, diagnostic and curative practices is not well developed in India, and particularly so in rural India. Past experience has shown that health care facilities are accessed more frequently to deal with immediate symptoms relating to diarrhoea, fever, and acute respiratory infection etc. Data suggests that children are likely to seek health services for emergent and urgent need than for preventive ones; potentially that the girl child needs are accorded lower priority in society in general. This topic is outside the remit of the Committee; however, since good health is a collateral requirement for good education, the Committee has ventured to make some recommendations in this regard. Taking quality healthcare to the schools, particularly preventive, is of utmost importance in our society.

6.18.2 Every third girl child in India is under-nourished; every second girl anaemic (55.3%). Child nutrition status has declined in many North Indian states. At least 44% of kids sleep hungry. The immunization levels which ought to be close to 100%, at least upwards of 99%, stand at around 52% in India. These are appalling statistics which are unacceptable. 40% of the world's undernourished children live in India; 48% of Indian children below 5 years are stunted, and 42% are under-weight – all the result of poor nutrition and lack of micronutrients. One can imagine the impact of the above on the quality of education in our school system. About 62% of children under five years of age are vitamin A deficient. 31% of school age children are iodine deficient. These deficiencies cause death and disability, and retard brain development, IQ, cognitive skills, energy levels,

and productivity. India's performance on these crucial outcomes is among the worst in the world. Our nutrition indicators are worse than even our neighbours Bangladesh, Pakistan, Sri Lanka, and Nepal. It is possible to address these issues with minimal intervention, using technology; the Committee argues that innovative ways of reaching our school children with preventive, diagnostic and basic treatment facilities can make a sea-change in their learning capabilities, and sharply reduce school drop-out rates.

6.18.3 Elsewhere, reference has been made to the imminent roll-out of Digital India, which will cover practically the entire country with a reliable communication network in relatively short time. The question is, has the time come to link the latest technology available, to take diagnostic and preventive care, even at an elementary level, to the school; this will contribute to educational quality, as well as public health – both prime objectives in a democracy.

6.18.4 Currently available electronic technology can be used, through Digital India, to roll-out a relatively inexpensive, and effective preventive/ diagnostic procedure to reach school children. The suggestion would call for well-equipped mobile vans, with real-time connectivity with a bank of doctors, say at divisional or state headquarters, to facilitate onsite basic tests (blood, ECG, eye-testing, etc.), and provide instant advice, with periodical (say, every three months) visits to schools. As this system is rolled out, this will create a permanent medical record (available in the cloud) for each child, with a unique identity. On a real time basis, each loaded mobile diagnostic centre could visit each school in a district, turn by turn; be on real time contact with a bank of medical experts (say at divisional headquarters); access the condition of each child and provide immediate diagnostic and treatment advice as required. This may relate to eye-sight, condition of gums, or more serious conditions like TB etc. – the point is that the child has the benefit of early diagnosis if something is amiss. A back-of-the-envelope calculation would indicate that the costs may not be prohibitive; no major treatment or procedures are recommended – only primary diagnosis as a pointer for future action. Already such electronic packages are available which could be harnessed or adapted in this regard. (Attention is also invited to such recent innovations as 'Swasthya' tablets, even though this relates only to blood and related tests). It is understood that some states and private foundations have already started experimenting with these ideas.

Recommendations

6.18.5 Noting that quality school education is closely linked with preventive and diagnostic healthcare, the Committee recommends large scale experimentation of deploying well-equipped mobile vans for diagnostic purposes to schools, with real time connectivity with a bank of doctors to provide immediate advice, and where possible to provide primary treatment to children. The Committee is satisfied that this will address the issue of education quality, as well as the school drop-out problem, while meeting the overall national objective of healthcare to the citizen. It is recommended that the Centre and the State Governments should sponsor widespread experimentations to implement this idea on the ground, to explore viable

options. The aim should be that every school in the country should be covered in a relatively short period of time.

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6.19 Academic Counselling and Aptitude Testing

6.19.1 There are three aspects of school counselling that have not been given much importance hitherto and require to be addressed.

(a) Identifying and Guiding Students with Special Needs as a Support to the Class Teacher

6.19.2 The first relates to the identification of children with special needs and equipping teachers to include such children in the normal process of teaching and learning in the classroom. The manner in which this should be handled has been set out in a separate segment on children with disabilities. In most countries which have opted for providing counselling services the identification of such children is one of the responsibilities of the school.

6.19.3 There are two more areas where a school counsellor can be of immense assistance and these relate to the need for providing guidance to students who are slow learners (without any disability) and being able to observe and steer students into vocational streams of relevance to the local area or to be seconded to small and medium industries.

(b) Counselling for Underachievers

6.19.4 Under achievement in a growing child and particularly those that are caused by extraneous factors prevent an adolescent from fully realizing his optimal academic potential. This not only affects his future progress within the school system but even later in life. Often, children need to be guided and sometimes even counselled to adopt the best study habits which is particularly necessary in schools where children come from the less privileged sections of society and do not have a home environment which promotes academic learning.

6.19.5 Research has shown that it is not about inability but rather a manifestation of incomplete realization of one's potential despite having innate ability that is often at stake. Deficient study habits often keep students from achieving what they are capable of because of a lack of motivation. When there is no disability or mental disorder and a child continues to underachieve, the factors have to be addressed instead of ignoring them in the expectation that things will improve on their own. It is the desire to achieve that often differentiates the high achievers from the low achievers. It is here that school-based assistance can be beneficial particularly for young people who come from unstable homes, where family turmoil, marital discord, financial concerns and lack of emotional support cause anxiety and unhappiness. Motivated students manage to do quite well but it takes expertise to find out what motivates a particular student.

6.19.6 Counsellors can prove to be of great help in providing a confidential outlet to enable a student to unburden himself. School-based assistance is the most widely accepted form of psychological therapy for young people. It is understood that the Central Board of Secondary Education guidelines expect one school Counsellor to be appointed for every affiliated school. However it would appear that such services are available in only a minuscule proportion of the government schools.

6.19.7 Whether the factors are attributable to an unsatisfactory family atmosphere or whether there are other reasons for absence of motivation, counselling can assist not only the child but also teachers to improve academic attainment and psychological well-being of the students.

(c) Identification of students who may have manual dexterity or ability to learn trades

6.19.8 The inclination of students is different and their latent talent/ability will come out if they are asked the right questions or put through a simulation exercise in a competitive setting. At present under the apprenticeship act there are some 74 trades listed as eligible for coming under the Act. Considering that a student can register as early as the age of 14, a counsellor can not only offer guidance but also do the necessary networking with nearby industries.

Recommendations

6.19.9 The Committee recommends that, from the point of view of the counselling, it is essential that students receive early guidance and support in finding placement in local industries. A competent counsellor would be able to recognize the special aptitude and skills of children from an early age and be able to steer them into appropriate openings as apprentices or otherwise suitably guide them.

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6.20 Mid Day Meal (MDM) Scheme

6.20.1 The Mid Day Meal Scheme (MDMS) is a major programme of the MHRD. Launched in 1995 as the National Programme of Nutritional Support to Primary Education (NPNSPE), the Scheme was extended to the upper primary level in 2008-09 and renamed as the National Programme of Mid-Day Meal in Schools.

6.20.2 The Scheme provides free hot cooked lunches on working days to children in elementary schools and Education Guarantee Scheme (EGS) centres. Nearly 12 crore children, comprising 8.4 crore in primary classes and 3.4 crore in upper primary classes benefited from the MDMS during 2009-10. The MDMS also provides part-time employment to nearly 2.6 million women who are working as Cooks-cum-Helpers (CCH). It is the largest such programme in the world.

6.20.3 Based on research, it is now clearly established that for children up to 10 years, adequate nutrition and micronutrient (MI) intake is vital for their balanced

growth, mentally and physically; in adequate nutrition and MI input can permanently damage growth potential. Many states had started Mid-day Meal Programmes on their own initiatives. In November, 2001, the Supreme Court directed all State Governments and Union Territories to "implement the MDMS by providing every child in every Government and Government assisted Primary School with a prepared mid-day meal."

6.20.4 The MDMS covers all school children studying in primary and upper primary Classes from 1 to 8 in Government and Government-Aided Schools, Special Training Centres (STC), *Madrasas* and *Maqtabs* supported under the *Sarva Shiksha Abhiyan* (SSA), as well as National Child Labour Project schools run by the Ministry of Labour.

6.20.5 The MDMS seeks to address the pressing problems of hunger and education by improving nutrition, preventing classroom hunger, encouraging poor and disadvantaged children to attend school more regularly, helping them to concentrate on classroom activities, facilitating the healthy growth of children and providing nutritional support to children in drought-affected areas during the summer vacation.

6.20.6 Additionally, the MDMS fosters social equality, with children from diverse social backgrounds sharing a daily meal and helps to break caste and class barriers among school children. It narrows the gender gap in school participation by eroding the barriers that prevent girls from going to school and by generating part-time employment for women as cooks and helpers.

6.20.7 The MDMS is a Centrally-sponsored programme under which the Central Government bears the entire cost of food grains, transportation, Monitoring, Management and Evaluation (MME) and procurement of kitchen devices. The costs of cooking, kitchen-cum-stores and honorarium to CCH helpers is shared between the Centre and the States/UTs on a 75:25 basis; in the case of the North-Eastern Region States, the costs are shared on a 90:10 basis.

6.20.8 Several mechanisms to monitor the implementation of the MDMS are in place. These include Committees separately chaired by the HRD Minister and Secretary, the Executive Council of the National Mission for the SSA, Steering-cum-Monitoring Committees at the State level and 41 Institutions of Social Science Research identified under the SSA. National Meetings of Education Secretaries and Regional review meetings are also held to monitor the implementation of the MDMS.

6.20.9 The Guidelines provide that, as far as possible, the responsibility of cooking and supply of MDM should be assigned to local women's or mothers' Self-Help Groups, Youth Clubs and other voluntary organizations or to personnel engaged for the purpose by the *Gram Panchayat* or Municipality. In urban areas, where there is shortage of space for construction of kitchen sheds, a centralized kitchen may be used for a cluster of schools.

6.20.10 The implementation of the MDM Scheme has shown that certain critical issues need to be tackled on a continuing basis. These include irregularity in serving meals, delays in supply of food grains to schools, caste based discrimination in serving of food, poor quality of food, poor coverage under the School Health Programme, poor infrastructure especially of kitchen sheds, poor hygiene and poor community participation. From time to time, there have been reports of children falling ill after consuming the MDM. Scams relating to the Scheme and other implementation and monitoring issues tend to weaken the entire scheme.

6.20.11 Despite these shortcomings, the MDM Scheme is a hugely positive intervention in the two key areas of public health and education. It reflects the commitment of the State to raise the level of nutrition and the improvement of public health, which is enjoined on it as a primary duty by the Directive Principles of State Policy.

6.20.12 Many studies have shown that the MDMS has helped in preventing classroom hunger, promoting school participation, fostering social equality, enhancing gender equity and facilitating the overall healthy growth of children. The MDMS is widely acknowledged as one of the more successful entitlement schemes of the Government of India, which has resulted in an increase in enrolment and retention of children in elementary schools.

Recommendations

6.20.13 The Committee endorses the objectives of the MDMS and recommends its expansion and universalization to cover all children studying in elementary schools.

6.20.14 The Committee also recommends that Mid-day Meal Programme should also be extended up to secondary level.

6.20.15 It is important to ensure that teachers are not burdened with the tasks of cooking and serving the MDM. This should be carried out by cooks and helpers who are specifically employed for the purpose or by independent agencies. Some states have engaged services of reputed community organisations to provide Mid-day Meals cooked in centralized kitchens and distributed efficiently to schools. The Committee recommends that their experience should be studied and if found satisfactory then it can be replicated in other states.

6.20.16 Too many intermediary levels of fund flow should be reduced to ensure that the required funds reach the implementing agencies in time.

6.20.17 Sensitization programmes may be conducted for officials at District and Block level to make them aware of their role and responsibilities in implementation of the MDMS. Laid down norms should be rigorously followed.

6.20.18 There should be better convergence and co-ordination between the MDMS and the School Health programme.

6.20.19 Micro-nutrients, vitamin supplements and de-worming tablets should be provided to the children.

6.20.20 The programme is too important to be re-examined in its fundamentals, whenever there is an incident of food poisoning or other social issue. Care should be taken to ensure that the laid down procedures are followed, delinquents punished severely, and unsavoury events pre-empted; there should be increased stress in the quality of the programme.

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6.21 Kendriya Vidyalayas (KVS), Jawahar Navoday Vidyalayas (JNVs) and Kasturba Gandhi Balika Vidyalayas (KGBVs)

(a) Kendriya Vidyalayas

6.21.1 The scheme of Kendriya Vidyalaya Sangathan (KVS) was approved by Government of India in November, 1962 to provide uninterrupted education to the children of the transferable Central Government employees. There are 1102 Kendriya Vidyalayas, many of them located in remote areas of the North East, catering mainly to children of Defence, PSUs and other Central Government employees. Enrolment in Kendriya Vidyalayas was 1142858 of which 642722 were boys and 500136 girls (Annual Report of MHRD 2014-15).

6.21.2 Over the years KVs have earned reputation for providing good quality education. They have excellent infrastructure and qualified and committed teachers. Students of KVs have done consistently well in Board examinations and extra-curricular activities.

(b) Jawahar Navodaya Vidyalayas (JNVs)

6.21.3 The National Policy on Education, 1986, envisaged setting up of pace setting residential Navodaya schools to provide good quality modern education – including inculcation of values, awareness of the environment, adventure activities and physical education – to the talented children predominantly from the rural areas without regard to their family's socio-economic condition.

6.21.4 The target was to set up one JNV in each district. State Government has to provide land free of cost. JNVs are residential schools. As on date, 589 JNVs are functional, with total enrolment of about 2,50,000. The JNVs run classes from Class VI to Class XII. The admissions are done for Class VI and IX through entrance tests done by CBSE. At least 75% seats in a district are filled by candidates from rural areas. In 2014, 41164 students were admitted to Class VI and 4035 to Class IX (Annual Report of MHRD).

6.21.5 One of the important features of the Navodaya Vidyalayas is the Migration Scheme of students from one Navodaya Vidyalaya in a particular linguistic region to another Vidyalaya in a different linguistic region. It aims at promoting

understanding of the diversity and plurality of India' culture and people amongst the students.

6.21.6 Navodaya Vidyalayas have good physical and academic infrastructure and their students have done consistently well in Board examinations.

6.21.7 Likewise, the Kasturba Gandhi Balika Vidhyalaya (KGBV) a residential school system meant for upper secondary girl children, also reportedly enjoy a good reputation for quality.

Recommendations

6.21.8 The Committee came across good feedback about the performance of KVs, JNVs and KGBV during its field visits and interactions with State officials, which leads it to believe that Government schools can also provide high quality of education even while fulfilling a social objective and operating within the constraints of a bureaucratic system.

6.21.9 The Committee recommends that the reasons for success of Kendriya and Navodaya Vidyalayas should be studied by independent experts, and the results should be made available to all State Governments to help them improve their own Government schools.

6.21.10 The Committee recommends that in the long run the objective for all Government schools should be to aim to reach the average quality of a Kendriya or Navodaya Vidyalaya.

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6.22 Adult Education and Literacy

(a) Literacy Efforts in India

6.22.1 Post-Independent India inherited a system of education, which was characterized by large scale and intra-regional imbalances. The system educated a select few, leaving a wide gap between the educated and illiterate. The country's literacy rate in 1951 was only 18.32 percent and female literacy was abysmally low at 8.86 percent. Only one child out of three had an opportunity for enrolment in primary school. Educational inequality was aggravated by economic inequality, gender disparity and rigid social stratification.

6.22.2 Eradication of illiteracy has been a major national concern since independence. A number of significant programmes have been taken up since Independence to eradicate illiteracy among adults, and today the overall literacy rate in the country stands at 74 per cent, largely on account of the interventions made over the years, including:

(i) National Adult Education Programme (NAEP) - launched on 2 October, 1978. This was the first programme in India taken up at the macro

level to eradicate illiteracy through project approach. It was a massive programme aimed at educating 100 million non-literate adults in the age-group of 15-35 years within a time frame of five years.

(ii) Rural Functional Literacy Project (RFLP) - the objective of the scheme was to impart functional literacy to all illiterate persons in 15-35 age group by organising literacy centres in accordance with the norms and guidelines issued by the then Department of Education, Ministry of HRD from time to time.

(iii) National Literacy Mission (NLM) - launched on 5 May, 1988 as a Technology Mission to impart functional literacy to non-literates in the country in the age group of 15-35 years in a time bound manner through the Total Literacy Campaign (TLC) approach.

(iv) Sakshar Bharat Abhiyan – launched in September 2009 to impart functional literacy and numeracy, enable the neo-literate adults to continue their learning beyond basic literacy and acquire equivalency to formal educational system, impart relevant skill development to improve earning capacity and living conditions, and promote a learning society by providing opportunities to neo-literate adults for continuing education.

(b) Why Literacy?

6.22.3 Literacy confers a wide set of benefits on individuals, on families and communities. One set of benefits is *social* benefits, as exemplified by better knowledge and participation in health and family planning, adoption of preventive health measures, such as immunization, and in bringing about change in personal living and working patterns to ensure that children regularly attend school. The consequences of literacy on school education and infant mortality rates are immense. Literate mothers and parents understand the value of sending their children to school.

6.22.4 Literacy has been path breaking in many respects. It has breached social barriers, such as, the *purdah* system, and brought about social endorsement for women's participation in the basic literacy and continuing education programs. It has fostered social consensus for the participation of dalits, tribals and some minorities. Indeed, literacy is a powerful instrument of social and gender equality, and an instrument to fight exploitation and oppression.

6.22.5 Another set of benefits from literacy is *economic*; literacy levels certainly have a positive impact on enhancing earning capacities.

6.22.6 A third set of benefits is *political*. This is best exemplified by the large numbers of women who have stood for and won elections at the different tiers of the Panchayati Raj system and have the confidence to actively participate in gram sabhas and community meetings.

6.22.7 But the most important are *human* benefits, which are deeply tied to an individual's self esteem, confidence and personal empowerment to take individual and collective action in various contexts, such as the household, workplace and the community.

6.22.8 Clearly, benefits will not accrue if literacy is merely confined to signing one's name and learning a few letters of the alphabet. Learning to sign one's name without being able to read or comprehend what is signed is, in fact, a travesty. If literacy is to liberate people from oppression, exploitation and insecurity, provide them social, economic, political and human benefits, then literacy proficiency must at least be up to a level that a person can continue learning in an independent and self reliant manner.

(c) Mapping the Challenge of Illiteracy

6.22.9 The map of illiteracy in India is clear. Despite impressive gains, sadly, the problem of illiteracy persists in the country. Census 2011 data shows that one in every 10 households still does not have even one single literate member. Households without a single literate member are largely among dalit, tribal groups and migrant families.

6.22.10 The northern belt, including the states of Bihar, Jharkhand, Madhya Pradesh, Rajasthan and Uttar Pradesh account for the highest number of India's non-literates. In the North East literacy levels are low in the States of Arunachal Pradesh, Assam and Meghalaya.

6.22.11 The male female differential in literacy has declined; nonetheless continues to be high at 16.3 percent. Likewise, one third of the SC, ST population cannot read or write.

6.22.12 In this age and date, it is important that some segments of the population are not left behind. The challenge of literacy is one of commitment and relentless perseverance. If the fruits of social and economic development are to reach the people, then the gap between the haves and have-nots must be bridged. This certainly cannot happen if over 300 million persons in the country do not have access to the world of letters.

6.22.13 There is both a need and urgency to devise strategies of action that address the pressing needs the country is facing in this vital area of creating an inclusive human and social capital, that can participate and share equally in the growing economic capacity of the Indian nation.

Recommendations

6.22.14 Reaffirm Government's commitment to basic literacy and opportunity for continuing education and lifelong learning for all illiterate persons above the age of 15 years.

6.22.15 Provide for seamless transition from basic literacy to continuing education. Do away with the serial nature of the literacy effort; meaning that the work proceeds in separate phases of basic literacy, continuing education and lifelong education as was the case before– implying that these three tasks could go on in parallel and simultaneously in a district. This would reduce delays that were faced in the field between the completion of one phase and launching of the next.

6.22.16 Take up area projects: Well-defined geographical area should be taken up by NGOs, Government, Schools/Colleges/educational institutions, etc. A beginning could be made with careful household surveys of the educational status of all illiterate persons. Efforts should be made to eradicate illiteracy in the selected area, simultaneously meet the continuing education needs of the people, and impart a momentum to relevant development activities. Districts with low literacy attainments, particularly low female literacy have to be the immediate focus.

6.22.17 Mobilize youth and women: The new mass mobilization and steering of the mass programme will depend heavily on adolescents, youth and women. They are the most important and promising vanguard of the literacy movement. There can be many ways of energizing them, motivating SHGs to include literacy in their activities; building collectives of women at village, panchayat and block levels; creating object-oriented organizations of women etc.

6.22.18 Establish equivalency with formal education programmes and skill development: It is recommended that the content and curriculum for adult education programmes should be comparable to competencies achieved by students of class V/VIII/X.

6.22.19 Reinstate State Resource Centres (SRCs) and Jana Shikshan Sansthans (JSSs): Reinstate the position of SRCs and JSSs as organs of civil society who have the ability to assess the learning needs of their area and develop programmes accordingly, adhering at the same time to the overall goals of literacy and to the value framework enshrined in our Constitution.

6.22.20 The Committee recommends that in view of the large number of illiterates in the country, programmes for adult literacy at education should be given high priority.

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CHAPTER VII

Higher Education

7.1 Issues Affecting Quality of Higher Education

7.1.1 While the Indian higher education system is one of the largest in the world, the quality of universities and colleges and the education they offer is far from satisfactory. The number of institutions of high quality is limited. Even the top-most Indian institutions do not figure in the international rankings of universities in the world. This is an issue of major concern and the subject of frequent public discourse in India.

7.1.2 The quality and standards of Indian higher education institutions need to be upgraded systematically and sustained at a high level through rigorous screening, innovation and research, recognition of excellence and creativity. Currently there is no regular system of regular monitoring of educational outcomes.

7.1.3 Higher education and research institutions in India have evolved in divergent specialised streams, with each stream being monitored by an apex body. The UGC has an omnibus mandate, covering all aspects relating to recognition, accreditation, curriculum approval, permission to start courses, disbursement of grants to institutions, and management of scholarship programmes. The National Board of Accreditation (NBA) and the All India Council of Technical Education (AICTE) are autonomous bodies, which recognise and accredit programmes offered by professional and technical institutions in the disciplines of engineering and technology, management, architecture, pharmacy and hospitality.

7.1.4 In addition, there are a number of other professional councils established by statute as well as autonomous coordinating or regulatory bodies, many of which are authorised to perform the functions of recognition and accreditation of institutions and courses of study under their jurisdiction. These include the Quality Council of India (QCI), the Indian Council of Agricultural Research (ICAR), the Bar Council of India (BCI), the Medical, Pharmacy and Dental Councils of India (MCI, PCI and DCI), the Nursing Council of India (INC) the Central Councils of Homoeopathy and Indian Medicine (CCH and CCIM), the Institute of Management and Engineering (IME), the Association of Indian Universities (AIU), the National Councils for Teacher Education (NCTE), the Rehabilitation Council of India (RCI), among other regulatory bodies.

7.1.5 According to UGC data for 2014-15, there were 329 state universities, 46 central universities, 128 deemed to be universities, 74 institutions of national importance, and 205 state private universities functioning in the country. There were40,760 colleges (UGC Annual Report, 2014-15). The total estimated enrolment in all higher education institutions in year 2014-15 was 3.33 crore.

7.1.6 There is a large network of research institutions providing courses of advanced learning and research leading up to a Ph.D. in branches of science, technology, agriculture, social sciences, languages and other disciplines. Many of these institutions come under the umbrella of the Council of Scientific and Industrial Research (CSIR) and the Indian Council of Agricultural Research (ICAR). Even though a very few of these national research institutions are referred to as islands of excellence, the overall impression about the quality of research, and the output and performance of most of these agencies over the decades has been not seen to be satisfactory.

7.1.7 The Indian Institutes of Technology (IITs), Indian Institutes of Management (IIMs), Indian Institute of Science (IISc), the National Institutes of Technology (NITs) and the Indian Institutes of Information Technology (IIITs), are among the most prestigious institutions in the field of science, technology, and management.

7.1.8 Technical education has grown rapidly in recent years, with the annual enrolment of scientists, engineers and technicians exceeding 20 lakhs. The break-up includes around 9.5 lakh engineers, who have undergone a 4-year undergraduate degree; 7 lakh diploma holders; over a lakh computer scientists with post-graduate degrees and 2.4 lakh Management Professionals, apart from about 30,000 architects and 50,000 B Pharma graduates.

(a) Variations in Quality

7.1.9 At present, there are wide variations in the quality of higher education institutions in India. Some institutions, such as the Indian Institutes of Technology (IITs), National Institutes of Technology (NITs), Indian Institutes of Information Technology (IIITs) and the Indian Institutes of Management (IIMs), have been globally acclaimed for their high quality of education. Alumni from these institutions have made impressive contributions in science, technology, research, management, business and commerce both in India and abroad. However, barring a few, India still lacks universities and institutions that could be considered to be at par with the best universities in the world.

7.1.10 At the other end of the spectrum are large numbers of privately run 'teaching shops' and so-called non-profit institutions, which are generally ill-equipped, and operating with unqualified staff. Such institutions seek to take advantage of the widespread demand for acquiring degrees. Many of these private universities, colleges and institutes operate under political patronage and take advantage of a lax or corrupt regulatory environment to run courses and offer 'degrees' which are of little use in the employment market. Students mainly coming from rural and semi-urban backgrounds often fall prey to these institutes and colleges.

7.1.11 The majority of higher education institutions fall in between these two extremes. These institutions vary widely in terms of infrastructure, library and laboratory facilities, quality of teachers and teaching-learning processes. Many

universities and colleges have poor infrastructure facilities and face shortage of qualified teachers. In general, around 40 percent of the teaching positions remain vacant in many institutions.

7.1.12 A fundamental weakness is the lack of transparency and accountability in the system, which is exacerbated by the strength of teacher unions, threat of strikes and the affiliations of student bodies with different political parties.

(b) **Teacher Availability**

7.1.13 With the rapid increase in the number of higher education institutions, the availability of quality teachers has emerged as a major constraint. This has implications for maintaining the quality of higher education even as the sector expands. Teacher availability in higher education depends upon enrolment in post-graduate courses and research programmes. Currently, students at post-graduate level and above constitute less than 12 percent of the total enrolment. Private institutions rarely focus on education and research at the post graduate level. Moreover, for most students, teaching is not the preferred choice and comes only after private sector and government employment.

7.1.14 A related issue is the need to ensure that good candidates enter the teaching profession. Teachers in higher education are currently either selected to individual institutions, as in the case of university departments, aided colleges and private colleges, or to a system or cluster of institutions, as in the case of government colleges. There is merit in recruiting and attaching teachers to institutions so that they develop institutional loyalty and commitment to improve the quality of that institution. However, whether the teachers are selected for an institution or for the system, the recruitment process should be so structured as to ensure the entry of quality of teachers into the system.

7.1.15 It was brought to the notice of the Committee that there are several reasons for faculty posts remaining vacant. First, there is reluctance on the part of some states to fill posts on a regular basis with the aim of saving the outgo on salaries of full-time faculty. Second, the recruitment process through the public service commission is often time-consuming. A large number of teaching positions are lying vacant, especially in state universities and affiliated colleges. The process of recruitment also gets delayed due to litigation. However the alternative of recruiting ad-hoc and part-time faculty impacts adversely on the quality of teaching and research. It has been found that wherever the states have invested in permanent, qualified faculty, the outcomes are generally far superior – a lesson has to be taken from the benefits of proper recruitment of faculty.

7.1.16 A system of screening has been established at the national and state levels to ensure that teachers meet a common minimum standard to enter the teaching profession. In 1989, the UGC had introduced the National Eligibility Test (NET) for prospective teachers in higher education. Similarly, State Governments conduct their own State Eligibility Tests (SET). The Council for Scientific and Industrial Research (CSIR) has an eligibility test for teachers entering the science stream. At

present, qualifying for the NET or SET is mandatory for entry into the teaching profession in higher education institutions. The NET examinations are conducted twice every year. More than 3 lakh candidates appear for each session of the NET examination, with success rate of less than 5 percent. The Committee noted that there has been improvement in the quality of candidates joining the higher education institutions as teachers as a result of NET examination.

7.1.17 During 2012-13, the UGC had established Faculty Induction Development Cells (FIDC) in select Universities. The FIDC would prepare a Calendar of recruitment / promotions of faculty and a service Training Module for the newly inducted teachers. Teaching-learning centres are being set up for this purpose, in addition to the existing administrative staff colleges.

7.1.18 Another dimension of the problem is that there is little research on teaching learning in higher education in India. There is a need for establishing special centres, either in existing university departments or as separate institutions or academies, in order to promote research in various aspects of teaching-learning processes in the higher education sector. These centres should promote research on pedagogical practices, provide professional support to promote the development of teaching skills, encourage the use of modern technology, evolve methods to assess quality of teaching and learning, develop instruments to measure teaching effectiveness and create feedback mechanisms for sharing the results of studies on teaching effectiveness.

7.1.19 The Committee was informed that at present, a Ph.D. degree is virtually perceived to be a necessity for teachers in higher education institutions. This has in turn spawned a large number of institutions promising Ph. Ds on a commercial basis, which have little real worth or utility. The Committee is of the view that the real need is for high quality and motivated teachers, and that a Ph.D. is not necessary for every teaching position in every college.

7.1.20 In government colleges in the states, teachers are recruited to the system and are seen as civil servants. They can be transferred from one institution and region to another at any time. They have neither opportunity nor keenness to develop institutional attachments and attune themselves to the social context and cultural mores of an institution. To the extent possible, teachers should be recruited and attached to institutions, as in the case of university departments.

(c) Appointment of Vice-Chancellors

7.1.21 A Vice Chancellor as the academic and administrative head of a university plays a definitive role in promoting institutional leadership and academic excellence. The efficient management of a university depends very largely on the Vice Chancellor's professional standing and administrative acumen. The present system of appointing Vice Chancellors has often been manipulated to such an extent that it no longer results in the appointment of competent persons as Vice-Chancellors.

7.1.22 A university Vice-Chancellor is expected to be the embodiment of scholarship, wisdom and high academic stature. In the past, this position had been occupied by persons of the eminence of Dr. Radhakrishnan, Dr. Laxman Swami Muddaliar, Pandit Amarnath Jha, Dr. Zakir Husain, Dr. Amrik Singh, among others. Unfortunately, one cannot easily identify people of such outstanding calibre, in general, in the Indian universities.

7.1.23 The appointment of Vice-Chancellors is generally made on the basis of the recommendations of a Search Committee. The membership of the Search Committees, with representatives from Government and academia, is ostensibly independent, but in actual practice it is usually not so. In most cases, the Chairman is a Government nominee and amenable to suggestions about the choice of selection. The other members are usually also selected from among those with a similar inclination. The Search Committees goes through the motions and process of selection, but their recommendations are unfortunately generally pre-determined. The result is that, in fact, most Vice Chancellors are political appointees, and often quite willing to follow the official line in the management of the universities. Over a period of time, Governments have come to effectively control Universities by appointing people who are beholden to them as university officials.

7.1.24 It is imperative that the selection of Vice-Chancellor should be done on merit. Appointment of the Vice-Chancellor on the basis of academic merit will ensure that the VC has credibility in the eyes of the faculty and students. Several committees in the past have made recommendations for making the process of selection of VCs transparent and objective. It is high time that these are implemented in letter and spirit.

7.1.25 The above is possible only if the process of appoint of VCs is depoliticized. This needs national consensus. Central and State Governments have to come together and agree on a common agenda for appointing persons of academic eminence only as VCs. Unless this is done, there is little hope of improving the education standard and management efficiency of our universities.

(d) Ensuring Quality in Higher Education

7.1.26 Policy interventions have generally tended to focus on the Gross Enrolment Ratio (GER) in higher education, which is currently around 23% and sought to be increased, through the *Rashtriya Uchchatar Shiksha Abhiyan* (RUSA) to 30%. However, the GER does not track the wide variations and uneven quality of the education being imparted to students. According to one industry association study, less than 20% of those graduating from higher educational institutions are rated as immediately employable by industry. The quality of higher education needs to be urgently upgraded, particularly at the lower end of the spectrum dominated by the private sector. It is perhaps time to pay attention to a different type of GER – the Gross Employability Ratio of graduates.

7.1.27 An effective system for assessing the quality of higher education institutions would need to distinguish between recognition, accreditation and evaluation of the institution under review. Recognition is a minimal, legal threshold which essentially ensures that the institution offers courses and degrees which fall within the purview of the recognised higher education system. Accreditation is a higher threshold of minimal quality assurance; it validates and provides assurance that the quality of education provided by the institution meets a common standard.

7.1.28 Accreditation is important for the institution, the student and for prospective employers. For assurance of quality and adherence to academic standards, accreditation enhances the reputation and acceptability of the institution and the degree conferred by it. It increases the employability and worth of the student in the job market by enabling prospective employers to filter and grade individuals on the basis of a common standard of accreditation. It reassures recruiters that the student has received quality education and will add value to the establishment when he joins it.

7.1.29 Until recently, accreditation was voluntary and institutions of higher education had to approach the accreditation agencies to get their institution or programme accredited. However, in 2013, stemming from the recommendations of the National Knowledge Commission (2007-08) and the Yashpal Committee (2009) the UGC notified new regulations (the Mandatory Assessment and Accreditation of Higher Educational Institutions Regulations, 2012) making accreditation mandatory for all institutions of higher education other than those in the technical and medical streams. Without accreditation, no general-stream university or college was to be eligible for grants from the UGC.

7.1.30 Thus, the current position is that accreditation is mandatory only for general stream higher education institutions receiving grants-in-aid from the UGC. Technical and medical institutions are not required to go through the accreditation process. This is an anomaly and lacuna which needs to be corrected. A detailed recommendation to this effect has been made elsewhere in this Report.

7.1.31 Of the 164 universities recognized by the UGC, 140 have got themselves accredited by the National Assessment and Accreditation Council (NAAC), with only 32% percent being rated as A grade or above. Among the 4,870 colleges, 2,780 are accredited by the NAAC, with barely 9% making the A or above grade. Among the accredited institutions, 68% of the universities and 91% of the colleges are rated average or below average in terms of the quality parameters specified by the NAAC. Quality and excellence in colleges clearly leaves much to be desired.

7.1.32 Apart from accreditation, ranking of higher educational institutions is another useful indicator of institutional performance. There is no official ranking system for higher education institutions in India. The MHRD has recently announced an official ranking system for higher education institutions in India. However, several publications (India Today, Outlook, Business Standard, etc) bring out lists of rankings from time to time, which generally do not have any

rational acceptance or basis for the rating methods; these are more like surveys or opinion polls.

7.1.33 Recently, a joint initiative has been launched by directors of IITs, IIMs, NITs and representatives of CII and FICCI to work out a ranking system suitable for India. It has been reported that six groups of outcomes, including academic performance, teaching-learning, learning resources, graduation outcome, global MoUs and impact/innovation will be used as bench-marks by which institutions will be ranked. Ranking for science, engineering, liberal arts, social sciences, medicine, law and business administration will be done differently.

7.1.34 The Committee is of the view that a credible ranking system covering all institutions of higher education without exception needs to be instituted, building on the recent initiative of the MHRD.

Recommendations

7.1.35 The proliferation of privately run 'teaching shops' and so-called non-profit institutions, ill-equipped and operating with unqualified staff, is a disturbing development and needs to be urgently addressed through appropriate measures.

7.1.36 The first step is to confront the reality that many private universities and colleges, professional and otherwise, flourish under the patronage of influential people backed by money power with little interest in education, taking advantage of a lax or corrupt regulatory environment.

7.1.37 It has to be recognised that the higher education institutions are proliferating but there is neither a structured system nor adequate commitment to provide quality teachers commensurate with the increasing demand for higher education. A manpower-needs study must be undertaken every five years at the central and state levels to determine the need for faculty positions in institutions of higher education. The recruitment needs have to be forecast well in advance to ensure that the recruitment action is taken in time. The scope for making appointments based upon subjectivity has to give way to rigorous merit based selection, preferably through the Public Service Commission or an independent body set up for the purpose.

7.1.38 There is a need to ensure that competent and motivated teachers enter the profession. Innovative options have to be offered to talented students at the class 12 stage from amongst, say the top performers (depending upon projected manpower requirements of specific subjects at college and university level). They could be offered admission in a 5-year integrated course in those disciplines, which would include an emphasis on nurturing teaching skills, research methodology along with subject specialisation. This total period should be fully sponsored from public funds so that the best people are motivated to join the teaching profession in higher education.

7.1.39 It was brought to the notice of the Committee that the reasons for faculty posts remaining vacant were several. First, there is reluctance on the part of some states to fill posts on a regular basis with the aim of saving the outgo on salaries of full-time faculty. Second, the recruitment process, through the Public Service Commissions is often time-consuming. A large number of teaching positions are lying vacant, especially in state universities and affiliated colleges. The process of recruitment also gets delayed due to litigation. However the alternative of recruiting ad-hoc and part-time faculty impacts adversely on the quality of teaching and research. It has been found that wherever the states have invested in permanent, qualified faculty, the outcomes are far superior and a lesson has to be taken from the benefits of proper recruitment of faculty.

7.1.40 Overdependence on ad-hoc and guest teachers militates against the quality of teaching. Learning from the experience of states that have invested in the recruitment of permanent faculty, which has reflected in better performance at the college and university level, it is recommended that all state higher education departments devote utmost attention to ensuring that permanent faculty is in position in all their institutions. For this, recruitment action has to start well in time and the absence of regular faculty should become a negative indicator at the time of accreditation.

7.1.41 For most undergraduate programmes, it should not be necessary to insist upon for teachers to possess a doctoral degree. Instead, it should be mandatory for such teachers to attend appropriate training programmes in teaching and communication skills, and the use of ICT.

7.1.42 Budgetary allocations should be increased and facilities for carrying out research should be improved in order to support good researchers. Policy-makers needs access to good research – however, this element is not usually factored into most research projects; equally policy-makers in general seldom reach out to universities to suggest appropriate research themes on issues of significance, that call for a nuanced understanding.

7.1.43 To the extent possible, teachers should be recruited and attached to particular institutions, rather than be part of an organised service where they are subject to frequent transfers. This will help in developing institutional attachment, identification and commitment.

7.1.44 At present, accreditation is mandatory only for general stream higher education institutions receiving grants-in-aid from the UGC. Technical and medical institutions are not required to go through the accreditation process. Accreditation should be made mandatory for all institutions of higher education, including technical education, medicine and agriculture, both in public and private sectors.

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7.2 Role of State in Management of Higher Educational Institutions

7.2.1 There are different types of institutions of higher education across the country. These include central and state universities, private universities created under state laws, 'deemed to be universities', autonomous colleges, and other types of education institutions.

(a) Government (Public) Universities

7.2.2 The so called Government universities were created through Central or State legislations. Technically a university is autonomous; it is not a Government institution, nor a grant-in-aid institution. In reality, Governments exercise extensive control. Vice chancellors are invariably nominees of Government, more often than not politically acceptable. By law Government appoints several nominees on the Syndicate and Senate; statutes and ordinances need to have Government approval. Since these universities depend almost entirely on funding from Government, even in academic matters they have no real autonomy as no new course can be started or faculty position created without approval of State Finance authorities. Governments do not readily allow fee increase, and universities do not try to check expenditure. Release of Government funds is irregular and erratic, salaries often do not get paid in time, universities often accumulate deficit forcing them to take overdrafts.

7.2.3 A university cannot be truly autonomous unless it has assured sources of funding. While Government will have to be a major source of funding for many years, universities must be incentivised to raise additional resources by starting new programs on cost recovery basis, employment of part-time and contractual staff on market-determined salaries, optimum use of buildings and other assets, and regular increase in fees without Government approval. The standard of Government universities will improve only when Governments see the need to detach themselves from management control, and empower universities to be financially responsible and academically respectable.

7.2.4 Most of the older universities are affiliating universities. These universities approve curriculum and courses, conduct examinations of and award degrees to students of affiliated colleges. They also carry out inspections and exercise general oversight on the functioning of affiliated colleges. In case of many universities the number of affiliated colleges is quite large; the Committee was informed that one university has as many as 800 colleges affiliated to it. In many educationally advanced countries there is no system of affiliation and each college functions as an autonomous entity. The 1986 policy made a reference to mixed experience of the system of affiliation and recommended greater autonomy to colleges and university departments. As a result of this some colleges have been granted autonomous status in accordance with UGC guidelines. Most private universities are non-affiliating but the older universities continue to be burdened with the academic and administrative responsibilities of affiliated colleges, not allowing them to concentrate fully on teaching and research.

(b) Private Universities

7.2.5 Most states, in recent years, have statutorily allowed the creation of private universities; in some states, a separate Act is required for creation of each private university, and in others, an umbrella Act is available permitting creation of private universities through delegated legislation. In all these cases, these universities are unitary without any affiliating unit, and are largely free from state control in management. There are restrictions on these universities to open branches or Chapters in other states, or provide distance education. These universities come under the purview of UGC/AICTE; and also conform to their requirements and follow their instructions. However, as noted elsewhere the UGC/AICTE were established decades back; the number of higher education institutions have multiplied manifold all over the country – neither the UGC nor AICTE has the numbers and quality of human resources to supervise so many institutions under their purview. Thus the approval of curriculum and other related clearances from UGC/AICTE is a matter of great uncertainty, time consuming and unduly tedious. The Committee was informed that this has led to widespread malpractices. Informal discussions around the country have indicated that these 'regulatory' agencies mostly have no time, inclination, energy, or capacity to perform legitimate regulatory duties. Their intervention is viewed as being generally of a rent-seeking nature. The Committee notes that the higher education system continues to suffer the negative aspects of a favour-granting system, without making a corresponding beneficial contribution in terms of academic quality, or process efficiency. Expectedly, this has resulted in severe loss of credibility of regulatory bodies.

7.2.6 With regard to admission of students, particularly to technical courses it is noticed that in general, demand far exceeds the supply of seats, particularly in sought-after technical and medical institutions. Most states, based on their board examinations or on a special examination conducted for the purpose, prepare seniority lists for sponsoring students to the 'state quota' – especially in engineering and medical colleges. This quota ranges from 50% in many states up to 80% in others – the remaining seats are left to the college management to fill up under their own discretionary quota. In other words, these are the 'capitation' fee seats; for which the premium varies according to demand. In some of the post-graduate medical courses, the premium can be as high as a few crores; till recent times, when the demand for engineering seats was extremely high, the capitation fee for a management quota of a middle quality institution could be as high, in some cases going as high as Rs. 5 lakh.

7.2.7 In most states, college fees are determined by the government, and are kept very low, ostensibly to provide opportunities for higher education to poor and socially disadvantaged students. The quantum of fees is not related to the quality or facilities available in the colleges; but is generally based on unspecified arbitrary criteria. The Committee noted that the tuition fees thus fixed are reportedly below the minimum operational requirements of the concerned institution to meet its expenditure. The unspoken underlying understanding is

that the institution can make up the deficit through capitation fees and other means. Looked at differently, the present system assumes that the institution's management resorts to black-money transactions, and keeps two sets of books. In other words, there is a tacit acceptance of the prevailing system of charging capitation fees by private institutions.

7.2.8 To sum up, the present system encourages non-transparent financial management of the higher education institutions, indirectly supporting parallel economy operations. There is hardly any check or control on academic matters; nor any support or guidance in upgrading standards, available from any quarter. The Central level regulatory institutions have failed to control the situation; the state is generally not interested in anything more than sponsoring the admission quota or in fixing the college fees. The system has no built-in levers to upgrade quality, provide guidance and support – while keeping a check on the sub-standard institutions, of which there is no shortage.

(c) The Contours of Reforms

7.2.9 Major reforms are required in addressing the issues listed above. Firstly, full academic freedom needs to be given to universities and their affiliated colleges to fix their curriculum, create new courses based on demand and relevance. Secondly, the finances of the education institutions should become open, and transparent. The state will have to sponsor through loans and scholarships a substantial number of admissions in each institution, for which a fair and open methodology for selection needs to be adopted. Private institutions should be allowed to charge fees which would enable them to meet all their legitimate expenses. A realistic pattern of fee structure will help eliminate the pernicious practice of charging capitation fees. A simple working principle would be that each university/college will be appraised and evaluated periodically (say once in two or three years) through a transparent, credible evaluation mechanism, outlined elsewhere.

7.2.10 As part of the accreditation process, the Committee has recommended elsewhere that each institution will be evaluated every three years or so. It has also been recommended there should be different criteria of evaluation for different categories of institutions. Within each category, an institution will be ranked on a scale, say of, I to VII – VII representing the highest and I the lowest in the category. Those in the top two rungs of the scale should be given total operational autonomy in all academic and administrative matters; those in category VI would be provided incentives, guidance and advice to move to category VII. Those on the bottom of the scale, in category I, would be put on notice for immediate closure. Those in category II would be given a warning that they are under close watch, and could be considered for closure unless they move up the scale. The institutions in the categories in between would be generally assisted and advised to improve their standing.

7.2.11 Every institution would have to place periodically, on a dedicated website, details of number of teachers and their qualifications; examination results;

placements; and a report on academic and extra-curricular activities, as well as other relevant information relating to the institution.

7.2.12 The Committee recommends extensive use of ICT to monitor performance of higher education institutions. As a part of Digital India programme, database should be created to monitor the performance of teachers and students.

7.2.13 The Committee also recommends that a longitudinal survey of higher education would help create a database for further policy and programme planning in higher education.

7.2.14 The effective and timely implementation of the above reforms would require a comprehensive new legislative framework. At present, the management and regulation of higher education institutions is the responsibility of national level regulators like UGC, AICTE, NCTE, NAAC, NBA, etc., each one of which is created under a separate Act. The Committee has elsewhere recommended that a new national level regulatory body should be set up, which will subsume all the existing regulators. The Committee recommends a new National Higher Education Promotion and Management Act. The new law will lay down norms and standards for recognition, accreditation and evaluation of higher education institutions (elaborated elsewhere). The underlying principle would be to provide assistance, guidance, and mentorship to institutions which wish to improve themselves; to provide full academic and management autonomy to institutions which are in the highest scale; and finally, to weed out institutions which are on the lowest rung of the scale.

Recommendations

7.2.15 The Committee feels that no university should have more than 100 affiliated colleges, and therefore recommends that universities which have more than 100 affiliated colleges should be split for achieving better academic oversight and management efficiency.

7.2.16 The Committee is convinced that the present institutional and policy instruments of the Central and State governments to encourage, support, manage and help regulate the higher education institutions in India are largely inadequate and ineffective. The present arrangements do not encourage high quality institutions, nor do they discourage the non-performers. The present policy also hides many undesirable features – it is almost as if all stakeholders understand that the present approval, accreditation and evaluation procedures implicitly accept that every private higher education institution, if it needs to survive, needs to resort to open violation of the financial laws of the country and perform in the black economy – those which follow the laws and the rules totally, have to suffer financial consequences – this regressive policy structure needs to be reversed; sunshine policies in opening up the transactions in the sector to transparency are now required.

7.2.17 The Committee recommends a revamp of the higher education promotion policies, procedures, structures and institutions. The starting point would have to be creation of a new National Higher Education Promotion and Management Act, supported by state-level laws and institutions, establishment of new systems for recognition, assessment and evaluation (elaborated elsewhere). The underlying principle would be to provide assistance and guidance and mentorship to institutions which wish to improve themselves; to provide full academic and management autonomy to institutions which are at the highest scale; and finally, to weed out institutions which fall below an accepted benchmark of performance.

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7.3 Need to Revamp the Regulatory Regime

7.3.1 There are nearly 40,000 education institutions in the country, belonging to multiple categories and with large variation in activities and performance. While there are a few which can be identified as 'Centres of Excellence', both in the public and private sectors, there are a large number which are mediocre, some of them could well be described as 'degree shops'. While there is a constant cry for more 'autonomy', it is not always recognized that autonomy has to co-exist with accountability. Indeed the good institutions are over-supervised, and not given adequate autonomy; on the other hand the bulk of the low-end colleges and institutions are allowed to continue without much check or hindrance or pressure to correct themselves. There clearly cannot be one single method of catering to the management requirements of such a diverse variety of institutions.

7.3.2 While at the top, there are a few institutions of high quality, alas too few, most of these are in the public sector, and a few established through private investment; an index as to how they have fared in recent years has been seen by the total absence of any Indian university or college in the top 200 in the world. In very recent years, a small number of new universities of high quality have emerged, mainly through philanthropic initiatives – they are still finding their feet, and yet to be fully established.

7.3.3 There has been rapid expansion in the past decade or so, mainly in the engineering and management areas, as well as in teacher training institutions. Most of these institutions are of poor quality, with weak faculty, primarily aimed at meeting the market demand – their objective is to extract a capitation fee, and in due course deliver a degree, whether deserved or not. The fact that the major business federations of the country have found only about 20% of these engineering graduates of adequate quality to be provided employment is an index of the quality of output in these institutions. Without being unfair to the limited number of relatively high quality institutions, the run-of-the-mill new colleges are really intended to be a money-making machine in exchange for a diploma or a degree. The Committee also notes that the rapid expansion of poor quality technical and management institutions has also been accompanied, in recent times by the phenomenon of many such institutions having large number of seats vacant or even closing down, reflective of the market's response to their poor quality.

7.3.4 Elsewhere we have seen that due to paucity of funds and competing claims on available funds, the ability of government to invest in higher education is circumscribed. Indeed, the growth in this sector in the past decade or so has been fuelled by private investment. It is inevitable that at least in the higher education space, the private sector will continue to play an increasingly important role in the future, to meet the national needs for accessibility and increased education avenues.

7.3.5 The Committee was informed that the overall quality of academics and managements of universities in general in India has declined even though there are no authentic studies; this is the common refrain heard all over India from various stakeholders. The Committee recommends periodic evaluation of quality of education in higher education institutions by independent agencies. Necessary corrective measures should be taken on the basis of findings of such assessments.

7.3.6 The prevailing theory has been that education cannot be commercialized; this indeed is true – education is too sacred a field for it to become totally an uncontrolled business. However, the harsh reality in the ground is that capitation fees, akin to rent-seeking, is rampant. The Committee was informed informally that large amounts, at times unbelievably high, are the 'going rate' for appointment of a Vice Chancellor. Even if such horror stories are exaggerated, the situation on the ground is disturbing. The Committee also notes that investments in professional institutions frequently have the blessings or sponsorship or patronage, indeed ownership, of politicians of various hues – imagine their potential collective power and vested interests in ensuring that no reforms can be pushed through. In short, the ground reality is diametrically opposed to any notion of the 'purity' of education. Drastic changes are imperative to clean up the system.

7.3.7 In these circumstances, a regulatory system for higher education should be highly nuanced, should have the capability to deal with different categories and qualities of institutions with appropriate discrimination, understanding, effectiveness, and wherever required the necessary bark and bite. While the best institutions need to be left alone to flourish and bring out their own potential, most of the institutions have to be managed or regulated with sensitivity; however having said that, a number of institutions at the bottom of the pile need to be ruthlessly weeded out. Thus the creation of a regulatory system to meet the diverse needs is the new challenge; the existing methods of 'one regime being applied to all' needs to be remodelled appropriately, to yield a new regulatory system. Total laissez-faire in this important area should evoke zero tolerance.

7.3.8 The prevailing situation often forces the potentially good institutions to back off, for want of finance. The checks and conditionalities imposed on all, ostensibly to counter malpractices, in fact adversely affects the better quality institutions, while giving full freedom to the unscrupulous ones.

7.3.9 The present evaluation methods are input based, rather than realistically based on outputs or potential outputs. The accreditation/evaluation systems need

to be revamped, as suggested elsewhere. Equally importantly for institutions adjudged as 'quality', much greater freedom has to be given in terms of determination of student fees, or faculty salaries. In short, the new management paradigm should encourage quality by offering total autonomy; should discourage the poor managements with appropriate checks and controls; equally, when an institution is assessed to be below minimal standards, it should be closed down without ado.

7.3.10 In other words the regulatory regime needs to be flexible and nuanced. This concurrently also means that the accreditation/evaluation systems need to be sharply upgraded, with fairness, predictability, clearly laid down principles and transparency. All the above are attempted in other segments of this chapter.

Recommendations

7.3.11 The Committee notes that the reality on the ground is that 'capitation' fees and extraction of rent from the student is rampant – for some specialized courses in certain fields, the amounts mentioned as capitation fee is very large. The prevailing situation often forces the potentially good institutions to back off, for want of finance; the checks and verifications imposed on all ostensibly to counter malpractices, adversely affects the good, quality institutions, while giving full freedom to the unscrupulous ones. The present evaluation methods are input based, rather than realistically based on outputs or potential outputs. The accreditation/evaluation systems need to be revamped, as suggested elsewhere – for institutions adjudged as 'quality', much greater freedom has to be given in terms of fixation of student fees, or faculty salaries. A new management paradigm should encourage quality by offering autonomy; should discourage poor managements with appropriate checks and controls, leading to closure where required.

7.3.12 The new regulatory regime needs to be flexible and nuanced. These issues are elaborated elsewhere.

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7.4 Research and Innovation in Indian Universities

7.4.1 The quality and also quantity of research and innovations emerging out of Institutions of higher education and research leaves much to be desired. Quality has been a casualty because of several factors that include slow induction of younger faculty members and researchers at the entrance stage. Further, the resource squeeze often demoralizes those who are sincerely inclined towards serious research and innovations. Over the years, frequent changes in recruitment qualifications have led to poor quality research at the level of Ph. D by those interested only in getting a job. In addition, introduction of time-bound promotion schemes and the manner these are implemented has considerably diminished the quality of output at the post-doctoral stage. Promotions are now a matter of right and suitability is judged by 'numbers of publications and attendance in seminars' and not by quality. The introduction of the latest pre-promotion assessment-

indicator – the Academic Performance Index (API) has led to low quality publications and organization of national seminars with the sole intention of giving the participants a chance to enhance their API score. Not only seminar reports, but even books brought out as compendiums of such events clearly indicate the extent of deterioration. Mushrooming of so-called peer-reviewed Journals, ready to accept and publish practically every paper is another distressing phenomenon. Such developments have considerably damaged the zeal for serious and original research initiatives among the younger faculty. The system has permitted low quality research output to be treated as acceptable.

7.4.2 During the past decade India's overall share of research publications in the world has risen from 2.8 to 3.4 per cent. However, Indian higher education continues to have limited research capacity and the research output is generally of low quality. India's nearly 800 universities and 40,000 colleges employ 8 lakh faculty and teach almost 3 crore students – but not many significant scientific or technological innovations have emerged from an Indian institution since independence. Despite a few pockets of excellence (alas, too few), the system is marked by mediocrity.

7.4.3 Even the National Laboratories of the CSIR and others do not appear to have had any major success over the decades in the field of research, innovation and quality output. Indeed, barring some spectacular achievements in the field of Space and Atomic Energy, there is not much to talk about research emanating from India.

7.4.4 It is estimated that the total spending on research in India is of the order of US $ 6 billion. The higher education institutions in India spend about 8% of overall research spending i.e. about US $ 500 million. Only a few universities conduct research of any significance – even these are concentrated in the IISCs and IITs; in short, very little is achieved by the country's higher education institutions in research and innovation. Most private universities pursue no research programmes to speak of; while state universities are generally starved of funds.

7.4.5 There is a shortage of doctorates, which is significantly impacting research institutions – IITs and IIMs currently face around 41% and 22% faculty shortages respectively. Central universities have around 38% vacancies of faculty positions. Many IIMs and other institutions are even considering giving up the Ph.D. requirement for faculty positions; this shortage extends to every institution of higher learning and research.

7.4.6 Indian researchers of high quality generally prefer to go abroad for research; this is reflective of the conditions in India not being conducive for research. Many of India's best and brightest students, nearly 3 lakh annually, prefer to go to study in the world's best universities, spending in the process over US$ 10 billion a year (practically double what India as a whole spends on R&D annually; or in other words, nearly 2% of India's GDP). In other words, India's students spend nearly 20 times as much to study and do research abroad, than what all our higher education institutions spend on research collectively – this

amounts to twice as much as the allocation for higher education in the Union Budget. These telling figures need to be taken seriously, as they describe the current state of research in the country. In recent years, a few private sector institutions have emerged, with potential for conducting quality research and teaching; these are, however, hampered by a challenging regulatory environment and lack of access to research funding from government agencies.

7.4.7 The culture in India is for each major institution to function as an isolated silo, basically depending on government finance for existence. Institutional networking remains perennially neglected though the need for revitalizing it has been repeatedly emphasised. The Committee has also noticed that the public sector institutions like IITs and IIMs do not interact with each other on R&D issues; in general the IITs and IIMs have only sporadic collaboration with the Indian industry. The Committee also heard that the interaction between the National Laboratories of CSIR and industry in India is limited. In developed countries for instance, there is extremely close interaction and cooperation between the teaching/research institutions and industry, leading up to significant mutual benefit. Internationally, the current model of R&D is through a networking system between centres of excellence and industry; our public sector institutions generally are insular, look inwards and do not see the need for creating alliances and networks for research. To foster a climate for development of high quality research, this situation needs change.

7.4.8 Since the first decades after independence, when the IITs and IIMs were established, for long periods few higher education institutions of quality and excellence have been established in India and these too only recently. Partly due to paucity of funds, the government is unable to invest in such centres of quality higher education.

7.4.9 The Committee suggests that over the next decade at least 100 new centres for excellence in the field of higher education need to be established. If this is successfully accomplished, it will pave the way for India to host major research and innovation initiatives. A climate needs to be created to facilitate establishment of 100 such institutions in both private and public sectors over the next 10 years. This may include brand new institutions, as well as existing institutions upgrading themselves to levels of excellence. To achieve this, a liberal and supportive regulatory environment will need to be put in place.

7.4.10 If a sponsor is willing to invest, say Rs.1,000 crore over a five year period and the proposal is accompanied by abroad credible plan of action, full autonomy should be offered for choice of subjects, location, pedagogy, recruitment of faculty from India or abroad as well as freedom to fix tuition fees – with the proviso that over a 5-year period the new venture will be subject to careful scrutiny by the official accreditation/evaluation agency. The institution needs to figure in the highest quality bracket; failing which the approval is subject to be withdrawn. Subject to this stipulation, these new initiatives should be totally free from any regulation from national or state agencies, except the obligation to accept a state-sponsored student quota, based on a formula, stipulated elsewhere. Such entities

could be established as Section 8 companies under the Company's Act, which will facilitate full information disclosure and compliance to the provisions of the Company's Act. Where the Regulator, proposed in the next para agrees, it could also be a corporate entity under Company Act, with perhaps the added stipulation (at least in early years till the system settles down) for the state/regulator nominating at least two independent directors on the board of management.

7.4.11 As suggested elsewhere in this chapter, the Committee proposes the establishment of a Council for Excellence in Higher Education (CEHE) by the MHRD to create policies to foster the establishment of Centres for Excellence, both in the public and private sectors. Identified existing institutions, both private and public, based on an evaluation could be brought into the purview of this Council. The guiding principle would be excellence, coupled with no interference in the management of these institutions, along with full autonomy to each institution to chart its own way forward. The Council would foster cooperation and collaboration among these units, and provide guidance and help rather than exercise any control over the management of such institutions. Based on periodical evaluation, say every five years, new institutions could be inducted into the pool, while those who have deteriorated in quality for any reasons could be downgraded, and taken out of the pool of excellent institutions.

Recommendations

7.4.12 The Committee recommends that over the next decade at least 100 new centres for excellence in the field of higher education need to be established. If this is successfully accomplished, it will pave the way for India to host major research and innovation initiatives. A climate needs to be created to facilitate establishment of 100 such institutions, both in public and private sectors over the next 10 years. To achieve this, a regulatory regime conducive to encourage/ establishment of such institutions of excellence needs to be put in place.

7.4.13 Based on a commitment from the private philanthropist/entrepreneur full freedom should be given to establish such units. Subject to a promise of a minimum investment in the first five years of say Rs. 1000 crore each, and on the basis of his announcing a broad credible plan of action, full autonomy should be offered to the sponsor to decide choice of subjects, location, pedagogy, recruitment of faculty from India or abroad as well as freedom to fix tuition fees – with the proviso that over a 5-year period the new venture will be subject to careful scrutiny by the official accreditation/evaluation agency, and the institution needs to figure in the highest quality bracket available; failing which the approval will be withdrawn. Subject to this stipulation, these new initiatives should be totally free from any regulation from national or state agencies.

7.4.14 The Committee proposes the establishment of a Council for Excellence in Higher Education (CEHE) by the MHRD to create policies to foster the establishment of Centres for Excellence, both in the public and private sectors. Identified existing institutions, both private and public, based on an evaluation could be brought into the purview of this Council. The guiding principle would be excellence, coupled with

promoting independence and freedom in the management of such institutions, along with full autonomy to chart its own way forward.

7.4.15 India must strive hard to find a respectable place in the field of research and innovations. Towards that faculty induction and promotion procedures must be transparent, rigorous and designed to accept only the intellectually inclined. The API must be replaced by more scientific procedures of assessing the quality of contributions which need not necessarily be only publications and attendance in seminars. Towards this, a task force of seasoned experts and scholars be appointed to study recruitment, promotion and retention procedures are followed by internationally renowned universities and institutions. It should redefine recruitment and promotion procedures for professionals in higher education.

7.4.16 Existence of vacant posts leads to deterioration in institutional climate and must not be permitted under any conditions. This is a pre-requisite for quality improvement in higher education.

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7.5 Recognition, Accreditation and Quality Assurance

7.5.1 The National Assessment and Accreditation Council (NAAC) was established by the University Grants Commission in 1994 pursuant to the National Policy on Education 1986/1992 in which the need for evaluation of the quality of higher education had been emphasized. A two-step process is followed, whereby an institution seeks eligibility and subject to that being given, its quality assessment and accreditation are undertaken by following seven criteria. These include (i) the curricular aspects;(ii) teaching-learning evaluation; (iii) research and consultancy; (iv) infrastructure and learning resources; (v) student support systems and their progression; (vi)governance and leadership; and(vii) innovative practices. NAAC accreditation is mandatory; but the backlog is enormous –there is currently no penalty in continuing as an ineligible and un-assessed/unaccredited institution.

7.5.2 The purpose of assessment and accreditation was for enhancement of quality, recognition of excellence, fostering accountability, providing information and to facilitate benchmarking of institutions. In practice, as the system has evolved over time, there are many qualitative and procedural gaps in the implementation process. The same template is currently applied to all units, irrespective of their specialized characteristics, which renders the approach largely imprecise.

7.5.3 Internal quality assurance (IQA) mechanisms have also envisaged to be established at the institutional level to address issues related to quality and teaching-learning in each institution. In practice, the IQA cells remain more as a unit to collect data on various aspects of teaching-learning and prepare reports than functioning as an effective mechanism to monitor and improve quality.

7.5.4 Apart from NAAC, the National Board of Accreditation (NBA) is established by the AICTE to undertake periodic evaluation of technical institutions. The difference between AICTE approval and NBA accreditation is that the former regulates whether the institution meets the initial requirements of functioning, whereas the latter monitors whether the institution has proved its ability to sustain and improve upon assessment criteria and has earned credibility by the end users. NBA came into existence as an autonomous body in 2010.

7.5.5 The country has about 40,000 Higher Educational Institutions (HEIs). Total number of institutions accredited by NAAC till now is 6446, including 253 universities. NAAC has estimated that around 25,000 institutions will be eligible in 2016 for assessment. Until now the concept of quality evaluation and accreditation was essentially to consider eligibility for grants of different kinds. There is need to reorient the approach towards accreditation, as one involving assessment of the quality of an institution, and to bring public awareness of the position of each institution in relation to its intrinsic quality and potential.

7.5.6 The 'A', 'B', 'C' categorization, as is being done now, serves only a limited purpose and fails to rank the best along with their special attributes or provide a ranking between Universities and colleges based upon the result of evaluation. In another segment of this report, the need for categorizing higher education institutions and giving autonomy and freedom to those that are placed in the highest category to decide their own curriculum and patterns of teaching among other features has been referred to. But unless the accreditation system measures up to the need to distinguish between different levels of academic attainment, institutions may acquire the label of accreditation without applying the rigour needed to separate those that qualify for and therefore deserve to be given autonomy to invent new patterns for delivering higher education. A broad-brush approach to all can stifle competition, innovativeness and the willingness to experiment. The fallout could be that Indian institutions will not succeed in breaking barriers and coming into their own, not to speak of excelling on a global platform. New methods of undertaking assessments and accreditation are urgently called for.

(a) Anomalies and flaws pointed out in current procedures

7.5.7 The Committee was informed of systemic anomalies, apart from conspicuous delays, lack of inbuilt capacity to handle large volumes and generate qualitative assessments, exacerbated by a shortage of competent assessors. The present system has difficulty in deploying serving academics of standing to undertake short term evaluation assignments. The existence of bias stemming from the background from which the accreditation Committee members are drawn – (public sector or private sector is one example) – may not encourage institutions of high calibre. The absence of discernment results in a lack of appreciation of the fundamental ethos of the institution e.g. one that places highest emphasis on research output compared to others where there is no such requirement. It is frequently noticed that routine non-essential NAAC/UGC

requirements are treated as non-negotiable and given primacy over evidence of academic attainment.

(a) Structure, Processes, and Practices of assessment and accreditation.

7.5.8 NAAC has not yet opened the assessment and accreditation sector to external players. That may now become necessary. The existing NAAC systems are not geared to meet the huge backlog and new demands for accreditation. There is a need to introduce a more nuanced approach to dealing with differentiated requirements, as between institutions that claim to be primarily research oriented; institutions that claim to be incubators for innovation; institutions that claim teaching excellence; those with a high track record of placements and employability; those possessing superior infrastructure and faculty; or those that consciously promote social consciousness and equity.

(b) Alternative Models for Accreditation

7.5.9 Because of the backlog and the addition of hundreds of universities and thousands of colleges seeking accreditation and alternative model of undertaking assessment needs to be promoted. If the task of accreditation of the individual institutions is entrusted to empanelled, external agencies, it can expedite the process and hasten the closure of sub-standard colleges. While the idea of "for profit" external assessment bodies could rightly invite criticism, measures need to be found to encourage experts with domain knowledge and interest to establish consortia or networks which can respond to a call for becoming assessors.

(c) Creation of a National Accreditation Agency

7.5.10 Elsewhere the Committee has recommended the enactment of a Higher Education Law which will, inter alia, cover the question of accreditation and evaluation, and giving relevant statutory powers to a National Accreditation designated agency (which could be a revamped NAAC or with an alternate designation as National Accreditation Agency). The revamped NAA can become the supreme and only recognised body which is permitted by law to register competent agencies and authorised assessors. A new category of professional bodies (akin to section 8 companies), or an association of experts and professionals, which could even include corporate education specialists, could be encouraged to be formed which can apply in response to a request for proposals for expert evaluation bodies.

(d) The New Approach to Accreditation

7.5.11 Hitherto, the concept of accreditation and quality evaluation was essentially to consider eligibility for the devolution of Government grants. There is need to reorient the approach to accreditation as one which assesses the quality of the institution, and brings public awareness about the position of each institution

in relation to its peers; also its intrinsic quality and future potential. This will provide a snap shot of the standing of each institution in the hierarchy of the higher education structure in the country and also provide a degree of choice to the student and other stake-holders in identifying the qualities of a preferred institution.

7.5.12 The Key tasks that lie ahead include the following:

(i) To develop a Quality Assurance Framework for Higher Education such that it is easily implementable, operationally feasible, has a large measure of credibility and acceptability, in-line with local requirements but also alive to international developments and best practices.

(ii) To encourage self-evaluation, accountability, autonomy and innovation in higher education with an emphasis on high quality research.

(iii) To involve all competent stakeholders in the higher education sector to join in creating a system to undertake quality evaluation and help institutions realize their academic objectives.

(iv) Place each higher education institution in a category-wise hierarchy of institutions according to the evaluated level of achievement.

(e) Main Features of the Proposed Accreditation System

7.5.13 Every higher education institution shall be accredited.

7.5.14 The overall process of accreditation shall be governed by a National Accreditation Board (NAB), which will provide oversight function, define methodology, undertake research on accreditation and set standards. This Board will licence accreditation agencies based on norms to be prescribed.

7.5.15 The actual evaluation/assessment of institutions will be undertaken by a number of licensed/approved agencies, preferably non-profit organisations, or section 8 companies, which have adequate expertise in evaluating quality and assessing the attributes of a higher education institution. The policy shall foster creation of such agencies to meet the fast growing need for qualified accrediting agencies.

7.5.16 Selected universities, public and private, may be encouraged to hold one-year or other suitable courses to train accreditation personnel by creating a suitable curriculum and establishing standards.

7.5.17 All institutions may not be assessed in the same manner; the institution may choose categories in which it could be placed – for example as a large university, a technical college, or a general degree college. Likewise categories can be created relating to pure research institutions, or mainly teaching institutions.

7.5.18 In each category according to the preference of the institution, it will be ranked based on an objective examination, in numerical or alphabetical ranking

(where category A or I represents the highest level, and G or VII represents the lowest level). The institutions assessed at the lowest level should be served notice for immediate closure; whereas the level just above shall be warned to improve its position lest it may be asked to close down.

7.5.19 On the upper end of the scale, A or I represents the best in its class in India. The institutions in this bracket would have total autonomy in all respects, including fixing faculty salaries, fee structure, entering into collaborations, etc. The only conditionality would be to provide for a limited number of seats to be filled by sponsorship by the Centre/State, according to criteria to be notified. In other words, there shall be a direct positive correlation between the quality of institution and the grant of autonomy, along with which there would be collateral responsibility to sustain that quality.

7.5.20 Each institution shall be evaluated after 3 years but no later than a span of 5 years. The category and ranking within the category shall be available to the general public through a dedicated website of the NAB.

7.5.21 Each institution would establish an Internal Quality Assurance mechanism, as broadly defined by the NAB; each affiliating university would also have such a mechanism, which will monitor on a continuing basis quality issues within the university as well as within the affiliated institution.

7.5.22 A key challenge would be to ensure that the accrediting agencies perform their task with enormous understanding of the academic ethos and with honesty. This should be carefully fostered by the NAB.

7.5.23 The measurement templates should not be routine and mechanical; the assessing agencies would need to be analytical, giving due place to the logic of processes adopted by the institution as well as demonstrated efforts to define and devise methods of imparting education. While some standardisation in each category would be inevitable there will be considerable flexibility in the approach in order to respect the academic freedom of the assessed institution.

7.5.24 The NAB shall keep a close watch on the evaluation agencies, to ensure that they perform their task with diligence, sincerity, and integrity. On no count should the current general reputation of the present accrediting agency be allowed to prevail, that merit is no criterion – other factors are the only relevant ones – the NAB should take great care to ensure full integrity of the process.

Recommendations

7.5.25 Till such time as a new higher education act is enacted, the NBAA would continue to be designated the national authority for accreditation of institutions of higher learning. As and when the new law is passed, the proposed National

Accreditation Agency/may be empowered under the Act, and designated as the regulatory body for accreditation/evaluation of institutions of higher learning.

7.5.26 The Committee recommends an overarching management board, the National Accreditation Board, which will oversee the entire process, set standards and define guidelines, as also license private (preferably not for profit) agencies in adequate number, who will do the actual evaluation process.

7.5.27 In the process of evaluation due importance has to be given to establishing benchmarks in respect of research or teaching competencies as well as capacity for innovation, applied research with industry, and factors like industry/ employer perception, absorption of the graduates/postgraduates into pursuits which lead to employability and the ability to promote inclusiveness among other attributes.

7.5.28 In each category according to the preference of the institution, it will be ranked based on an objective examination, in numerical or alphabetical ranking (where category A or I represents the highest level, and G or VII represents the lowest level). On the upper end of the scale, A or I represents the best in its class in India. The institutions in this bracket would have a large measure of autonomy in respect of its management and operations. Those in the lowest end of the scale would be identified for closure.

7.5.29 The initiative recently taken to rank top Universities in the country is commendable. The need to take up the rating and ranking of all higher Education Institutes must be recognized and introduced uniformly. All the existing institutions of higher learning need to be ranked over a given period and their ranking revisited every three years or so; all the information should be available to the general public, including the main stakeholders and students, through public platforms.

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7.6 International Linkages in Indian Higher Education

7.6.1 Around the world, nearly 50 lakh students travel outside their country to pursue higher education, spending approximately $100 billion annually. Most of them go to US or Europe; in the last decade China has emerged as an important destination. About 75,000 foreign students come to India, including for short duration study programmes; less than 20,000 international students are enrolled in degree programmes in the country, most of them in under-graduate programmes, largely coming from South Asia. In contrast nearly 3 lakh Indian students study abroad, mostly in post-graduate and doctorate programmes, spending about Rs.60,000 crore per year. The annual spending by Indians for studying abroad is twice the amount allocated in the Union budget for higher education, and nearly 20 times what the Indian higher education institutions spent on research collectively. Many of those represent the best in our academic system.

7.6.2 The migration of some of our best students to foreign universities can be reduced if we create educational institutions and research facilities of comparable quality, with employment opportunities commensurate with their qualifications. The Committee believes that encouragement to selected foreign universities to establish their presence in India through appropriate collaborations with their Indian counterparts would help.

7.6.3 Encouragement should be given to high quality foreign universities and educational institutions to collaborate with Indian partners, and establish an Indian presence. While the nature of cooperation and collaboration may vary, the foreign university should be in a position to offer their own degree to the Indian students, studying in India, which will be valid in the country of origin. How this is to be structured is to be settled between the collaboration partners. The key essential would be the collaborating foreign partner would be among the top 200 Universities of the world.

7.6.4 The Committee feels that indiscriminate opening of Indian education field to foreign universities will be counter-productive – there is a danger that foreign degree shops (of which there is no shortage), will exploit the Indian demand for higher education, and 'craving' for a foreign degree.

7.6.5 The opportunity is now available to for India to be considered a serious player in the education field in the international arena. To achieve this, student and programme level initiatives, as well as institutional and research focus initiatives, using the latest technology are to be harnessed to attract Indian students to pursue studies and research in the country, as also to attract foreign students to see India as an education destination.

Recommendations

7.6.6 Encouragement should be given to 'high quality' foreign universities and educational institutions to collaborate with Indian partners, and establish an Indian presence. While the nature of cooperation and collaboration may vary, the foreign university should be in a position to offer their own degree to the Indian students, studying in India, which will be valid in the country of origin. It is recommended that the top 200 universities should be facilitated to have collaboration arrangements with Indian universities.

7.6.7 The opportunity should be used to 'globalize' Indian higher education without compromising the basic needs of access, equity and quality for the Indian student.

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7.7 Need for a National Higher Education Promotion and Management Act

7.7.1 As seen in chapter 3, education was transferred to the concurrent list in the Seventh Schedule in 1976. Entry 66 of the Union List in the Seventh Schedule vests

the Central Government with the power to legislate 'for coordination and determination of standards in institutions for higher education and research and scientific and technical institutions'. State governments through their own acts have the authority to establish universities within their territories. The Government of India has also created, through individual statutes a number of central universities like the BHU, AMU and Delhi University. Various national organizations such as University Grants Commission, the NAAC, AICTE, NCTE, the NAB and others have been established from time to time through legislation. It is noted that there is no national law relating to management and regulation of higher education institutions.

7.7.2 The existing major national institutions in the Education sector were set up at different times, with individual mandates as envisioned at the time of their formation. Some were established through Acts of Parliament, while others were through executive orders. With the passage of time, with new developments in the Higher Education sector there is a need to review their mandate keeping the emerging trends that are seen as also to update the existing legislation, and make it more relevant to current and future needs.

7.7.3 The proposed Higher Education Management Act is expected to provide the legal framework which would confer the authority to promote, manage and stimulate the higher education sector, backed by a national mandate. Following the new proposed enactment it is presumed that the separate legislations governing individual agencies would lapse and the new legal regime would assign fresh roles and obligations on the existing bodies, redefine their roles and nomenclature, and facilitate coordination and cooperation between them for their optimal contribution to the sector. Until that happens the existing agencies would continue to perform their present roles, and whatever interim reforms are immediately required would be introduced.

7.7.4 It is envisaged that above proposed new legislation will lay down directions for establishment and standards for institutions of higher education in the country. It will also set modalities designed to evolve and recommend curricula for different types of academic courses, particularly in new areas of knowledge, for the guidance of universities and colleges. It will create a legal framework for setting up independent testing and accrediting agencies. It will also lay down a framework for financing of universities and educational institutions.

7.7.5 In the past two decades, the higher education scene has seen rapid expansion of private investment, particularly in technical institutions. UGC and AICTE have limited resources to effectively regulate such proliferation of higher education institutions, particularly those of indifferent quality The NAAC and the NAB are unprepared to handle the large volume of accreditation and quality evaluation, and have failed.

7.7.6 Elsewhere in this report reference has been made to a diverse number of factors which include need to coordinate the various regulatory agencies; need to provide autonomy to higher education institutions of quality; need to have rapid

evaluation at entry point and compulsory continuing evaluation of an institution from time to time, etc. Besides, a proposal has been made to address the political and other types of activities found potentially harmful to the maintenance of the congenial academic environment in the campuses of higher learning. In the absence of a general legislation, the necessary periodical instructions from the MHRD are perforce to be issued as administrative directions, which frequently could attract cumbersome litigation. In short, there is need for an Umbrella Act which will cover the multiple needs of promotion of higher education, and generic and special steps required for management of the same nationwide, whether they are constituted by the Centre or a State.

7.7.7 The Knowledge Commission had in 2006 recommended the umbrella legislation Indian Regulatory Authority for Higher Education (IRAHE). The UGC study report referred to above has proposed the National Higher Education Authority Bill to meet the same objective.

7.7.8 In line with the above recommendations, the Committee recommends, as part of the new legislation, under the ambit of the MHRD, the creation of appropriate coordination systems, to facilitate the various agencies perform with optimal coordination to support, encourage, manage, and regulate the higher education sector in the country.

7.7.9 It is proposed that a National Higher Education Promotion and Management Act may be enacted, to meet the above objectives. Its scope, purpose and broad details will be outlined in the framework for action.

7.7.10 The Committee recognises that in a country of India's size and diversity, it is not possible or practical to have central regulators control the entire gamut of regulatory functions. The Committee feels that State Governments and Universities will have to play a critical role in regulating higher education institutions in their jurisdictions. It is proposed that recognition of all new universities and colleges, strictly in accordance with standards set by NLHE, will be done by an autonomous statutory Council of Higher Education to be set up by each State. Approval of new courses will be within the competence of concerned University. The Council will also lay down a framework of financial assistance to universities and monitor release of funds by State Governments in accordance with that framework. The Council will arrange to monitor periodically the academic standards of universities and colleges in consultation with approved accrediting agencies. All the decisions of the Council should be in full public domain to create confidence and credibility in the system.

Recommendations

7.7.11 The existing major national institutions in the Education sector were set up at different times, with individual mandates as envisioned at the time of their formation. Some were established through Acts of Parliament, while others were through executive orders. With the passage of time, with new developments in the Higher Education sector there is a need to review their mandate keeping the

emerging trends that are seen as also to update the existing legislation, and make it more relevant to current and future needs.

7.7.12 The Committee proposes the enactment of a new Higher Education Management Act, which is expected to provide the legal framework to confer the authority to promote, manage and stimulate the higher education sector, backed by a justiciable national mandate. Following the new proposed enactment it is presumed that the separate legislations governing individual agencies would lapse and the new legal regime would assign fresh roles and obligations on the existing bodies redefine their roles and nomenclature, and facilitate coordination and cooperation between them for their optimal contribution to the sector. Until that happens the existing agencies would continue to perform their present roles, and whatever interim reforms are immediately required would be introduced.

7.7.13 It is proposed that recognition of all new universities and colleges, strictly in accordance with standards set by NLHE, will be done by an autonomous statutory Council of Higher Education to be set up by each State. Approval of new courses will be within the competence of concerned University. The Council will also lay down a framework of financial assistance to universities and monitor release of funds by State Governments in accordance with that framework.

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7.8 Creation of a National Higher Education Fund

7.8.1 The UGC currently distributes about Rs.1050 crore annually as higher education tuition/fellowship to about 82,000 beneficiaries covering 35,000 fellowships each year. This represents around 200 scholarship schemes of the MHRD as well as other ministries. These numbers do not include the fellowships from a large number of other agencies/departments of the Government of India, including agriculture, defence, science & technology, CSIR etc., whose fellowships focus on specific research or application-related areas. Since there is no overall countrywide reliable database available it can be estimated that there are between 40 and50thousand fellowship slots available every year in the country.

7.8.2 With the objective of encouraging merit and promoting equity, the Committee recommends the establishment of a National Fellowship Fund, primarily designed to support the tuition fees, learning material and living expenses for about 10 lakh students every year. These scholarships should be made available to students belonging to the economically weaker sections, specifically those below the poverty line.

7.8.3 In addition to the on-going National Talent Search Examination being conducted by the NCERT at class 10 stage, the Committee recommends that there should be another national level talent search competitive examination at +2 level for all categories of students, and those who achieve prescribed criteria should be provided scholarships covering tuition fees, learning material and living expenses to pursue higher education.

7.8.4 A large part of this could be covered by bank finance, with the Fellowship Fund covering the interest part as subsidy.

7.8.5 The criteria for selection need to be well spelt out, based on objective and transparent procedures. It is suggested that a national examination at class 12 levels should be annually organized, available to all candidates, to become eligible for a merit or rank position, thus qualifying for the fellowship.

Recommendations

7.8.6 A National Higher Education Fellowship Fund may be created, which will offer 10 lakh new fellowships annually for qualified students belonging to economically weaker sections to pursue higher study. The Committee is satisfied that this step will improve equity and accessibility in the higher education sector.

7.8.7 A separate national talent scholarship scheme to be administered after class 12 may be set up for meritorious of all categories selected through a national level examination.

7.8.8 A corpus of funds is to be generated, partly funded by government, and partly through contribution from the private and corporate sectors, with appropriate tax and other concessions as incentives; as well as opening the fund for contribution from alumni of various institutions that have benefited in their careers through free or supported education in the past.

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7.9 Entrance Examinations to Professional Courses

7.9.1 The gross enrolment ratio in higher education in India has been steadily increasing, improving access and equity to a great extent. Despite this, admission to engineering, management, and medical institutes, especially the reputed ones is highly competitive – i.e. entrance examinations of all varieties have proliferated. A couple of decades ago, admissions to such institutes used to be through the performance of students in their class XII Board Examination in the respective states;entrance examinations were held only for national level institutes of excellence such as IITs, IIMs and AIIMS. However, with the liberalization in the higher education sector, a large number of private institutions have mushroomed – most of such institutions, either individually or in a group, resorted to their own entrance examinations. Many State Governments too started their own common entrance tests for admission to the colleges in their respective states, without relying on their own class XII Board Examination results. One of the reasons for this, as projected by the states, was to provide a level playing field for students belonging to their state, as well as those interested from other states through a common entrance test. Thus, along with the rapid growth of the number of institutions, the number of entrance examinations in engineering, management and medical disciplines also multiplied. This has unfortunately resulted in a confused national scenario and affected the higher education system adversely in

many ways, inter-alia forcing candidates to prepare simultaneously for more than one set of examinations.

7.9.2 While selection of students through an aptitude based examination is in order, the highly competitive system of examinations designed for elimination of candidates, rather than selection of candidates as it ought to be, has confused and complicated the system. Students have been caught in a web of coaching classes, which promises much, and often puts enormous pressure on the students – not so much in giving them knowledge or understanding, but focusing on shortcuts to crack the various examinations – the more prestigious the examination like IIT, JEE, etc., the more the pressure on the students.

Proliferation of Coaching Centres

7.9.3 The factors referred to above has resulted in coaching centres like the ones in Kota, Hyderabad, Patna, Delhi, Mumbai, Chennai, Bengaluru, where students gravitate soon after their class X examination, often to the neglect of education in Class XI and XII. The 'coaching' sector has blossomed to a huge 'industry'. Of late, there have been several reports of suicides by students undergoing coaching in these centres, unable to bear the pressure. Further, with limited means, many cannot even afford the fees to be paid for a single entrance examination, not to speak of the multiple tests or coaching classes. In sum, the multiple entrance examinations scenario has strongly polluted the education system, adversely affected the innovative spirit in the child.

7.9.4 The counter argument in favour of multiple entrance examinations has been that, if a student does not perform well in one test, he can always look for a better score in other tests. Even if this argument is to hold water, each candidate could summon the energy to deal with two or three such tests and no more. On the other hand, if there is a single test, but is based on randomly generated examination questions, and the examination could be taken on the day of ones' own choice (and possibly couple of times, and with best score being considered), many of these issues could get resolved. Naturally, there has to be a large question 'bank' for creation of such an examination scenario – the number and difficulty level of questions for any examination on any given day needs to be a similar order. With computer software, such a mechanism can be established, providing level playing field for candidates, irrespective of when they take examination. Moreover, if the questions are set in such a manner that they test basic aptitude, analytical ability, the necessary mathematical ability, encourage critical thinking with less reliance on memory, the damage being done through coaching classes could be controlled.

7.9.5 Thus ideally, there could be one entrance test for each discipline, held multiple times in a year, with difficulty level of each randomly generated question paper being the same. Basically, the questions have to be designed to test the aptitude and not memory.

Recommendations

7.9.6 Overtime, with the vast expansion of professional education institutions in engineering, management, medical and other fields, the number of entrance examinations to these courses has multiplied manifold. While examinations like JEE, etc. address the issue of admission to the best institutions, most states and educational institutions have resorted to a multiplicity of entrance tests, often placing much stress and pressure on the students aspiring for admission. There is clear need to rationalize the system of entrance examinations to professional courses. A note needs to be taken of the recent decision of the Supreme Court to have national common admission tests for medical institutions in the country.

7.9.7 There is need for one unified national level examination for admission to each type of professional course, carefully designed, giving the facility to the applicant to prepare for it and apply at his own convenience, to advance his opportunity for admission to any institution across the country. For students from each state where the institution located, either the benchmark performance in the state board, or a state level examination meant for local aspirants needs to be created. Thus the aspiring student need not have to prepare for a large number of examinations, with different standards and norms, and local variants. The reform process should take into account and provide for entrance through a unified national examination for each type of professional course or a state level similar examination. There is need to rationalize the entrance examination scenario, in the overall interest of the development of professional courses in the country.

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7.10 Open and Distance Learning - Dual Mode Universities and the Promotion of Massive Open Online Courses (MOOCs)

7.10.1 Open and Distance Learning (ODL), which envisages a system as an alternative to conventional classrooms is gaining acceptance in many parts of the world; it provides flexibility to continue such learning from distant places, as well as alongside job commitments. Until recently the online system in India consisted of courses offered by the Indira Gandhi National Open University (IGNOU) and some State open universities (SOUs); in recent years a range of institutions and universities as well as 'institutes' have sprung up, to cater to varying needs.

7.10.2 In another chapter, the pioneering work done by Indira Gandhi National Open University (IGNOU) has been referred to. While IGNOU has increased enrolment substantially, it remains only one among many new institutions providing Open Direct Learning (ODL).

(a) Distance Education and MOOCs

7.10.3 In recent years, strategies like MOOCs have been introduced in some of the best universities abroad, and increasingly in India to some extent. The growing, unmet demand for education has opened the possibilities that dual mode

universities and institutions would be able to supplement conventional courses, and yet maintain parity between regular students and ODL students by adopting common syllabi, curriculum, examinations and degrees.

(b) MOOCS and the Global Experience

7.10.4 The concept of MOOCS is relatively new and is increasingly popular. However, already fears have been expressed in many universities regarding ongoing problems with MOOCs–these include student discomfort with the procedures, questions about pedagogical rigour and other technical hitches. Research undertaken at the University of Pennsylvania shows that course completion rates were low (only some 5% of the students in the University of Pennsylvania actually finished their classes).

(c) Implementing MOOCs in India

7.10.5 The scope is undoubtedly immense and the interest evinced by proponents in the IITs and different universities has been enthusiastic. A reference may be relevant to SWAYAM, which is an indigenous IT platform set up under the aegis of the Ministry of HRD. The Indian MOOC availability envisages covering a wide range of courses, besides teachers training as well as teaching and learning aids for children. Skill-based courses which cover both post-higher secondary school skills (polytechnic level) as well as industrial skills certified by the sector skills council are also envisaged to be provided.

(d) Open & Distance Learning (ODL) Regulations

7.10.6 With the dissolution of the Distance Education Council, under the aegis of IGNOU, the University Grants Commission has been vested with the regulation of distance education in general (non-professional) programmes being run by Universities and Colleges. Professional courses through distance education are currently not allowed. The current plans envisage that the degree and diploma programmes (duration not less 9 months) at undergraduate level and postgraduate level, other than programmes in Engineering, Medicine, Dental, Pharmacy, Architecture, Nursing, and Physiotherapy will be covered subject to UGC approval. There is need to revisit the progress so far made; particularly the role of IGNOU which was hitherto a regulator, and its future role as a major player; as also the future role of UGC in the Indian education scene, as separately commented in Chapter VIII in the report.

(e) The Validation and Award of Credits

7.10.7 Perhaps the biggest challenge would be in finding systems to validate and give credits for the ODL degrees/diplomas so that they are treated at par with conventional degrees/diplomas awarded by the formal university system. Notably the process for awarding credits would have to be transparent and would need to be done with the involvement of professional assessment and accreditation

agencies. Many preliminary steps need to be taken to bring uniformity and transparency in the systems that need to be adopted.

Recommendations

7.10.8 Open Direct Learning through dual mode universities and through MOOCs should be accorded appropriate priority because of India's existing and latent strength in terms of IT capability, probability of near-term expansion of IT connectivity and enormous interest evinced by leading Universities and Institutions in promoting ODL education.

7.10.9 The Ministry of HRD and UGC have already moved forward to sponsor 'SWAYAM', an indigenous MOOC platform.

7.10.10 The demand for ODL/MOOCs is bound to rise in future years, though which technologies will find favour from learners are still open issues; it is recommended that the developments in this field to be watched carefully.

7.10.11 Probably sooner than later under the aegis of the proposed Higher Education Act (proposed elsewhere in the report), a suitable 'Regulator' with adequate powers needs to be established.

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7.11 Reforms in Medical Education

7.11.1 Currently there are more than 400 functional medical colleges in the country out of which about half find the government sector (including the new six AIIMS) and the remaining nine the private sector. The admission capacity of these medical colleges is around 57,000 at the undergraduate level and around 26,000 at the postgraduate level.

7.11.2 The majority of medical colleges are concentrated in the south and west of the country. The north-eastern region has comparatively still fewer facilities for medical education than anywhere else. The number of seats in the existing medical colleges falls short of the present demand for medical professionals. The growth postgraduate education has been very slow, which has an effect on the preparation of the next generation of medical teachers as well as the specialised doctors to undertake clinical practice and research.

7.11.3 The existing framework of medical education needs significant restructuring. Within the medical Council of India/dental Council of India/Indian medical Council (AYUSH) the work of setting standards, curriculum development, inspection and grant of permission for setting up new institutions, undertaking lies with the Councils subject to central government approval where defined. The Councils and in particular the Medical Council of India comprises of elected persons who have a strong vested interest in retaining their voting constituency over the larger interests of public health and medical education. Such entrenched

interests of different kinds should be kept away from the functions of inspection, verification and standard-setting as well as approval for opening new institutions.

7.11.4 A recent Parliamentary committee has given significant recommendations about how various matters related to the running of the Medical Council in particular have to receive attention. The government will no doubt take action as appropriate.

7.11.5 In keeping with recommendations which have already been made in respect of assessment and accreditation through professional and technical bodies working under the supervision of apex level nonelected bodies, it is necessary to replicate the same approach here. The responsibility for Manpower planning, design of curricula and standard-setting needs to be done by a body which is conversant with the demographics of India, the prevalence of communicable and non-communicable diseases, challenges connected with maternal and child health so that the production of doctors is planned keeping in mind the needs of specialised as well as general duty doctors. Medical education needs an umbrella body as recommended for the higher education sector representation from citizens and consumers who could address the concerns of the public.

7.11.6 More public investment is needed for starting medical colleges and different regions. The private sector needs to be encouraged to set up medical colleges, with appropriate incentives. The present minimum requirement of land for setting up a medical college needs to be reviewed.

Recommendations

7.11.7 The number of seats in the existing medical colleges falls well short of the present demand for medical professionals. The growth postgraduate education has been very slow which has an effect on the preparation of the next generation of medical teachers as well as the specialised doctors to undertake clinical practice and research.

7.11.8 The existing framework of medical education needs significant restructuring. Entrenched interests of different kinds should be kept away from the functions of inspection, verification and standard-setting as well as approval for opening new institutions.

7.11.9 More public investment is needed for starting medical colleges. The private sector needs to be encouraged to set up medical colleges, with appropriate incentives.

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7.12 Reforms in Agriculture Education

7.12.1 As per estimates by the Central Statistics Office (CSO), the share of agriculture and allied sectors (including agriculture, livestock, forestry and fishery) was 16.1 per cent of the Gross Value Added (GVA) during 2014–15 at

2011–12 prices. About 52% of labour and 80% of rural population is dependent on agriculture. About, 58% of rural households depend on agriculture as principal means of livelihood.

7.12.2 However, agriculture and allied subjects form a negligible part of school syllabus in most states. Even in rural schools, in general there is no reference to agricultural and rural issues as part of the schools' curriculum, even as an optional subject. Most students particularly those who study in urban areas in CBSE or ICSE affiliated schools have a superficial knowledge of rural India and even less exposure to agriculture and allied sectors. This ignorance is reflected in the discourse in media where coverage of rural issues, farming, agriculture, animal husbandry and horticulture etc is minimal. In general, urban India does not get related with issues/problems and challenges faced by the farmers and rural communities, which forms the bulk of the population.

7.12.3 There is a need to bring agriculture and rural India in the mainstream of our educational system, to familiarize the system with rural/agricultural issues, even though this may not be a compulsory subject in the school curriculum. The State Boards of Education, CBSE, ICSE, NIOS and *Madrasa* Boards etc. may consider incorporating segments relating to agriculture, rural issues, ecology in the school syllabi so that children can acquire basic acquaintance with these matters by the time they complete middle school. At high school level, students could be exposed to subjects like soil health, balanced use of fertilisers, water conservation, importance of seeds in agriculture and pest control, as an optional subject. NCERT need also to look into this aspect of curriculum reform.

7.12.4 In the past the country had paid considerable attention to higher education in agriculture; 63 agriculture Universities have been set up across the country. The extensive higher education system includes State Agriculture Universities, Deemed-to-be-Universities, Central Agriculture Universities and several ICAR Institutions. Many Central and State Universities also offer courses in Agriculture. ICAR has an independent education division which coordinates the activities of agricultural education in the country. The ICAR system had earlier produced top academics and scientists, who once brought green revolution to India – credit also has to be given to them for introduction of a large number of high yielding and disease resistant crop varieties. However, the Committee's impression is that the high standards achieved earlier may not still be prevailing at the same quality levels. There is a question mark whether the National Agricultural Research Institutes/ICAR are adequately aware and abreast of issues relating to tackling of drought conditions, and the technological approaches required to handle periodical crises in the agri/rural economy. The Committee also notes that no major independent review or critical assessment of the ICAR/National Research Institutions has been conducted in recent years to highlight the specific reforms that need to be undertaken.

7.12.5 Besides, most State Agriculture Universities are poorly funded, large number of academic and extension positions have remained unfilled. The Committee notes that these state universities primarily catered to training of

Block level agricultural and rural development staff – updating of the curriculum to meet new developments perhaps has not been attended to with enough importance. A review needs to be undertaken of the State Agricultural Universities to reorient and revamp them to become relevant to meet current needs.

7.12.6 Very few states have given any emphasis to diploma and certificate level education in Agriculture and allied subjects. Andhra Pradesh runs a two year diploma course in Agriculture for students who have completed +2 level of education. Most of these diploma holders find employment in seed companies, extension programmes, watershed schemes, MNREGS etc. Since these courses are mostly offered in colleges located in rural areas, the students continue to be closely associated with their local surroundings and they can relate to local agriculture economy. There is thus an urgent need to start para-professional courses in agriculture in all major states. The State Universities also need to pioneer new concepts, using digital India to spread agricultural information and knowledge to the farming community through digital applications and avenues. Thus the National field-wise Crop Testing Programmes need to be backed up through initiatives in these institutions.

7.12.7 A Committee constituted by ICAR (Report of the Committee constituted for developing policy for higher agricultural education in India, 2013) has also recommended a three-tier structure of agricultural education. At the top, the country should produce academicians, scientists and top professionals. The second tier should produce managers in agriculture who will provide a link between scientific advances and its dissemination at the field level. The third tier should train field level functionaries (e.g. diploma holders) who will directly provide required services to farmers.

Recommendations

7.12.8 There is a need to bring agriculture and rural India in the mainstream of our educational system, to familiarize the system with rural/agricultural issues, even though this may not be a compulsory subject in the school curriculum. At high school level, students could be exposed to subjects like soil health, balanced use of fertilisers, water conservation, and importance of seeds in agriculture and pest control, as an optional subject. NCERT need also to look into this aspect of curriculum reform.

7.12.9 An independent review or critical assessment of the ICAR/National Research Institutions may be conducted to highlight the specific reforms that need to be undertaken in the quality of research and information dissemination by the national institutions.

7.12.10 *The State Agricultural Universities need to update their curriculum and pedagogy, to enable them to address the needs of their students. A review needs to be undertaken of the State Agricultural Universities to reorient and revamp them to become relevant to meet current needs. The State Universities also need to pioneer new concepts, using digital India to spread agricultural information and knowledge to the farming community through digital applications and avenues.*

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CHAPTER VIII

Reforming and Strengthening National Level Institutions

8.1 All India Council for Technical Education (AICTE)

8.1.1 The All India Council for Technical Education (AICTE) Act 1987 defines the role of this organization, as an instrument to regulate and manage technical institutions. In the past two decades, there has been proliferation of technical institutions, in response to manifold increase in demand for engineering and related courses. Many of these new institutions are deficient in infrastructure and do not have adequate qualified faculty. The Committee was informed that many of these colleges charge high capitation fees and are often no different from degree shops. Studies including those by FICCI/CII have shown that only 20% of our engineering graduates are employable. This state of affairs can be attributed largely to the failure of AICTE as a regulator to fulfil its mandated responsibilities.

8.1.2 Government of India had appointed a Committee under the chairmanship of M.K. Kaw to examine the role and functions of AICTE. The Committee submitted its report in 2015.

8.1.3 This Committee has recommended elsewhere that UGC, AICTE and NCTE, regulators in the higher education sector, which have been set up under different laws, should be subsumed under the newly proposed Indian Regulatory Authority for Higher Education to be created under a National Higher Education Promotion and Management Act. It is envisaged that this law, will inter-alia, lay down norms and standards for institutions of higher education in the country, set criteria for model curricula for different academic courses and create a legal framework for setting up independent testing and accrediting agencies. It is proposed that accreditation of new universities and colleges, in accordance with the standards set under the proposed Act will be done by an autonomous statutory Council of Higher Education to be set up by each state.

8.1.4 The Committee recognizes that it may take some time before the above statutory framework is created. Till that happens, existing institutions like AICTE will continue to function. The Committee recommends that administrative reforms suggested by the Kaw Committee may be given effect to, to the extent feasible and desirable, pending regular arrangements in the wake of the proposed higher education law.

Recommendations

8.1.5 The Committee notes that in the process of the rapid expansion of the technical education sector in the past two decades, the AICTE has largely failed to act as a Regulator to fulfil its mandated regulatory responsibilities.

8.1.6 Pending the enactment of the National Higher Education Promotion and Management Act, the Committee recommends that administrative reforms suggested by the Kaw Committee may be given effect to, to the extent feasible and desirable, pending regular arrangements in the wake of the proposed higher education law.

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8.2 National Council for Education Research and Training (NCERT)

8.2.1 Established in 1961, National Council of Educational Research and Training (NCERT) is the official advisory body to the nation on all matters of school education and also teacher education. NCERT is widely known for its work on text books, school curriculum and pedagogy, which have earned a unique reputation among school children and teachers and the education community at large.

8.2.2 As the main research wing of the NCERT, the National Institute of Education (NIE) acts as a nodal point for teaching, research and innovation with its five regional institutes of Education. It advises state textbook boards and SCERTs on preparation of textbooks. NCERT also conducts research on special areas, and contributes to training of resource persons in areas like curriculum development, gender sensitization, text book review and evaluation expertise, issues concerning children with special needs, education of minorities, SC/ST and other special categories. The curriculum frameworks sponsored by NCERT successively in 1975, 1988, 2000 and 2005 indicates the range of its contribution. NCERT, with its acknowledged position as a unique organization with a large mandate, is faced with enormous challenges for catering to teaching and learning in diverse situations and conditions.

8.2.3 NCERT interacts with state governments in strengthening vocationalization of education through its Central Institute of Vocational Education (CIVE) located in Bhopal. It also promotes integration of latest developments in educational technology and ICTE in the teaching-learning processes. It has also helped in development of audio-visual content and offers training programmes. However, the Committee notes that the quality, value and large-scale applicability of the aforesaid audio-visual material has largely been untested in the market, and its potential for scaling-up application opportunities as an aid to education is yet unproven; not unlike the efforts of many other private commercial and charitable foundations who also have contributed with different types of experiments, with varying success.

8.2.4 While it will be unfair to judge the performance of NCERT in the context of massive changes in the school scene, it also needs to be mentioned that the institution has been unable to cope with the massive volume of changes around it. For example, successive national education policies have referred to transformation of the curriculum and pedagogy away from rote learning, to encourage greater involvement of the thinking faculties of the students in the learning process and promote a spirit of inquiry. The school curricula do not adequately reflect changes in this direction. There has been no independent review or assessment of the organization which is necessary. As the new focus of school education will be on quality improvement, NCERT will have to play a significant role in realizing this objective. This will require augmentation of both the manpower as well as the other resources. NCERT needs to revisit its curricular and pedagogy formulations in the process of 'teacher-preparation' as well as motivation of the teaching community. NCERT needs to explore the directions to facilitate the diversion of a large number of school children to skill acquisition and vocational programmes. It needs to strengthen its national institutional networking, as also to upgrade its standing in the international arena. NCERT has a major role to play in the transformation of India's school education, which is the underlying theme of the Committee's report.

Recommendations

8.2.5 The Committee recommends that NCERT needs to focus sharply on increasing the quality of school education; in particular the move for transformation of the curriculum and pedagogy away from rote learning to promote a spirit of enquiry and understanding. For this, NCERT will have to undertake preparation of a new curriculum framework (last undertaken in 2005), through redesign its text books in a manner that teachers become motivators, facilitators and co-investigators and encourage self-and-peer-learning through project assignments.

8.2.6 The Committee notes that successive National Education Policies have referred to progressive transformation of the curriculum and pedagogy away from rote learning, to encourage greater involvement of the thinking faculties of the students in the learning process, and to promote a spirit of inquiry. The school curricula do not as yet adequately reflect changes in this direction. The Committee recommends that this important core function of the NCERT has to be given greater stress, relevance, applicability and intensity of application.

8.2.7 The Regional Institutes of Education (RIEs), also need to be strengthened to provide support in training, research, innovations and teaching learning material development to SCERTs and other institutions in the state. The RIEs have an important role in observing and conceptualizing excellent initiatives and helping other states to adopt them. They should be encouraged to look continuously for best practices and disseminate them for which suitable expertise should be provided.

8.2.8 NCERT has a major role to play in the transformation in the Indian school education scene; it needs to be strengthened in terms of faculty and resources; reorient itself by restoring emphasis on research and innovation.

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8.3 The University Grants Commission

8.3.1 Established under UGC Act of 1956, UGC was set up for management and regulation of the various universities/higher education institutions. It has an omnibus mandate, covering all aspects relating to recognition, accreditation, curriculum approval, permission to start courses, disbursement of grants to institutions, and management of scholarship programmes. Over the past six decades, there has been a rapid expansion of higher education in the country. The number of universities has gone up dramatically, with many institutions coming up in the private sector. UGC did not have the resources or quality manpower to effectively ensure that high quality education was provided by these institutions, or monitor their efficient management.

8.3.2 The UGC currently performs three primary functions: - it oversees the distribution of grants to universities/colleges in India; secondly, the UGC provides scholarships/fellowships, covering more than 80,000 beneficiaries annually; and its third main function is to recognize universities and monitor conformity to its regulations by universities and colleges in the country.

8.3.3 While UGC, over the years has issued a series of regulations for achieving better quality and efficient management of colleges and universities, it has not been able to ensure effective enforcement of those regulations. The Committee was informed that there are widespread irregularities in grant of approval of institutions and courses. There are serious concerns about the quality of education provided by a large number of colleges/universities; it is the responsibility of UGC to monitor standards of education in higher education institutions and UGC has not succeeded in ensuring this. The credibility of the UGC has been seriously dented by approvals given to a large number of sub-standard colleges and deemed universities.

8.3.4 An expert Committee recently has examined thoroughly the past, present and future role of UGC, whose report is under examination by the Ministry. It is understood that the report had concluded that the UGC does not have the adequate number of personnel, of requisite quality, to be an effective regulatory force in the higher education sector. It is recommended that as the new overarching higher education management law is enacted, which the Committee suggests should be very soon, the UGC Act should be allowed to lapse.

8.3.5 The Committee elsewhere has recommended a separate mechanism for disbursement of fellowships. The UGC could be revamped, made considerably leaner and thinner, and could be the nodal point for administration of the

proposed National Higher Education Fellowship Programme, without any other promotional or regulatory function to perform.

Recommendations

8.3.6 When the new National Higher Education Act is enacted, the UGC Act should be allowed to lapse.

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8.4 Indira Gandhi National Open University (IGNOU)

8.4.1 The Indira Gandhi National Open University (IGNOU) Act in 1985 was designed to develop a credible system of distance education in order to keep pace with the diverse societal needs of higher education. IGNOU was created as a National University directly under MHRD with the mandate as an Open University at the National level for the introduction and promotion of Open University and Distance Education Systems in the educational pattern of the country and for the co-ordination and determination of standards in such systems. With the establishment of Distance Education Council (DEC) in 1991, IGNOU and DEC have performed the role of promotion, coordination and maintenance of standards in the ODL system, and assisting State governments in setting up their State Open Universities. IGNOU currently offers 228 academic programmes through 21 Schools of Studies and a network of 67 Regional Centres spread across the country supported by 2981 Learner Support Centres; with a cumulative student strength of over 2.81 million learners and annual intake of 7,42,426 Learners (2014-2015). The Committee notes that there has been no independent evaluation of the work of IGNOU since its establishment, particularly with reference to its quality and credibility, and recommends that such an exercise be undertaken at an early date.

8.4.2 Online courses, covering a very wide variety of fields, naturally will proliferate in the education field. A number of universities already have started resorting to online programmes – indeed even the school system is entering this area in a significant way. IGNOU originally was seen both as a national university and also as the designated national regulator of online education. These are inherently conflicting roles, and cannot be sustained for a long. However, IGNOU has gained much experience as a national university, and is playing an important role in the space of online education. It should now be given the position of the designated National University in the field of distance education; and allowed the autonomy and the space to set its own standards, and be a pacemaker in this fast growing area. There is a collateral responsibility devolving on IGNOU to maintain the highest possible standards.

8.4.3 Concurrently, the need has arisen to have a regulator to deal with distance courses, especially as so many state and private institutions have started operations in a big way in this field. Indeed in teacher-education field, the Committee noted with dismay the proliferation of long distance teaching shops, offering degrees or diplomas basically in exchange of money, with minimal

assurance of quality or teaching-learning standards. There is need to designate or create a new national agency as the Regulator in this area; till that is done, the Committee recommends that IGNOU plays this important role. This is a delicate and weighty call, as the role of regulator conflicts with that of a teaching university; however, in view of the experience of IGNOU in this field, it may have to play this role very temporarily.

8.4.4 Meanwhile IGNOU should be authorized to offer online programmes in different fields including teacher education, agriculture and law etc., subject to the condition that they should function as their own regulator, and ensure scrupulous conformity with the standards set in this regard by the relevant designated Regulatory Agency.

8.4.5 IGNOU, like every university of high quality, should have its own strong internal quality cell, to ensure conformity to high standards.

Recommendations

8.4.6 There has been no independent evaluation of the work of IGNOU since its establishment, particularly with reference to its quality and credibility, and recommends that such an exercise be undertaken at an early date.

8.4.7 IGNOU should now be given the position of the designated National University in the field of distance education; and allowed the autonomy and the space to set its own standards, and be a pacemaker in this fast growing area. There is a collateral responsibility devolving on IGNOU to maintain the highest possible standards.

8.4.8 IGNOU should be authorized to offer online programmes in different fields including teacher education, agriculture and law etc., subject to the condition that it should function as its own regulator, and ensure scrupulous conformity with the standards set in this regard by the relevant designated Regulatory Agency.

8.4.9 IGNOU, like every university of high quality, should have its own strong internal quality cell, to ensure conformity to high standards.

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8.5 National Institute of Open Schooling (NIOS)

8.5.1 The National Institute of Open Schooling (NIOS) started as an *Open School Project* of the Central Board of Secondary Education (CBSE) in 1981, and in 1989 acquired its present nomenclature as an autonomous organization of the Ministry of Human Resources Development. It has now emerged as one of the largest open schools of the world, covering 30 lakh learners through 6000 centres. Many categories benefit from this system, especially those who missed receiving school education, those who want to pursue education as a hobby, as well as differently-abled persons, gifted children, sports persons etc.

8.5.2 The Committee did not have an opportunity to study the work of the NIOS closely. The Committee also noted that no major external study or examination of the organization has taken place in recent years.

8.5.3 This Committee's report has repeatedly stressed the role of technology in education. As the potential for utilization of technology in enhancing the quality of education, facilitating the rapid spread of knowledge and information grows rapidly, it can be stated that the role of distance education in schooling will increase exponentially in the near future. The need is therefore to take note of the current experiments, and restructure the institutional mechanisms, to cater to the potentially burgeoning demand which is bound to arise sooner than later, with a large number of private players also participating in this field of education.

8.5.4 While the role of NIOS has been fairly clear in the area of school education, it now needs to redefine itself to the large potential demand for vocational education – at least insofar as it can be delivered digitally. This is a major expansion area that needs to be utilized, particularly in close collaboration with the Ministry of Skill Development.

8.5.5 The NIOS is now departmentally managed, which is not the ideal management structure. As the entire field of distance education in the school sector is looked at, and as the management of the same reviewed, the issues of management/monitoring/oversight of NIOS need to be addressed appropriately.

(a) Need for a credible, reliable, definitive examination system at Class X and Class XII levels

8.5.6 Currently apart from the state education boards and the two national schemes for providing high school certification, there is no other online certification process which is widely accepted as of genuine quality, reliable, and which can act as the key to open the door to areas in vocational training schools or in higher education institutions. As pointed out elsewhere in the report, there are different kind of needs which require to be addressed today:

(a) For those who drop out from the school system at some stage or the other for whatever reason, and would like to regain the main-line academic stream, an acceptable national examination of high quality is required as the touch-stone of having cleared Class X or Class XII level as may be. Since many of these candidates may be already engaged in other activities, the system would have to provide a rational way of completing the examination through different segments, at different times, with a well-thought out overall time limit – without compromising quality – much like a number of similar examinations in developed countries are designed.

(b) The Committee's report elsewhere envisages the desirability of students identified as having special reasons to move over to vocational streams, including those who are unable to cope with the rigours of a formal educational stream. Many of such persons, who are self-motivated, may

want to return to the main academic stream. The examination at Class X and Class XII may provide the opportunity for the same, as the entrance test for re-entry.

(c) The present Board examinations and the certification they produce are of varying value, representing different standards of learning. A national examination of this sort, with adequate credibility, and of sufficiently high but relevant standard can provide the benchmark, against which admissions to institutions all over India could be considered; this will be an additional avenue for bringing merit into the admission process.

(d) Again for those who wanting to study abroad, the Class X and the Class XII proposed examination could provide the certification of minimum quality achievement, for the foreign institution to make a fair judgement.

(e) Elsewhere in the report, a proposal has been made to institute 10 lakh new fellowships every year for higher education. The proposed Class XII examination could provide national benchmarks to identify beneficiaries based on merit standards.

8.5.7 It is essential for the MHRD to nominate a suitable agency that could undertake this important new initiative. Normally, one could have proposed that NIOS should be the nodal agency for sponsoring these all India examinations; however in view of its doubtful record of performance, and inability to establish itself as a credible agency, this needs to be examined as by the MHRD as to whether the task should be given to a revamped NIOS, or to any other appropriate agency.

8.5.8 The Class XII examination may be the first one to get established, to be followed as soon as possible thereafter by the Class X examination.

(b) Regulatory Issues

8.5.9 The Committee notes that the field of distance school education will undergo very rapid expansion in the coming years. Already the private sector has moved into this field, as it sees this as one of financial opportunity. It is important that as the sector evolves, the government should not be caught at a later date with events having overtaken its institutions, as has happened in the case of higher education. While NIOS may be the premier national agency for dissemination of schooling material, conduct of examinations etc., (much like IGNOU is in the higher education space), some thinking is required to establish an appropriate regulatory authority to keep track of developments in this regard, to provide the legal framework for any government intervention, equally to provide support encouragement and mentorship to healthy private initiatives in this regard.

Recommendations

8.5.10 *There is need to take note of the current experiments in distance education, undertaken by public and private institutions, and restructure the institutional mechanisms, to cater to the potentially burgeoning demand which is bound to arise sooner than later, with a large number of private players also participating in this field of education.*

8.5.11 *While the role of NIOS has been fairly clear in the area of school education, it now needs to redefine itself to the large potential demand for vocational education – at least insofar as it can be delivered digitally. This is a major expansion area that needs to be utilized, particularly in close collaboration with the Ministry of Skill Development in view of its past record of performance, the NIOS needs to be appropriately strengthened and upgraded.*

8.5.12 *The NIOS is now departmentally managed, which is not the ideal management structure. As the entire field of distance education in the school sector is looked and as the management of the same reviewed, this management / monitoring / oversight of NIOS needs to be addressed appropriately.*

8.5.13 *The Committee notes that the field of distance school education will undergo rapid expansion in the coming years. Already the private sector has moved into this field, as it sees this as one of financial opportunity. It is important that as the sector evolves, the government should not be caught at a later date with events having overtaken its institutions, as has happened in the case of higher education. While a revamped NIOS may be the premier national agency for dissemination of schooling material, conduct of examinations etc., (much like IGNOU is in the higher education space), some thinking is required to establish an appropriate regulatory authority to keep track of developments in this regard, to provide the legal framework for any government intervention, equally to provide support, encouragement and mentorship to healthy private initiatives in this regard.*

8.5.14 *The Committee recommends that an upgraded NIOS or any other designated agency should create two new national level examinations systems to certify Class X and Class XII equivalent achievement, which should be credible, reliable and seen as definitive. These systems will cater to different kinds of needs not so far addressed by the normal education system, and can be used by different varieties of end users. The proposal for 10 lakh new fellowships for higher education mentioned elsewhere could use this Class XII examination as the benchmark for selection of candidates, with appropriate classifications. It is also proposed that the Class XII examination system may be created as soon as possible, with the Class X examination to follow.*

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8.6 National University of Educational Planning and Administration (NUEPA)

8.6.1 The National University of Educational Planning and Administration (NUEPA) is the organization dealing with capacity building and research in planning and management of education attached to the Ministry of HRD. The

University's origins go back to 1962 initially set up as a research centre for education planners, to later in 1965 become the Asian Institute of Education Planning and Administration sponsored by UNESCO. In 1979 it was restructured as a National Institute, with an expanded mandate and by 2006, it was elevated to a 'deemed to be university.' Today, it is a National University which apart from providing in-service training in the area of educational planning and administration, also has the stated objective of undertaking research on subjects allied to educational planning related to different states as well as other countries.

8.6.2 The University offers M.Phil, Ph.D and Post-Doctoral programmes and awards degrees. Among its main functions is the responsibility to provide technical support in teaching, research and advisory services to Central and State governments. It is also expected to function as a clearing house for the dissemination of knowledge and information in the field of education.

8.6.3 The Committee did not have the opportunity to examine the training and advisory services work of NUEPA. The Committee also came to understand that there has been no major internal or external critical review of the organization over the years to assess the role it plays on the national education scene.

8.6.4 Since NUEPA was designated as the Secretariat to service the Committee in evolving the new education policy, the Committee had first hand exposure to the research work done in NUEPA, and its role as a think tank capable of providing inputs on important aspects of educational planning. Given its mandate, the Committee expected that research on several contemporary issues affecting the education sector would have already been undertaken by NUEPA and would be provided to the Committee. Put simply, the Committee found very little serious examination of fundamental issues facing school/higher education in India undertaken by the University. Apart from the faculty, those pursuing M. Phil, doctorates and post-doctorates under the aegis of the University should have been actively engaged in conducting research into the burning issues that confront the education sector in the country. Surprisingly, of the 33 issues referred by the MHRD for consideration or for examination in the context of the new policy, hardly any material of relevance was readily available in NUEPA, which the Committee could utilize directly or even with adaptations. Indeed, the research material made available by some non-governmental and private research organizations was of high quality, relevant, and provided a nuanced understanding of the issues.

8.6.5 NUEPA faculty and its management remain fully occupied with day-to-day activities and a constant stream of meetings, seminars, round-tables and training courses seem to be in progress constantly. In following the teaching aspect of its mandate, the University has not developed the capacity to remain in active touch with developments on the ground, across the states and to critically examine why specific strategies driven centrally or sometimes by the states are function well while others are seen floundering.

8.6.6 In all probability, the fault lies not so much with NUEPA itself but has more to do with the nature of the appointments, when the senior staff are not challenged intellectually, required to produce material of direct relevance to policy formulation or to act as a think tank to support the Ministry in the process of making strategic interventions or even advocating a change of track based on research findings. The credentials of the faculty and academic staff are not in question, and many are held in high esteem within education circles. What is needed is the ability to provide critical thought and back assumptions with well-founded research undertaken collaboratively.

8.6.7 The only repository of national data on education is also located in NUEPA. As mentioned elsewhere, the present data structure is weak, unreliable and does not lend itself as a practical decision-making tool. To fulfil its role as an educational planning university NUEPA should have developed the skills to disaggregate data, challenge the status quo based on quantitative and qualitative facts adduced through research and suggest alternatives best suited for the country. Undoubtedly there are serious problems in the field relating to data collection, consolidation, transmission, relating to physical human, as well as technological issues which cannot be oversimplified. For these reasons the blame should not be placed entirely on NUEPA, which perhaps has not been enabled to upgrade, renovate and modernize its information gathering and dissemination systems, much less to provide analytical research papers.

8.6.8 For the sake of providing high quality inputs to the Ministry, there is every need to have the mandate of NUEPA and its output evaluated by a high level peer review with experts from within and outside the government institutions. Only people in the same profession and conversant with the current scenario and emerging trends would be able to comment on the relevance of NUEPA's academic and policy related advice. Unless such a review is undertaken, the Ministry and policy makers would be denied timely advice on what matters most.

Recommendations

8.6.9 Like every other organization attached to the MHRD there should be peer-reviews and periodical external reviews of the work of NUEPA. A clear re-orientation of its research agenda to reflect actual issues on the ground needs to be undertaken without delay.

8.6.10 The central data compilation consolidation system needs to be significantly upgraded; a decision needs to be taken whether NUEPA is the correct agency in which to locate this activity.

8.6.11 The establishment of a Central Bureau of Educational Intelligence with high quality statistical expertise and management information system should be considered as an alternative to provide the requisite focus to this area.

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CHAPTER IX

Summary of Recommendations – Evolution of the National Policy on Education 2016

9.1 Introduction

9.1.1	From ancient times, Indian thinkers and society have recognised the value of education. The *Guru-Shisya Paramparais* one of the earliest examples of knowledge sharing between the teacher and the student. Indian philosophers, scientists and litterateurs have made seminal contribution to the world of learning and knowledge.
9.1.2	India's literacy rate at the time of Independence was just 12%. In the seven decades after independence, India has achieved much. There is now a primary schooling facility in almost every village and the gross enrolment ratio is more than hundred percent. Likewise there has been rapid expansion of secondary and higher education. The education infrastructure has also improved significantly. There has been remarkable improvement in the enrolment of girls, their retention rates, and performance at all levels of education. The literacy rate of India, as per the 2011 census, was 74%.
9.1.3	There are however serious concerns about the quality of education at all levels. Surveys conducted by government and private agencies show that students are not achieving the expected levels of learning. In higher education the country does not have any representation in the top 200 universities of the world. Teacher vacancies and teacher absenteeism continue to plague government schools where dropout rates are also high. There is corruption in appointments and transfers of teachers as well as the conduct of examinations; and in according recognition and approval to educational institutions. There is proliferation of high-cost coaching classes and degree shops. Around 65% of India's population today is less than 35 years old. It is imperative that they are provided better quality education, creation of avenues for their gainful employment; and not doing so will have serious repercussions.
9.1.4	The focus of the New National Policy on Education is on improving the quality of education and restoring the credibility of the education system.
9.1.5	Fortunately, India is on the cusp of a major change. Every village is expected to be digitally connected in the next three years. The education sector can greatly benefit by the use of ICT, which now needs to be harnessed for optimal benefits.

9.1.6	It is critical to recognise the teacher as the key driver of change in the education system. The teacher will have to play a major role in the transformation of the education system. There is an urgent need to focus on improving the quality of teacher education and training, and attract better talent to the teaching profession. In an increasingly digital world, the teacher will have to play the role of a guide and a facilitator.
9.1.7	Education has been given comparatively low priority by both the Central and State governments, judged by the budgetary support provided thus far. This must change if anything of significant value is to be achieved. The New NPE seeks to create conditions to improve the quality of teaching, learning and assessment; and promote transparency in the management of education.
9.1.8	This is the simple message of the National Policy on Education
9.2	**Broad Objectives of the National Policy on Education (NPE) 2016**
9.2.1	The core objective of this Policy is to provide information, knowledge, skills, and values; also to instil social attitudes which enable a student to become a good human being, a proud citizen and contribute to the development of the country. Besides imparting quality education the policy seeks to emphasize the need to foster an interest in India's history, culture and traditions, a respect for all religions and acceptance for the diversity that exists in India. Through education, the policy tries to create an understanding of the need to promote social cohesion and national integration which are essential for the country's progress. In the new technology-driven environment ever more students will become conversant with the tools of modern communication and technology; the Policy recognises the immense opportunities for using these to promote education at every level.
9.2.2	The main objective of the New National Policy on Education is to harness the full potential of a young, vibrant population and equip it to contribute meaningfully to India's development.
9.3	**Inculcation of Values through Education**
9.3.1	The relevance of value education assumes critical importance in the contemporary scenario where unfortunately the consequences of exploitation and intolerance are increasingly being witnessed. Differences arising from caste and religion, social and economic disparities are leading to incidents of violence as means to resolve perceived injustice and discrimination, seriously affecting the cohesion of society.

9.3.2	Value inculcation is essential to promote equity, social justice, tolerance and national integration. Truth (*Satya*), Righteous Conduct (*Dharma*), Peace (*Shanti*), Love (*Prem*) and Non-Violence (*Ahimsa*) are the core universal values which provide the foundation for a value-based education system. Value education has to be made an integral part of education at all levels. Teachers, parents and community leaders have to play a major role in instilling good values among students.
9.3.3	Schools must develop in students, qualities like regularity and punctuality, cleanliness, good conduct, consideration for the elderly and respect for women. The process of education should inculcate a spirit of hard work and entrepreneurship, a respect for human rights and compassion for the disadvantaged sections of society. Every student should be made aware not only of his/her fundamental rights, but also of fundamental duties, laid down by the Constitution. The National Policy on Education should enable students to become responsible citizens of India in a globalized world.
9.4 Challenges for the New National Policy on Education	
9.4.1	The education policies of 1968 and 86/92 provided a roadmap for the development of the education sector in the country. These resulted in initiatives which greatly improved access to education to most of the population. The mid-day meal program has improved attendance and the nutritional levels of students coming from disadvantaged communities. The strategy of setting up of *Ashram Shalas* has enabled the tribal population in remote areas to have the benefit of education. A large number of schools and institutions of higher education, both in the public and private sector have in parallel led to the creation of an articulate, well informed and technologically savvy middle class, laying the base to propel India to high rates of economic growth.
9.4.2	Despite many gains, the Indian education system faces several problems, denting its credibility. The main factors include:
	(i) Absence of minimum standards in the provision of schooling facilities, processes and student outcomes, and equity in educational opportunities;
	(ii) Lack of professionalization in educational planning and management;
	(iii) Absence of requisite disaggregated data, particularly at sub-national and institutional levels for evidence-based management of education;
	(iv) Lack of competent and committed teachers, resulting in poor quality of education;

	(v) Substandard quality of teacher education and training;
	(vi) A curriculum which encourages rote-based learning;
	(vii) Malpractices in the examination system;
	(viii) Neglect of skill and vocational education, overemphasis on acquiring dead-end qualifications which do not lead to employment;
	(ix) Failure to make ICT as functionally integral to the management of pedagogy of education;
	(x) Mushroom growth of private coaching classes and degree shops;
	(xi) Corruption and politicisation of education management at all levels;
	(xii) Mediocre status of a majority of higher education institutions; and
	(xiii) The pursuit of degrees and qualifications at any cost.
9.4.3	The New Education Policy has addressed all these challenges.
9.5 Governance in Education	
9.5.1	Appointment of unqualified and low paid contractual teachers militates against quality of teaching and learning. The system of appointment and transfer of teachers is generally not merit-based or transparent. Teachers are engaged in several non-education related government programs which adversely affect their classroom performance. There are malpractices in the conduct of examinations, and in grant of approval and recognition to institutions. Government schools and colleges have lost their credibility due to which parents have increasingly begun to move to private institutions to seek education for their wards. There is a proliferation of tuition and coaching classes. The cost of private education has spiraled due to donations and capitation fees becoming the norm. Political patronage and interference have become endemic, hampering education reforms as well as the efficient and transparent management of the education system. ICT in education is yet to penetrate the system to improve educational governance, including aspects relating to teaching-learning, assessment and accountability. Most children fail to acquire the minimum levels of skills, knowledge, values and attitudes to make them productive citizens of India. A large proportion of university and college graduates are simply not found employable. Quality of education needs sharp upgradation across the board.
9.5.2	The New National Policy on Education has made detailed recommendations to improve governance in the education system, aimed at enhancement of the quality of education.

(a) ICT as a Tool for Improving Quality of Education	
9.5.3	Computers were first introduced in schools during the 8th five year plan (1993 to 1998.) Since then thousands of computers have been provided in government schools. The thrust has been essentially on familiarising students with the use of computers and teaching basic operations. Most schools do not have an Internet facility and the deployment of IT as an educational tool has not been attempted to any appreciable extent. As a result, the immense potential of ICT as an aid to education has not been realized.
9.5.4	ICT must be made an integral part of school education. Courses on the use of ICT as an aid for enhancing the teaching-learning process should be made a part of the curricula of Teachers Training Colleges. Unless teachers are themselves comfortable using computers and the Internet, they will find it difficult to use it as an aid to teaching, or to guide students. Teachers have to gradually become facilitators and encourage self-learning by students so that their natural curiosity receives impetus. Internet has removed all barriers to learning and made knowledge easily available. Education can no longer be confined to textbooks; and the examination system has to be revamped to test knowledge and understanding, and not the ability to regurgitate by rote. ICT can no longer be treated as a school subject; it has to become a part of the learning process.
9.5.5	ICT needs to be harnessed and adapted to Indian conditions to meet diverse objectives – covering many fields where meaningful experimentation has already taken place as also in some new areas, which include the following: (i) IT as aid to the teacher in the classroom; (ii) IT to aid in remedial education. (iii) IT for use in training of teachers. (iv) IT for adult literacy. (v) IT modules as learning tools in higher education. (vi) IT as a governance tool.
9.5.6	In higher education, access to lectures and course material, and interaction with top education institutions in the world through virtual classrooms, online tutorials and tests present immense possibilities for participatory learning and global networking.
(b) ICT for Education Data Management	
9.5.7	District Information System for Education (DISE) is more than 20 years old and has been responsible for the collection and collation of data concerning

	all aspects of school education, including enrolment, attendance, dropout rates, teacher availability and infrastructure facilities. It is a tool for planning and development of the school sector. Although the system has improved over the years, there remain serious concerns about the timeliness of data collection, its accuracy and reliability. If DISE has to be an effective information, monitoring and management tool, it is imperative to enhance the reliability and timeliness of its database.
9.5.8	As a part of Digital India initiative, 2.5 lakh Gram Panchayats will be connected through fiber-glass broadband, with a local Wi-Fi hotspot for exchange of data. It should then be possible to bring electronic connectivity to every school, howsoever remote. Preparations need to start immediately to use this opportunity. To enable this, the training of teachers and headmasters/Principals in data collection and transmission using the new digital highway needs to commence without loss of time. The facilities at NUEPA, which is the focal point for national data compilation and dissemination, need strengthening with adequate specialised manpower and computing facilities. A few progressive states have made effective use of ICT for school management and have successfully managed monitoring of attendance, student performance, and teacher absenteeism. Collection of online data and its intelligent use can become a powerful tool for school management.
9.5.9	It is seen that although DISE collects voluminous data, it does not alert the states and the Ministry of HRD about positive as well as negative trends that are developing. The new policy expects that DISE should become a conduit for sharing trend analysis which calls for mid-term correctives and interventions. The developments that take place in certain parts, or countrywide, need to be highlighted in a timely manner to policy-makers, which include the state education departments. Annual trend analysis will build public awareness about developments that are taking place and present an early opportunity for intervention.
(c) Constitution of a Standing Education Commission	
9.5.10	The span of activities covered in the education sector is vast; apart from the Central and State governments, the stakeholders include numerous institutions, parents, teachers and students. In a climate of rising aspirations, the developments in the education sector require exceptional attention on a continuous basis. The problems faced by the education sector are complex and necessitate independent, considered and mature responses. The Ministry of HRD requires the assistance of a high-qualitythink tank in the form of a Standing Education Commission to study emerging challenges, evaluate and interpret policies and programmes, and provide information and guidance to the Ministry from time to time. The Commission should prepare a National State of Education Report once in two years. The Commission should comprise of a limited number of experts

	and persons of eminence with special knowledge and experience of the education sector in India, supported by a small secretariat.
(d)	**Need to Restrict Political and Other Distractions on University and College Campuses**
9.5.11	Agitations, disturbances, *gheraos* and other disruptive movements are being increasingly witnessed on campuses with potential to interfere with normal academic activities. As a result of this, examinations often get delayed or postponed. These disturbances are generally caused by a small section of politically active students and work to the detriment of the majority of serious students. The Constitution provides every citizen the right to form groups or associations. Every right has a corresponding duty to ensure that it shall not adversely affect the interests of others.
9.5.12	Universities and colleges are temples of learning and some self-imposed restriction should be in place to ensure that the primary work of the universities is conducted without hindrance. Educational institutions should not be allowed to become political arenas to settle national rivalries. It is essential to find the right balance between free speech and freedom of association guaranteed by the Constitution, with the needs of various sections of society, consistent with the primary purpose for which the universities have been established to enable the pursuit of education.
(e)	**Election on Campuses**
9.5.13	On the basis of the recommendations of the Lyngdoh Committee (2005) the Supreme Court accepted the need for restricting those activities of student unions which could potentially disrupt academic activities of the universities. The issue of the desirability of non-recognition of student groups that are explicitly based on caste and religion needs to be revisited urgently. The overall interest of the bulk of students who attend academic institutions to study must be protected by those that are vested with the authority to administer the universities.
(f)	**Restriction of the Period of Stay of Students on Campuses**
9.5.14	Most of the disruptive activities on the campus are led by students who remain enrolled for many more years than normally required to pursue the course of study for which they have enrolled. The main interest of such students is not to pursue learning but to use the hostel and fellowship facilities to follow a political agenda. There should be a national debate on the need for students to necessarily achieve the minimum benchmarks for scholastic progress to prevent the misuse of educational facilities established at public expense.

(g) Creation of an All India Education Service	
9.5.15	The education sector in India employs nearly 1 crore persons. This sector also has maximum public contact. The attention given to management of the sector is not commensurate with the seminal role it plays in the nation's development. Many states have their own education service but even senior State cadre officers rarely rise to policy-making positions. There are limited opportunities for promotion in the State cadre, and movement across other sectors is rare. The education sector needs professionals with qualities of leadership and credibility to tackle complex management issues.
9.5.16	The earlier policies of 1968 and 86/92 had recommended creation of an All India Education Service. This matter can no longer be delayed. An Indian Education Service (IES) should be established as an all India service with officers being on permanent settlement to the state governments but with the cadre controlling authority vesting with the Ministry of HRD. Persons from IES would progressively occupy higher level policy posts at the Centre and in the States; the services of IES officers could also be loaned to universities and other national and state-level education institutions. It is proposed that recruitment to IES should be done through UPSC.
9.5.17	While it may take some time to set up such a service, there should be, as an interim step, a one-time special recruitment by UPSC from among the existing educational cadres in various states to improve management competence in education sector. This will need concurrence of the States.
(h) Dealing with Litigation	
9.5.18	There are thousands of court cases at the Centre and especially in the States, mostly concerning service conditions of teachers, and also arising out of administrative decisions of the Centre or the State as the case may be. The reasons for such large number of court cases are generally due to non-observance of procedures, lack of transparency, arbitrary decisions and an indifference towards redressal of genuine grievances. Officials working in the Education Departments have to spend a lot of time addressing court matters, often resulting in neglect of other important issues concerning their department. Senior officers have to frequently appear personally before the courts on contempt charges. The situation needs review to see what remedial procedures and alternate institutional arrangements could be taken up.
9.5.19	There is need, particularly in the states, to establish separate Education Tribunals, mainly to deal with service related matters, as also follow up of miscellaneous administrative decisions. These bodies, to be headed by a retired High Court Judge or District Judge, with membership of retired experienced officerscould function as the focal point for early disposal of service and other disputes. The Tribunals, with a time-bound approach to

	settlement of each dispute, should have the power to follow summary procedures to expedite the disposal of cases.
9.5.20	Depending on the volume and nature of pendency of service and other related cases concerning the MHRD and its agencies, in the CAT and in other legal fora , it should be considered whether it will be useful to have Administrative Tribunals attached to the MHRD at the Centre and regions, to deal with litigation with a time-bound approach following summary procedures.
9.6	**Need for Special Academic and Other Support to Children from Socially and Economically Weaker Sections**
9.6.1	In recent decades, access to education has improved sharply, particularly to those from rural areas. However, there is a significant handicap suffered by students coming from socially or economically weaker segments relating to inequality in learning opportunity, often related to sociological and circumstantial factors not sufficiently understood or commented upon or accounted for in the normal course. There are critical stages in the 'learning' periods of such disadvantaged children, when they need a helping hand to guide them, with extra coaching or advisory facility, to enable them to get full benefit of their educational opportunities, in many cases to tide over difficult periods of their education. In general, such children need assistance particularly at three stages during their education – (a) in the period of primary schooling where it is important to learn the basics of 'language' and 'arithmetic'; (b) in early class 11 phase, where the courses become tougher, and classroom environment competitive; and (c) in the early periods in technical courses, particularly for those who did their schooling in their mother tongue or regional language, to acclimatize them to the circumstances and conditions of urbanized learning centres.
9.6.2	A well thought out programme needs to be evolved, based on local resources, conditions and circumstances, to render a helping hand to such students during the critical periods. This would be in addition to the other recommendations made by the Policy to upgrade the processes of learning, across the education system.
9.7	**Public Expenditure on Education**
9.7.1	The NEPs of 1968 and 86/92 had both recommended 6% of GDP as the norm for the national outlay on education. The actual expenditure on education has remained consistently below this level. In recent years it has hovered around 3.5%. Most OECD countries spend more than 6%,

	and many progressive countries have managed to cross the 6% benchmark.
9.7.2	There is an urgent need to increase the outlay and expenditure on education to meet new challenges in the education sector, such as the appointment of additional teachers in accordance with the RTE norms, introduction of pre- primary education, strengthening teacher education and use of ICT in educational institutions.
9.7.3	The outlay on education should be raised to at least 6% of GDP without further loss of time. There can be no better investment than in the future of India's children.
9.8 School Education	
9.8.1	There were 15 lakh schools in the country with an enrolment of 26 crore (DISE 2014-15). Nearly 33% of schools have less than 50 students and 54% less than hundred. The preponderance of small schools not only affects the quality of teaching and learning but also makes school education inequitable and expensive in terms of per-pupil expenditure. Such schools are neither academically not financially viable.
9.8.2	The National Policy on Education seeks to shift the focus of development of school education from physical expansion to consolidation of the existing school system. Schools with low enrolment and inadequate infrastructure should be, wherever possible converted to composite schools. Mergers will lead to the provision of better infrastructure, teacher availability and efficient re-deployment. It will be feasible then to position full-time Principals. Consolidation will help improve the availability of computer and science laboratories and provide better facilities for sports and extra-curricular activities. MHRD and the States should together evolve common guidelines for merger and consolidation, without diluting the spirit of easy access laid down by the RTE Act.
9.8.3	It is important to have minimum acceptable standards in school education across all levels in terms of provisions and student outcomes.
9.9 Teacher Management	
9.9.1	The teacher is the pivot around whom the children's education revolves; it is rightly said that an education system is as good as its teachers. There are more than 80 lakh teachers in the elementary schools and more than 20 lakh in the secondary and higher secondary schools in the country. There are serious issues concerning teacher management. These include teacher

	shortages, absenteeism, corruption in recruitment and transfers and absence of an effective machinery to redress their genuine grievances. A large number of government schools do not have full-time headmasters/Principals. The lack of effective leadership has contributed to indiscipline among teachers leading to declining academic standards. Keeping in mind the larger interest of improving the quality of education, the Policy underscores the need for devising mechanisms to achieve the following:
	(i) The Centre and State should jointly formulate transparent and merit based norms and guidelines for recruitment of teachers, principals and other academic cadres.
	(ii) The recruitment of teachers and other academic cadres would only be done through Independent Teacher Recruitment Commissions which should be set up with transparent, merit-based norms for selection. For elementary schools recruitment should be done at district level.
	(iii) All positions of headmasters and principals should be immediately created and filled up as per RTE norms or other standards. Leadership training for headmasters and principals should be compulsory.
	(iv) Norms need to be developed for fair and equitable deployment of teachers, across regions and between rural/urban areas in a State. The vacancy position of teachers and headmasters for each block should be placed in public domain. Shorter tenure and other incentives should be offered for posting in tribal and remote areas.
	(v) Every state will be encouraged to publicise the norms and criteria for transfers. The process of transfers would be made open and transparent, and in the event of exceptions being made the reasons would be disclosed for public information.
9.9.2	Teacher absenteeism, teacher vacancies and lack of teacher accountability have destroyed the credibility of the public sector school education system. These issues can be resolved only with strong political consensus without which all efforts would be ineffective. There is urgent need to vest disciplinary powers to the School Management Committees (SMC's) and the school principals to deal with absenteeism and indiscipline. They can be assisted through technological measures by recording attendance using mobile phones, biometric devices, until online maintenance of data becomes the norm.
9.9.3	Using ICT, structures should be created to integrate student outcomes and relate them to teacher performance – this should be the predominant criterion for making teachers accountable for their performance, after controlling for school quality and demographics. The reward and

	punishment structure of teachers needs also to be closely linked to continuous assessment of student performance and teacher evaluation.
9.10 Teacher Education, Deployment and Professional Development	
9.10.1	The key to improvement in quality of education is to have better qualified, better trained, better motivated and more accountable teachers. The poor quality of School education is a direct result of poor quality of teacher education and teacher training. Teacher education programs, both at the graduate and diploma level are of indifferent quality. Reforms have been neglected for far too long. The main issues facing teacher education are:
	(i) Teaching is not the preferred choice when it comes to career options. Students with better scores prefer engineering, medical, management and technology courses. Even those who join humanities courses, do not prefer the teaching profession. Those who do not get admission in any of these courses join B.Ed. as a last resort.
	(ii) There has been a proliferation of substandard institutions offering B.Ed. and other diploma courses in teachers' education. State governments and NCTE were partners in approving such institutions, most of which were nothing better than degree shops.
	(iii) The quality of most B.Ed. and diploma programs is far from satisfactory. A one-year programme of teachers' education does not cover either the subject content or pedagogy adequately. These courses have been mainly theoretical with little attention to practical training.
	(iv) For many years the entry level for diploma programs was 10th pass and these teachers were expected to teach classes up to 7th or 8th standard. It is only recently that RTE has prescribed graduation as the minimum qualification for new teachers of upper primary classes.
	(v) NCTE has recently prescribed minimum course of two years for B. Ed which would result in government schools getting better quality teachers in future. Until then the system will have to depend on inadequately qualified or trained teachers.
9.10.2	The introduction of a four-year post senior secondary, integrated BA/B.Sc., B.Ed. courses in all States will greatly improve the quality of teacher education. The student will then make an affirmative career choice in favour of teaching; the course will be strong in subject content and the student will get adequate time for practical training to acquire pedagogical skills. The States should gradually convert the existing two-year B.Ed. Program to a four-year integrated course, supported by an offer of preferential employment to such graduates.

9.10.3	In the long run a five-year integrated course after class X for elementary school teachers and another five-year course after XII for higher secondary teachers should be introduced. An advance one-year diploma course for secondary teachers should also be introduced to enable them to teach higher secondary classes.
9.10.4	For hilly, tribal and remote areas, alternative models of pre-service training need to be explored. DIETs, in these areas should run five-year course after standard 8th or three year-courses after the 10th exclusively for girls, with full financial support and job assurance. This will address the problem of teacher shortages which are endemic in such areas.
9.10.5	There should be minimum eligibility condition with 50% marks at graduate level for entry to existing B Ed courses. Teacher Entrance Tests (TET) should be made compulsory for recruitment of all teachers. The Centre and states should jointly lay down norms and standards for TET.
9.10.6	For existing teachers compulsory training every five years should be the norm.
9.10.7	The learning outcomes of each class should be laid down and evaluated through periodic internal and external assessments. Teachers should be held accountable for failure to achieve learning outcomes within the prescribed time frame.
9.10.8	Compulsory licensing or certification for teachers in government and private schools should be made mandatory, with provision for renewal every 10 years based on independent external testing.
9.10.9	Poor quality of teaching is partially attributable to the SCERTs and DIETs, which lack the required competence and capability. There are a large number of vacancies in these two organisations which have not been filled up for years. These positions should be filled immediately to strengthen the institutions and build capacity.
9.10.10	At present the DIETs do not have an independent cadre. A separate cadre for teacher trainers is to be established in every state. Ideally, teacher trainers should have the same qualifications and pay scales as college lecturers. The minimum teaching experience should also be prescribed for such teacher trainers.
9.10.11	In addition to SCERT and DIETs, B.Ed. colleges having good academic record as well as the university departments of education should be utilised for in-service training of teachers.
9.10.12	In many States teachers' unions have taken keen interest in improving quality of education. In such cases, teachers unions and associations should

	be encouraged to accept academic responsibility and contribute to the development of curriculum and textbooks.
9.11 ICT for School Management	
9.11.1	A few states have started using IT-based applications for monitoring the performance of schools and student achievements. The data generated through these applications have enabled the states to increase enrolment, and enable teachers to spend more time in the classroom by reducing their paperwork. Online maintenance of all records pertaining to a child from the time of admission until the time of the school leaving certificate needs to be made mandatory; without this the tracking of students and teachers will not be achieved.
9.11.2	IT-based applications must be used extensively for monitoring teacher and student attendance, achievements of learning levels, performance evaluation of teachers and for administrative functions like maintenance of records and accounts. A program for moving to the exclusive use of IT applications for School Management should be drawn up by the education departments of the states on priority. Experience and expertise of the states that have already implemented IT-based school administration should be used to save time.
9.11.3	The data generated by ICT based management system can be voluminous and has to be used intelligently. Exception reports can draw attention of authorities to schools whose performance is below average, for taking remedial action. These reports also provide information about better performing schools and good practices which can be used gainfully by other schools. Such reporting systems could become a powerful tool for improving school management and school performance.
9.12 School Governance and Management	
9.12.1	A school is generally a small unit managed by headmaster in accordance with the guidelines and instructions received from District Education Officer. In the present system, there is very little initiative expected at school level, and yet some schools perform better than others because of the leadership provided by the Principal or headmaster. Such leaders motivate teachers, inspire students and seek cooperation of parents and community to improve the academic level and infrastructure of their schools. Studies have established that school systems with greater local decision making authority and accountability have better learning outcomes.

9.12.2	There are many vacancies of headmasters and principals which should be filled up within a short time frame. A separate cadre of principals and headmasters should be created. The selection of headmaster should be on merit and aptitude from among teachers with at least five years of teaching experience. Selected candidates should be required to undergo two-month vacation training in leadership and schools management. The Principal should be held responsible for improvement of the school's academic performance and achievement of prescribed learning levels, assessed through external and internal evaluation. School principals should be given disciplinary control over teachers, greater administrative authority and academic freedom.
9.12.3	A school-led governance system with an appropriate framework of autonomy with accountability needs to be put in place to enable the school system to respond to changing circumstances, and to initiate remedial action where required. Towards this end, schools need to be evaluated, both internally and externally, based on an accepted framework of standards to measure school quality, and help to develop the professional competency of the school management, the school head and teachers, in a manner which contributes to autonomy, self-appraisal and performance.
9.13 Pre-School Education	
9.13.1	Pre-primary education has been a neglected area in the education sector. Government schools do not provide pre-primary education as schools generally start only from class I. The Integrated Child Development Services (ICDS) program was intended to provide early childhood education but this has not happened in practice.
9.13.2	Pre-Primary schools have proliferated in the private sector and are located mostly in the urban and peri-urban areas. One of the reasons parents prefer private schools, is the availability of pre-primary sections.
9.13.3	It is universally accepted that early childhood up to the age of six, is a period of remarkable brain development when the foundations for cumulative lifelong learning are laid. Children in the age group of 3 to 5 show intense and lively curiosity and experiment with objects found in the surrounding environment. An education program specially geared to this age group needs to be formulated for all children.
9.13.4	Pre-school education for children in the age group of 4 to 5 years should be declared as a right and a programme for it implemented immediately.

9.13.5	All children in the age group 4-5 should now be eligible to be covered for pre-school education; the system needs to be adapted, improved and expanded to cater to all children in this age group – in other words, it is the right of the child in the age group 4-5 to receive pre-school education.
9.13.6	A new education component should be introduced in the Anganwadi practices, to ensure that pre-school children are exposed to elementary education, with a carefully structured curriculum. This element will be blended with the procedures of the WCD, which will continue to be the operating Ministry to implement the ICDS programme, which should now additionally have a well-designed pre-school component. Appropriate funding from the Centre and the States will be required to enable the above to be rolled out. In a limited time span, the strategy should be expanded rapidly to cover all children of the 4-5 age groups to become an integral part of the programme. Ideally the Anganwadi should be located in the premises of the local primary school or immediately adjacent.
9.13.7	At present ICDS Anganwadis are not adequately equipped to provide pre-primary education. The following measures are needed:
	(i) NCERT should formulate curricular framework for pre-primary education, which should be more on the lines of a play school, crèche and activity centre.
	(ii) SCERTs should conduct intensive training for Anganwadi workers to enable them to deliver the education component.
	(iii) SCERTs should conduct pre-service training programs for new Anganwadiworkers to orient them appropriately.
	(iv) SCERTs should prepare the learning material for children in the age-group of4-5 to be used in Anganwadis.
	(v) SMCs should be associated in ensuring that all children above 3 years attend Anganwadis.
	(vi) The health and nutrition component for Anganwadiswill continue as before, but minimum prescribed hours should be spent every day on the education component.
	(vii) Appropriate funding to meet the additional responsibilities and the costs thereof need to be provided.
9.13.8	Issues relating to coordination between the two Ministries and equally with the State Governments and their field machineries will need to be addressed.

9.13.9	In rural areas, ideally the Anganwadi should be located in the same premises as the primary school or the larger school complex in the village; this will facilitate utilization of common facilities, including playground etc.; in addition the child will become familiar with the school premises which will assist the process of acclimatisation to school surroundings.
9.13.10	In due course, all Government primary schools should have facilities for pre-primary education. For this, it will be ideal if all Anganwadis gradually get located either in the school premises, or as close to the school as possible. State Governments will have to prepare cadres of pre-primary teachers, and create necessary facilities for their pre and in service training. The transition from Anganwadi to pre-primary school should be gradual and seamless, and it should be left to each State to determine the time frame for achieving it.
9.14 Vocational Education and Training	
9.14.1	One of the major concerns of the School education system is that it does not prepare a student for employment even after 12 years of schooling. A separate vocational stream was introduced as a part of 10+2, but it failed to attract students. India has a young population which will need to be provided education and skills to gain employment and contribute to development. While the main thrust for skill development will come from the newly created Ministry of Skill Development and Entrepreneurship, School education should also play an important role in providing vocational and skill education.
9.14.2	National Skill Development and Entrepreneurship Policy 2015 has envisioned integration of 25% of the schools with skill development programmes by 2022 across the country. Schemes for imparting skill training to secondary school students have been introduced in many states and the RMSA. The responses to these initiatives are still not very encouraging as vocational education is still perceived to be inferior. The schools where these programs are offered to do not have the requisite workshops, trainers and industry linkages to impart high quality skill education.
9.14.3	Vocational education must be mainstreamed. Towards this end, the following measures are to be introduced:
	(i) The ongoing initiative of a MHRD in implementing National Skill Qualification Framework (NSQF) compliant skills program in the secondary and higher secondary schools through the National Skill Development Corporation (NSDC) approved Training Providers (TPs) needs to be scaled up. Courses based on local economic resources and

	scope for entrepreneurship have to be drawn up on a location specific basis.
	(ii) The schools which have adequateland and infrastructure will be utilised to set up formal vocational skill centres, in partnership with NSDC Training Providers offering programs that suit the needs of industry. Such centres will operate post school hours to avoid any disruption of normal academic work. The program is offered in these centres should meet the requirements of NSQF and may be supported by government-sponsored skill development schemes such as the *Prime Minister Kaushal VikashYojana (PMKVY*) and others.
	(iii) All skill development courses conducted through such initiatives will be formally certified under NSQF and through Sector Skills Councils (SSCs) so that the trainees can acquire recognised qualifications and also upgrade these in the future.
	(iv) Vocational education subjects (the ones offered in ITI's) may also be offered in some schools from class VIII onwards, as a formal stream along with science, maths and other subjects, leading to certification by the respective boards of education.
	(v) Vocational skills qualifications acquired through the ITI's (NCVT courses) may be given a certificate of equivalence to class X or XII as the case may be, after the student completes the essential bridge course to address gaps that may remain
	(vi) An organised intervention for counselling the students on career options is to be designed and introduced in the schools to create awareness about the prospects available after acquiring vocational skills.
9.14.4	The above measures would enable the students, who acquire vocational skills, to be formally certified by the Boards of Education, and thus provide an opportunity to pursue higher academic programmes while allowing them to use the skills they have acquired for wage/self-employment. This will result in better integration, careers/academic progression and acceptability of vocational skills program by students and parents. It is expected that once vocational education leads to employment and entrepreneurship, its status and social acceptability will also improve.
9.15 No Detention Policy	
9.15.1	The RTE Act 2009 provides that "no child shall be required to pass any board examination till completion of elementary education." As a

	consequence of the No Detention Policy, no child can be held back or expelled from school until the end of class VIII, when he attends the age of 14 years.
9.15.2	After taking into account the views of a vast cross-section of state representatives from the education sector as well as public representatives, parents and teachers, it has been concluded that the no detention policy must be continued for young children until completion of class V when the child will be 11 years old. At the upper primary stage, the system of detention shall be restored subject to the provision of remedial coaching and at least two extra chances being offered to prove his capability to move to a higher class.
9.15.3	Based on CCE as well as an end of term examination, the weak students should be identified and provided remedial teaching at the end of the school day or during the holidays for which new arrangements will be created within the school system. Remedial teaching may be conducted by school teachers or even by volunteers after school hours. The student should thereafter be assessed and tested on his knowledge and understanding of the course material. If he fails to clear the bar, the process should be repeated, focusing specifically on areas where he is deficient. Should he again fail to clear the examination he should be either detained in the same class or given other alternative opportunities of pursuing different options, including the vocational stream. This will require a suitable amendment in section 30(I) of the RTE Act.
9.15.4	It should be explored whether advances in technology can help slow learners to make up for lost ground.
9.16	**Reservation for Economically Weaker Sections and Disadvantaged Groups**
9.16.1	The RTE Act has provided that all private and unaided schools should compulsorily admit at the entry level at least 25% children belonging to weaker sections and disadvantaged groups. The cost of educating such children is borne by the government according to the prescribed norms. This provision has been questioned by many sponsors and management of these schools. There was reluctance on the part of many States to implement this provision till forced to do so by judicial intervention. There have been procedural problems regarding modalities of admission and reimbursement of cost.
9.16.2	Minority (religious and linguistic) schools have been exempted from the above provision of the RTI Act; even aided minority schools are not required to implement it.

9.16.3	Keeping in view judicial pronouncements on the subject and its objectives, the provisions of section 12 (1) (c), which deals with the right of children to free and compulsory education will be continued as it is the best way of promoting a common school system and for enhancing social equality. The Supreme Court has upheld the legality of this provision.
9.16.4	It has been noticed that even now there is resistance and an unspoken disregard of the provisions of the RTE Act. It is commendable that at least some States have made serious efforts operationalise the provisions of Section12 (1) (c) of the RTE Act. The policy reiterates the need for all states to implement the provisions without further delay. It is the bounden duty and legal obligation of all States to implement this provision in letter and spirit.
9.16.5	The states are also expected to fulfil their responsibility to bear the costs incurred by the private schools and this must be looked into without delay.
9.16.6	The issue of extension of Clause 12 (1) (C) of RTE Act to minority institutions needs a review. The larger national obligations to meet the rights of economic weaker sections should extend to all institutions including minority (religious and linguistic) institutions. The legal status-quo may need to be changed in this regard.
9.17 Need to Amend the RTE Act, 2009	
9.17.1	The RTE Act needs to be amended to provide, in addition to infrastructure requirements, norms for learning outcomes which directly affect quality of education.
9.17.2	Infrastructure norms for recognition of private schools should also be applied to Government schools. There should be no discrimination between private and Government schools in the applicability of norms, and punitive action should be ensured for not adhering to them.
9.17.3	States should be given flexibility to determine their own norms for infrastructure requirements consistent with local conditions, so long as they are not significantly different from those prescribed in the RTE Act. One set of norms cannot be applied uniformly to a large and diverse country like India.
9.17.4	Local norms should be evolved for 'alternate schools', adopted to local conditions as appropriate.

9.18 Language Policy

9.18.1	The Three Language Formula (TLF) was formulated by the government of India in consultation with the State governments and enunciated in the National Education Policy Resolution 1968. It has been a part of the education policy of the country right from 1968 and continued through in the policy of 86/92. Under the TLF every child is expected to learn three languages, namely, the mother tongue, Hindi and English. In Hindi speaking states children are to be taught Hindi, English and one modern Indian language. There are deviations in the implementation of TLF in many states and the policy was observed more in the breach than as a rule.
9.18.2	Language being a highly emotive issue, no prescription will satisfy all. Maximum flexibility needs to be given to state governments and local authorities in determining the choice of languages to be taught in the schools. With the passage of time, the states have responded to local aspirations and preferences voiced by parents who would like their children to possess language and communication skills that can facilitate intra-state, intraregional as well as global mobility.
9.18.3	Educationists are in agreement that school education is most effective when provided in mother tongue. India has hundreds of languages and dialects and obviously no system can manage to provide education in everyone's mother tongue. It also needs to be recognized that there is a growing demand for learning English language among all sections of people, and the TLF also provided for English as one of the languages for Hindi and non-Hindi speaking States; and the Constitution (Art 351) provides for development of Hindi.
9.18.4	It is desirable that school education should be provided through the medium of mother tongue or regional language, at least till Class V. The choice of the second (at the primary level) and third language (at the secondary level) should be left to individual states and local authorities to decide, keeping in view the provisions of the Constitution.

9.19 Sports and Physical Education

9.19.1	Significant stress needs to be given to sports and physical education as part of the schooling process. Many private schools, both in urban and rural areas, have no provision whatever for such facilities. The importance of physical development of children is not given the attention it vitally needs. School authorities in states need to bring renewed focus on this aspect. It is time to make a specific, non-divertible budget for sports facilities in government schools, as also in private schools.

9.19.2	Yoga is an art from ancient India, which the whole world is increasingly adopting for healthy development of the body and the mind. The United Nations has recently declared an annual International Yoga Day, recognizing its potential vital role in nurturing the body and the spirit. Every school, both public and private, should be encouraged to bring Yoga in as part of the schooling process, and facilitate every child to learn the basics of Yoga. Particularly in urban schools, where there is shortage of playground facilities, Yoga can play a significant part in the development of a young student.
9.20 Adult Education and Literacy	
9.20.1	Eradication of illiteracy has been a major concern since independence. Several programs have been undertaken as a result of which the overall literacy rate in the country improved from 12% at the time of independence to 74% according to the Census 2011. Despite this, India still has the highest number (300 million) of illiterate persons in the world. Unfortunately, the adult literacy programs have lost their momentum particularly in the last few years.
9.20.2	A sense of urgency is needed to address this challenge. Achieving this can be accelerated by:
	(i) Reaffirming government's commitment to basic literacy and providing an opportunity for continuing education and lifelong learning for all illiterate persons above the age of 15 years.
	(ii) Providing a seamless transition from basic literacy to continuing education so that the gains that have been made are not lost.
	(iii) Involving youth and women's organisations and in particular the Self Help Groups to participate in the programs
9.20.3	Well-defined geographical area should be taken up on priority by NGOs, Government, Schools/Colleges/educational institutions, etc. in districts with low literacy attainments, particularly among women.
9.20.4	It is necessary to establish equivalency with formal education programs by making the content and curriculum for adult education comparable to the level of competency acquired by lower primary level students.
	(i) Reinstating the State Resource Centres (SRC's) and *Jan Shikshan Sansthans* to be managed by reputed Foundations, Trusts and NGOs if they have the inclination and the wherewithal to accept the responsibility at least at some locations.

	(ii) Instituting awards for the best innovations in promoting adult literacy on the lines of the National and State awards for teachers, sports.
9.21 Curriculum Renewal and Examination Reforms	
Curriculum Renewal	
9.21.1	Reforms to curriculum need to relate to the emerging aspirations and national needs that include social cohesion, religious amity and national integration.
9.21.2	There is need to reduce curriculum load and avoidable emphasis on rote learning – the focus has to be on making learning joyful, creative, participatory, and stimulate and encourage the child to think.
9.21.3	Left to market forces, it has been well established that private coaching increases disparities between classes of students; the relatively well-off segments of the student population can benefit through supplementary coaching, whereas the educationally and socially backward classes generally cannot afford supplementary coaching classes. The prime requirement is to improve formal teaching standards in schools, and also create structures for assisting children in school to keep up with the median levels of each class, through special support measures.
9.21.4	Teachers and students should have access to multiple sources of knowledge rather than only the prescribed text book. Examinations should be designed to test wider awareness, understanding and comprehension, and not merely ability to reproduce text book script. Curriculum should be broad based and aim for overall development of students in an increasingly technology driven environment.
Examination Reforms	
9.21.5	The main objective of the school education system, as it has evolved in the last few decades is to prepare students for the board examinations. The process of examination itself is beset with corruption and malpractices. Papers are leaked, copying is rampant and examiners compromised. While efforts have been made in some states to conduct examinations in a fair and transparent manner, the overall situation is far from satisfactory, lacks credibility and is a blot on our entire education system.
9.21.6	Reform of the examination process needs to be put on the national agenda to restore confidence in the system. The new approach will include:

	(i) A complete overhaul of examination system which primarily tests only rote memory. Memory and recall are an integral part of learning but the focus of teaching should be more on understanding than on reproducing from the text. The examination systems need to be designed to test understanding rather than being able to obtain marks by regurgitating only what is in the textbooks.
	(ii) The performance of a student should not be judged only by results of the board examinations. Credit should be given to performance in periodic tests and quality of assignments and classroom participation by students. The process of continuous evaluation should be transparent and the results should be shared with students and parents.
	(iii) After every public examination, an open access website should display the criteria of evaluation and performance analysis.
	(iv) Instances of students scoring 90% and more in board exams and performing poorly in subsequent entrance tests for technical and other courses raises doubts about the credibility of paper setting as well as the board's evaluation.
	(v) Many boards also follow the practice of granting grace marks to artificially inflate the pass percentage. This practice should be discontinued.
	(vi) Instead of following the traditional system of awarding marks and grades which has been discontinued by many countries, the alternative method of using scaled scores and percentiles should be introduced, as these adjust for the varying difficulty of questions, and provide results across students, nationwide.
	(vii) On-demand board exams should be introduced to offer flexibility and reduce year end stress of students and parents. A National Level Test open to every student who has completed class XII from any School Board should be designed. It should make the successful candidates eligible for admission to various courses without appearing in a number of entrance tests. Even if the specific area-oriented aptitude tests are essential, the number of aspirants could be regulated.
	(viii) Assessment capacities in CBSE and State Examinations Boards need to be strengthened. Teachers and educators need to be trained in developing appropriate questions for evaluating learning capability and performance.

9.21.7	Board examinations serve a useful purpose and should be strengthened. The process of examination needs to be transparent and objective, placing due emphasis on analysis, understanding and cogent writing skills, in lieu of the existing emphasis on rote memory and ability to reproduce text books.
9.22 Restructuring Class X Examination	
9.22.1	India is a large country. There are wide variations in the quality of education facilities, competence of teachers and social background of students. It is unreasonable to expect that all students should demonstrate the same level of competence in each subject in order to reach the next level of education.
9.22.2	Failure rate among students in Board Examinations is generally high. It is well documented that much of the higher failure and dropout rates can be attributed to poor performance in two subjects — Mathematics and Science. Various Education Commissions have suggested that some subjects can be offered at a higher and lower level, permitting students to choose the level at which they wish to write Class X Board Examination. For example, a student who does not expect to study Mathematics further may choose the basic (lower) level, while another may choose the advanced (higher) level.
9.22.3	Class X Board Examination in Mathematics and Science should be in 2 levels: Part A at higher level and Part B at a lower level. Students who wish to complete their studies at Class X need, by choice, to appear in Part B only.
9.22.4	While the syllabus for all students will be the same, the examinations in Mathematics and Science subjects in Part B would be of a lower level than examinations for Part A. Students should have the freedom to exercise their choice and there should be no compulsion on them to select either of the options. Students who opt for Part B need to keep in mind that their eligibility to pursue future courses incorporating higher mathematics and science could get limited.
9.23 Education of Tribal Children	
9.23.1	The tribal populations are spread across many states; in many eastern states they constitute majority of the population of the area. There are more than 700 notified scheduled Tribes in the country. Within this

	group, infant mortality rate is high and women's health indicators are poor. The literacy rate among tribal populations is much lower thanin the rest of the country. Even though enrolment has improved dropout rates among tribal children are high.
9.23.2	Education of the tribal children has suffered because of non-availability of teachers to work in tribal areas, which are often remote and lack facilities. Language of communication has also been problem for non-tribal teachers working in tribal areas. In view of this, school education is provided in most tribal areas through residential schools (*Ashramshalas*). Tribal students are provided scholarships, which not only covers tuition fees but also hostel charges and allowance for books. In spite of all the efforts made by Central and State Governments, the state of tribal education is far from satisfactory. In order to improve access and quality of education, greater responsibility should devolve on government departments directly responsible for education. Tribal Departments do not have the requisite domain knowledge or expertise.
9.23.3	However, the decision to give full responsibility to the education departments should be taken with caution, as a lot depends on local factors.
9.23.4	In Ashram schools, in many remote pockets, the teachers also live on campus. It will be useful to link a nearby well-functioning integrated higher secondary school/Kendriya/Navodaya Vidyalaya or any other full-fledged secondary school to provide regular operational, advisory, mentoring advice.
9.23.5	It is necessary to give special attention to skill education in tribal areas. Ample opportunities for skill education need to be created in tribal areas. Since most tribal schools are residential, it will not be difficult, wherever infrastructure is available, to start skill courses after regular school time. NSDC and its associates are running some very successful skill programs in the heart of some tribal areas. Skill education should become a part of tribal education.
9.23.6	It is the experience of many states that tribal children find it difficult to understand regional language which is the medium of instruction. To overcome this difficulty while the medium should be the regional language in the initial grades, classroom transactions should be through local dialects. Non-tribal teachers need to be trained and provided requisite teaching material in local dialects. More efforts are required to promote science and teacher education in tribal areas. The school timings in tribal areas should be made flexible to suit local needs.

9.24	Education of Children with Special Needs
9.24.1	There are thousands of physically and mentally challenged children who do not get the full benefit of education because of social neglect, and absence of support systems in the home and inadequacy of sufficient facilities particularly in schools in smaller towns and villages. The MHRD had introduced a program for Integrated Education for Disabled Children (IEDC) to provide educational opportunities to such children. IEDC was later amalgamated into the DPEP and SSA programs. The scheme which is under implementation in some states includes provision of special teachers, preschool training, counselling of parents and allowances for books, stationery, uniforms and transport. The coverage under the scheme has remained limited.
9.24.2	There is no specific program to address the problem of learning disabilities. Responding to children with special needs is a challenge as every child is unique. Fortunately, if detected early and provided remedial therapy, children can overcome many of the incapacities to learn and assimilate with other children.
9.24.3	Education of children with special needs has not received adequate attention and resources that it requires. This needs to be addressed at the earliest.
9.24.4	The ongoing centrally sponsored schemes for children with special needs should continue but their coverage and funding needs to be augmented.
9.24.5	An independent board may be set up under the State Education Act or through a suitable mechanism to oversee the implementation of schemes for children with special needs.
9.24.6	There is a local need to constitute a part-time sub-committee of experts comprising child and clinical psychologists drawn from the nearest medical college. Any school or District Education Officer could refer a case to this committee where a third-party assessment or advice is needed.
9.24.7	The same forum could advise on the provision of special training/orientation to teachers so that they are equipped to handle children with special needs.
9.24.8	An organisational structure for managing this segment of children at the district level should be incorporated in the State Education Acts with the regulations explaining the process to be followed for identifying and providing for children with special needs.

9.24.9	For addressing the problem of learning disabilities, every school needs trained teachers to identify children with learning disability, and have access to experts. This will need investment in research and training. Government of India should take the lead in devising a long term plan to address the problem of learning disabilities among children and make available necessary resources.
9.25 Protection of the Rights of the Child	
9.25.1	Child protection goes beyond personal safety of children. Precisely because a child has no voice there is a need to view situations from the child rights point of view. That will only happen if the right kind of environment which shows receptivity to child rights and child protection is in place.
9.25.2	To start with every Principal and teacher needs to be made aware of the provisions of the Act and what constitutes a violation of a child's rights. Principals must be encouraged to set a personal example by showing zero tolerance for any untoward incident involving a child's rights and enjoined to take pro-active interest in protecting the rights of every student in the school.
9.26 Academic Counselling and Aptitude Testing	
9.26.1	Counselling is an important part of school education. Unfortunately, most government and many private schools do not have counsellors, mainly due to lack of resources. Counsellors can help identify children with special needs; they can assist slow learners and underachievers to realise their full potential, or opt for vocational skill-based programs according to their aptitude and interest. Counsellors can guide secondary and higher secondary students about employment opportunities on completion of schooling.
9.26.2	Counsellors play a useful role and are required when students need to discuss confidential problems relating to adolescence, family discord or physical or mental stress. Every school must have access to the services of a professional counsellor to help a range of students. The necessary resources to fill this gap need to be allocated.

9.27 Mid-Day Meal Scheme	
9.27.1	The Mid-Day Meal Scheme (MDMS) under which students of elementary schools are provided hot cooked meals has been in operation for many years. In addition to supplementing nutrition, the program has promoted social equality and helped break caste and class barriers among schoolchildren. In spite of occasional complaints regarding quality of food served, the MDM scheme has been popular and successful.
9.27.2	The MDM program should now be extended to cover students of secondary schools. This is necessary as levels of malnutrition and anaemia continue to be high among adolescents.
9.27.3	Teachers should not be burdened with the task of supervising cooking and serving mid-day meals. Some states have engaged the services of reputed community organisations to provide the mid-day meals cooked in centralised kitchens and distributed in the schools. This experience should be studied and replicated if found satisfactory. Whether this strategy is used or the cooking is done in the school itself, the objective of supplying a cooked, balanced meal to the children is underscored.
9.28 School Children and Public Health	
9.28.1	Good education is possible only when the child is in good health. It is a matter of concern that a very large number of children suffer from malnutrition. The incidence of anaemia among girls is unacceptably high. Preventive, diagnostic strategies and basic treatment for common problems can substantially improve children's learning capabilities and reduce dropout rates. Currently available modern technology can be used to roll out a relatively inexpensive and effective preventive/diagnostic system.
9.28.2	The implementation of the school health component, which is generally administered by the health departments, needs close monitoring. The State Education Department ought to draw up a roster for check-ups and see that the schedule is followed with regularity.
9.28.3	It would be desirable to roll-out a national programme of regular and periodical health checks to all school children, using 'Digital India' connectivity, through well-equipped mobile vans, which can undertake basic diagnostics, with real-time connectivity to banks of doctors. The MHRD may have school health check-ups included as a specific area of educational policy, issue guidelines for implementation, encouraging

	states to use various methods, including CSR for this purpose. The aim should be that every school in the country should be covered in a relatively short period of time.
9.29 KendriyaVidyalayas (KVs), JawaharNavodayaVidyalayas NVS) and Kasturba Gandhi BalikaVidyalayas (KGVBs)	
9.29.1	The record, performance and reputation of KVs, JNVs and KGBV indicate that Government schools can also provide quality education, even while fulfilling a social objective and operating within the constraints of a bureaucratic system. The reasons for success of these institutions need to be studied by independent experts, and the results should be made available to State Governments to help them improve their own Government schools. The objective for all Government schools should be to aim to reach the average quality of a Kendriya or Navodaya Vidyalaya.
9.29.2	Subject to budgetary constraints, KVs, JNV and KGBV programmes need to be expanded wherever possible, with priority being given to relatively educationally backward areas.
9.30 Higher Education	
(a) Quality Issues in Higher Education	
9.30.1	India has one of the largest systems of higher education in the country, with more than 700 universities, 37,000 colleges and an enrolment of more than 3 crore students. The quality of many universities and colleges and the standard of education they provide are far from satisfactory. While there are some institutions like the IITs, IIMs and a few others that have established a reputation as institutions of high quality, there are a large number of institutions which are mediocre, and some are no better than 'teaching shops'. The majority of higher education institutions fall in between these two extremes.
9.30.2	Many private universities and colleges operate under political patronage and take advantage of the prevailing lax or corrupt regulatory environment. These institutions vary widely in terms of infrastructure, library and laboratory facilities, quality of teachers and student engagement.

(b) Teacher Availability	
9.30.3	(i) In order to improve the quality of teachers in higher education, UGC had introduced in 1989, the National Eligibility Test (NET) for prospective teachers in higher education. State Governments also conduct their own State Eligibility Tests (SET). On an average 3 lakh candidates appear for each NET examination but the success rate is reported to be low, which is a poor reflection on the quality of post graduate teaching.
	(ii) The quality of research conducted in most universities is unsatisfactory. Since possessing a Ph.D. has virtually become a necessity for faculty recruitment, a large number of institutions have sprung up offering poor quality Ph.D. on a commercial basis.
9.30.4	In some states, in government colleges, teachers are transferable like government staff. Most teachers do not prefer to work in smaller towns and rural areas and spend a lot of time and energy seeking transfers. The process of transfer is opaque and often driven by political influence. Because of frequent transfers, teachers in government colleges rarely develop an institutional attachment, which is essential for improving the quality of education.
(c) Appointment of Vice-Chancellors	
9.30.5	The efficient management of a university depends very largely on the professional standing and administrative acumen of the Vice-Chancellor. The appointment of Vice-Chancellors is usually done after a Search Committee (the membership of which is usually detailed in the statute governing the University) identifies suitable persons. The appointing authority makes the selection after following the process prescribed. Often, the selection of the Vice-Chancellor is pre-determined and the selection committee acquiesces by recommending the names as suggested.
9.30.6	The present system of appointing Vice-Chancellors has become prone to manipulation, which militates against the appointment of competent persons as VC with vision and leadership. Many Vice-Chancellors are known to be political appointees and quite willing to accommodate pressures and outside influence in the management of universities.
9.30.7	It is imperative that the selection of Vice-Chancellor should be done on merit. Appointment of the Vice-Chancellor on the basis of academic merit will ensure that the VC has credibility in the eyes of the faculty and students. Several committees in the past have made recommendations

	for making the process of selection of VCs transparent and objective. It is high time that these are implemented in letter and spirit.
9.30.8	The above is possible only if the process of appoint of VCs is depoliticized. This needs national consensus. Central and State Governments have to come together and agree on a common agenda for appointing persons of academic eminence and leadership qualities as VCs. Unless this is done, there is little hope of improving the education standard and management efficiency of our universities.
(d) Ensuring Quality in Higher Education	
9.30.9	The process of according recognition of higher education institutions, both general and technical, needs considerable revamping. Accreditation is an effective system for assessing the quality of higher education institutions. Accreditation validates and provides assurance that the quality of education provided by the institutions is of satisfactory standard. Assessment and accreditation enhances the reputation and acceptability of the institution and the value of the degrees conferred by it. At present accreditation is not compulsory for all higher education institutions. It is required only for receiving grants from the UGC. According to the latest information available, 140 universities got themselves accredited by the National Assessment and Accreditation Council (NAAC) but only 32% were rated as 'A' grade or above. Of the 2780 colleges accredited by NAAC, only 9% were graded 'A' or above. Most universities have been rated average. Quality and excellence in colleges clearly leaves much to be desired. A credible system of accreditation covering all institutions of higher education needs to be instituted.
9.30.10	Many private universities and colleges, professional and otherwise, flourish under the patronage of influential people backed by money power with little interest in education, taking advantage of a lax or corrupt regulatory environment. The proliferation of privately run 'teaching shops' and so-called non-profit institutions, ill-equipped and operating with unqualified staff, is a disturbing development and needs to be urgently addressed. It is necessary to weed them out through a process of accreditation for which transparent benchmarks have to be applied.
9.30.11	While higher education institutions are proliferating there is neither a structured system nor adequate commitment to provide quality teachers to meet the increasing demand for higher education. A manpower needs study must be undertaken every five years at the central and state levels to determine the need for faculty positions in institutions of higher education. Vacancies and recruitment schedule needs be forecast well in

	advance. Appointment to faculty positions should only be made after the applicants have cleared the NET and SET examinations followed by a rigorous merit based selection, preferably through the Public Service Commission or an independent body. Privately run colleges would also need to recruit teaching faculty from those who have cleared the NET/SET examination.
9.30.12	There is a need to ensure that competent and motivated teachers enter the profession. Innovative options have to be offered to talented students at the class 12 stage from amongst, say the top performers (depending upon projected manpower requirements for teaching specific subjects at the college and university level). They could be offered admission in a 5-year integrated course leading to specialisation in specific subject areas and include an emphasis on developing teaching and research skills. Selected candidates should receive full scholarship from public funds.
9.30.13	A large number of teaching positions are lying vacant, especially in state universities and affiliated colleges. The reasons for faculty posts remaining vacant are several. First, there is reluctance on the part of some states to fill posts on a regular basis with the aim of saving the outgo on salaries of full-time faculty. Second, the recruitment process, through the Public Service Commissions, is often time-consuming. The process of recruitment also gets delayed due to litigation. The practice of appointing ad-hoc and part-time faculty impacts adversely on the quality of teaching and research and should be discouraged.
9.30.14	For most undergraduate programmes, it should not be necessary to insist upon the faculty needing to possess doctorate qualification. Instead, it should be mandatory for such teachers to attend training programmes in teaching and communication skills, and to gain high proficiency in the use of ICT.
9.30.15	Budgetary allocations should be increased and facilities for carrying out high quality research improved to encourage and incentivise serious researchers.
9.30.16	To the extent possible, teachers should be recruited and attached to particular institutions, rather than be part of an organised service where they are subject to frequent transfers. This will help in developing institutional attachment and commitment.
9.30.17	The process of selection and appointment of Vice-Chancellor should be depoliticised and done purely on merit.

9.30.18	At present, accreditation is mandatory only for general stream higher education institutions receiving grants-in-aid from the UGC. Accreditation should be made mandatory for all institutions of higher education, including technical education, medicine and agriculture, both in public and private sectors.
9.31 Role of State in the Management of Higher Educational Institutions	
(a) State/Central Universities	
9.31.1	Most of the older universities were created by law either by the Centre or the States. Though technically these universities are autonomous, in actual practice the intervention by governments is extensive. There is a need to remove such interventions and to give freedom to universities to focus on improving their academic performance through their own initiative.
9.31.2	Most of the older universities are affiliating universities, some universities having hundreds of colleges affiliated to them. NEP 1986/92 had recommended greater autonomy to colleges as a result of which some colleges have been granted autonomous status, but by and large universities continue to be burdened with administrative and academic responsibilities of affiliated colleges, not allowing them to concentrate fully on teaching and research.
(b) Private Universities	
9.31.3	In recent years, many states have allowed private universities to be established. These universities are non-affiliating and are largely free from state control in management. However, these universities continue to come under the purview of UGC and AICTE. Serious complaints of corruption have been voiced about the manner in which the approvals and recognitions are accorded to higher education institutions.
9.31.4	Complaints about lack of transparency in the management of private universities and colleges are continually voiced. High capitation fees are charged for admissions in engineering and medical courses where the demand has exceeded the supply of seats. In many States fees in private colleges are determined by Government and kept artificially low with a tacit understanding that the institutions can make up the deficit through donations and capitation fees.
9.31.5	The present system encourages non-transparent financial management of private higher education institutions, indirectly supporting parallel economy operations. The system does not have any built-in levers to

	upgrade quality, keep a check on sub-standard institutions and curb exploitation of hapless students.
9.32	**The Contours of Reform in Higher Education**
9.32.1	Major reforms are required to confront the issues listed above. Firstly, full academic freedom needs to be given to universities to fix their curriculum, create new courses based on demand and contemporary relevance. Secondly, the finances of the education institutions should become open and transparent. The state will have to sponsor through loans and scholarships a substantial number of admissions in each institution, for which a fair and open methodology for selection needs to be adopted. Private institutions should be allowed to charge fees which would enable them to meet their legitimate expenses.
9.32.2	As part of the accreditation process, each institution should be evaluated at least once in five years. There should be different criteria of evaluation for different categories of institutions. Within each category, an institution will be ranked on a scale of I to VII. VII representing the highest and I the lowest in the category. Those in the top two of the scale should be given full operational autonomy in all academic and administrative matters; those in category VI would be provided incentives, guidance and advice to move to category VII. Those on the bottom of the scale in category I would be put on notice for immediate closure. Those in category II would be given a warning that they are under close watch, and could be considered for closure unless they move up the scale. The institutions in the categories in between would be generally assisted and advised to improve their standing.
9.32.3	Every institution would have to periodically place, on a dedicated website, details of the number of teachers and their qualifications; examination results; placements; and a report on academic and extra-curricular activities, as well as other relevant information relating to the institution.
9.32.4	ICT applications should be used extensively to monitor performance of higher education institutions. As a part of the Digital India programme, database should be created to monitor the performance of teachers and students. For long term planning purposes longitudinal surveys in the higher education sector are needed which would provide a database for further policy and programmatic interventions in higher education.
9.32.5	The effective and timely implementation of the above reforms would require a comprehensive new legislative framework. At present, the

	management and regulation of higher education institutions is the responsibility of national level regulators like UGC, AICTE, NCTE, NAAC, NBA, etc., each one having been created under a separate Act. The new law will lay down norms and standards for regulations, accreditation and evaluation of higher education institutions. The underlying principle would be to extend assistance, guidance and mentorship to institutions to improve themselves; to provide full academic and management autonomy to institutions which are in the highest category in the scale; and finally, to weed out institutions, which are on the lowest rung of the scale.
9.32.6	It is envisaged that a National Higher Education Promotion and Management Act, to cover the present and future needs of the higher education sector, will be enacted.
9.32.7	The burden of affiliating universities to exercise academic and administrative oversight of affiliated colleges should be reduced. No university should have more than 100 affiliated colleges and universities which have more than 100 affiliated colleges should be split for achieving better academic oversight and management efficiency.
9.33	**Need to Revamp the Regulatory Regime in Higher Education**
9.33.1	The system of Higher Education is in crisis. There are more than 40,000 institutions, most of them of average or indifferent quality. Only about 20% of graduates from these institutions have been found to be employable. Private institutions have proliferated and many of them are of sub-standard quality. High capitation fees are charged for admission to engineering and medical courses. Corruption is common for getting approvals and recognitions. Political patronage and influence is all pervasive.
9.33.2	The regulatory regime for higher education should have the capacity, sensitivity, objectivity and discrimination to deal with different categories of institutions of different quality. While the best institutions need to be left alone to develop and flourish according to their potential, most of the institutions have to be regulated to achieve improvement as per prescribed norms. Institutions at the bottom of the pile need to be ruthlessly weeded out.
9.33.3	The present evaluation methods are input-based rather than realistically based on output or potential outputs. The present accreditation system has to be revamped and quality institutions have to be given greater freedom including being able to fix student fees and faculty salaries to attract the best talent.

9.33.4	The payment of capitation fees and rent-seeking from students is rampant – for some specialized courses the amounts mentioned as capitation fee are very high. The prevailing situation often forces the potentially good institutions to back off because they do not succumb to unethical practices. It is ironical that the checks and verifications which are expected to counter malpractices are militating against the few good quality institutions which shun the capitation route. The Policy therefore underscores an alternative approach which encourages autonomy to good institutions, and threatens the inefficient and unscrupulous with closure. The mechanisms to be adopted include accreditation, rating and ranking of institutions and declaration of findings on a regularly updated and accessible website.
9.33.5	The new regulatory regime needs to be flexible and nuanced. These issues are elaborated elsewhere.
9.34 Research and Innovation in Indian Universities	
9.34.1	Although India's overall share of research publications in the world has risen in the past decade, the quality of research has not made a significant mark. Barring a few pockets of excellence like IITs, IIMs and a few top Universities and institutions, the system is marked by mediocrity. Research minded students and faculty prefer to go abroad as they do not find the research climate in our institutions conducive. It is estimated that nearly 3 lakh students go abroad every year to study in the world's best universities, spending more than $10 billion, which is twice the allocation for Union budget in higher education. Favourable conditions need to be created in the country to promote high quality research.
9.34.2	Over the next decade at least 100 new centres for excellence, in the field of higher education both in public and private sector need to be established. If this is successfully accomplished, it will pave the way for high quality research and innovation to be undertaken. A regulatory regime which can oversee and encourage the establishment of such institutions of excellence needs to be put in place.
9.34.3	Based on a commitment from the private philanthropists/ foundations and Trusts full freedom is to be given to establish such Centres of Excellence. A minimum investment of say Rs. 1000 crore each in the first five years accompanied by a broad plan of action to set up one such centre should be met with the promise of grant of full autonomy in deciding the choice of subjects, location, pedagogy, recruitment of faculty from India or abroad as well as freedom to fix tuition fees – with the proviso that over a 5-year

	period the new venture will be subject to careful scrutiny by the official accreditation/evaluation agency. At that time the institution needs to figure in the highest quality bracket available, failing which the approval of its status as a Centre of Excellence will be withdrawn. This will help garner resources for higher education, attract good faculty and drive the institution to make a name for itself by fostering research, nurturing originality and starting a climate of healthy competition.
9.34.4	A Council for Excellence in Higher Education (CEHE) would be established to create policies to foster the establishment of Centres for Excellence, both in the public and private sectors. Identified existing institutions, both private and public, based on evaluation, can be brought under the umbrella of this Council. The guiding principle would be to nurture excellence and to create a climate that builds trust, grants autonomy in management and gives the Centres freedom to adopt their own curriculum, set patterns of teaching and pursue collaborative research.
9.34.5	For India to find a respectable place in the field of research and innovation, the induction of faculty and their promotion procedures must be transparent, rigorous and designed to promote intellectual and academic excellence. The Academic Promotion Index (API) must be replaced by more scientific procedures of assessing the quality of contributions which should not be confined only to the number of publications and on attendance in seminars, but with reference to their quality and impact. A Task Force with membership of experts and scholars should be appointed to study recruitment, promotion and retention procedures, which are followed by internationally renowned universities and institutions. This body should redefine recruitment and promotion practices for faculty in institutions of higher education.
9.34.6	Existence of vacant posts leads to deterioration in institutional climate and must not be permitted under any conditions. This is a pre-requisite for quality improvement in higher education and each University has a responsibility to oversee that all vacant positions are filled with regular appointments.
9.35	**Recognition, Accreditation and Quality Assurance in Higher Education**
9.35.1	The National Assessment and Accreditation Council (NAAC) was established in 1994 for evaluation of quality of institutions of higher education. Accreditation is not mandatory for such institutions except for the purpose of getting grants from UGC. Of the 40,000 higher education institutions in the country only 15% have so far been accredited by NAAC. The National Board of Accreditation established by AICTE undertakes periodic evaluation of technical institutions primarily to evaluate whether the institutes meet the initial requirements of

	functioning. There are concerns about the many qualitative and procedural gaps in the process of accreditation.
9.35.2	The capacity of existing accreditation agencies is inadequate to carry out, with reasonable efficiency, the task of accrediting all institutions in a time bound manner. The need for revamping the system of accreditation is now urgent.
9.35.3	Hitherto, the concept of accreditation and quality evaluation was essentially to consider eligibility for grants of different kinds. There is need to reorient the approach to accreditation, as one involving assessment of quality of the institution to bring public awareness of the position of each institution in relation to its intrinsic quality and potential. Such an approach will determine the relative position of each institution in the hierarchy of higher education institutions of that category on a country-wide basis and provide a degree of choice to the student in identifying the preferred institution.
9.35.4	The following shall be the new approach to accreditation:
	(i) Every higher education institution shall be accredited.
	(ii) The overall process of accreditation shall be governed by a National Accreditation Board (NAB) subsuming NAAC and NBA, which will provide oversight, define methodology, undertake research on accreditation and set standards. This Board will licence accreditation agencies based on norms to be prescribed by the NAB.
	(iii) The actual accreditation of institutions will be processed by a number of licensed/approved agencies, preferably non-profit organisations, or falling under Section 8 of the Companies Act, which have adequate expertise in evaluating quality and assessing the attributes of a higher education institution. The policy shall foster creation of such agencies to meet the fast growing need for qualified accrediting agencies.
	(iv) NAB will encourage universities to offer suitable courses and training programmes for accreditation personnel.
	(v) In the overall framework of accreditation, NAB will lay down separate standards of accreditation depending on the type of institution and level of development. All institutions may not be assessed in the same manner; the institution may choose categories in which it could be placed – for example as a large university, a technical college, or a general degree college. Likewise categories can be created relating to pure research institutions, or mainly teaching institutions etc. There should be an overarching management board, the National Accreditation Board, which will oversee the entire process, set standards and define guidelines, as also license (preferably non-

	profit) agencies in adequate number who will undertake the actual accreditation process.
	(vi) Each institution shall be placed within its category in a rank of I to VII, category VII being the highest, and I being the lowest. Institutions placed in I and II shall be given a notice to take all measures to improve their ranking to category III within a period of three years failing which they will face de-recognition. On the upper end of the scale, VII represents the best in class; the institution in this bracket would have autonomy in all respects, including faculty payments, fee structure, collaborations, etc., subject to these institutions providing a certain number of seats for meritorious students from specified sections that will be supported by scholarships by Centre/State governments.
	(vii) Each institution shall be evaluated at least once in five years. Its category and placement therein shall be available to the general public through a dedicated website of the NAB.
	(viii) Each institution would establish an Internal Quality Assurance mechanism, as broadly defined by the NAB; each affiliating university would also have such a mechanism, which will monitor on continuing basis quality issues within the university as well as in the affiliated institutions.
	(ix) A key challenge is to ensure that the accrediting agencies perform their task with enormous understanding of the academic ethos and with honesty. This should be carefully fostered by the NAB. The NAB shall keep a close watch on the accrediting agencies to ensure that they perform their task with diligence, sincerity and integrity.
9.35.5	The results of the evaluation of each institution will be available to the general public on a continuing basis, through a dedicated website, to enable students and other stakeholders to make educated choices.
9.36 International Linkages in Higher Education	
9.36.1	Nearly 3 lakhs students from India travel outside their country to pursue higher education. The migration of some of our best students can be reduced and more foreign students attracted to India, if conditions are created such that Indian institutions and research facilities are of international repute. Selected foreign universities, from the top 200 in the world, should be encouraged to establish their presence India through

	collaboration with Indian universities. It should be made possible for a foreign university to be in position to offer its own degree to the Indian students studying in India, such that these degrees should be valid also in the country of origin.
9.36.2	Encouragement should be given to 'high quality' foreign universities and educational institutions to collaborate with Indian partners, and establish an Indian presence. Appropriate enabling legislation, as required, may be enacted. The opportunity should be used to 'globalize' Indian higher education without compromising the basic tenets of access, equity and quality of education.
9.37 Need for a National Higher Education Promotion and Management Act	
9.37.1	The existing major national institutions in the Education sector were set up at different times, with individual mandates as envisioned at the time of their formation. Some were established through Acts of Parliament, while others were through executive orders. With the passage of time, with new developments in the Higher Education sector there is a need to review their mandate keeping the emerging trends that are seen as also to update the existing legislation, and make it more relevant to current and future needs.
9.37.2	A Higher Education Management Act needs to be enacted which will constitute the legal framework, to confer the authority to promote, manage and stimulate the higher education sector, backed by a national mandate. Following the new proposed enactment it is presumed that the separate legislations governing individual agencies would lapse and the new legal regime would assign fresh roles and obligations on the existing bodies, redefine their roles and nomenclature, and facilitate coordination and cooperation between them for their optimal contribution to the sector. Until that happens the existing agencies would continue to perform their present roles, and whatever interim reforms are immediately required would be introduced.
9.37.3	State Governments and Universities will have to play a critical role in regulating higher education institutions within their jurisdictions. It is proposed that recognition of all new universities and colleges, strictly in accordance with standards set by the new legislation, will be done by an autonomous statutory Council of Higher Education to be set up by each State. Approval of new courses will be within the competence of the concerned University. The Council will arrange to monitor periodically the academic standards of universities and colleges in consultation with approved accrediting agencies. All the decisions of the Council should be in full public domain to create confidence and credibility in the system.

9.38 Creation of a National Education Fund	
9.38.1	The UGC currently distributes 35,000 fellowships worth about Rs.1050 crores each year. Fellowships are also awarded by other ministries like Agriculture, Defence and Science &Technology of Government of India. It is estimated that around 40-50 thousand fellowships are available every year in the country.
9.38.2	With the objective of encouraging merit and promoting equity, a National Fellowship Fund, primarily designed to support the tuition fees, learning material and living expenses for about 10 lakh students every year should be created. The scholarships from this fund should be made available to students belonging to the economically weaker sections, specifically those below the poverty line.
9.38.3	A separate national talent scholarship scheme to be administered after class 12 should be set up for meritorious students of all categories selected through a national level examination to be linked with this scheme.
9.38.4	A corpus of funds should be generated, partly funded by government, and partly through contribution from the private and corporate sectors, with appropriate tax and other concessions as incentives; as well as opening the fund for contribution from alumni of various institutions that have benefited in their careers through free or supported education in the past.
9.39 Entrance Examinations to Professional Courses	
9.39.1	Overtime, with the vast expansion of professional education institutions in engineering, management, medical and other fields, the number of entrance examinations to these courses has multiplied manifold. While examinations like JEE, etc. address the issue of admission to the best institutions, most states and educational institutions have resorted to a multiplicity of entrance tests, often placing much stress and pressure on the students aspiring for admission. There is clear need to rationalize the system of entrance examinations to professional courses. A note needs to be taken of the recent decision of the Supreme Court to have national common admission tests for medical institutions in the country.
9.39.2	There is need for one unified national level examination for admission to each type of specified professional course, carefully designed, giving the facility to the applicant to prepare for it and apply at his own convenience, to advance his opportunity for admission to any institution across the country. For students from each state where the institution located, either the benchmark performance in the state board, or a state level examination meant for local aspirants needs to be created. Thus the aspiring student

	need not have to prepare for a large number of examinations, with different standards and norms, and local variants. The reform process should take into account and provide for entrance through a unified national examination for each type of professional course or a state-level similar examination. There is need to rationalize the entrance examination scenario, in the overall interest of the development of professional courses in the country.
9.40	**Open and Distance Learning – Dual Mode and Promotion of Massive Open Online Courses (MOOCs)**
9.40.1	At present open and distances learning in the country is provided mainly by Indira Gandhi National Open University (IGNOU) and some State Open Universities. In recent years MOOCs have been introduced in some universities abroad to extend the reach of higher education but the results have not been uniformly encouraging. A beginning has also been made to offer MOOC in India. A major challenge to open distance learning is to create a framework for assessment and award of credits, which would enable its degree and diplomas to be treated on par with conventional degrees and diplomas.
9.40.2	Open Direct Learning through dual mode universities and through MOOCs should be accorded appropriate priority because of India's existing and latent strength in terms of IT capability and interest evinced by leading Universities and Institutions in promoting ODL education.
9.40.3	Under the aegis of the proposed Higher Education Act (proposed elsewhere in the policy), a suitable 'Regulator' with adequate powers, will need to be established.
9.40.4	The demand for ODL/MOOCs will rise in future, though it is not certain which technologies will find favour from learners; the developments in this field need to be watched carefully. It is desirable that an appropriate regulatory regime should be in place as soon as possible.
9.41	**Reforms in Medical Education**
9.41.1	There are at present more than 400 medical colleges in the country. Nearly half of them are in the Government sector. The average annual growth in under-graduate in medical seats is around 5% and for post-graduate 2%. Even this growth is not evenly spread, most of it concentrated in southern and western states. More public investment is needed for starting medical colleges in deficient regions. The private sector needs to be encouraged to

	set up medical colleges for which incentives, including minimum requirement of land, need to be considered.
9.41.2	There have been complaints about the corruption and malpractices in the grant of recognition and approval to new medical colleges by Medical Council of India (MCI). The MCI has elected representatives who have shown more interest in feathering their constituencies than looking after the interest of medical education. The quality of medical education has suffered due to political and financial vested interests in MCI.
9.41.3	The existing framework of medical education needs significant restructuring. Entrenched interests of different kinds should be kept away from the functions of inspection, verification and standard-setting, as well as approval for opening new institutions.
9.42 Reforms in Agriculture Education	
9.42.1	Even though about 52% of labour and 80% of rural population in India is dependent on agriculture, agriculture and allied subjects like livestock, forestry and fishery, form a negligible part of school curriculum and syllabus. There is an urgent need to bring agriculture and rural India in the main stream of our education system.
9.42.2	There are 63 agriculture universities in the country, functioning under the overall supervision of Indian Council of Agriculture Research (ICAR). ICAR and agricultural universities have made notable contribution to India's growth in agricultural production. Indian agriculture is beset by problems of frequent droughts, sub-optimal use of agricultural facilities and lack of adequate post-harvest facilities. A review of agriculture education is needed to re-orient and revamp it to make it relevant to the current needs.9.38There is a need to bring agriculture and rural India in the mainstream of our educational system, to familiarise the system with rural/agricultural issues, even though this may not be a compulsory subject in the school curriculum. At high school level, students could be exposed to subjects like soil health, balanced use of fertilisers, water conservation, and importance of seeds in agriculture and pest control, as an optional subject. NCERT need also to look into this aspect of curriculum reform.
9.42.3	An independent review or critical assessment of the ICAR/National Research Institutions may be conducted to highlight the specific reforms that need to be undertaken in the quality of research and information dissemination by the national institutions.
9.42.4	The State Agricultural Universities need to update their curriculum and pedagogy, to enable them to address the needs of their students. A review

	needs to be undertaken of the State Agricultural Universities to reorient and revamp them to become relevant to meet current needs. The State Universities also need to pioneer new concepts, using Digital India to spread agricultural information and knowledge to the farming community through digital applications and innovative avenues.
9.43 Reforming and Strengthening National Level Institutions	
(a) **All India Council of Technical Education (AICTE)**	
9.43.1	The All India Council of Technical Education was set up in 1987 to regulate technical education and institutions. There was proliferation of technical institutions, mainly in the private sector, in the last three decades to meet the increasing demand for engineering and related courses. There have been complaints about corruption and malpractices in the grant of approval and recognition to these institutions many of which do not have adequate academic or physical infrastructure and offer poor quality of education. Government of India had appointed a Committee under the chairmanship of M.K. Kaw to examine the role and functions of AICTE, which submitted its report in 2015.
9.43.2	It has been recommended in another part of the report that the mandates of UGC, AICTE and NCTE, regulators in the higher education sector, set up under different laws, should be reviewed in the light of the proposed National Higher Education Promotion and Management Act.
9.43.3	In the process of the rapid expansion of the technical education sector in the past two decades, the AICTE has largely failed to act as a Regulator to fulfil its mandated regulatory responsibilities.
9.43.4	Pending the enactment of the National Higher Education Promotion and Management Act, administrative reforms suggested by the Kaw Committee may be given effect to, to the extent feasible and desirable, pending regular arrangements in the wake of the proposed higher education law.
(b) **National Council of Educational Research and Training (NCERT)**	
9.43.5	National Council of Educational Research and Training (NCERT) was established in 1961 to advice on all aspects of school education and teacher education. NCERT is widely known for its work on text-books, curriculum and pedagogy, which has earned it a unique reputation among the education community. NCERT was the pioneer in introducing Four Year Integrated B.Ed. programmes and has assisted State Governments in strengthening vocational education and integration of developments in educational technology in teaching learning processes.

9.43.6	The rapid expansion of school education and its deteriorating quality, the proliferation of tuition and coaching classes and widespread malpractices in conduct of examinations has makes it necessary for NCERT to reorient itself.
9.43.7	NCERT needs to focus sharply on increasing the quality of school education; in particular to move to transformation of the curriculum and pedagogy away from rote learning to promote a spirit of enquiry and understanding. For this, NCERT will have to redesign its text books in a manner that teachers become facilitators and co-investigators and encourage self and peer learning.
9.43.8	Successive National Education Policies have referred to progressive transformation of the curriculum and pedagogy away from rote learning, to encourage greater involvement of the thinking faculties of the students in the learning process, and to promote a spirit of inquiry. The school curricula do not as yet adequately reflect changes in this direction. This important core function of the NCERT has to be given greater relevance, applicability and intensity of application.
9.43.9	The regional institutes of NCERT also need to be strengthened to provide support in training, research, innovations and teaching learning material development to SCERTs and other institutions in the state. The RIEs have an important role in observing and conceptualising excellent initiatives and helping other states to adopt them. They should be encouraged to look for best practices and disseminate them for which suitable expertise should be provided.
9.43.10	NCERT has a major role to play in the transformation in the Indian school education scene; it needs to be strengthened in terms of faculty and resources; reorient itself by restoring emphasis on research and innovation.
(c) **National University of Educational Planning and Administration**	
9.43.11	The origins of National University of Educational Planning and Administration (NUEPA) go back to 1962, when it was established as a research centre for educational planners. For many years it was known as National Institute of Educational Planning and Administration (NIEPA), until it became a Deemed to be University in 2006. NUEPA is the premier institution for providing in-service training in educational planning and administration and also for undertaking research in these subjects. It provides technical support and advisory services to Centre and State Governments.

9.43.12	Like every other organisation attached to the MHRD there should be peer-reviews and periodical external reviews of the work of NUEPA. A clear re-orientation of its research agenda to reflect actual issues on the ground needs to be undertaken without delay.
9.43.13	The central data compilation consolidation system needs to be significantly upgraded; a decision needs to be taken whether NUEPA is the correct agency in which to locate this activity.
9.43.14	The establishment of a Central Bureau of Educational Intelligence with high quality statistical expertise and management information system should be considered as an alternative to provide the requisite focus to this area.
(d) **University Grants Commission (UGC)**	
9.43.15	University Grants Commission (UGC) was established in 1986 for the regulation of university and institutions of higher education. Its functions include recognition of institutions, approval of curriculum, permission to start courses, disbursement of grants and management of scholarship programmes. Over the years, UGC has issued a number of regulations for ensuring quality of higher education in the country but has not been able to implement these regulations effectively. There have been complaints about corruption and malpractices in the grant of recognition and approval to institutions by UGC. The credibility of UGC has been seriously dented by approvals given to a large number of colleges and deemed to be universities of dubious quality.
9.43.16	An expert committee recently has examined thoroughly the past, present and future role of UGC, and its report is under examination by the Ministry. It is understood that the report had concluded that the UGC does not have the adequate number of personnel of requisite quality to be an effective regulatory force in the higher education sector. When the new overarching higher education management law is enacted, the UGC Act should be allowed to lapse.
9.43.17	A separate mechanism for disbursement of fellowships needs to be set up. The UGC could be revamped, made considerably leaner and thinner, and could be the nodal point for administration of the proposed National Higher Education Fellowship Programme, without any other promotional or regulatory function.

9.44 Open and Distance Learning

(a) Indira Gandhi National open University

9.44.1	Indira Gandhi National Open University (IGNOU) was set-up in 1985 for the promotion of distance education systems and for coordination and determination of standards in such systems. IGNOU presently offers more than 200 academic programmes with annual intake of more than 7 lakh learners. IGNOU has held many States to start State Open Universities. It has played an important role in popularising distance education in the country and maintaining high standards.
9.44.2	There has been no independent evaluation of the work of IGNOU since its establishment and recommends that such an exercise be undertaken at an early date.
9.44.3	IGNOU should now be given the position of the designated National University in the field of distance education; and allowed the autonomy and the space to set its own standards, and be a pacemaker in this fast growing area. There is a collateral responsibility devolving on IGNOU to maintain the highest possible standards.
9.44.4	IGNOU should be authorised to offer online programmes in different fields including teacher education, agriculture and law, subject to the condition that they ensure scrupulous conformity with the standards set in this regard by the relevant designated Regulatory Agency.
9.44.5	IGNOU, like every university of high quality, should have its own strong internal quality cell, to ensure conformity to high standards.

(b) National Institute of Open Schooling (NIOS)

9.44.6	National Institute of Open Schooling (NIOS), established in 1989 has emerged as one of the largest open schools in the world, covering 30 lakh learners through 6,000 centres. It offers an opportunity for pursuing education to those who for a variety of reasons are not able to attend formal schools. While the role of NIOS has been fairly clear in the area of school education, it now needs to redefine itself to address the large potential demand for vocational education, in collaboration with Ministry of Skill Development & Entrepreneurship.
9.44.7	The NIOS is now departmentally managed, which is not the ideal management structure. As the entire field of distance education in the school sector is looked at, and as the management of the same reviewed, the issues of management/monitoring/oversight of NIOS need to be addressed appropriately.

(c) **Need for Credible Examination and Certification at Class X and XII**	
9.44.8	At present Central and State Boards of Education conduct examination for class X and XII. There are wide variations in the quality and value of certificates provided by different boards. There is a felt need for a credible and reliable national examination at class X and class XII for following categories of students:
	(i) School dropouts;
	(ii) Students who opted for vocational stream but would like to move back to main academic stream;
	(iii) Those who wish to study abroad and need certification of acceptable quality achievement by foreign institutions of higher education;
	(iv) To establish minimum eligibility for 10 lakh new fellowships recommended elsewhere in the report.
9.44.9	An appropriately upgraded NIOS, or another suitable designated agency, should be the nodal agency for conducting the national level examinations for class X and XII. Class XII examinations may be the first one to get establish followed as soon as possible thereafter, by class X examination.
(d) **Regulatory Issues in Distance Learning**	
9.44.10	There is need to take note of the current experiments in distance education, undertaken by public and private institutions, and restructure the institutional mechanisms, to cater to the potentially burgeoning demand.
9.44.11	It is expected that there will be a rapid expansion of distance learning in the coming years. There are now many private players also in this field. For many years IGNOU was the regulator for distance learning. While IGNOU and NIOS may be the premier agencies for open distance learning, there is a need to establish an appropriate regulatory authority to keep track of developments in this field, to provide the legal framework for any government intervention and also to provide support, encouragement and mentorship to healthy private initiatives in this field.
9.44.12	In view of the likelihood of rapid expansion of distance learning using various platforms, it is urgently required to create two Regulators, one for higher education and the other for school education, to keep a close watch on the developments, support new initiatives by the government and by private players, and in general to promote, support and regulate this growing field.

9.44.13	NIOS or any other designated agency should create two new national level examinations systems to certify Class X and Class XII equivalent achievement, which should be credible, reliable and seen as definitive. These systems will cater to different kinds of needs not so far addressed by the normal education system, and can be used by different varieties of end users.
9.44.14	The proposal for 10 lakh new fellowships for higher education mentioned elsewhere could use this Class XII examination as the benchmark for selection of candidates, with appropriate classifications. It is also proposed that the Class XII examination system may be created as soon as possible, with the Class X examination to follow.

9.45 The Way Forward

9.45.1	India today has one of the largest systems of education in terms of number of institutions, teachers and students. An enormous infrastructure exists. Decades of insufficient focus, lack of adequate attention and mismanagement have seriously eroded the quality of our education system. While access has sharply increased, inequalities persist. Deficiencies and shortcomings have now to be treated as opportunities; the country now needs to invest on its strength, i.e. its children.
9.45.2	The process of regeneration can only start if the capacity to improve standards and the zeal to engage teachers and students become the guiding ethos of those responsible for providing education. The recognition for the need to bridge the educational divide and include every aspiring learner is the guiding spirit of the New National Policy on Education. Regeneration of India's education is anchored in that belief.
9.45.3	The New National Policy on Education has tried to address these deficiencies and challenges, along with the need to sharply increase the quality of Indian education, across the board. It offers a framework for change, make education modern with optimal use of technology, without compromising on India's traditions and heritage.

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