CONSOLIDATED WORKING GROUP REPORT

OF THE

DEPARTMENT OF HIGHER EDUCATION

FOR

XII FIVE YEAR PLAN

ON
HIGHER EDUCATION,

TECHNICAL EDUCATION &

PRIVATE SECTOR PARTICIPATION INCLUDING PPP IN HIGHER EDUCATION

Department of Higher Education,
Ministry of Human Resources Development

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PREFACE

The Planning Commission has constituted three Working Groups under the Department of Higher Education for the formulation of the XII Five Year Plan (2012-2017). The Department of Higher Education has also been a Co-Chair for the Working Group on Teacher Education.

The Report of this Department has been structured into three Parts:

- Part 1 is the Consolidated Report covering the broad overview; vision and mission; objectives and goals; achievements so far; policy perspectives; thrust and focus areas and strategies for the coming Plan period across all sectors within the Department of Higher Education. This Part gives a common overriding framework outlining the holistic perspective of the Department of Higher Education for the XII Five Year Plan.

- Part II consists of three Annexures-

  - Annexure I is the Working Group Report on Higher Education which contains the detailed proposals on Higher Education, mainly, consisting of the UGC proposals, the concept note and draft proposal of the proposed National Mission on Teachers and Teaching, Report of the Sub-Committee on Social Science Research, proposals of Book Promotion and Intellectual Property Rights, proposal for strengthening of NUEPA, new initiatives of open and distance learning.
  - Annexure II is the Working Group Report on Technical Education which contains the detailed proposals on Technical Education, mainly, consisting of the AICTE proposals, the concept note on TEQIP-III, proposal for setting up of 50 Research Parks, concept note on earmarking of 2 per cent of funds for Research and Development by all GOI Departments.
  - Annexure III is the Working Group Report on Private Sector participation including PPP in Higher Education which defines PPP, describes the rationale, highlights the existing policy of the Government of India on Private Sector participation in Higher Education and suggests various possible models for partnership between the Public and Private Sectors.

- Part III of the Report consists of the Appendices which give the Constitution and Terms of Reference of the three Working Groups under the Department of Higher Education. It also gives the Constitution and Terms of Reference of the Sub-Committee on Social Science Research which was constituted by the Department of Higher Education.

Chapter 1 OVERVIEW, VISION, OBJECTIVES AND GOALS

I. Introduction

Education is recognized as one of the critical elements of the national development effort and Higher education, in particular, is of vital importance for the nation, as it is a powerful tool to build knowledge-based society of the 21st century. The activities of Department of Higher Education are focused towards developing India as a knowledge society. The Department's constant endeavour is to improve and expand education in all sectors, with a view to eliminate disparities in access and lay greater emphasis on the improvement in the quality and relevance of education at all levels. The role of Department, therefore, includes policy formulation, programme implementation, coordination with other stakeholders, knowledge management, research and innovation, creation of intellectual property, training and capacity building, reaching out to disadvantaged sections, women and minorities, in the higher education sector. The Department has also established a number of premier institutions which have come to acquire a reputation for excellence and national importance.

Improvement of access along with equity and excellence, the adoption of state-specific strategies, enhancing the relevance of higher education through curriculum reforms, vocationalisation, information technology, networking and distance education are some of the main policy initiatives of the higher education sector. The other important policy initiatives in higher education are programmes for general development of universities and colleges; special grants for the construction of hostels for women; scholarships to students, scheme to provide interest subsidy on educational loans for professional courses to ensure that nobody is denied professional education because he or she is poor and making interventions to attract and retain talent in the teaching profession

in the higher and technical education. Emphasis has been laid on expansion with equity, use of ICT and promotion of quality education.

II. Vision and Mission

Our Vision is to realize India's human resource potential to its fullest in the higher education sector with equity and inclusion. The three pillars of our strategy in higher education are expansion, inclusion and excellence.

The Mission of the Department of Higher Education is:

(i) Provide greater opportunities of access to higher education with equity to all the eligible persons and in particular to the vulnerable sections;

(ii) Expand access by supporting existing institutions, establishing new institutions, supporting State Governments and Non-Government Organizations/civil society to supplement public efforts aimed at removing regional or other imbalances that exist at present;

(iii) Initiate policies and programmes for strengthening research and innovations and encourage institutions – public or private – to engage in stretching the frontiers of knowledge;

(iv) Skill development so as to reap the benefits of the demographic advantage of the country;

(v) Promote the quality of higher education by investing in infrastructure and faculty, promoting academic reforms, improving governance and institutional restructuring;

(vi) Engage with civil society, state governments and with the international community in furtherance of knowledge, language and culture.

III. Objectives:

(i) To expand the higher education sector in all its modes of delivery to increase the Gross Enrolment Ratio (GER) in higher education to 15% by 2011-12 and to 21% by XII Plan and 30% by the year 2020.

(ii) To expand institutional base of higher education (including technical. professional and vocational education) by creating additional capacity in existing institutions, establishing new institutions and incentivizing state governments and Non-Governmental Organizations / civil society.

(iii) To provide opportunities of higher education to socially deprived communities and remove disparities by promoting the inclusion of women, minorities and differently-abled persons.

(iv) To remove regional imbalances in access to higher education by setting up of institutions in unnerved and underserved areas.

(v) To enhance plan support for infrastructure and faculty development in the institutions of higher learning and to attract talent towards careers in teaching and research.

(vi) To create conditions for knowledge generation through improved research facilities in universities and colleges.

(vii) To promote collaboration with International community, foreign governments, universities/institutions and regional and international institutions, for the advancement of universal knowledge and intellectual property rights.

(viii) To promote development of Indian languages.

(ix) To promote autonomy, innovations and academic reforms in institutions of higher learning.

(x) To undertake institutional restructuring for improving efficiency, relevance and creativity in higher education.

IV. Advantage of Demographic Dividend and GER targets

India is a nation of young people – out of a population of above 1.1 billion, 672 million people are in the age-group 15 to 59 years, which is usually treated as the "working age population". It is predicted that India will see a sharp decline in the dependency ratio over the next 30 years, which will constitute a major 'demographic dividend' for India. In the year 2001, 11% of population of the country was in age group of 18-24 years which is expected to rise to 12% by the end of XI Five Year Plan. This large youth population should be considered as an invaluable asset which if equipped with knowledge and skills, can contribute effectively to the development of the national as well as the global economy.

In order to reap benefits of this demographic dividend; access through expansion, equity through inclusion and quality have been major concerns of the Government in the higher education sector.

In spite of tremendous progress made in the higher education sector since Independence, the Gross Enrolment Ratio (GER) in higher education, which is the participation rate of the cohort in the age group of 18-23 years in higher education, continues to be low and is estimated to be nearly 13.5% as of 2007. This is much below the world average of 24%, two thirds of that of developing countries (18%) and way behind that of developed countries (58%). The GER of different countries is estimated to be as under:

USA	UK	Sweden	Brazil	Japan	China	Russia	INDIA
84	59	82	25	55	23	71	13.5

Need has been felt that Gross Enrolment Ratio in higher education, should be raised to a significant level in a time bound manner and it is expected that the GER will reach 15% by 2012, 21% by the end XII Five year plan and 30% by 2020.

V. Focus of the XII Plan

- Raising the Gross Enrollment Ratio (GER) in Higher Education to 30% by the year 2020 which is an addition of 26 million in Higher Education;
- Three Pillars will continue to be Access, Equity and Excellence in higher education;
- Strategies will be of expansion with consolidation, greater inclusion and focus on improving quality of higher education;
- The Plan must be teacher-centric and learner-driven;
- Create a skilled workforce to meet the global economic needs
- Must create an enabling ecosystem where research is encouraged and creativity of mind flourishes leading to innovations at individual and institutional levels;
- All higher educational institutions must enjoy greater autonomy and develop into knowledge generating hubs having linkages with the larger society and explore avenues for interfaces with variety of stakeholders for academic enrichment
- Making India a global educational hub and fostering greater international collaborations.

Chapter 2 THRUST AREAS OF HIGHER EDUCATION DURING V TO XI FIVE YEAR PLANS

Analysis of the past Five Year Plans indicates that, there have been continuous efforts to strengthen the base by developing infrastructure, improving the quality through several programs and schemes, introducing reforms in content and evaluation and encouraging generation of knowledge through research. The focus of the Fifth Five year plan was on infrastructure development. It was from this Plan onwards the focus shifted to consolidation and quality improvement. The Seventh Plan laid emphasis on research and academic developments. It was from this plan onwards that the development centers of excellence and area differential funding was recognized. The Ninth Plan aimed at gearing the system of higher education to meet the challenges arising out of the major social, economic and technological changes. The focus of Tenth plan was aimed at quality and relevance of higher education, research and development, management in financing and the use of the new information and communication technologies. The Tenth Plan provided the basis for higher education in the 21st century. The Eleventh Plan aimed at providing quality education to all by focusing on access, equity and quality.

Table 1-Plans and Thrust Areas

Plans	Thrust Areas
Fifth	• Construction of academic buildings, library, staff quarters, teachers' hostel, students' hostel, study home, non-resident students center; • Purchase of books, journals, equipment; • Appointment of additional teaching staff, technical supporting staff etc;
Sixth	• Improvement of standards; • Regulation of admission; • Restructuring of courses for practical orientation and greater relevance; • Centralization of instrumentation and repair facilities; • Make extension as an integral part and repair facilities; • (low priority was given to expansion of education facilities by way of new universities, centers for postgraduate studies, new department and to construction/extension of building involving brick and mortar.)

Seventh	• Creation of research and other centralized facilities at selected centers for the benefit of a group of institutions in the region/country • Encouragement of academic mobility and cross- fertilization of ideas with a view to inculcating the feeling of national integration by providing special assistance for faulty housing/complex and hostels • Restructuring courses at first degree level so that they become relevant to the local needs and environment and increase the area of employability of graduates; • Prioritization of programs intended to achieve the national objectives; • Development of Centers of Excellence; • Optimisation of use of the existing facilities in he universities/colleges specially physically facilities.
Eight	• Strengthening of existing postgraduate departments in terms of laboratories, workshops and library services; • Opening of new specialized courses and departments, in case of developed universities, with an inter-disciplinary approach provided they could be sustained by existing facilities; • In case of developing universities, new departments and courses only if the need is justified; • Viability of courses, departments etc. so that those courses that have lost relevance or are outdated could be dispensed with and teachers in such subjects could be retained.
Ninth	Relevance and Quality of Education: • Career development by encouraging the relevant courses wth professional focus; • Modification in traditional courses to make thenm application oriented; • Encouragement to universities to develop basic theoretical understanding of discipline to ensure that the theory and practice are blended and integrated; • Focus on hands on experience; and • Addressing the public concerns about downslide in the quality of educatic focusing on the quality of education rather than on quantitative expansion. Access and Equity: • Paying special attention to institutions of higher education in backward area: area and border areas in order to remove regional imbalances; • Addressing the higher education needs of under-represented social groups including the SC/STs , women ,handicapped and the minorities; and • Focus not only on quantitative expansion but also on qualitative

	development of institutions of higher education in the areas catering to the above groups. University and Social Change: • Encouragement to universities to develop a greater emphasis on non – degree programs in order to meet the expectations arising out of changes that are taking place in in the society • These activities to be made the responsibility of every departments; while the departments of adult and continuing education would be he focal point for social change function and • Major thrust to be given to program development for women studies and centre for women studies shall be essentially inter-disciplinary. Management of Education: • Support for streaming the university management system; • Assistance for academic, administrative and financial decentralization; • Autonomy of the Departments; • Autonomy of the affiliated colleges & institutions; • Developing in – house training facilities for non – teaching staff, rationalization of posts; increasing use of information technology in management; and • Establishment of college Development Council, workshops for college Principals, and improvement in backward and forward linkages. Resource Mobilization: • Focus on planning for internal and external resource mobilization • Differential fee structure; • Enhancement in fees for foreign studies; and • Generation of revenue through increased university-industry linkages.

Thrust areas in the Tenth Plan

GENERAL: To achieve a profound transformation of higher education in order that it becomes an effective promoter of sustainable human development and at the same time, improves its relevance with closer links with the world of work and achieve quality in its teaching, research, business and community extension functions including life ling learning.

SPECIFIC: To contribute to the transformation through improvement of the conceptions, methodology and practices related to:

- ❖ The relevance of higher education.

- ❖ Quality, evaluation and accreditation.
- ❖ Research and development.
- ❖ Outreach activities in business and community and life long learning
- ❖ The knowledge and use of the new information and communication technology
- ❖ Management and financing.
- ❖ Export of higher education, and reorientation of international cooperation.
- ❖ Strengthening of open and distance education system.
- ❖ Strengthening of research institutions.
- ❖ Mobilization of resources.

Monitorable Targets and thrust areas of the XI Plan

- Increase higher education GER from the present 11% to 15% by 2011-12
- Intake of technical education institutions to grow at 15% annually to meet scientific and skilled manpower needs of the growing economy.

Expansion, inclusion, rapid improvement in quality throughout the higher and technical education system by enhancing public spending, encouraging private initiatives and initiating the long overdue major institutional and policy reforms are the core of the XI Plan efforts.

Chapter 3 EMERGING CHALLENGES IN TERTIARY EDUCATION: A MACRO-PERSPECTIVE

An academic revolution has taken place in higher education in the past half century marked by transformations unprecedented in scope and diversity. Globalization, a key reality in the 21st century, has already profoundly influenced higher education. The impact of globalization on higher education offers exciting new opportunities for study and research no longer limited by national boundaries but also wields a subtle treat to national cultures and autonomy. Internationalization has been very prominent at regional and international level. One of the most visible aspects of globalization is student mobility. It is estimated that around 2.5 million students, several researchers, degrees and universities moving about the globe freely there is pressing need for international benchmarks and standards to properly evaluate unfamiliar foreign qualifications are not reached easily. Estimates predict this number to rise to 7 million international students by 2020. Among the most critical dimensions of change are the convergent impacts of globalization, the increasing importance of knowledge as a main driver of growth, and the information and communication revolution.

Both opportunities and threats arise from these changes. On the positive side, the role of tertiary education in the construction of knowledge economies and democratic societies is more influential than ever. Another favorable development is the emergence of new types of institutions and new forms of competition, forcing existing institutions to change their modes of operation and delivery and to take advantage of the opportunities offered by the new information and communication technologies (ICT). But on the negative side, this technological transformation carries the real danger of a growing digital divide between and within nations. Even as these new opportunities and challenges emerge, we continue to grapple with difficulties arising from inadequate solutions to long-standing problems. Among

the unresolved challenges are the need to expand access to education in a sustainable manner, inequalities of access and social and regional imbalances, problems of quality and relevance, and rigid governance structures and management practices.

Responding to mass demand, referred to as the phenomenon of "massification", has driven many of the key transformations of the past decades. This expansion has led to the rise of service industries and the knowledge economy. Despite many policy initiatives, greater post- secondary participation has not benefited all sectors of society equally. Providing higher education to all sections means confronting regional and social and economic inequalities. Participation tends to be below national average for populations living in remote or rural areas and for marginalized/disadvantaged groups.

Access is more than 'getting through the door'. True progress depends on levels of completion for all population groups. The trend of most institutions in most of the countries, including ours, is to teach less of the basic disciplines and offer more in the way of professional programs to a far wider range of students than in the past. Questions about curriculum and higher education's purpose are particularly salient where emerging economies require both specialists as well as generalists.

Tertiary education is a critical pillar of human development which provides not only the high-level skills necessary for every labour market but also the training essential for all professions.. It is these trained individuals who develop the capacity and analytical skills that drive local economies, support civil society, teach children, lead effective governments, and make important decisions which affect entire societies. Universities are a key part of all tertiary systems, but the diverse and growing set of public and private educational institutions in every country- degree colleges, technical training institutions, research laboratories, centers

of excellence, distance learning institutes and many more, form a network of institutions that support the creation of the higher-order capacity necessary for development.

Quality assurance in higher education has today risen to the top of the policy agenda. Post- secondary education has to prepare graduates with new skills, a broad knowledge base and a range of competencies to enter a more complex and interdependent world. Quality is a multi-dimensional concept and several mechanisms for quality assurance and management at individual and institutional level are needed. Systems of accountability and accreditation with a robust regulatory mechanism are essential to the process of sustaining and improving quality. Developing key performance indicators and benchmarks for assessing outcomes in higher education will have to be undertaken

Higher education is increasingly viewed as a major engine of economic development. Public funding cannot keep pace with rapidly rising costs of higher education. The expansion of student numbers has presented a major challenge which combined with the goal of inclusivity has aimed to provide access to all sections and thereby operate a highly subsidized tertiary education. In financial terms, this has become an unsustainable model. Traditionally, education has been seen as a public good, contributing to society through educating citizens, improving human capital, and boosting economic development. There is an increasing pressure to view higher education as private good, largely benefiting individuals, with the implication that academic institutions, and their students, should pay a significant part of the cost of higher education. Funding shortages due to "massification" have also meant that higher education system and institutions are increasingly responsible for generating larger percentages of their own revenue. This debate has intensified due not only to the financial challenges of massification but also to a more widespread inclination toward greater privatization of services once provided by the state.

The contribution of tertiary education is vital to the national innovation system and the development of human resources. Continued government support of tertiary education is justified by three important considerations:

1. The existence of externalities from tertiary education

Investments in tertiary education generate major external benefits that are crucial for knowledge-driven economic and social development. For example, technological innovations and the diffusion of scientific and technical innovations lead to higher productivity, progress in the agriculture, health, and environment sectors, higher skill levels in the labor force are mainly due to innovations resultant from research in universities. Tertiary education facilitates nation building by promoting greater social cohesion, trust in social institutions, democratic participation, and appreciation of diversity in gender, religion, and social class.

2. **Equity issues**

Imperfections in capital markets limit the ability of individuals to borrow sufficiently for tertiary education, thereby hindering the participation of meritorious but economically disadvantaged groups. Hence, a large scale expansion of student financial assistance, so that all aspiring learners to be provided an opportunity to take up higher education irrespective of his or her economic status. In other words, no potential learner/student must be denied access to higher education because of his/her inability to afford it. Large scale expansion of student financial assistance through several interventions, such as, creation of a credit loan guarantee authority to provide student loans & guarantees thereof, subsidy on interest loans, student-driven scholarships with a means-blind approach are multi-pronged strategies needed.

3. The supportive role of tertiary education in the education system as a whole.

Tertiary education plays a key role in supporting basic and secondary education. The supply of qualified teachers and school leaders, capacity for curriculum design, research on teaching and learning, economic analysis and management—these and many more components of basic education reform are hampered by weak tertiary education systems. A comprehensive approach to the development of the education sector is required, along with a balanced distribution of budgetary resources to ensure that appropriate investments in tertiary education are made.

Sources:

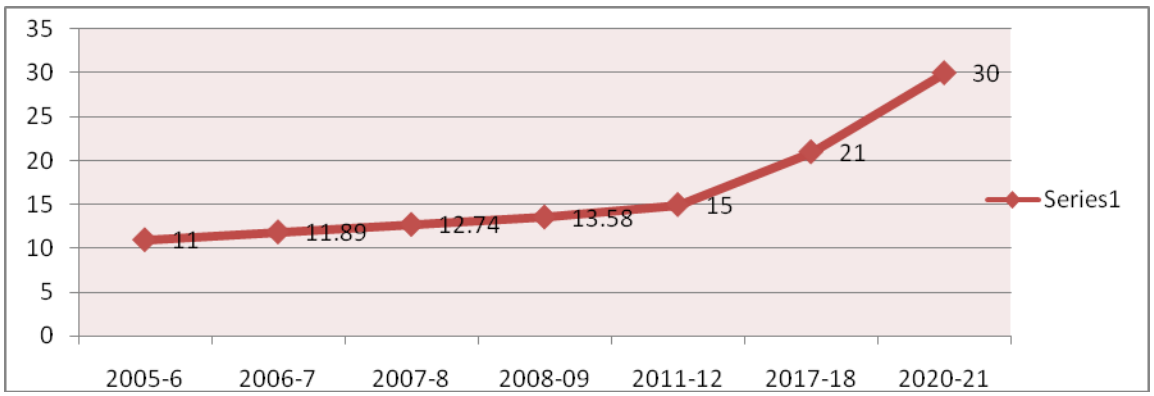
1. Altabach, Philip and others, Trends in global higher education: Tracking an academic revolution, Report of UNESCO 2009 World Conference on Higher Education, 2009

2. Constructing Knowledge societies, New Challenges for tertiary Education, World Bank Report,2006

Chapter 4 ACHIEVEMENTS SO FAR AND SWOT/SWOC ANALYSIS

XI Plan Targets:

The Eleventh Plan had targeted 21% GER to be achieved by the end of XII Plan with an interim target of 15% by 2011-12. Going by the projections, it is well neigh possible that we achieve 15% GER by 2011-12. The GER was 13.8 in 2008-09[1]. It is therefore reasonable to predict that 21% GER by the end of XII Plan is not impossible to achieve, though it remains highly ambitious.



I. Achievements of the XI Plan

1. New Central Universities

To increase access, improve quality and to remove regional imbalances in higher education, XI Five Year Plan envisaged establishment of 16 Central Universities in hitherto uncovered States of Bihar, Jharkhand, Orissa, Gujarat, Haryana, Punjab, Rajasthan, Himachal Pradesh, J&K, Karnataka, Kerala, Goa, Chattisgarh, Madhya Pradesh, Uttarakhand and Tamil Nadu. Accordingly 15 new Central Universities, including three State Universities converted to Central Universities, were established under the Central Universities Act 2009. Three State Universities which have been converted into Central University are - Guru Ghasidas Vishwavidyalaya in the State of

[1] SES, MHRD, 2008-09

Chhattisgarh, Dr. Harisingh Gour Vishwavidyalaya in the State of Madhya Pradesh and Hemvati Nandan Bahuguna Garhwal University in the State of Uttarakhand. Thus, all states except Goa, which has not been included on the request of the State Government, now have at least one Central University. In addition, a new Central University has also been established in Jammu and J&K now has two Central Universities.

2. New Technical Institutions

XI Plan has seen the growth and development of new institutions. The Government has approved the setting up of six new Indian Institutes of Management at Rohtak (Haryana), Raipur (Chhattisgarh), Ranchi (Jharkhand), Tiruchirapalli (Tamil Nadu), Kashipur (Uttarakhand) and Udaipur (Rajasthan) and the sites for the permanent campus of these institutes have been finalised. Two new IITs at Indore and Mandi have started functioning from the academic year 2009-10. With the aim of providing at least one NIT in each of the larger States/UTs, the Government has set up 10 new NITs. These new NITs are to be located in Goa, Puducherry, Delhi, Uttarakhand, Mizoram, Meghalaya, Manipur, Nagaland, Arunachal Pradesh and Sikkim.

3. Distance Learning

IGNOU's share in higher education enrolment amounts to about 15% of the total student population in the universities in India. IGNOU has established over 61 Regional centres, 3000 study centres and 52 partner institutions spread across 33 counties. IGNOU has launched new schemes related to improving educational access through launching community colleges.

4. Polytechnics

A grant of Rs.2.00 crore each has been provided as the first instalment to set up 178 new polytechnics. Besides, a grant of Rs.5.00 crore has been given as second instalment to 19 polytechnics. 300 new polytechnics have been set up during 11^{th} plan. 343 polytechnics

have been provided a first instalment of Rs.20.00 lakh each during 2009-10 for the construction of women's hostel. During 2009-10, 479 polytechnics were given Rs.49.09 crore for running community development programmes.

5. New Degree Colleges

A new Scheme has been envisaged in the XI Plan to provide central assistance to State Governments for setting up of a model college in each of the indentified 374 educationally backward districts with GER for higher education less than the national average, with Central-State funding. It is proposed to provide Central assistance to the extent of 1/3rd of the capital cost for establishment of each college, limited to Rs 2.67 crore. For Special Category States, the Central share shall be 50% of the capital cost limited to Rs. 4.00 crore for each college. 45 Model Degree Colleges have been sanctioned so far.

6. Construction of girls' hostels :

The colleges and universities which come within the purview of the UGC and are fit to receive grants under Section 12 B of the UGC Act are eligible to receive financial assistance. In order to achieve the goal of enhancing the status of women, UGC has been providing financial support on cent per cent basis for construction of hostels for women and other related infrastructural facilities in colleges. The support varies from Rs. 60.00 lakhs to Rs. 2.00 crores depending upon the extent of women enrolment and the location of the colleges, whether in Metropolitan or Non-Metropolitan urban areas or rural areas. The UGC took special initiative to increase the number of hostels for girls and the amount of grants. UGC has sanctioned –-- number of Girls' Hostels so far.

7. Education of Scheduled Castes and Scheduled Tribes, Minorities and persons with disabilities:

The share of Scheduled Castes and Scheduled Tribes enrolment as a percent to total enrolment in higher education has been steadily increasing over the years. However, their enrolment share in higher education is still lower as compared to their total population. The enrolment of SC and ST students as a percentage of total enrolment in higher

education (Including Open Universities & Polytechnics) is 11.6% and 9.8% respectively. At the doctoral level the enrolment share of SC and ST is 11% and 4% respectively. Besides, their enrolment in science courses both at the masters and bachelors levels are also low.

Several schemes of UGC support the education of Scheduled Castes and scheduled Tribes e.g. remedial coaching at UG and PG level, coaching classes for preparation for National Eligibility Test (NET), coaching classes for entry in services, postgraduate scholarships, establishment of centres in universities for study of social exclusion and inclusive policy. Every University has also been requested by the UGC to create an Equal Opportunities' Cell in order to ensure equity and inclusion.

7.1. **Persons with Disabilities:**

The Department of Higher Education has taken several initiatives to promote higher/professional education among the persons with disabilities. UGC has integrated schemes such as Teacher Preparation in Special Education (TEPSE) and Higher Education for Persons with Disabilities (HEPSN) to support differently abled persons in higher education. All India Council for Technical Education (AICTE) also has a scheme of tuition fee waiver for physically challenged. UGC has furthermore issued several guidelines to the universities including 3 percent reservation for PWDs, relaxation of marks etc.

Under the scheme for Upgrading Existing Polytechnics to Integrate the Physically Disabled in the Mainstream of Technical and Vocational Education, 50 existing Polytechnics in different locations of the country have been selected for up-gradation so as to enable them to introduce technical / vocational and continuing education programmes for the persons with disabilities. The Scheme is targeted to benefit around 1250 disabled students every year in formal diploma level courses and 5000 students in short duration technical / vocational courses.

7.2. Educational Advancement of Minorities

For inclusive development of higher education, educational advancement of students belonging to minority communities is a point of focus. New Model Degree Colleges being established in districts with Gross Enrolment Ratio (GER) lower than the National average in higher education include 62 districts having minority concentration. Under the Sub-Mission on Polytechnics, the Government of India provides Central financial assistance to the State Governments / UTs for setting up of polytechnics in the un-served and underserved districts during the XI Plan. As per the Scheme criteria, 57 districts out of 90 Minority Concentration Districts are eligible for consideration under the Scheme.

Academies for Professional Development of Urdu Medium Teachers have been set up at three Central Universities viz. Aligarh Muslim University (AMU), Aligarh, Jamia Millia Islamia (JMI), New Delhi and Maulana Azad National Urdu University (MANUU), Hyderabad. Two new campuses of AMU are being established at Murshidabad in West Bengal and Mallapuram in Kerala.

National Commission for Minority Educational Institutions (NCMEI) has been established by an Act of Parliament with the key objective of ensuring that the true amplitude of the educational rights enshrined in Article 30 (1) of the Constitution is made available to the members of the notified religious minority communities. In order to make the procedure of giving minority status hassle free and protect their autonomy, National Commission for Minority Educational Institutions (NCMEI) has issued elaborate guidelines to be acted upon by the State Governments.

7.3 . OBC Reservation:

The policy of reservation is recognized as an important instrument of affirmative action in India. The Department has enacted the Central Educational Institutions (Reservation in Admissions) Act, 2006 and has made special provisions for reservation of seats for the Scheduled Castes, Scheduled Tribes, and the Other Backward Classes (OBCs) in admissions to Central Educational Institutions. Reservation of 27% seats for the OBCs

was implemented in all Central Educational Institutions covered by the Central Educational Institutions (Reservation in Admissions) Act, 2006.

7.4 . **Education of Girls**

Gender parity index has shown continuous improvement over the years as a result of Government's efforts to increase women participation. Women enrolment in higher education for the year 2007-08 is highest in the faculty of Arts followed by Science and Commerce/Management. Women representation is increasing, though still low in faculties like, law, medicine, education, veterinary science etc. UGC have launched a number of schemes to achieve gender parity. Day care centres in universities and colleges provide day care facility on demand basis for children of 3 months to6 years of age. UGC is also implementing Indira Gandhi Scholarship for single girl child for pursuing higher and technical education. Construction of girls' hostel for colleges is supported by UGC. There is also a scheme for the Development of Women's Studies in universities and colleges. The primary role of these centres is to promote knowledge simulation and transmission through teaching and research.

8. **Interest subsidy on educational loans:**

In order to ensure that talented students are not deprived of access to technical and professional education for want of financial resources, a scheme is in operation since the year 2009-10 to provide full interest subsidy during the period of moratorium on educational loans taken by students belonging to economically weaker sections, whose parental income is less than Rs.4.5 lakh per annum. Loans availed from Scheduled Banks under the Educational Loan Scheme of the Indian Banks' Association to pursue technical and professional courses of study are covered under the Scheme of Interest Subsidy.

9. Academic Reforms

As already mentioned, coordination and determination of standards in institutions for higher education and research and scientific and technical institutions is a constitutional obligation of the central government. It is necessary to involve all stakeholders

toinstitutionalize internal processes in favour of quality as an island of excellence cannot serve the massive requirement of higher education. Quality has to be the concern of all institutions and excellence will flow from good quality institutions and appropriate governance structures. Academic reforms at the institutional level are the necessary conditions for the improvement in Quality. A number of academic reforms have been initiated which are as under:

Academic Reforms at Institutional Level

- Phase-wise introduction of credit system
- Semester system
- Continuous and comprehensive evaluation
- Updating of curricula to retain its relevance
- Inter-disciplinarity in developing curricula
- Competitive admissions
- Innovations in Teaching-Learning Methods
- Rewards to meritorious teachers and researchers
- Teachers to continuously upgrade qualifications and knowledge

10. National Mission in Education through ICT:

National Mission in Education through Information Communication Technology is a mission mode project to provide connectivity, valuable content and low cost computing devices to all the Institutions of higher learning in the country. A National Knowledge Network will interconnect all universities, libraries, laboratories, hospitals and agricultural institutions for sharing data and computing resources across the country over a high-speed information network having gigabit capabilities.

11. Open and Distance Learning:

Distance education system is emerging as an important means to cater to the increasing demand for higher education. Open and Distance Learning (ODL) is recognised and accepted as an important mode for achieving enhanced access, developing skills, capacity building, training, employability, life-long education and continuing education. Open and Distance Learning has contributed significantly in development of education structure of India. It provides avenues to those students who are not able to leave their jobs or are not able to attend regular classes due to some reasons. Our distance education system consists of one National Open University namely, Indira Gandhi National Open University (IGNOU) and 14 State Open Universities. In addition, many Central/State Universities also offer courses through distance mode.

12. Professional Development of Faculty:

Availability of adequate and qualified faculty is a pre-requisite for quality education and Government has initiated short and medium term measures to mitigate the shortage of faculty, which is affecting most educational institutions.

The short term measures include increase in the retirement age up to 65 years as also improvement of salary structures, in central higher educational institutions. It also includes removing the restrictions on the recruitment of faculty and filling of the vacant position. Several states too have relaxed the restrictions and taken steps to fill the teaching post in colleges and universities.

The medium term steps include:-

i. Increase in the number of research fellowships for M.Phil, PhD and Post Doctoral Program to create potential faculty for universities and colleges
ii. Increase in the number of fellowships and amount through NET
iii. Fellowships are given to sciences students in department/centre with special assistance program in the states and central universities, autonomous colleges and colleges with potential for excellence.

The main objectives of Faculty Improvement Programme (FIP) are to provide an opportunity to the teachers of universities and colleges to pursue their academic/research activities leading to award of M.Phil/PhD degree, to provide an opportunity to the teachers to present papers in academic conferences/seminars or participating in workshops and exchange knowledge and ideas and to provide an opportunity to young faculty members to spend a short period of two weeks to two months at institutions of their choice for a better academic exposure.

At present there are 66 Academic Staff Colleges in the country which play an important role in professional development of teachers. They have been set up in the university system for conducting specially designed orientation programmes of four weeks duration for newly appointed teachers and Refresher courses of three weeks duration for in-service teachers.

13. Innovation Universities:

The Department has finalized a legislation for creating a framework for setting up of Universities for Innovation, aiming at world class standards, in Public sector, private sector as well as in PPP mode. It includes creation of 14 Innovation Universities fully funded by central government across XI and XII Plan.. The establishment of innovation universities has concretised the brain gain policy initiative of the Government.

14. Amendment of Copyright Act, 1957

In the knowledge society in which we live today, it is imperative to encourage creativity for promotion of a culture of enterprise and innovation so that creative people realise their potential. The Copyright Act, 1957 was enacted to amend and consolidate the law relating to copyrights in India. The Act is now proposed to be amended with the objective of making certain changes for clarity, to remove operational difficulties and also to address certain newer issues that have emerged in the context of digital technologies and the Internet. A Bill to amend the Copyright Act, 1957 has already been introduced in

Parliament on 19th April 2010 and the Report of the Parliamentary Standing Committee has since been received. The Bill is now pending for consideration of Parliament.

15. National Translation Mission

The scheme of National Translation Mission (NTM) was approved for implementation from 2008-09 based on the recommendations of the National Knowledge Commission. Main objectives of the scheme are: - setting up a clearing house for all translation activities in as many Indian Languages as possible, to provide links between users of translated materials at different levels and in different activities to the public and private agencies, to prioritise the translations of pedagogic materials at all levels (including primary onwards to tertiary education) specifically in natural and social sciences, to project Indian Languages and literatures in this region and abroad through high quality translation. NTM is being implemented by the Central Institute of Indian Languages (CIIL), Mysore as the nodal organization. A Project Approval Committee (PAC) of NTM has been constituted as an apex decision making body with experts drawn from Universities/Dept dealing with various languages and translation, representatives of Booksellers and Publishers Guild, specialists in Translation from private organizations/corporate houses etc. Four Sub-committees of PAC have also been constituted for fixing rates for translation, deciding knowledge texts for translation, copyright & legal matters and NTM-GIA.

16. Language Development

16.1 Kannada and Telugu as Classical Languages

The Union Cabinet vide its decision dated 8.5.2009 had declared Kannada and Telugu as classical languages and accordingly follow up action has to be taken by the MHRD on lines similar to those taken by this Ministry upon declaration of Tamil as classical language. M/o Law & Justice advised this Ministry that the MHRD may take follow up action to give effect to the decision of the Cabinet. Accordingly CIIL, Mysore has been

advised to formulate a scheme for setting up of Centre of Excellence for Studies in Classical Languages in Kannada and Telugu as also for instituting International Awards for scholars of eminence in these languages. SFC/DPR has since been prepared and is under consideration in the Ministry. It has been sent to Planning Commission for 'In Principle' approval.

16.2. Rashtriya Sanskrit Sansthan.

Rashtriya Sanskrit Sansthan has proposed establishment of two new campuses at Haryana and West Bengal and two new Adarsh Sanskrit Shodh Sansthans at Chennai and West Bengal. Construction of buildings at various campuses of Rashtriya Sanskrit Santhan situated at Garli, Bhopal , Puri and Sringeri are likely to be comleted in the current Plan.

17. New Legislations

17.1 Higher Education & Research Bill: The President's Address to Parliament on 4th June, 2009 and reiterated in the Address to Parliament on 22nd February, 2010, had declared the intent of the Government to establish an over-arching regulating body on the recommendations of the National Knowledge Commission and the Committee to advise on the Renovation and Rejuvenation of Higher Education under Prof. Yash Pal. The recommendations of the Yash Pal Committee and the National Knowledge Commission emanated from a realization that fragmentation of various fields of knowledge in higher education has been to the detriment of growth of inter-disciplinary learning. Fragmentation of higher education has created boundaries hindering the development of newly emerging fields of knowledge at the intersections of existing disciplines. The other foundational principle on which institutions of higher learning need to be restructured, is that autonomy of such institutions is essential for the very pursuit of knowledge. The restructuring of the Higher Education sector, in the context of a knowledge economy that thrives on innovation, the ceaseless germination of new ideas and raising the

consciousness of people, requires a new spirit of regulation that respects the autonomy of institutions amidst the need for accountability with opportunities for access to all. The establishment of a body with power, inter alia, to prescribe academic standards, norms of accreditation and mechanism for financing and governance of institutions, will enhance the endeavour to promote credible standards of higher education and research in the country. The Government constituted a Task Force to aid and assist in the establishment of a National Commission for Higher Education and Research, which has drafted a Bill after wide ranging consultation with prominent academics, educational administrators, Vice Chancellors, and Education Secretaries of State Governments. The Bill is presently under inter-ministerial consultations.

17.2 Prevention of Unfair Practices in Higher Education Bill: There has been public concern that technical and medical educational institutions, and universities should not resort to unfair practices, such as charging of capitation fee and demanding donations for admitting students, not issuing receipts in respect of payments made by or on behalf of students, admission to professional programmes of study through non-transparent and questionable admission processes, low quality delivery of education services and false claims of quality of such services through misleading advertisements, engagement of unqualified or ineligible teaching faculty, forcible withholding of certificates and other documents of students. Responding to these concerns, a legislation that would prohibit and punish such practices has been introduced in Parliament (3rd May 2010) to provide for prohibition and punishment for adoption of unfair practices.

17.3 Educational Tribunals Bill: Another legislation which has been introduced in Parliament aims at establishing Educational Tribunals to perform the role of providing an independent, enforceable, speedy, fast track adjudication of disputes in a quasi-judicial manner in regard to students, teachers and other employees, between institutions and

between institutions and the regulator. A legislation providing for a National Educational Tribunal at national level and one State Educational Tribunal in each state has been introduced in Parliament on 3rd May 2010.

17.4 National Accreditation Regulatory Authority Bill: Assessment and accreditation in the higher education, through transparent and informed external review process, are the effective means of quality assurance in higher education to provide a common frame of reference for students and others to obtain credible information on academic quality across institutions thereby assisting student mobility across institutions, domestic as well as international. Presently, accreditation is voluntary as a result of which less than one-fifth of the colleges and less than one-third of all universities have obtained accreditation. Mandatory accreditation in the higher education would enable the higher education system in the country to become a part of the global quality assurance system. Legislation has been introduced in Parliament (3rd May 2010) to provide for mandatory accreditation and creation of an institutional structure for the purpose.

17.5 Foreign Educational Institutions (Regulation of Entry and Operations) Bill: A legislative proposal to regulate entry and operation of foreign educational institutions has been introduced in Parliament on 3rd May 2010. This Bill would provide a regulatory framework in which reputed foreign educational institutions are able to enter and operate in terms of India's national policy, while at the same time sub-standard or 'fly-by-night' operators are checked and controlled.

17.6 Academic Depository Bill: A national database of academic awards (degree/certificates from school to graduate/postgraduate level including professional degrees) is proposed to be created and maintained in an electronic format by an identified, registered depository. The National Academic Depository Bill, has been introduced for

this purpose. This will be a major shift from the current practice, to a technology-based solution that would ensure confidentiality, authenticity and fidelity, enabling online verification and easy retrieval of academic qualifications.

SWOT/SWOC ANALYSIS

Globally, there is a move towards higher education associated with great diversity of institutions and programmes and a large increase in the number and size of universities. Expansion of higher education includes technical education, and universities using different delivery modes of course delivery including ICT. All these developments pose challenges for the efficacy of institutional quality controls. Formal, transparent and credible systems of quality assurance will help guarantee a successful future for higher educational institutions in this environment. There is a strong move towards having rigorous, internationally recognized higher education quality assurance processes. It is appropriate to make a SWOT analysis and understand the Strengths, Weaknesses, Opportunities and Threats in the Indian Higher Education System.

A. Strengths of Indian Higher education system

- **Well established educational institutions-** Since independence, higher educational institutions have grown into a fairly large-sized system, offering opportunities for education and training in variety of disciplines at certificate, degree, diploma, postgraduate degree etc. Technical institutes like IISc, IITs, IIMs are reputed all over the world as also some of our traditional Universities.
- **Young population** – India is a nation of young people - out of a population of above 1.1 billion, 672 million people are in the age-group 15 to 64 years, which is usually treated as the "working age population". It is predicted that India will see a sharp

decline in the dependency ratio over the next 30 years, which will constitute a major demographic dividend for India.

- **Robust economic growth -** After the liberalization of economy, Indian economy has witnessed robust economic growth which has led adequate investment in the education sector. The allocation of funds in the higher education has considerably increased in the XI plan period.
- **Availability of resources in the market-** Investment trend in education vindicates that funds are adequately available in the market to cope up with the pace of development in the education sector. Various initiatives taken by the private sector in opening new institutions have resulted in tremendous expansion of educational institutions.
- **Alert civic society-** For educational development, civic society should be alert so as to monitor the development taking place in the education sector. India is a fortunate enough to have an alert civic society and this has resulted in maintaining the quality of education.
- **A large number of alumni organizations like Pan IIT network in India and abroad.** India is a large exporter of technical manpower and they continue to have interaction with their alumni. As a result the country continues to get the expertise of these Indian professionals working abroad.

B. Weakness of Indian Higher education system

- **Shortage of faculty -**As per the conservative estimates more than ten thousand posts have remained vacant in the higher educational institutions on account of non-availability of suitable candidates. This is posing a threat for quality of education imparted by educational institutions.

- **Existence of a number of regulators and fragmentation of higher education-** There are 13 regulatory bodies in existence to regulate higher education. Each regulatory body functions in isolation. The regulatory provisions of the various Acts are substantially different from each other since they were created at different periods by different ministries. An over regulated system consisting of multiple agencies tends to increase inefficiency and breed corruption and malpractices.
- **Regional imbalances-** While all India average of GER of 23 states and UTs is less than 13.5%, the GER of 12 states and UTs is more than 13.5%. Eight states account for about 70% of the total number of the universities and colleges whereas, 70% of technical institutions are located in only 7 states.
- **Inadequate infrastructure facilities-** Higher education sector is facing acute shortage of adequate infrastructure facilities. This is a stumbling block in the endeavour of government for expansion of higher education.
- **Low emphasis on Research and disconnect between Universities and Research laboratories.**
- **Inadequate response to PPP mode-**As per Education policy, 6% of the GDP is required to be invested in education. This has, however, not been done so far on account of financial constraints. National Knowledge Commission has suggested modifying trust laws and income tax laws so as to encourage private investment in education sector. As no action has been initiated in this regard, private investors are not showing any response in this regard.

C. Opportunities

- **Young working population ---** India is a nation of young people - out of a population of above 1.1 billion, 672 million people are in the age-group 15 to 64 years.

- **Sharp decline in dependency ratio-** It is predicted that India will see a sharp decline in the dependency ratio over the next 30 years, which will constitute a major demographic dividend for India
- **Invaluable asset of human resource-** India is second largest country in the population. In the world having 672 million people are in the age group of15-59 years. This young population is an invaluable asset which, if equipped with knowledge and skill, can contribute effectively to the development of national as well as the global economy.
- **Vast scope for expansion of education-** Formulating sustained strategies to enhance GER to 30% by 2020 as there is vast scope for expansion of education in India.
- **Global hub in education-** India is emerging as a global hub in education. Government has taken number of steps in academic and institutional reforms in higher education sector which marks a paradigm shift in the development of higher education.

D. Threats/ Challenges

- **Commercialization of higher education-** There has been public concern that technical and medical educational institutions and universities are charging enormously high tuition fees and also following unfair practices. Therefore, the higher education is beyond the reach of common man. In order to overcome these malaises, government has introduced a legislative proposal in the Parliament.
- **Deterioration in quality of education-** The quality of higher education has been an area of concern, particularly with the mushrooming of private institutions. Government has therefore introduced a legislative proposal for mandatory accreditation in the institutions of higher education.

Economic and Socio-cultural Factors- Unemployment in the country, shortage of technical manpower and cost of education are some of the economic factors influence the education. Socio –cultural factors including lack of opportunities, status of women,

disparity in the society, rural-urban divide also affects the development of higher education sector.

- **External factor impacting the Department's functioning-** Education is in the Concurrent list and both the central government and state governments are mandated to make legislation on education. Many policies and programmes of the Department are either executed through state governments or they require extensive coordination and cooperation of the state governments and therefore, unless centre and state government work at tandem, their implementation would face rough weather.

Chapter 5 CONSTITUTIONAL PROVISIONS AND THE POLICY FRAMEWORK

Indian Constitution is quasi-federal and the distribution of powers is on the basis of Central List, State List and Concurrent List. Education was in the State list till 1976. Education was brought under the Concurrent list by the Constitution (42nd Amendment Act, 1976). Entry No. 25 in List III (Concurrent List) of the Seventh Schedule of the Constitution which reads as under –

"25 Education, including technical education, medical education and universities, subject to the provision of entries 63, 64 65 and 66 of List I vocational and technical training of labour.

Entries 63, 64 and 66 of the Union List are as follows:

63 The institution known at the commencement of this Constitution as Benares Hindu University, the Aligarh Muslim University and other institution declared by Parliament by law to be an institution of national importance.

64 Institutions for scientific or technical education financed by the Government of India wholly or in part and declared by Parliament by law to be institution of national importance.

65 Union agencies and institutions for

a. Professional, vocational or technical training, including the training of police officers, or

b. the promotion of special studies or research, or

c. scientific or technical assistance in the investigation or detection of crime

66 Co-ordination and determination of standards in institutions for higher education or research and scientific and technical institutions."

Thus, while higher education is shared responsibility of both Centre and the States, the coordination and determination of standards is the constitutional obligation of the Central Government.

The National Policy on Education (NPE) 1986 modified in 1992 marked a significant step in the history of education in post-independent India. It aimed to promote national progress, a sense of common citizenship and culture, and to strengthen national integration. It also laid stress on the need for a radical reconstruction of the education system, to improve its quality at all stages, greater importance to science and technology, cultivation of moral values and a closer relation between education and the life of the people. As regards Higher Education, the NPE mentions as under:

"….. Higher education provides people with an opportunity to reflect on the critical social, economic, cultural, moral and spiritual issues facing humanity. It contributes to national development through dissemination of specialized knowledge and skills. It is therefore a crucial factor for survival. Being at the apex of the educational pyramid, it has also a key role in producing teachers for the education system. (para 5.24 of NPE)

In the context of the unprecedented explosion of knowledge, higher education has to become dynamic as never before, constantly entering uncharted areas. (para 5.25 of NPE)".

Relevant extracts of the National Policy on Education, 1986

3.8 In higher education in general, and technical education in particular, steps will be taken to facilitate inter-regional mobility by providing equal access to every Indian of requisite merit, regardless of his origins. The universal character of universities and other institutions of higher education is to be underscored.

3.9 In the areas of research and development, and education in science and technology, special measures will be taken to establish network arrangements between different institutions in the country to pool their resources and participate in projects of national importance.

3.10 The Nation as a whole will assume the responsibility of providing resource support for implementing programmes of educational transformation, reducing disparities, universalisation of elementary education, adult literacy, scientific and technological research, etc.

3.11 Life-long education is a cherished goal of the educational process. This presupposes universal literacy. Opportunities will be provided to the youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice, at the pace suited to them. The future thrust will be in the direction of open and distance learning.

3.12 The institutions which will be strengthened to play an important role in giving shape to the National System of Education are the University Grants Commission, the All India Council of Technical Education, the Indian Council of Agricultural Research and the Indian Medical Council. Integrated planning will be instituted among all these bodies so as to establish functional linkages and reinforce programmes of research and postgraduate education. These, together with the National Council of Education Research and Training, the National Institute of Educational Planning and Administration, the National Council of Teacher Education and the National Institute of Adult Education will be involved in implementing the Education Policy.

4.1 The new Policy will lay special emphasis on the removal of disparities and to equalize educational opportunity by attending to the specific needs of those who have been denied equality so far.

The NPE,1986 made several recommendations on Technical and Management Education and some of the major relevant ones which need to be reinforced through continued implementation are reproduced below:

6.1 Although the two steams of technical and management education are functioning separately, it is essential to look at them together, in view of their close relationship and

complementary concerns. The reorganisation of Technical and Management Education should take into account the anticipated scenario by the turn of the century, with specific reference to the likely changes in the economy, social environment, production and management processes, the rapid expansion of knowledge and the great advances in science and technology.

6.2 The infrastructure and services sectors as well as the unorganised rural sector also need a greater induction of improved technologies and a supply of technical and managerial manpower. This will be attended to by the Government.

6.4 Continuing education, covering established as well as emerging technologies, will be promoted.

6.6 In view of the present rigid entry requirements to formal courses restricting the access of a large segment of people to technical and managerial education, programmes through a distance-learning process, including use of the mass media, will be offered. Technical and management education programmes, including education in polytechnics, will also be on a flexible modular pattern based on credits, with provision for multi-point entry. A strong guidance and counseling service will be provided.

6.8 Appropriate formal and non-formal programmes of technical education will be devised for the benefit of women, the economically and socially weaker sections, and the physically handicapped.

6.9 The emphasis of vocational education and its expansion will need a large number of teachers and professionals in vocational education, educational technology, curriculum development, etc. Programmes will be started to meet this demand.

6.10 To encourage students to consider self-employment as a career option, training in entrepreneurship will be provided through modular or optional courses, in degree or diploma programmes.

6.11 In order to meet the continuing needs of updating curriculum, renewal should systematically phase out obsolescence and introduce new technologies of disciplines.

INSTITUTIONAL THRUSTS

6.12 Some polytechnics in the rural areas have started training weaker groups in those areas for productive occupations through a system of community polytechnics. The community polytechnic system will be appropriately strengthened to increase its quality and coverage.

INNOVATION, RESEARCH AND DEVELOPMENT

6.13 Research as a means of renovation and renewal of educational processes will be undertaken by all higher technical institutions. It will primarily aim at producing quality manpower capable of taking up R&D functions. Research for development will focus on improving present technologies, developing new indigenous ones and enhancing production and productivity. A suitable system for watching and forecasting technology will be set up.

6.14 The scope for cooperation, collaboration and networking relationships between institutions at various levels and with the user systems will be utilised. Proper maintenance and an attitude of innovation and improvement will be promoted systematically.

PROMOTING EFFICIENCY AND EFFECTIVENESS AT ALL LEVELS

6.15 As technical and management education is expensive, the following major steps will be taken for cost-effectiveness and to promote excellence :

i) High priority will be given to modernisation and removal of obsolescence. However, modernisation will be undertaken to enhance functional efficiency and not for its own sake or as a status symbol.

ii) Institutions will be encouraged to generate resources using their capacities to provide services to the community and industry. They will be equipped with up-to-date learning resources, library and computer facilities.

iii) Adequate hostel accommodation will be provided, specially for girls. Facilities for sports, creative work and cultural activities will be expanded.

iv) More effective procedures will be adopted in the recruitment of staff. Career opportunities, service conditions consultancy norms and other perquisites will be improved.

v) Teachers will have multiple roles to perform: teaching, research, development of learning resource material, extension and managing the institution., Initial and in-service training will be made mandatory for faculty members and adequate training reserves will be provided. Staff Development Programmes will be integrated at the State, and coordinated at Regional and National levels.

vi) The curricula of technical and management programmes will be targeted on current as well as the projected needs of industry or user systems. Active interaction between technical or management institutions and industry will be promoted in programme planning and implementation, exchange of personnel, training facilities and resources, research and consultancy and other areas of mutual interest.

vii) Excellence in performance of institutions and individuals will be recognised and rewarded. The emergence of substandard and mediocre institutions will be checked. A climate conducive to excellence and innovation will be promoted with full involvement of the faculty.

viii) Select institutions will be awarded academic, administrative and financial autonomy of varying degrees, building in safeguards with respect to accountability.

ix) Networking systems will have to be established between technical education and industry, R&D organisations, programmes of rural and community development, and with other sectors of education with complementary characteristics.

MANAGEMENT FUNCTIONS AND CHANGE

6.16 In view of the likely emergence of changes in management systems and the need to equip students with the ability to cope with them, effective mechanisms will be devised to understand the nature and direction of change per se and to develop the important skill of managing change.

6.17 In view of the integrated nature of the task, the Ministry of Human Resource Development will coordinate the balanced development of engineering, vocational and management education as well as the education of technicians and craftsmen.

Relevant provisions in NPE 1986, on seeking to curb commercialization of education

1. Para 10.9 of the NPE) that non-governmental and voluntary effort including social activist groups will be encouraged, subject to proper management, and financial assistance provided. At the same time, steps will be taken to prevent the establishment of institutions set up to commercialise education.

2. Para 6.20 of the National Policy on Education states that in the interests of maintaining standards and for several other valid reasons, the commercialization of technical and professional education will be curbed. An alternative system will be devised to involve private and voluntary effort in this sector of education, in conformity with accepted norms and goals.

3. Para 6.18 of the National Policy on Education, 1992 mentions that professional societies will be encouraged and enabled to perform their due role in the advancement of technical and management education.

Chapter 6 TWELFTH PLAN STRATEGY OF THE DEPT. OF HIGHER EDUCATION

Introduction:

"Investment on people is crucial for ensuring that families have the skills, health and attitudes needed for taking advantage of the new opportunities that a healthy economy creates"[2]

Various Commissions and Committees have recommended 6% of the GNP to be spent on education. However, the plan outlays have been hovering around 4% of GNP.

India is blessed with a favourable demographic curve. Sustaining the growth rates in future require significant investments in human capital formation. Education and skill development assumes importance in translating the advantage of demographic dividend.

Higher resource allocation for education in public and private spending can drive the growth concurrently with skill advancement and generating employment in the sunrise sectors. The role of private sector in education has so far been marginal and needs to be suitably enhanced in view of competing claims from other relevant sectors for enhanced public spending.

The relationship between human capital and economic growth can be assessed through regressions of data incorporating explanatory variables for physical capital, education, level of income and, in some cases, proxy variables for various social and institutional factors. Some studies have pursued such analyses by including both developing and developed countries[3]. This increases the power of the statistical tests employed because of the greater variation in the posited determinants of growth. However, it also implicitly assumes common determinants of growth in developing and developed countries.

[2] Emmanuel Jimenez and Marlaine E. Lockheed, "Public –Private Secondary Education in Developing Countries- A comparative Study "(World Bank Discussion Paper 309, 1995)
[3] Financing Education – Investments and Returns; ANALYSIS OF THE WORLD EDUCATION INDICATORS; 2002 EDITION

In today's global knowledge economy, education plays a vital role in determining a country's economic growth and its people's standards of living. Education also enables countries and their people to succeed in the 21st century world. In India, the maximum job growth in recent years has taken place in the skilled services and manufacturing sectors. The country therefore needs to provide the 12 million young people who join the labor force every year with the necessary knowledge, skills, attitudes and experiences to enable them to access these better-paying jobs.

India, however, does not compare favorably with its global competitors in terms of the overall educational attainments of its people. Even countries like Vietnam and Bangladesh which have lower per capita incomes than India have higher gross enrollment rates (GER) in secondary schools. India's GER in secondary school is 40%, compared to 70% in East Asia and 82% in Latin America. GER in higher education is an abysmal 13.58%, which is lesser than even the Asian average of 21%.

Nevertheless, with larger numbers of India's children now finishing primary school, the demand for secondary schooling– Grades 9 to 12 - is growing. Over the next decade, the number of secondary school students is expected to increase from 40 to 60 million. An increasing share of these students will come from rural and lower income groups, who will be less able to afford private secondary education. This will also push up the higher education GER.

India being a very large country suffering from highly stratified social and class structure, there are disadvantaged groups which suffer from very low levels of education. The GERs for three main relevant age groups are given below[4]:

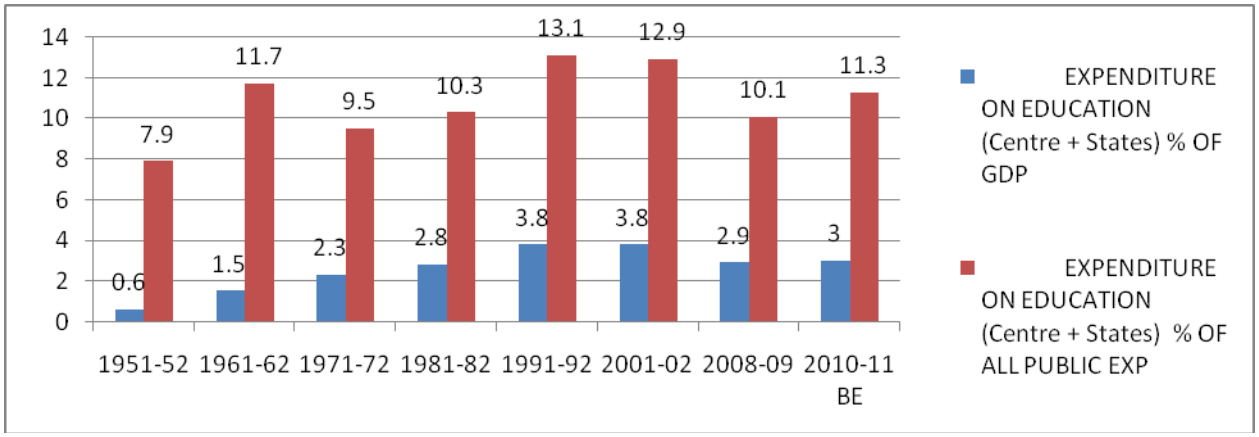
[4] ***Selected Education Statistics***, MHRD – 2008-09

Table –present GER indicators in Education

Age Group	Population (crore)	No. in school (crore)	Gross Enrolment (GER)
14-16	4.84	2.89	59.82
16-18	4.86	1.66	34.25
18-24	10.54	1.70	13.58

The present level of expenditure in India is about 3.78% of GDP which is way below the targeted expenditure of 6% as recommended by the Kothari Commission[5]. The graph given below shows the trends of expenditure in India as %age of GDP and as %age of total public spend on education.

Graph– Public Expenditure on Education

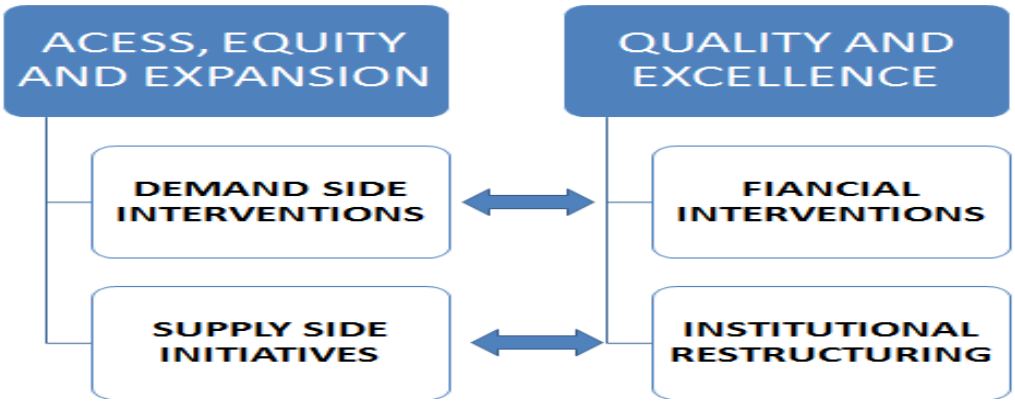


Out of the total allocations in the education sector, Elementary Education takes a lion's share. The elementary education sub- sector is now saturated with 104% GER. The share of higher education is 11.89% while the share of technical education is 4.78%. The XII Plan approach paper has set a target of spending 25% of the total budget on higher

[5] http://www.education.nic.in/cd50years/g/W/16/0W160401.htm

and technical education. Similarly, the approach paper also mentions a target of spending 1.0% of GDP on higher education and 0.5% of GDP on technical education.

The XII Plan approach would be mainly comprising of two broad components, i.e. demand side interventions and supply side initiatives. An appropriate mix of these two components would be followed in order to attain optimum results. While the existing interventions would be consolidated, a few new ones, especially in the area of demand side interventions are proposed to be launched. Focus would be also on the non-financial reforms, in the shape of institutional re-structuring, imperative in order to keep the Indian higher education in synch with rest of the world. Institutional reforms at the highest level, including regulatory structures at the apex level are essential if India has to occupy a position of leadership in the comity of nations and transform into a real 'knowledge society'.



The XII Plan proposes a balanced approach to expansion of higher education with both supply side and demand side interventions. The crucial gaps in the policy frame of higher education can be enumerated as follows:

POLICY GAPS:

- Archaic regulatory structures and bureaucratic controls on higher education leading to stifling of innovation, creativity and initiative.

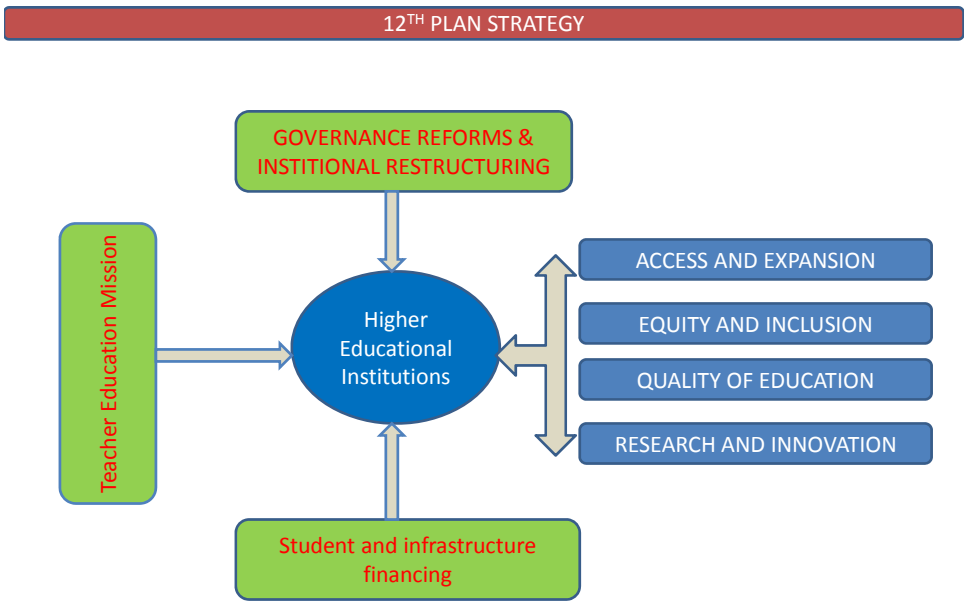
- Inspection and approval regimes promote corruption and sloth. We need to move away from this paradigm to authentication and automatic approvals.
- Grant giving functions are not normative and lead to excessive subjectivity. Grants should be based on entitlements and not on subjective demands.
- Education not declared as infrastructure. Many of the concessions and other benefits are therefore not flowing in HE sector.
- Re-finance of infrastructure loans not available. Infrastructure loans are treated as any other commercial loan.
- Requisite private investments are flowing in the HE sector, but only in professional and technical education, and not in general education. Unbridled and unregulated privatization has led to spatial and programmatic distortions.
- Requisite attention from states on higher education is missing. Many states have left the field of higher education purely to private sector. The investments on education are actually declining in most of the states. There is a need to incentivize states to step up their investments on higher education.
- Only 0.7 of GDP is being spent on higher and technical education as against a target of 1.5% of GDP (1.0% on general higher education and 0.5% on technical and professional education).
- 40% of the faculty posts are either lying vacant of filled up with unqualified or ad-hoc faculty. This reflects on quality of education**.** There needs to be a mission mode project to address both the quality as well as quantity of teachers in the tertiary education sector.
- Only 0.8% of GDP is being spent on R&D as of now. We need to ensure that atleast 2% of the GDP is spent on R&D.

STRATEGIC SHIFT:

XII plan envisages a radical shift in the entire governance paradigm in the higher education sphere:

FROM	TO
DEMAND BASED GRANTS	NORMATIVE & ENTITLEMENT BASED
INSPECTION BASED APPROVALS	INDEPENDENT AUTHENTICATION
SUBJECTIVE ASSESSMENTS	OBJECTIVE ASSESSMENT
REGULATION BY COMPULSION	SELF DISCLOSURE
INPUT BASED FUNDING	OUTCOME BASED PLANNING

The Plan proposals are divided into three main components, viz. access, equity and expansion and quality and excellence. The XII plan strategy focuses on governance reforms, addressing higher education financing issues along with addressing issues of equity, access and expansion.



The fundamental principles of planning for all the eleven Five Year Plans have been on the supply side interventions so far, and rightly so. However a time has come now to focus more on the demand side interventions along with consolidation of existing expansion efforts.

1. Supply side interventions:

The expansion efforts of the Ministry would continue with setting up of new institutions funded by the central government. To meet the enrolment target it is necessary that expansion in the intake capacity of government institutions takes place. The existing institutions need to be supported to develop infrastructure. During the XII Plan, universities and colleges can be classified in terms of quality quartiles. The highest amount of financial support may be provided to the lowest quality institutions especially those which are in rural regions, remote areas, and hilly terrain. Funding may be ensured to bridge the quality gap. This strategy will meet the needs of expansion as well as reduce the quality gap. The infrastructural funding will be necessary to create a level playing field and mandate institutions for accreditation. To meet the needs of expansion all new institutions which were established during the current Plan may also be provided funding. Government institutions alone will not achieve such a large enrolment target. Therefore, huge investment in private sector will be necessary. One possibility is that Finance Commission may be approached to provide non-plan grant for some underdeveloped states where the GER is less than All India average. The objective of such non-plan grant will be to meet the infrastructural deficiencies of institutions of higher education and also fill up the existing vacancies of teachers. New institutions will be set up to bridge regional imbalances and disparities across disciplines and to address special economic, social and technological needs of the country.

NEW INSTITUTIONS

1 Central Universities

2 Universities for Innovation

3 IITs

4 IIMs

5 IIITs

6 NITs

7 IISERs

8 Polytechnics

9 New Model Colleges

10 Language Institutions

EXPANSION OF EXISTING INSTITUTIONS

1 Central Universities

2 Universities for Innovation

3 IITs

4 IIMs

5 IIITs

6 NITs

7 IISERs

8 Polytechnics

9 Degree colleges and engineering and professional institutions

10 Language Institutions

The UGC has recommended increasing and enhancing access through a Mission mode national programme, "Rashtriya Uchch Shiksha Abhiyan (RUSA)" aimed to achieve 25% national level GER which will include (a) upgradation of autonomous colleges with College with Potential for Excellence status and NAAC-A grade accredited colleges as university level institutions; (b) promoting evening universities/evening colleges; (c) introduction of undergraduate programmes in universities as integrated

UG/PG programmes; (d) enhancing intake capacity of existing institutions of higher education; (e) developing the 'College Cluster Universities' regionally and by (f) establishing "Meta university complexes" in association with Public/Private sector undertakings as a part of their corporate-social responsibilities on an industry-academia mode.

14 Universities for Innovation are also proposed to be created in the XII plan at a cost of Rs. 2500 crores.

2. Incentivization Scheme:

It is proposed to initiate a Centrally Sponsored Scheme wherein states would be incentivized to invest resources in creating new HEIs and expand existing ones. This would be an umbrella scheme infusing sufficient flexibility for the states to plan for expansion of state institutions. They can either set up new institutions or expand the existing ones depending on the need. The scheme would be applicable for all districts where GER is less than 15%. The funding pattern is proposed as follows:

75:25 for general category states

90:10 for special category states

The states would be free to mobilize part percentage of their share from private partners by means of innovative PPP schemes. It is proposed that states may mobilize 50% of their share through private sector by innovative means. The states can set up and expand:

1 State Universities
2 State Engg Colleges
3 State Colleges (others)
4 Diploma level institutions
5 Vocational Institutions

3. Re-financing of debt for infrastructure:

The National Education Finance Corporation is proposed as a Development Financial Institution to support expansion in education infrastructure. One of the activities of the NEFC would be to re-finance education infrastructure debt taken by private and public agencies.

4. Infrastructure financing in Public institutions:

It is proposed to enable institutions also to explore avenues of mobilizing debt through banking sector. The state would stand as a guarantee for the loans taken by public sector institutions. The institutions located in rural areas should be made eligible for RIDF financing. One of the ways of doing it could be by means of Private Financing Initiative (PFI) on the lines of UK and Australia.

The need of the hour is to pool in resources of the state agencies, Central Government and private agencies involved in education. The need also is to leverage these resources by tapping the market finances available through the banking sector. It is acutely felt that while a lot of efforts have been made all through the 11 five year plans, the focus on demand side management has somehow been missing from the policy frame. It is felt that without effective demand side management; GER growth now would be only marginal and may not yield desirable results.

Any delay in including education as part of infrastructure and eligible for benefits would be counter-productive. Planning commission and finance ministry would be implored to issue notification as soon as possible.

- Spatial planning – mapping of institutions: incentives for new institutions based on demand.
- Funding pattern to be 75:25 for general category states and 90:10 for special category states. (50% of the state share could be mobilized through PPP).

• Charter Colleges Scheme – a new scheme is proposed wherein private entities can be permitted to set up colleges in the districts which have no degree colleges at present. The cost of students sponsored by state will be reimbursed by the government.

5. Demand side interventions:

NSSO 64th round (2007-08) estimated that 21% of the persons had cited financial constraints as reasons for not pursuing education beyond secondary class. This brings in sharp focus the fact that without demand side financing; our efforts at enhancing GER may not succeed.

It is proposed to cover a minimum of 50% students in one way or the other by means of demand side management.

		TARGETS	Sector
1	STUDENT LOANS	20% of Students	central
2	SCHOLARSHIPS/FREESHIPS	4,00,000	central/state
3	FELLOWSHIPS	24,000	central
4	TUTION FEE WAIVER	1 million	central/state
5	TUTION FEE REIMBURSEMENTS	0.5 million	central/state
6	INNOVATIVE FEE MIX	1 million	central/state
7	EDUCATION VOUCHERS	5,00,000	state
8	STUDENT INTERNSHIPS	1 million	central/state
9	VOCATIONAL APPRENTICESHIPS	1 million	CSS
10	TEACHING ASSISTANTSHIPS	50,000	CSS

The demand side is to be addressed through several strategies. The main strategy is that of encouraging institutions, especially the Universities to become one-stop-shop for student financing.

Universities as one stop shop for student financing: The Universities should adopt the best practices adopted in best of the international Universities where the University takes care of all financing needs of the students. It is worthwhile to note that these Universities only see eligibility and merit while granting admissions. The student financing is almost implied. There are innovative student financing options available which may include partial or full fee waiver, deferred payment options, apprenticeships, and internships alongside student loans. Unfortunately in India so far, the affordability of education is one of the biggest constraints deterring students from pursuing higher education. This also skews the demand for education since many bright students evaluate courses on the fulcrum of cost rather than aptitude. The problem is far more acute today since 80% of the technical and professional education is in the hands of private self financed institutions where cost is the biggest factor. It is therefore proposed to create NEFC which could infuse more liquidity in the market for education credit needs of students. The NEFC is proposed to re-finance student loans, undertake credit guarantee operations and also engage in interest subvention schemes.

6. Strengthening State Universities and Colleges:

The bulk of enrollment in higher and technical education takes place in universities and colleges supported by the state governments. Assessment of critical infrastructure requirements and additional infrastructure for capacity creation (including branch campuses) in State universities, government and government aided colleges, as also engineering and technical institutions is essential. Support during XII and XIII Plan is absolutely necessary to support expansion. This would also help to address regional imbalances & quality gaps. UGC is the primary funding agency for this purpose. The following interventions would be initiated in the XII plan to address quality gaps and resources gaps:

- Norms based funding of UGC schemes
- Streamlining procedures for eligibility under 12B of UGC Act

- Governance reforms in restructuring the affiliating system
- Granting autonomy to institutions with potential for excellence
- Upgrading autonomous colleges to degree granting institutions
- Implementing ERP/MIS for transparency & efficiency
- Rationalizing procedures to reduce delays
- Better coordination between UGC and State governments are also planned.

7. Special schemes to address equity and inclusion:

Not only would the XIth plan schemes be continued, but new schemes would also be launched to address special needs of minorities, women and weaker sections. It is proposed to create Equal Opportunities' Cell in every institution. Special focus would be laid on the 90 Minority Concentration Districts (MCDs) of the country to ensure that good quality institutions are available to all minorities. Similarly, efforts would be made to expand the number and coverage of scholarship schemes for SCs/STs and OBCs. Girls Hostel schemes and Single Girl Child Scheme would be continued. All efforts would be made to ensure that 3% reservations to PWDs is ensured in all institutions. Efforts would also be focused on skill enhancement of special classes needing special efforts. GER parity of all classes would have to be ensured.

QUALITY AND EXCELLENCE

Government has initiated a number of initiatives to ensure quality of teachers. The new UGC pay scales have largely addressed the issue of remuneration to teachers. Now the starting salary of a university teacher is more than that of a civil servant at same level. The age of retirement for teachers is now 65 years in all central educational institutions.

Similarly, in order to ensure quality of teachers, NET/SLET is made compulsory for recruitment of teachers. Similarly, PhD norms have been tightened. The following

critical factors need to be addressed during the XII Plan for improving the quality of teaching and learning in the higher educational institutions:

- State governments are reluctant to engage qualified faculty since it means a lot of financial expenditure. Many state institutions are engaging part time and ad-hoc teachers who are not fully qualified. There needs to be a mix of deterrence and incentives in order to address this problem.
- Shortage of qualified teachers: almost 40% of the faculty posts are vacant. A new scheme of Teaching Assistant ship is therefore proposed to be implemented in XII Plan to catch candidates with proper aptitude for teaching and research.
- There is a growing tendency on part of private institutions to engage unqualified faculty. This need to be addressed through appropriate regulatory regimes.

Another facet mirroring the quality is that of R&D investments and research outcomes in the institutions of higher learning. The expenditure on R&D in India is only 0.80% of GDP. It needs to be enhanced to 1.5% of GDP. The Kakodkar Committee constituted to recommend strategies to improve technical education in the country has recommended 2% of the budget in every institution to be earmarked for research. Government will pursue this goal to ensure that every institution sets apart 2% of its budget for research.

KEY STRATEGIES:

- Quality assurance frameworks for institutions
- Teacher student ratio to be improved – it can be kept at 1:12 on average
- Quality and availability of faculty to be improved through a special mission mode project
- Enhancing quality of research and innovation
- Faulty recruitments to be streamlined
- Ensure proper monitoring of private institutions
- Prevent commercialization of education

- Ensure student mix in the institution
- International and regional exposure to institutions
- Access to learning resources by students
- Adoption of technology enabled learning environment
- Addressing motivation levels gaps of teachers
- Good management practices
- Norm based funding of schemes

New initiatives would be needed in order to address the quality deficit in the institutions. These schemes could be in the form of schemes with financial commitments or simple institutional reforms. It is proposed to launch a CSS on Teacher Education in order to address the needs of the teacher requirements in terms of quality and quantity.

1. Quality of research and quality of infrastructure:

The following key policy and execution parameters would be followed in order to enhance quality of higher education in India:

- Outcome based research financing.
- Liberal research grants for both social sciences and basic sciences.
- Setting up Incubation Centers with enough Seed Money to do innovative research
- Ex-post-facto grants for outstanding research leading to creation of intellectual property
- Collaboration with R&D in industry – set up Research Parks in central educational institutions, especially IITs.
- Institutional reforms to ensure that industry and academia collaborate on creation of new intellectual property.
- Lab – classroom linkages – to be fostered through joint appointments and student community gaining access to research facilities in laboratories. S&T Ministry,

Dept of Bio-technology to collaborate on creating institutional structure for fruitful exchanges. Labs of CSIR, ICAR etc to forge alliances with universities.

- Joint appointments of faculty – enabling researchers to teach and teachers to engage in research.
- Inter-disciplinary research – Institutions must come together for creating new knowledge at the intersections of existing disciplines. Dept of Medical and Health, Dept of Bio-technology and Dept of IC&T to collaborate with MHRD.
- Centers in frontier areas – 50 centers to be established during XII plan.
- Out of turn promotions for faculty for creating intellectual property.
- Investment on R&D to be enhanced to 1.5% from 0.8% of GDP.
- Every institution to set apart 2% of its budget for research.
- IITs and IIMs to be encouraged to devote more resources and energies on R&D.
- Inviting projects on R&D from abroad – India has become a favoured destination for R&D projects for its cost effectiveness. This area needs further exploration in order to ensure that grants from abroad are available for R&D.
- Research Park – 50 Research Parks to be set up over the plan period. Innovative ways of attracting private investments would be explored.
- IITs and IIMs to be encouraged to devote more resources and energies on R&D.
- Innovation Universities- 14 Universities to be set up in public sector. The Bill for Innovation Universities provides a facilitating framework for private Universities and in PPP mode also.
- Composite grants for research projects.
- Frame new workable and viable PPP architecture in research and innovation.
- Implementation of MM Sharma Committee recommendations - Rs. 500 crores to be spent on research in basic sciences every year by UGC.
- Investments in social science and humanities research to be stepped up. It is proposed to enhance the grants for research projects and scholarships to ten times

the present number. The special councils under the Ministry, namely ICHR, ICSSR, ICPR and IIAS would play a significant role in focusing on social science research. About Rs. 250 crores to be spent by Research Councils under MHRD.

2. Consolidating and improving the capacity and quality of the existing institutions.

It is imperative for us not to neglect existing institutions at the cost of new ones. There is need for institutions to explore avenues for existing institutions to reach greater heights of their potential. The following approaches would be adopted for ensuring the same:

- The concept of Meta University aimed at collaborative and multi-disciplinary learning that redefines knowledge-creation and knowledge-sharing in the twenty-first century, could also be explored.
- Mandatory accreditation to ensure quality of institutions.
- Preferential treatment system by regulators for institutions addressing the quality needs in terms of teacher vacancies, quality of teaching and research etc.
- Perspective disciplines planning by regulators for existing institutions – it is imperative for the regulators to start doing a holistic planning in order to ensure that future needs of the country in terms of disciplines are not neglected. A balanced approach should be adopted to address the needs of future and also to ensure that existing distortions are rectified.
- Expansion of ODL modes it is proposed to ensure that 10% of the enrolment takes place in the open and distance learning institutions. This target would itself ensure that higher education needs of marginalized sections are met.
- Autonomous Colleges – there is need to ensure that good colleges are given autonomous status.

- Degree granting powers to colleges – the affiliation system has at times proved to be detrimental to growth and development of higher education. It is seen that at times the universities engage continuously in management of affiliated colleges at the cost of other pressing academic pursuits.

3. Faculty Shortage and quality of faculty:

A Report by the Task force on faculty shortages and quality of faculty has been recently submitted. It has been established that state institutions and central institutions suffer from 40% and 35% shortage of faculty respectively. It is one of the most important factors impacting the quality of teaching. Success of XII plan strategy would largely depend on how best the government is able to address this quality and number gap. The report has recommended various measures to address the faculty shortage.

KEY STRATEGIES:

- Grants to be linked to vacancy position in institutions. UGC schemes will be made norm based in order to incentivize institutions to engage qualified faculty.
- New scheme of teaching assistantship as recommended by Dhande Committee. It is proposed to create 50,000 positions of assistantships. These young persons would be groomed and trained in pedagogy along with the respective disciplines so as to fill up vacancies in all institutions.
- Strengthen Departments and Schools of teacher education in all universities. The needs of the school education sector have to be met by the universities. Almost 86 universities do not have teachers education departments. It is proposed to create the same.
- Joint appointments of teachers: researchers can be engaged as faculty and vice versa.
- Scheme of visiting professors to be further strengthened and encouraged.
- Operation faculty recharge will be implemented in full swing.

- **National Mission on teachers** – a mission mode project as proposed by Dr. CNR Rao to be launched from first year of the XII plan.
- Compulsory training and orientation to teachers – also strengthen Academic Staff Colleges of UGC.
- Promotions to be linked with performance – Performance Based Assessment System (PABS) to be enforced fully in all institutions.
- Enhancing prestige value of profession.
- There is a policy vaccum when it comes to engaging foreign faculty or NRIs/PIOs in the institutions of higher learning. MHRD would soon come out with a policy to address this gap. It is proposed to further liberalize norms for engagement of faculty from other countries.
- Associating outstanding persons from various trades and conventional disciplines with formal education system as associate faculty. This would be especially relevant for humanities, liberal arts, languages and disciplines like epigraphy and paleography.

GOVERNANCE REFORMS AND INSTITUTIONAL RESTRUCTURING:

There is a dire need to undertake reforms in the entire higher education sector beginning with regulatory structures and going down to the institution level. The following approaches would inform the entire reform agenda of the Ministry:

- **Independent quality assurance frameworks** are essential to address the quality deficit in the higher educational institutions. A comprehensive reform agenda has to be relentlessly pursued in the XII plan in order to bring the institutions at par with world quality institutions.
- **Creating a single over-arching authority**: 11th plan noted that an apex regulatory institutional mechanism should be created which must be at an arm's-length from the government and independent of all stakeholders. The main function of the

regulatory mechanism would be setting and maintenance of standards as also to evaluate performance and outcomes. Recommendations on Independent Regulator have also been given by the National Knowledge Commission and for an overarching body for higher education & research by the Yashpal Committee. Government has initiated the process for the establishment of such an apex body. A draft bill, the "National Commission for Higher Education and Research Bill, 2010", has been finalized for this purposes. The new structure would ensure that future needs of the country in terms of inter-disciplinary learning are met.

- **Autonomy of institutions:** It is also proposed to re-align the regulatory functioning in such a way as to promote autonomy of institutions. This approach envisages that we embrace a paradigm shift from to Facilitation rather than regulation; Single point clearances for grants and clearances; encourage global quality institutions. Autonomy of institutions would also be achieved by conferring degree granting powers to colleges and conferring autonomous status on colleges.
- In order to ensure horizontal and vertical mobility of students, we need to ensure that a uniformity is achieved in terms of syllabi and curricula through a framework; **Choice Based Credit System (CBCS)** is adopted by all institutions.
- It is also proposed to move away from multiplicity of entrance and eligibility examinations to a single national test. A **National Testing Service** would be developed through consultations and debate. It is proposed to create a **National testing and Evaluation Organization (NTEO)** to undertake this gigantic task.
- Permitting foreign education providers in India for proper regulation and internationalization of education by enhanced collaborations.
- Norm based funding of higher education rather than subjective demand based inspection governed funding.

- Central Educational Institutions Reforms: the central universities and central institutions like IITs and IIMs would be further granted autonomy. The IIT Councils would be further strengthened to provide requisite support and guidance to all institutions.
- Creation of National and State Educational Tribunals to deliver speedy justice to all litigations arising in the higher education sector.
- Prevention and prohibition of unfair practices so as to ensure that only merit plays a role in admissions. Capitation fees and misleading advertisements to be punished severely.

These reforms would have to be couched within the emerging architecture of global higher education, carefully blending external policy feedback with the country's own endogenous policy traditions.

Norm based funding of UGC schemes:

UGC is the main vehicle of routing funds to central and state Universities and colleges for funding. UGC has been administering around 75 schemes. The process of approval and sanction is not only time consuming, it also suffers from opaqueness and prolixity. Several schemes are delayed and never achieve intended results. The process of approval is not norm based. It is proposed to adopt a norm based funding approach as far as general development grants are concerned. A schema is therefore proposed to be adopted by UGC during XII plan.

The approach gives the notional entitlements which may be adopted uniformly for all the institutions. While central and public funded deemed universities would be entitled for 100% requirements, the state institutions would get not more than 75% of entitlements.

The locational factors would determine the percentage of grants to be sanctioned. This would ensure a discount factor for locational handicap. It would act as an incentive for

new institutions to come up in backward areas and also encourage the states to expand existing ones.

HIGHER EDUCATION FINANCING:

XII Plan approach paper mentions that about 18 per cent of all government education spending or about 1.12 percentage of GDP is spent on higher education today. This should be raised to 25 percent and 1.5 per cent respectively. An increase of 0.38 per cent of GDP means an additional allocation of about Rs.25, 000 crore to higher education for the Centre and the States taken together.

State universities and their affiliated colleges that account for more than 90 percent of the enrolment suffer from severe fund constraints and poor governance leading to poor quality.

1. Strategic Central funding:

Strategic Central funding, based on State higher education plans should be leveraged to stimulate more state funding linked to academic and governance reforms which may include norm based funding for State universities and colleges. A new

It is proposed to initiate a Centrally Sponsored Scheme wherein states would be incentivized to invest resources in creating new HEIs and expand existing ones. This would be an umbrella scheme infusing sufficient flexibility for the states to plan for expansion of state institutions. They can either set up new institutions or expand the existing ones depending on the need. The scheme would be applicable for all districts where GER is less than 15%. Institutions should be encouraged to raise their own funds through various legitimate means.

2. Education as infrastructure:

There is an urgent need to declare education as part of infrastructure in order for the benefits to accrue to educational institutions. At present several agencies define infrastructure differently. RBI treats it as infrastructure but it is not permitted for external

commercial borrowings. IRDA also treats education as infrastructure. But Income Tax Dept does not treat it as infrastructure. Planning Commission is in the process of finalizing its approach.

World Bank treats it as infrastructure. DEA does not treat education as infrastructure but recently it has included it in the Scheme for Viability Gap Funding Support to PPP in Infrastructure.

3. Education loans:

Education Loans in Priority sector as per RBI Master Circular. Now MSMEs eligible for investment in education infrastructure.

Theoretically FDI automatic route applicable for investments in education – but investments in Societies and trusts have to obtain FIPB clearance.

Education is a not-for-profit activity as per Supreme Court rulings – no dilution possible.

The gap between demand and supply needs to be addressed by innovative ways in order to mobilize extra resources, if the targets have to be met. Hence in addition to the government funding, certain extra measures are proposed to meet the shortfall. The main strategies which can be highlighted here are the following:

- **Creation of National Education Finance Corporation (NEFC)** to be a corporate entity exclusively dedicated to addressing resource gaps in the education sector by undertaking re-financing and direct financing of education infrastructure; giving credit guarantees for educational loans and giving educational loans. A lot of resource gap can be met by this entity. This entity would also encourage philanthropy in education. The NEFC would undertake the following activities:
  - Re-financing of educational loans taken by students.
  - Re-financing and direct financing of the infrastructure in education.
- Vigorously pursuing and implementing PPP in education to leverage resources and also to ensure optimum participation of private sector in providing education facilities.

 Undertaking and launching new schemes to cater to demand side management. Such schemes have been very few and ineffective as of now.

4. Enrolment expansion & Equity concerns:

- Enhance demand side interventions - scholarships, fellowships, loans, grants, fee waivers.
- Norm based funding.
- Equity indexing of institutions.
- Special focus on girl students.
- Mid day meals??

5. Demand side interventions.

Education loans: as per an Assocham study only less than 3% students, mostly belonging to middle income families in India avail of education loans while the same is 85% in UK, 77% in US and 70% in Germany and France.

Education loans aggregating Rs.32,000 crore are outstanding and the average size of the Education loan is less than Rs.2,00,000 as per the data published by Indian Banks Association.

It is envisaged that out of the total Students enrolled for Higher studies 10% to 18% and 35% to 40% students may seek loan for other higher education studies and technical studies respectively during the period 2012-2020, if the Government strengthen institutions and regulations in this sector so that refinance is provided at concessional rates to the Banks in respect of Education loans granted by them.

Based on these assumptions aggregate fund requirement for Education loan has been worked out at Rs 1,59,350 crores during the period 2010-2020. The NPAs have risen from 3.52% in 2009 to 4.06 in 2010.

KEY STRATEGIES:

- Creation of NEFC with an initial corpus of Rs.5500 crores.

- Innovative student financing schemes.
- Universities to be one-stop-shop.
- Innovative fee waiver+loans schemes.
- Differential fee regimes.
- Interest subvention and graduated interest escalation corresponding with income levels.

VOCATIONAL EDUCATION:

The Vocational Education and Training sector in the country is small and this limited capacity is under utilized due to poor quality and lack of social status.

There is an urgent need to develop a large sector offering short□cycle qualifications in the form of associate degrees catering to intermediate skills in the higher education space within the National Vocational Education Qualifications Framework.

KEY STRATEGIES:

- Market demand based design of courses (modular).
- Progression pathways.
- Vocational framework with reliable accreditation mechanism.
- Structural unemployment to be addressed by policy interventions.
- NOS for all trades.

Public private partnership:

The K.B. Pawar Committee constituted by the UGC has recommended the following four models of PPP in higher education:

Model I – Basic Infrastructure Model: Private sector invests in infrastructure while government runs the operations and management and make annualised payments to the private investor;

Model II – Outsourcing Model: Private sector invests in infrastructure and runs the operations and management while responsibility of the government is to pay the private investor for the specified services;

Model III – Equity/Hybrid Model: Investments in infrastructure is shared between the government and private sector while operations and management vests with the Private sector;

Model IV – Reserve Outsourcing Model : Government invests in infrastructure and the private sector takes the responsibility of operations and management.

Very few PPP models have been tried in the field of higher education so far. While the aided colleges are one of the conventional forms of ppp, their impact has been felt more on addressing issues of access and expansion, with limited or no impact on quality.

The department has initiated a new scheme of PPP in setting up 20 IIITs. It needs to scaled up.

New forms of PPP have to be explored. One way could be to explore the option of private financing initiative (PFI).

PPP could be explored in the following formats:

1. Private Financing Initiative
2. Modified voucher system for below poverty line students belonging to SC/ST.
3. Charter colleges
4. Outcome based financing for sponsored students

Chapter 7 QUALITY, RESEARCH AND INNOVATION

1. Substantial progress has been made in providing equitable access and expanding the reach of higher education. Now, the thrust has to be on improving the quality of higher education. Hence, a paradigm shift in focus is needed from institution building to development of human resources. The Ministry had constituted a Task Force to assess the extent of shortage of faculty in the higher education system for recommending strategies to redress the situation. Prof. C.N.R.Rao has suggested addressing this problem in a Mission mode and recommends launching a National Mission on Teachers and Teaching. In the XII Plan, it is proposed to launch a **National Mission on Teachers and Teaching (T&T).** The Mission will look at teacher education in a holistic manner and in a single continuum covering school to universities and suggest ways to strengthen the institutional mechanisms at all levels so that there is vertical and lateral linkages. The challenges of technology interventions to enhance effectiveness of classroom transactions and how to equip teachers in its use will be clearly spelt out. At the macro-level, making teaching jobs more attractive and restoring it to the level of a noble profession will have to be thought about and suitable enabling policies must be formulated. (Details **in Chapter 9)**

2. National Mission on Science Education: A national mission on science education should be established to promote science education and research. National Mission of science education should attract talent in science subjects. The mission should also attract the reputed scholars in science in foreign University to India. Many collaborative science research projects may be initiated and a number of fellowship programs in research should be enhanced.

3. Academic reforms: Academic reforms in universities and colleges should be high on the agenda in the XII Plan. Government may consider implementing the recommendations of the committee to introduce four years under graduate to integrate education and skill. This may be initiated at least in all the Central Universities. Four years undergraduate study should have all the flexibilities to provide a menu of choices to the students, easy entry and exit and language and soft skill capacity building.

- Common admission test is another initiative to be undertaken in order to solve the problems of admission in engineering, medical, dental and management courses.
- Affiliating system reform that began during XI Plan should continue during XII Plan as well. Effort should be made to integrate affiliating colleges with universities system to a critical mass of students and teachers to create knowledge. Large affiliating university should not have more than hundred colleges. The condition to grant affiliation should be determined at the national level and all Universities need to follow them. A mixed blend of comprehensive University and affiliating university should be maintained.
- To encourage mobility of teachers from one institution to another it is necessary to allow the portability of the pensions as well. Universities need to sign MoUs on teacher exchange for a short period.
- Higher education commission should be established at the earliest. It should make research-based periodic reports. Should have a three year term and should guide the higher education policy in a systematic manner.
- Universities need to encourage the publication of standard journals. In particular Journal of comparative higher education should be started.
- Curricular reform and right architecture of course needs to be promoted.
- Research Parks in the state universities should be promoted with the help of industry to create linkages with them.

4. During the XII Plan, the promotion of research should have higher priority. Fundamental research in basic sciences, social sciences and humanities needs to be promoted. The interdisciplinary research with the purpose to solve social and technological problems would be supported. All the University Departments should have at least one collaborative research project. Teachers who want to have doctoral degree from foreign reputed universities may be assisted. Quantitative skill building capacity may be acquired in the foreign University for which support may be given. Applied science and mathematics research should be strengthened. Large number of fellowships for doctorate and post-doctorate should be supported. This also calls for capacity building in the area of intellectual property rights and developing this domain area, which is, presently at a nascent stage in the country. Innovations need to be supported in the colleges and universities as application of knowledge is somewhat a neglected area. Research should have the strategy to promote innovation in such a way that it is useful for the society. National Knowledge Network should be utilised to promote innovation. Case studies on innovation may be published and promoted. The UGC and AICTE have incorporated several new initiatives aimed at promoting research and innovations in higher and technical education. These include setting up research parks, industry-institute collaborations, centres of excellence, innovations in teaching –learning and technology transfer.

Equally significant is the creation of an enabling policy framework which gives substantial thrust and concentration on research and facilitating it in all areas and sectors both in unitary and in a multi-disciplinary fields. **Earmarking 2 per cent funds for R & D may be a core policy contemplated across GOI Departments. (Concept Note at Appendix –A)**

5. ICT, Technology enabled learning and Open and Distance learning: The potential of ICT must be utilized to its maximum to support expansion and quality of higher education. Greater focus is to be given to open & distance learning but standards need to be ensured. Convergence between conventional and open and distance mode of learning, such as, encouraging the Blended Model of learning. Several measures must be taken to strengthen the ODL system which can serve to enhance the GER. ODL systems must be encouraged in existing conventional Universities with stringent regulatory controls.ODL can be explored in deemed to be universities as also online courses. The yardstick is ensuring the quality of the courses. Details of Open and distance learning initiatives which IGNOU proposes in the XII Plan is appended.

6. Internationalisation of Higher education: Greater focus on cross- border higher education and collaborative arrangements for UG, PG and research education. Creating an enabling mechanism of international student exchange and tie-ups with foreign universities to start with would be essential in this direction. Changes in existing regulatory laws, for instance granting four year visas at one go will facilitate foreign students undergoing undergraduate education without the hassles of renewing visas half-way through the course. India may also become a hub of education for students in South Asia, south-east Asia, African and Arab countries.

Appendix-A

Concept Note on earmarking 2 per cent of GOI Ministries/Departments allocations for research

1. Introduction:

The Kakodkar Committee which has been set up to suggest a roadmap for the autonomy and future of the Indian Institutes of Technology (IITs) as world-class institutions for research and higher learning, has made specific recommendations on enhancing research within IIT's. It is felt that these recommendations could be extended to Universities and other institutions of higher learning so as to create an enabling environment as well as strengthen research within each Department and Ministry of the Government of India.

2. Extending Kakodkar Committee recommendations to cover all GOI Ministries

In order to achieve the Vision of realizing the country's human potential to its fullest, one of the main strategies should be to promote excellence in research and innovation so as to develop ourselves as a knowledge economy. The Mission of the Department of Higher Education is to enhance the quality of education and research by initiating policies and programmes for strengthening research and innovations and encourage both public and private institutions to engage in stretching the frontiers of knowledge.

Among the many initiatives planned in this direction are the Innovation universities. In addition, composite research universities with focus on research (but also teaching as necessary component of it) in core areas such as pure sciences , applied sciences , engineering and technology, nuclear science, biotechnology, agriculture among others, as also on related peripheral and secondary disciplines, need to be promoted in India. Sector Innovation Councils with focus on providing platforms for

innovation right from school to higher education, need to be developed alongwith at least 50 centres of innovation in different institutions of higher learning. There is a need for greater cooperation between the higher education system and different ministries and organizations involved in scientific research so as to take advantage of synergies amongst them.

The Ministry is of the view that the Kakodkar Committee recommendation of earmarking two percent of the budgeted allocation of each Ministry /Department exclusively for research will reap a lot of benefits and go a long way in creating an enabling climate of research. This would ensure a focused and targeted approach towards research in a variety of domains which are handled by each implementing line Ministry. The deliverables and outcomes could be specifically identified and progress monitored in a more effective manner. Also, each Ministry would contribute to the creation of a body of knowledge which could dramatically expand the knowledge base. It would pave the way for raising our country's technological and knowledge levels, thereby making it to the legion of advanced countries and raising her global esteem. Given these significantly tangible benefits of setting aside earmarked funds specifically for research, it would be desirable if this could be considered as a policy recommendation for implementation by each Ministry/Department during the XII Plan.

Chapter 8 VOCATIONALIZATION OF HIGHER EDUCATION

National Vocational Education Qualifications Framework (NVEQF) :

1. Steps involved: National Occupational Standards, Competency levels identified by Sector Skills Councils, development of appropriate vocational curriculum. Flexibility and mobility between diploma and degree needs to be encouraged through National Vocational Education Qualifications Framework.

2. Vocationalisation through short and medium term training courses for skill formation with one and two year diplomas/associate degrees to be conducted in (a) degree imparting technical or general colleges, (b) polytechnics, community colleges, vocational colleges. Industry and industry associations to be major players in capacity building for VE.

3. A national level body to promote, maintain standards, define qualifications and issue guidelines to universities and colleges to maintain standards for vocational courses may be established.

AICTE & UGC proposals

The AICTE has proposed Introduction of Competency based Vocational Education leading to Bachelor's in Vocational Education for Expansion and Skill building. All India Council for Technical education functions through 10 All India Boards where an All India Board for Vocational Education deals with its requirements in the Country.

The UGC has also recognized the importance of vocational education and made a few suggestions on how vocational courses could be offered within the higher education curriculum.

Chapter 9 NATIONAL MISSION ON TEACHERS AND TEACHING

1. The Ministry had constituted a Task Force to assess the extent of shortage of faculty in the higher education system for recommending strategies to redress the situation. The recommendations in the Report of the Task force on Faculty shortage cover:

- **Administrative Reforms:** Establish FIDC, improve process of recruitment & promotion, mgmt. of non-regular faculty, engaging on contract, guest & visiting faculty, distinguished mentor faculty, international adjunct faculty ;
- **Academic Reforms:** Academic Career Assistantship, Summer Research Fellowship Scheme, Best Higher Educationist Award;
- **Financial Reforms:** Honorarium for sponsored research; Chair Professorships;
- **Miscellaneous Reforms:** Collection of statistical data, Web portal for academic induction

These recommendations need to be translated into actionable schemes during the XII Plan and included within the proposed Mission on Teachers.

2. In the XII Plan, it is proposed to launch a **National Mission on Teachers and Teaching (T&T).** The Mission will address the gamut of issues besetting the area of teachers, teacher education and quality of teaching, such as, teacher/ faculty shortages and vacancies; recruitment policies; capacity building of teachers for improvement in qualification, pedagogic skills, technology enabled teaching; continuous training and retraining; pre-service and in-service training; teacher absenteeism and accountability; revamping Academic Staff colleges ; academic growth and development of university teachers and engineering /technical teachers.

3. The Education Commission, 1964-66 visualised the entire spectrum of teacher education to be under the university system to give the status and credentials to this important area of teacher education. This was also to give a holistic development of teacher education, cutting across disciplines and stages of school education. Unfortunately, this has not happened till date. Perhaps a discourse needs to be initiated with the university system to consider the feasibility and the operational strategy of realising this objective.

4. The UGC has in its Report has identified several initiatives for addressing faculty issues and capacity building of faculty such as, Attracting Quality Faculty, Promoting Faculty Mobility and Continuous Faculty Development Programmes, Reforming the Academic Staff College System as Faculty Talent Promotion system by rejuvenating Academic Staff Colleges as Faculty Development Centres , Establishing New Faculty Development Centres, Increasing the Faculty Development Centres (currently ASCs) from the present 66 to 100, Faculty mobility and Faculty networking, Evaluation of Teachers by Students & Peer Assessment.

5. The working group for XI FYP on teacher education had suggested a number of steps to built teacher capacity and capability. Professional development of teachers and teacher educators and teacher education curriculum for assessment and evaluation for learning and pedagogy are important areas of designing professional development initiatives. These skills taken together with Inter-University Centres at the national level are expected to be architecture of teacher and empowerment so that the skill programmes are further strengthened. Since not much has been done on these recommendations, it is proposed that this action may be commenced in the XII FYP. Some of these suggestions are reiterated:

- Establishment of Centres of Excellence in Science and Mathematics Education in leading national level institutions, namely Indian Institute of Science, Tata Institute of Fundamental Research etc. for development of specialised cadre of academy of teaching and teacher educators
- Four Regional Centres of Educational Management may be set up in the Indian Institutes of Management at Ahmedabad, Kolkata and Bangalore and in the National University of Educational Planning and Administration.

6. The AICTE has proposed strengthening the Post-graduate and Doctoral programmes for building a pool of faculty to meet the needs of technical education. There is also a Sub-group proposal for developing a new online M.Tech module to facilitate capacity building from B.Tech pool without taking a break from their teaching institutions.

7. A concept note and Draft proposal for the proposed National Mission on Teachers and Teaching is appended which is under consideration of the Department of Higher Education.

Chapter 10	LANGUAGE DEVELOPMENT, BOOK PROMOTION AND INTELLECTUAL PROPERTY RIGHTS, SOCIAL SCIENCE RESEARCH

I. National Book Promotion Policy (NBPP)

The National Book Promotion Policy (NBPP) aims at promoting books for all segments of the society, so that books are available in plenty and they are accessible to people living in different parts, even the remotest corners, of our country. The National Book Promotion Policy is aware of the technological advances and their impact on the world of books. The Policy strives at taking full advantage of the new technology while retaining the time-tested strengths of publishing and distribution of books.The National Book Promotion Policy is harbinger of a new era of reading and learning. It proposes concrete measures for promoting books that will provide everlasting sustenance and joy to our society. The objectives of the National Book Promotion Policy are:

i. To have more and better books written on all subjects. Writers will be motivated and encouraged to come out with first-rate manuscripts. Greater facilities and proper recognition will be accorded to genuine and capable writers. Efforts will be made to ensure that writers get their due and their rights are protected.

ii. Publishers will be encouraged to work in a professional manner. Their success depends upon proper planning and operational competence. Requisite guidance and help will be provided to them in executing ambitious publishing projects of relevance to readers and the society. All possible assistance will be given to publishers in acquiring the latest knowledge and technology for modernization of book production and publishing. If required, suitable advice will be made available to publishers on pricing policy and their relationship with authors and authorities. The matter of reasonable postal

rates and elimination or reduction of duties will be taken up with the concerned authorities, in order to encourage national and international trade of books.

iii. Booksellers and Distributors will play a crucial role in reaching out to readers in all parts of the country. They will be provided with requisite information and guidance. Efforts will be made to inculcate the Bookshop culture in the readers, in addition to the Book Fair culture and the online accessing of books.

iv. The Library Movement will be harnessed to the cause of Book Promotion. Each library will act as a nodal agency for propagating the cause of books and their widest possible access.

v. The National Book Promotion Policy welcomes rapid advances in technology like e-books, digital libraries and online availability of books, which have become important in today's world. It will strive to ensure that the new technology creates an era of opportunities for reaching out to readers in remote areas, to the differently-abled readers, and to all those who are, normally, inaccessible.

vi. The National Book Promotion Policy will ensure that a well-planned national campaign is launched to inculcate the book reading habit among all sections of our country, especially among children, youth, women, students, and the differently-abled readers.

4. ACCESS AND EXPANSION

The policy envisages distribution of books for children and improving reading habits, distribution of books to rural and remote areas including all panchayats. The policy also

provides for encouragement of library movement, especially in village and panchayat levels and setting up of reading rooms and libraries in neighbourhood areas and malls.

5. EQUITY AND INCLUSION

An important segment of Book Promotion is regarding books for the visually impaired and other physically challenged readers. Education is a fundamental right of all citizens. In the information society, access to knowledge and information is of vital importance to ensure that all persons, including the visually challenged and other physically challenged readers, have access to books and reading material in formats that they can use. The NBPP strongly advocates preparation of books and reading material for the differently-abled readers. Technology has provided new ways of reaching out to such special readers. A group of writers and IT experts will be involved in this part of Book Promotion programme to ensure that plenty of good books and reading material are available in the form of Braille books, 'speaking books' and other formats, according to the preferences of the differently-abled readers.

6. QUALITY AND INNOVATION

Digital libraries are becoming popular with the readers because they provide an easy access to any required book from the huge collections. Online business is now a sizeable market share of publishing and digital libraries have become very useful for readers. The new technology has to be understood by publishers and they have to use it to their best advantage. The NBPP will hold a number of workshops to spread the awareness of technological advances in the field of publishing so that publishers in particular, and readers in general, are benefited. Advancement of technology is a continuous affair and a strategy will be worked out to keep abreast of the latest developments.

7. INSTITUTIONAL REFORMS

The policy envisages setting up of 'Special Cell' in specialized institutions like the one for the visually challenged children at Dehradun and the one for spastic children in Delhi, to produce books required for them. Similarly, all government schools as well as aided schools and universities/Institutes of higher learning and their libraries should have a 'Special Cell' to cater to the need of books in all accessible formats for visually impaired and other physically challenged readers. It also recommends to set up an autonomous Indian Council of Children's Literature (ICCL), working for the challenging task of producing, promoting and propagating children's books in the whole country. Establishment of an 'Indian Institute Of Publishing Management And Technology' (IIPMT) may be considered to offer diplomas, certificate courses and MBA in publishing sciences/studies, children's literature, editorial studies, book designing, exhibition designing, e-publishing, online marketing etc. and to conduct regular research studies, surveys and training in the publishing sector to produce capable entrepreneurs in the field. Creation of State Book Promotion Councils to look after promotion of books and the creation of 'Book Publishing and Promotion Hubs' in all state capitals. To conduct a detailed 'National Youth Readership Survey' among the rural and urban youth across the country comprises the readership status, patterns, trends, attitudes and possibilities among them. The survey helps to collect information regarding the status of readership level among various age groups, gender groups, socio-economic groups, regions and different languages.

II. **Development of Indian languages**: Strengthening National Translation Mission on a much larger scale to address the need for development of textbooks at all levels of higher & technical education is proposed. Development of Indian languages is also another strategy.

III. Strengthening education in Intellectual Property Rights (IPR): Under the scheme of Intellectual Property Education, Research and Public Outreach (IPERPO) has so far set up 21 IPR Chairs in various universities and institutes considering their potential for development and growth of IPR Education, Research and Training. Given the rising global significance in the domain of intellectual property, capacity building and strengthening IPR education has assumed great importance. Developing appropriate academic programmes and curriculum in keeping with World Intellectual Property Organisation (WIPO) guidelines is an emerging need. Universities must be encouraged to frame academic programmes which can, initially be of Certificate and Diploma levels. The existing Chairs can be infused and rejuvenated to become more active in their respective knowledge domains. Five of the existing Chairs can be converted as Nodal/ Regional bodies to facilitate and coordinate the education of IPR within their jurisdiction. They could function as lead institutions and play the role of mentoring other institutions engaged in IPR education. Capacity building in IPR is essential as presently most of the individuals/ institutions which innovate and develop new patents and IPR are unable to derive their dues and rights.

There is a proposal for setting up an Indian Institute of Intellectual Property Rights Studies. The scheme envisaged ten Ph.D scholarships to students from different streams. The vision is of the Institute is to promote IPR studies by way of interdisciplinary research**.** The main objectives of IIIRPS will be:

i. to provide for collecting and storing materials to help scholars from different disciplines to acquire information on IPR;
ii. to offer postgraduate courses in the area of intellectual property and development in association with Universities in India and abroad.
iii. to undertake research and development activities in the field of intellectual property rights and development.
iv. to undertake studies and consultancy services for State and Central Governments, public and private sectors;

v. to conduct lectures, seminars, study groups, workshops etc. in the area of intellectual property and development;
vi. to institute and maintain libraries;
vii. to institute Chairs, fellowships and award them to deserving scholars and persons of professional attainments;
viii. to publish research papers, treatises, books and periodicals and other literature relating to intellectual property and development;
ix. to design and develop trainer modules for teaching intellectual property rights in Engineering/Science Colleges and other educational institutions.
x. to encourage taking up projects which will motivate young researchers for undertaking research linking intellectual property to economic and social development.
xi. to develop training modules and to undertake training in the area of intellectual property right to professionals in the field of law industry, R&D institutions and other educational institutions.
xii. to do all such other things as may be incidental or conductive to the attainments of the above objectives.
xiii. without prejudice to the generality of the above and for the effective carrying out of those objects, the Institute shall have the power to acquire, hold and receive property of any kind, including securities and negotiable instruments, to construct and maintain buildings, including the right to alter and improve them and to equip them suitabily, to manage, sell, transfer any kind belonging to the Centre, to enter into contracts for and in connection with any of the purposes of the Centre and on its behalf to raise moneys and funds in such manner as may be deemed fir for and on behalf of the Centre.

Various activities of the Institute are proposed to be organized under three major Centres. They are:

1. Centre for Policy Research;
2. Centre for Teaching and Training; and
3. Centre for IPR Facilitation

While the Policy Research Centre will focus on research activities along with M.Phil and Ph.D programmes the Centre for Teaching and Training will concentrate on teaching various degree, diploma and certificate courses and training programme for various stake holders in the area of IPR. The main activity of the IPR Facilitation Centre is to look at the practical aspects of IP and help researchers and Industry in the commercial exploitation of IP.

IV. SOCIAL SCIENCE RESEARCH

The Sub-Committee on Social Science Research has submitted detailed proposals on strengthening Social Science Research and other research areas through the three councils of ICSSR, ICPR & ICHR. The Detailed Report is annexed at Appendix 4. The brief summary of the objectives, strategies are outlined below.

1. Indian Council of Social Science Research

Access and expansion of higher education has been set as an important goal both during the 11th Plan and in the XII Plan. Expansion in education with quality is the corner stone of the strategy in the XII Five Year Plan. It is recognised that there is close link between the quality of the teaching, the curriculum and the research by teachers, in so far as what is taught and how it is taught depend crucially on availability of research knowledge in various subjects. Besides, teaching quality, the knowledge generated though social science helps to address the problems that society, polity and economy confront. It has been increasingly recognised that the Social Science Research has been badly neglected in India. The lack of knowledge on important issues has seriously affected not only the quality of teaching in universities and colleges, but also our capacity to deal with the emerging issues in the society. Recognising this, MHRD for the first time constituted a committee to review the work of the Indian Council of Social Science Research (ICSSR) towards promoting social science research in India.

The review committee has noted that the extremely limited funding to social science research has seriously affected the quality of research output. ICSSR in its own deliberations and consultation with stakeholders has also noted the high deficit in research capacity leading to inadequate coverage and low quality of social science research. Neglect of social science research, it was found, has also pushed India behind other countries in terms of quality and quantity of research output internationally.

II Objectives

Based on the Government of India Review Committee Report and its internal deliberations, ICSSR had prepared its proposal for the XII FY plan. Further incorporating suggestions emerging from the proposal for XII five-year plan for ICSSR are the following objectives.

1. Build social science research capacity in universities and colleges in all parts of the country, keeping in mind the requirements of teaching and research and the current goals and targets of access and expansion of higher education.

2. Strengthen high quality social science research institutions within India (present 25 and 13 new institutions, as per Review Committee recommendations) to focus on research on regional issues and development policy.
3. Put social science research in India on an international standing of high quality through international collaborations and academic exchanges.
4. Attract eminent social science researchers to work on themes of national and social importance through the Council.
5. Attract and retain talent to social sciences research through a wide range of fellowship programmes for students, teachers and senior scholars in India.
6. Strengthen monitoring and delivery mechanisms and establish system of support by senior researchers to young researchers to proactively improve the quality of research and the output emanating from the social science research funding.

III Strategies

In the light of the recommendations of the Government committee, ICSSR has reviewed its existing functions and programmes as well as the overall social science research capacity in the country as a whole. It has worked out the deficit and funding requirement and has evolved a three pronged approach towards building social science research capacity in the XII plan:

1. Introduce innovations in its existing programmes and schemes including new programmes so as to improve the outreach of social science research funding to young teachers and researchers in colleges, universities and other research institutions. This includes putting in place systems and approach to handhold and promote research
2. In line with the recommendations of the Government of India Review Committee, indicate an optimum level of funding requirement in the XII plan which can enable the council and the country as a whole to meet the objectives of higher education
3. To suggest modalities which improve the functioning of ICSSR and put in to place processes by which it can monitor the outcomes of funding and ensure the quality outcomes in its all programmes.

IV Needs and present Provision - Extent of Deficit

ICSSR has estimated the requirement for various programmes on an annual basis based on certain assumptions. Against the need and the present provisions, the additional requirement on an annual basis and for the five years of the XII Plan has been worked out

for ICSSR. The exercise indicates an annual deficit of 2373 for research projects, 570 teachers fellowship for teachers, 2054 PhD fellowship, 800 post-doctoral fellowships, and 1000 seminars. For other programs, and Research Institutes, the requirement has been worked out based on the recommendation of the Government Committee.

V Funding Requirements

The Government of India Review Committee has noted, "funding for ICSSR is simply inadequate, it is about 2.3 percent of the total grant to CSIR and about 11 percent of the total grant to ICMR". Further, noting that the sub-optimal level of funding has caused serious distortions in the funding allocation, the Committee had recommended ten times in the first two years and subsequently twenty five time increase in the Plan allocation to ICSSR to compensate for the past neglect. ICSSR has carefully worked out its year wise and programme wise requirements over the XII plan period. As per the proposed plan requirement, the ICSSR plan budget during the XII plan will be an amount of Rs. 700 crores each in the first two years of the plan; increasing to Rs. 1569 crores in the third year, Rs.1707 crores in the fourth year and Rs.1851 crores in the fifth year of the plan period. The total allocation over the five-year period thus will be Rs. 6543 crores.

2. Indian Council of Philosophical Research

Social sciences research in the country is admittedly in a bad state. It is in need of not only significant financial inputs but a serious re-look at the very fundamentals of several social science disciplines, their teaching and research as they obtain in the Indian context. Philosophy in India since the colonial period has suffered an identity crisis and is still reeling from its effects.

Philosophical research in the country is in need for a new look and special support. There are two reasons for it. First, it is the lack of adequate support in the country for teaching and research in social sciences in general and philosophy in particular that is behind the bright students opting out of social sciences and humanities. Second, there are

good reasons for a course correction and directional change in the way we are doing social science.

The Committee appointed by the HRD Ministry to review the work of ICPR broadly agrees with the above description of the state of philosophy in the country. It is also observed that the funding available for Philosophical research in India is meager, which significantly affects the quality of the research output.

II Strategies

Keeping the above in perspective, the Govt. of India in its XII Plan should provide for significantly more inputs into the study of and research in social sciences. These would include increased number of scholarships and fellowships to undergraduate, post-graduate and doctoral students with substantially large stipends to attract bright students to study social sciences. Further, special encouragement may be given for indigenous, interdisciplinary, problem-focused social science research.

In view of this, the Council proposes to strengthen the existing activities and initiate new programme in the XII Five Year Plan. It includes new research projects onAmbedkar, Dalit and Gandhian Philosophy; Research project in Intellectual History of India with ICHR; Special grant for promoting Indian Psychology with ICSSR; several inter disciplinary researches; promotion of Indian Institute of Philosophical Research; establishment of ICPR regional centers and enhancing the scale of other planned activities of the Council, which include fellowships, seminar, cultural exchange programmes, publications, research grants etc.

III Funding Requirements

The overall projected financial outlay for ICPR for the XII Five Year Plan has been estimated as Rs. 168 crores.

3. Indian Council of Historical Research

ICHR is an autonomous organization registered under the Societies Registration Act, 1860 (Act XI of 1860). In its 33 years of existence it has done commendable work by launching and funding various research schemes and projects throughout the country. The results of research projects are disseminated by the Council for the benefit of students and scholars all over the country. However, the present coverage of the programmes of the Council was not adequate enough to meet the existing demand. For instance, annual applications for Research Funding Schemes including research projects, fellowships, study grant, travel grant and publication grant have increased manifold and a substantial number of proposals are dropped out due to the inadequacy of resources.

II Strategies

The Council, assessing the demand for the research funding schemes, has worked out both physical and financial targets for its various programmes for the XII Five Year Plan. It envisages to scale up the ongoing programmes such as research projects, fellowships, study grant, travel grant and publication grants. Besides, the Council proposes to initiate funding schemes for national and international seminars, setting up of three new regional centres at Kolkatta, Bhubaneswar and Srinagar in the XII Five Year Plan. The other new programmes proposed for the XII Five Year Plan include Documents on Economic History during British Rule in India, Northern and Western India in the Late Nineteenth Century; National Mission for Survey, Collection of Historical Source and Multi–media workshops for school students on Joys of History, Exhibition, History Walks and Open Access Educational Resource Programme for Researchers in History.

III Funding Requirements

The total funding requirement for the Council for the XII Five Year Plan Period is estimated to be Rs. 150 crores.

Chapter 11 PHYSICAL AND FINANCIAL PROPOSALS

Public funding has its own limitations and constraints in a diverse and vast nation leading to resources being spread thinly if the objective of massive expansion in enrolment with equity is to be fulfilled. The future of financing education cannot be merely an extension of the present but has to be shaped by new realities, such as the expected massive growth in enrolment to promote the demographic dividend, new mechanisms in cost-sharing that reduces burden on the student and at the same time does not solely rely on the Government as provider, emergence and growth of different types of private and public education providers, innovations in modes of delivery of education etc. Consistent with these realities, new and flexible ways of tackling financing issues in education need to be initiated.

2. Trends in budget allocations and expenditure on education in India

The Government recognizes the importance of education in economic and social development of the nation and accords high priority in the allocation of public resources. It has pledged to raise the allocation of resources to education to 6 per cent of GDP. In the Indian context, the Government has been steadily increasing the allocation of public resources to education to achieve the objectives. The budget expenditure on education as proportion of GDP has increased from 1.52 per cent in 1961-62 to about 3.78 per cent in 2008-09. The educational expenditure as a percentage of GDP is still below 6 percent and all stakeholders must work together to raise this proportion to 6 per cent.

Expenditure on education has shown a continuous upward trend with few ups and downs. The total budget expenditure on education (all Ministries) has increased by 50 percent from Rs. 89,732 crores in 2003-04 to Rs 1,89,234 crore (BE), in 2008-09 which

formed 11.60 percent of the total expenditure on all sectors. Education in the union budget and the budget of the States/Union Territories (revenue and capital together) accounted for 6.18 percent and 16.22 percent respectively in 2008-09 (BE).

As a percentage of GDP, the education budget (all departments) has increased from 3.36% in 2004-05 to 3.78(p) % in 2008-09.

A significant measure to determine the priority accorded to education is the budget expenditure proposed in the government budget. Based on the review of progress made and the shortfall to be met in reaching the various educational goals, allocation for the education sector under XI Five Year Plan has been increased almost five times as compared to the XI Five Year Plan allocation. As regards higher Education, expenditure as %age of GDP has increased from 0.915 in 2001-02 to 1.12% (Budget estimate) in 2008-09.

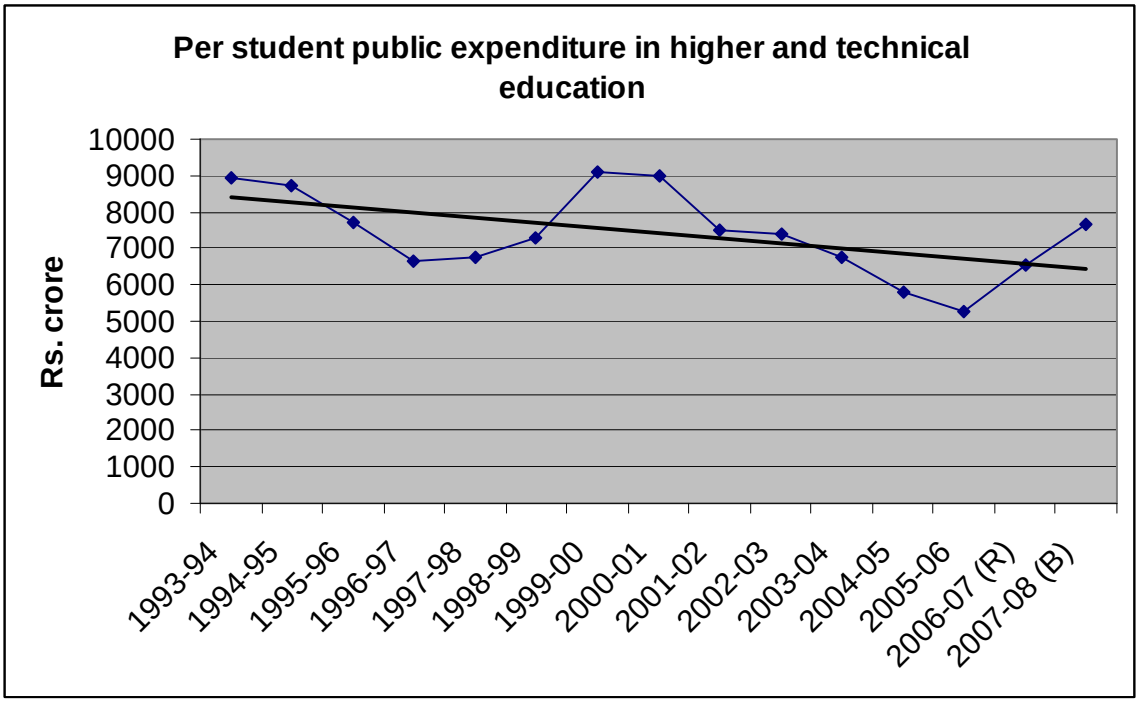
Recent trends in the financing of education under Central and State Plans and Non-Plan expenditure shows that in the three years of XI Plan, central plan and non-plan expenditure on higher education has increased at an annual rate of growth of 44% and 42% as opposed to 24% and 9% annual rate of growth of expenditure during the X Plan.

Plan and Non Plan Expenditure (Rs. crore)

Year	Central Plan	Central Non Plan	State Plan	State Non Plan
10th Plan				
11th Plan (3 yrs)				

Source: Analysis of Budgeted Expenditure on Education, MHRD, Government of India

It is further observed that in real terms the public expenditure per student in higher education has shown a decline by almost 25 percent in the last fifteen years.



In order to compensate for the decline in public expenditure per student in real terms, the Government of India has stepped up plan support to higher education during 11th plan.

The resource requirements for the XII Plan must be examined by the Department's critical need to sustain the consolidation achieved in the XI Plan and the paradigm shift from access to quality while balancing equity concerns.

The total projected outlay of the Department of Higher Education, for the XII Five Year Plan is Rs. 4, 13, 367.65 crore. **The detailed financial proposals are Annexed.**