

HIGHER EDUCATION AT CROSSROADS

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Higher Education at Crossroads

Higher education refers to a level of [education](#) that is provided at [academies](#), [universities](#), [colleges](#), [institutes of technology](#) and certain other collegiate-level institutions, such as [vocational schools](#), business schools, and career colleges, that award [academic degrees](#) or [professional certifications](#). It encompasses management, engineering, medicine, etc., and plays a major role in imparting knowledge, values and developing skills and in the process increases the growth and productivity of the nation. Higher education in India has grown over the years and is at crossroads with greater emphasis on economic development.

Higher Education: An Historical Overview

India, in olden days, was an educationally most advanced country of the world in making contribution to the development of man's knowledge and culture and its seats of learning attracted scholars from all over the world. There are two broad trends of education in ancient India-- *Brahmanical* and *Buddhist*, though the *Jaina* educational centres also played an important part in the country. Detailed rules were laid down regarding studentship under individual teachers and at institutionalised seats of higher learning. The most organised centres of learning in North India were '*Takshila*' and '*Nalanda*'. In southern India, the *Brahmanical Ghatikas*, the *Buddhist Viharas* and *Jaina Paths* were centres of higher education. Takshila, in north-west of India, founded a few hundred years before Christ, was renowned as a place of learning and drew students from all over the world; it had world renowned teachers, including Panini and Kautilya. Similarly, Nalanda in Bihar was a place of great Buddhist scholarship having about two hundred teachers and ten thousand students from all over the world and is said to be the first international university'. Key features of ancient Indian education system were *guru-shishya parampara*; and strict discipline: *brahmacharya* on part of students, who stayed in monastery and showed great reverence to the guru, whose sole mission in life was search for knowledge and igniting the minds of students. Example of *Ekalavya*, the son of *Hiranyadhanus*, the chief of the *Nissada*, in the first millennium BC, to be pupil of Drona who taught the sons of Pandu and Dhritarashtra all manners of weapons, is a well-known case of *Guru-Shishya parampara*.

Higher education in medieval India signified medieval experience of co-existence of the diverse traditions of Islam and the *Brahmanical* order. As such, both the *Brahmanical* institutions and newly established *madarsas*, contributed in shaping the medieval values and the courses of studies included both religious and secular sciences. The medieval education system promoted conditions wherein the people learnt to live together, despite their differences, which sometimes led to conflicts. The important institutions of that period specialised in one or more branches of knowledge and the medium of instructions were Arabic, Sanskrit or through English.

The system, perhaps, suffered from certain weaknesses, and there were no organised efforts at integrating meaningfully the two major traditions of higher studies. There were no efforts to link the institutions together and coordinate their work on a significant scale. Further, knowledge about production technology was rarely a part of formal education.

In the nineteenth century, higher education was largely influenced by the British Models. Lord Mcaulay proposed a new education policy in 1835 in his famous minutes to promote European learning through English with the objective to produce a class of intermediaries between the rulers and the ruled. To quote, “We must do our best to form a class, who may be interpreters between us and the millions we govern, a class of persons, Indian in blood and colour but English in taste, opinion and morals” (Mathur 2014). It was in 1844, the government laid down that for public employment and preference would be given to those educated in Western science and were familiar with English language. In addition, Sir Charles Wood’s Dispatch of 1854 was an important step in the history of Indian education and it led to:

- Creation of a separate department for the administration of education in each province;
- Setting up of the first modern university in 1857 at Calcutta, and that was followed by the universities at Madras and Bombay. These universities initially were merely examining bodies and did not undertake any teaching responsibility. As such, their expenses were confined to administration and could be met from the fees collected from the candidates towards their degrees and certificates. University degree was considered as a synonym to “passport to distinction in public services and the learned professions” as declared by the Indian Education Commission of 1882.

It may be mentioned that the first college to impart Western education was founded in at Serampore near Calcutta. Next four decades witnessed growth of many such colleges in different parts of the country at Agra, Bombay, Madras, Nagpur, Patna, Calcutta and Nagapattinam. These colleges were affiliated to the

three universities. As such, at the time of Independence in 1947, there were 20 universities and about 500 affiliated colleges; and

- Introduction of a system of grant-in-aid.

According to Swami Vivekananda, a nation is advanced in proportion as education and intelligence spread among the masses. Through education comes faith in one's own self. The education which does not help the common mass of people to equip themselves for the struggle of life, which does not bring out strength of character, a spirit of philanthropy, and the courage of a lion—is not worth its name! Real education is that which enables one to become self-reliant.

Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not.

-- Aldous Huxley

During the freedom movement, the leaders fought for the cause of education. For instance, in March 1910, Gopal Krishna Gokhale moved a resolution at the Imperial Legislative Assembly for free and compulsory education in the country.

With the objectives of economic and social freedom of equality, justice and dignity, the leaders of the freedom struggle realised the role of education and post-independence in 1947, gave higher education a greater emphasis for an overall development of the nation. Education is the most potent tool for building an equitable and just society and it strengthens democracy by imparting the citizens the tools to participate in the governance process. Mahatma Gandhi was of the view that, “education should be directly relevant to the life of the people”, it not only moulds the new generation, but reflects a society's fundamental assumptions about itself and the individuals which encompass it. Similar were the views of Maulana Azad who said that, “our special attention after independence, one of the most important was that of National Education

and what may be called its system or pattern. It was realised general education available to the common people is neither adequate nor appropriate to their needs”.

In this regard it may be stated that *The Preamble to the Constitution* speaks of equality of status and of opportunity and Article 14 provides that every person shall have equality before law or equal protection of the laws within the territory of India. Recognising the importance of education in national development, the Twelfth Plan places an unprecedented focus on the expansion of education, on significantly improving the quality of education imparted and on ensuring that educational opportunities are available to all segments of the society.

During the British regime our universities suffered from two major handicaps, namely, inadequate availability of funds resulting in stifling their growth and excessive control. In order to review the higher education, the first step the government took was the appointment of the Education Commission in 1948 under the chairmanship of Dr. Sarvapalli Radhakrishnan, the eminent educationist and philosopher. The Report made far-reaching recommendations which heralded the rebirth of higher education in the country. The report recommended that the universities “have to provide leadership in politics and administration, the profession, industry and commerce. They have to meet the increasing demand for every type of higher education, literary and scientific, technical and professional, etc. They must enable the country to attain in as short a time as possible, freedom from want, disease and ignorance, by the application and development of scientific and technical knowledge”. He was of the opinion that, “the universities as makers of future cannot persist in the old patterns, however, valid they may have been in their old days with the increasing complexity of society and its shifting pattern. Universities have to change their objectives and methods, if they are to function effectively in our national life.”

Another important measure taken by the Central Government was constitution of the University Grants Commission in 1956 on the pattern of University Grants Committee of Great Britain by an Act of Parliament. This independent body had three broad purposes before it:

- disbursement of grants to colleges and universities;
- monitor their development and progress, particularly to promote and coordinate the university education and to determine and maintain standard of teaching, examination and universities, in consultation with the Central/state government; and
- see that universities function in free academic atmosphere and that they are not fettered either with the political or bureaucratic handcuffs.

In this regard, Prime Minister Pandit Jawaharlal Nehru in his special convocation at Allahabad University expressed, “A university stands for humanism, for tolerance, for reason, for the adventure of ideas and for the search of truth. It stands for the onward march of the human race towards even higher objectives. If the universities discharge their duties adequately, then it is well with the nation and the people”.

A university should be a place of light, liberty and learning.

-- Benjamin Disraeli

Since the higher education has multifarious impacts in terms of preparing young minds to face society, the political world and the economy, the Government constituted another Commission (1964-66), under the Chairmanship of Prof. D.S. Kothari, a distinguished scientist, for a comprehensive review of higher education system with a view to reconstruct it in the light of our social and political needs. The Commission was to advise the Government on National pattern of education, on general principles and policies for the development of education at all stages and in all aspects. It recommended that ‘radical reconstruction of education is essential for economic and cultural development of the country for national integration and for realising the idea of a socialistic pattern of society. It was of the view that the education system must produce young men and women of character and ability committed to national services and development. The Commission suggested five-fold programme as follows:

- (i) Relating education to productivity;
- (ii) Strengthening social and national integration through educational programmes;
- (iii) Consolidation of democracy through education;
- (iv) Development of social, moral and spiritual values; and
- (v) Modernisation of society through awakening of curiosity, development of attitudes and values and building certain essential skills.

For purposes of relating education to productivity, a number of suggestions were made which included as under:

- (a) Science education should be integral part of school education and ultimately become a part of all courses at university stage;
- (b) Work experience to become an integral part of all education;
- (c) Orientation of work experience to technology and industrialisation and application of science to productivity processes, including agriculture; and
- (d) Vocationalisation of secondary education and agricultural and technical education.

Other Commissions/ Committees appointed to review the higher education included:

A Committee of Members of Parliament on Education was constituted on April 5, 1967 under the Chairmanship of Dr. Triguna Sen, Union Education Minister. The Committee (1967) was to consider the Report of the Education Commission and to prepare the draft of a Statement on the National Policy on Education.

A Committee in pursuance of the recommendations by the Public Accounts Committee of Parliament was appointed under the Chairmanship of Dr. V. S Jha on August 31, 1974 to review the policies and programmes of the UGC. The review evolved certain parameters to make effective efforts for implementing various schemes. One of the important findings of the review report was an urgent need of monitoring and evaluation

of various schemes or activities of the UGC and more close interaction between UGC, Central Government, State Governments, universities and colleges. The committee carried out critical evaluation of the UGC working and made recommendations on standards, grants, research, planning, evaluation, organisation and legal aspects and led to National Policy on Education (NPE)

Another Review Committee was constituted, under the Chairmanship of Prof. Satish Chandra in 1974, to undertake a comprehensive review of various programmes being implemented by the UGC.

Higher Education: Importance and Significance

If nation is a system, education is the cybernetic heart of it, and harnessing the education, whether primary or higher, plays the pivotal role by bringing in the change and empowering the nation. As such, investment in education and educating institutions should be viewed as an investment for economic prosperity.

Upon the education of the people of this country, the fate of this country depends.

-- Benjamin Disraeli

Our universities and institutions of higher education from their founding days in the mid nineteenth century provided the leadership for the country as – legislators, jurists, civil servants, educators, freedom fighters, planners, entrepreneurs and critical gadflies against all forms of bureaucracy, power abuse and concentration and resultant corruption. Among our political leaders, we recall those who founded and ran university institutions included—Raja Rammohan Roy, Ashutosh and Shyamaprasad Mukherjee, Pandit Madan Mohan Malaviya, Mahatma Gandhi, Zakir Hussain, C.R. Reddy, Radhakrishnan; among our cultural leaders whose names are associated with the foundation of universities included, Rabindranath Tagore, Rukmini Devi, Ramakrishna, Aurbindo and Syed Ahmed; and among jurists and men of affairs. C. D. Deshmukh, A.

Ramaswamy Lakshmanaswamy Gajendragadkar, Gadgil, C. P. Ramaswamy, Annamalai, Hansa Mehta, Avinassilangam, G. Ramachandran, the list is a long one.

Our universities have been effective centres for contribution to transmission of knowledge from one generation to the next; have responded more quickly and more daringly to meet the exploding demand for higher education of our people; and have also made moral contribution to the people which is seen in the universality of vocation, in the pursuit of truth, in their commitment to work.

Institutional Structure and Growth of Higher Education over the Years

Higher education in India is largely based on the British model, where learning is primarily for its own sake without reference to economic or other external factors. However, the American model is more open and economy and productivity related and this has been followed at places in the last few years. As such, higher education system is a loose configuration of various types of institutions, which include universities, colleges and other institutions.

Universities have the degree awarding power and award their own degrees. Universities, Central, or state, or 'deemed-to-be university', or private universities, usually impart post-graduate education, award degrees/diplomas and conduct research. A few institutions are established by the Parliament or by the state legislature, as institutes of national importance and have the power to award diplomas or degrees. In addition, institutes like Indian Institutes of Management (IIMs) award diplomas that are considered as equivalent to degrees by the Association of Universities.

Colleges conduct teaching and learning, they usually focus on undergraduate education and are under the supervision of the university to which they are affiliated or of which they are the constituent part, e.g. colleges in Delhi are constituent to University of Delhi. Universities and colleges usually offer multi-disciplinary programmes, some universities are discipline specific such as, agriculture, law, technology, medicine, architecture. In addition, open universities offer distance learning (O&DL) programmes. In addition to the above mentioned universities, colleges and institutions, there are institutions which cater to the growing need for mid-career training and offer short-term courses general type or specific to an industry for advancement of knowledge or job-

oriented courses. The institutes though are not a formal part of higher education, the distinction many a time gets blurred. As such main players in higher education are as: University Grants Commission (UGC), a statutory body set up in 1956, is responsible for coordination, determination and maintenance of standards, release of grants;

Central Government is responsible for major policies relating to higher education in the country. It provides grants to the UGC and establishes Central universities in the country. The Central Government is also responsible for declaration of an educational institution as 'Deemed to-be University' on the recommendation of the UGC.

State Governments are responsible for establishment of state universities and colleges, and provide funds for their development as well as non-plan grants for their maintenance.

The coordination and cooperation between the Union and the States is brought about in the field of education through the Central Advisory Board of Education (CABE). Education, earlier a state subject, was made a concurrent subject with the 42nd Amendment of the Constitution in 1976. Earlier, the University Education Commission, presided over by Dr. S. Radhakrishnan, in its report in 1948 had recommended so. As such the Central Government is empowered to coordinate and to determine standards in institutions of higher education or research, and scientific and technical institutions.

Higher Education Growth over the Years

Higher education in India has grown over the years and is one of the highest in the world with 25.9 million students enrolled in more than 46,430 degree and diploma institutions in the country. It has witnessed high growth in the last decade, the students enrollment increasing at CAGR of 10.8 per cent and the institutions at a CAGR of nine per cent. The size and composition of higher education institutions and their trend over the years are presented in Table I. Further, institutions have increased from 29,384 in 2006- 07 to 46,430 in 2011-12, i.e. an increase by 58 per cent over the years, while the enrolment has increased from 165.82 lakh (including 27.12 lakh as O & DL) in 2006-07

to 259.86 lakh (including 42.0 lakh as O & DL) in 2011-12, i.e. an increase by 57 per cent.

Economic reforms in 1991 witnessed a spurt in 'deemed to be university route' to get the degree-granting power. For many of the private aided colleges which realised that the then regulatory mechanism of the affiliating university and state government inhibited the growth and did not allow them to fully exploit their market potential, took the 'deemed-to-be university route'. Earlier, the provision was used sparingly to declare premier institutions offering programmes at advanced level as deemed university to enable to award degree. Indian Institute of Science Bangalore and Indian Agriculture Research Institute, Delhi were the first two institutions to be declared as deemed to be universities in 1958; and, this privilege was extended mainly to government/government-aided institutions. Manipal Academy of Higher Education (MAHE) became the first deemed to be university in 1976. However, there was a sudden spurt in growth in 'deemed to be university' in the private sector and between 2009–10, 42 private institutes got the deemed to be university status, though these do not have an affiliating power, they have number of campuses spread throughout the country (Sinha Sujata, 2014).

Private sector institutions, both in terms of number as well enrollment, have increased relatively higher than that of state and Centre-level institutions (see Table 2). On analysis of enrolment field-wise, one finds that percentage of enrolment in science and medicine has increased from 17 per cent in 2006-07 to 30.5 per cent in 2010-11, while the share of arts, commerce and science (ACS) enrolment has fallen from 79 per cent to 66 per cent over the period (see Table 3). In terms of Gross Enrolment Ratio (GER), increase is from 19.4 per cent in 2011-12 to 21.1 per cent in 2012-13; for female the corresponding percentages were 17.9 and 19.8 respectively, though it varies among states (see Table 4)

Investment on education and its various sectors under Five-Year Plans is presented in Table 5. Analysis of the investment during Plans indicates that there has been continuous effort to strengthen the base for developing infrastructure improving the

quality through several programmes. It was the Ninth Plan which aimed at gearing the system of higher education to meet the changes arising out of the major social, economic and technological changes. The focus of the Tenth Plan was aimed at quality and relevance of higher education, research and development, management in financing and use of new information and communication technologies. The Tenth Plan provided the basis for higher education in the 21st Century and the government spending on higher education has increased steadily over the years.

In fact the share of education in the total plan outlay increased from 6.7 per cent in the Tenth Plan to 19.4 per cent in the Eleventh Plan of which 30 percent was earmarked for higher education, a nine-fold increase over the Eleventh Plan, i.e. Rs. 84,943 crore against Rs. 9,600 crore during Tenth Pan. The Twelfth Plan outlay on higher education is Rs. 110,700 crore, nearly 30 per cent more than the outlay of the Eleventh Plan. Thus the actual spending during Eleventh Plan was only Rs. 39,647 crore (i.e. 45.6 per cent of the approved outlay of Rs. 84,943 crore). As such, the outlay on higher education in the Twelfth Plan works out to be two-and half times of the actual expenditure in the Eleventh Plan. For the year 2014-15, the overall allocation on education was Rs. 81,441 crore as against Rs. 74,626 crore of revised estimates for the previous year-- an increase of 11.1 per cent. The corresponding figures for higher education were Re. 16,900 crore and 14,698 crore-- i.e., an increase of 14.98 per cent.

Analysing the growth of higher education in terms of number of universities and colleges as presented in Tables 1 to 4, one observes as:

- The Indian higher education system has grown in size over the years; number of universities has increased from 30 during 1950-51 to 690 on March 2012 and to 726 in January 2015; the number of deemed universities has increased from 52 in 2002 to 130 in 2012, while the private universities increased from nil to 145 over the period. The number of colleges increased from 750 in 1950-51 to 46,430, in 2011-12; the students' enrolment has approached approximately 27.5 million, an increase by about 2.86 times over

the last ten years; and number of teachers has increased from 457,000 in 2003-4 to 488,000 in 2006 07, i.e. an increase of only six per cent. .

- Most of the state universities and colleges affiliated to them, which account for 90 per cent of all enrollment, have outdated curricula, dilapidated infrastructure, dwindling intellectual capital and archaic administrative and governance systems. Further, 45 per cent of the position for professors, 51 per cent positions for readers, and 53 per cent positions for lecturers were vacant in Indian universities in 2006; and the student to teacher ratio in an average higher education institution was 26:1, compared to the norm of 15: 1; that is quite adverse in comparison to national and international benchmark, the ratio for IIMs being 11: 1; for Harvard University and for Stanford university were 7:1 and 5:1 respectively. On an average, nearly 50 per cent of sanctioned faculty positions in universities in India have been lying vacant for more than two decades, despite tremendous increase in enrolment. These institutions have resorted to recruitment of teachers on contractual, part-time, visiting and guest lecture basis which has adversely affected teaching and research (Narayana Murthy Committee 2012).
- Besides 35,539 colleges in March 2012, of the 690 universities, 44 were the Central universities and 306 were the state universities. During the Eleventh Plan, 15 new universities including three state universities were converted to central universities. Thus, all states except Goa, which has not been included on the request of the State Government, have at least one Central University. In addition, a new Central University has also been established in Jammu and J&K has two Central Universities.
- About 80 per cent of the colleges were arts, commerce and science (ACS) colleges; nearly 89 per cent of the students were enrolled for undergraduate courses; approximately 79 per cent of students were enrolled in ACS, and only 17 per cent were in professional courses with a majority in engineering, technology and medicine, though the corresponding percentages have changed to 66 per cent and 30.5 per cent respectively.

- Public expenditure per student per annum on higher education was Rs. 8,961 in 1993-94 and it increased to Rs. 12,518 in 2003-04, i.e. by 40 per cent. However, in real terms (i.e. at 1993-94 price level), it shows a decline from Rs.8,961 to Rs. 7,117 over the years, a decline by 21 per cent.
- As per Table 6, total expenditure on higher education has increased from Rs. 5,828 crore in 2005 -06 to Rs. 24,518 crore in 2013-14, i.e. by 4.2 times, while the expenditure on scholarship and stipend increased by 8.9 times over the years. However, scholarship as percent of total expenditure on higher education is only one percent of the total, and it was 0.5 per cent in 2005-06.
- Elementary education expenditure accounts for a lion share, i.e. about two-fifth of the total, while the expenditure on higher education is only 32 per cent of the total. Central Government share of higher education expenditure is 50 per cent though the states have a greater responsibility (Table 7 and 8).
- Average number of students' enrolment per Institution in India was about 800, though a few institutes were having more than 10,000 students, some had enrolment even below 100. Women students accounted for 40 per cent of the total, though their participation across different disciplines was uneven, There was a little geographical diversity especially in the state universities, as about 69 per cent of the students were from within the state, about 18 per cent were from neighbouring states, about 22 per cent from other states and only about one percent were foreign students.
- The institutes have a fixed curriculum and have limited options in each area of study.

Growth pattern of higher education in India could be discussed under two periods, namely, growth until 1980 and after the 1980s.

Higher Education in India (pre-1980)

Until 1980, growth was mainly in arts, commerce and science (ACS) colleges affiliated to government universities. During this period, the government, as supported higher

education by setting up universities and colleges and also provided financial assistance to private institutions, popularly known as grant-in-aid or private-aided institutions. Approximately one-third of the colleges were private institutions. In addition, certain professional institutions, like Indian Institute of Technologies and Regional Engineering Colleges and Indian Institute of Management (IIMs) were also set up during this period. Thus institutions of higher education expanded in number during this period. In the words of Agarwal (2009), “though higher education in India expanded steadily over the years and now has a large base, the number of quality institutions has remained small. In the rest of the system, the standards are extremely heterogeneous, with a large number of sub-standard and non-viable institutions.

Higher Education in India (post-1980)

Due to boom in the economic activity, i.e. rising business and industry, and the growing middle class, the people were willing to afford higher fees, and the government having financial constraints, saw the emergence of private institutions and self-financing programmes and also was the emergence of the computer applications and management courses. As such, the new breed of private institutions were primarily *de facto* for-profit, and majority of them offered programmes in professional areas that had market demand, such as management, technology, computer applications. Enrollments in professional courses in the private institutions accounted for approximately 80 percent of the total. To quote “The emergence of private higher education brought in a much desired occupational focus to growth in higher education and brought in dynamism to the hitherto moribund higher education system” (Agarwal 2009). Even public Institutions started offering such courses on self-financing basis and revenues from self-financing courses along with distance education courses formed the main source of revenue for most public universities and colleges.

Thus higher education had a growth pattern, i.e. setting up of grant aided institutions, and also of professional institutions; an emergence of private sector mainly, for-profit type; use of technology in dissemination of knowledge among larger student audience.

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, continued to be low and was estimated to be nearly 13.5 per cent as of 2007. This was much below the world average of 24 per cent, two thirds of that of developing countries (18 per cent) and way behind that of developed countries (58 per cent). The GER of different countries was estimated to be as under:

Country →	USA	UK	Sweden	Brazil	Japan	China	Russia	India
GER %	84	59	82	25	55	23	71	13.5

Eleventh Plan document laid down specific targets for higher education enrolment. To quote, “Our GER of around 11 per cent is very low compared to the world average of 23.2 per cent, 36.5 percent for countries in transition, 54.6 per cent for the developed countries, and 22 per cent for Asian countries”.

Need had been felt that Gross Enrollment Ratio in higher education, should be raised to a significant level in a time bound manner and it was expected that the GER would reach 15 per cent by 2012, 21 per cent by the end XII Five Year Plan and 30 per cent by 2020. However, higher education needs are to be synchronised with the absorptive capacity of the economy as oversupply of qualified people might mismatch and might result in unemployment and underemployment. China is an example, as unanticipated expansion of higher education is said to have resulted in increased unemployment rate. The figures are:

- Number of university students doubled since 2000 to 23 million in 2006;
- GER increased from three per cent in 1992 to 20 per cent in 2008;

- Number of students graduated increased from 1.15 million in 2001 to 4.13 million in 2006.

Economic reforms in India were undertaken in early 1990s; as about two-third of the 125 crore population of the country are in the age group of 15-59 years which is usually treated as 'working population'; and with the expected steep decline in the dependency ratio over the next 30 years, these two factors will constitute a major 'demographic dividend' for India. Further, population of the country in age group of 18-24 years was expected to rise to 12 per cent 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, could contribute effectively to the development of national as well as global economy. In order to reap benefits of this demographic dividend; access through expansion, equity through inclusion and quality were major concerns of the Government in the higher education sector.

As such, higher education in India had received a lot of attention in the past few years, the main reasons assigned were, shortage of skilled manpower in several sectors of economy; maintaining growth momentum and be competitive; demand continuing to outsource supply due to growing population of young people, gains in school education, growing middle class and their rising aspirations. To quote Agarwal (2009), "It is widely believed that technological advances and a shift in demographic profile provided India with a window of opportunity to productively engage its huge pool of human resources, and become a leader in both the rapidly expanding sectors of services and highly skilled manufacturing. This would, however, require revamping the higher education sector". Setting up of the National Knowledge Commission (NKC) in 2005 was a step in that direction. The Commission made several important and useful recommendations and, as mentioned earlier, higher allocation had been made during the Eleventh and Twelfth Five Year Plans. In the words of National Knowledge Commission (2009), there is a 'quiet crisis' in higher education in India which runs deep and admits that 'It is difficult enough to provide complete diagnosis of what ails our universities. It is even more difficult, if not impossible, to outline a set of prescriptions for our universities.'

The Commission recommended the expansion of number of universities to 1500 in the country to attain a gross enrollment of 15 per cent by 2015. It would require an analysis to see whether the universities at present are of optimal size. Though there are universities like Jawaharlal Nehru University and Viswa Bharati University having student enrolment of 4,890 and 5,020 respectively; while many universities like, Mizoram University, Tezpur University, Baba Bhimrao University, all Central universities, have enrollments much below 1000 each. Further, many of the universities/institutions deemed to be universities are mostly single faculty or specialised institutions with very small number of students on roll (Tilak, Feb. 2007).

Twelfth Plan recognises that higher education is essential to build a workforce capable of underpinning a modern, competitive economy. As a consequence, enrollment in higher education would have to be significantly increased in a demand driven manner during the Twelfth Plan. The process of broadening access, making higher education inclusive, and promoting excellence initiated during the Eleventh Plan must be consolidated and expanded further during the Twelfth Plan. The present level of expenditure on education in India as mentioned earlier, was about 3.78 per cent of GDP which is way below the targeted expenditure of six per cent as recommended by the Kothari Commission,

Higher Education in BRIC Member Countries: India and China Comparison

The BRIC member countries are developing fast and account for about one-fifth of the world gross domestic product (GDP), as against eight percent in 2001. The member countries are experiencing a very high growth in demand for higher education but are having constraints of their fiscal resources and as such private education is increasing. Public sector education has reduced, philanthropy and charity based higher education is disappearing; and for profit--higher education is having signs of fast growth. Stratified system of higher education-- a few high-quality, elite institutions coexisting beside a large number of low-quality, mass education institutions has been adopted. Thus gap in public spending per student in elite and mass institution has been large and is widening which is affecting quality of higher education. Enrolment in higher education has grown; GER in Russia is more than 80 per cent as against

50 per cent ten years ago. China and India have increased their GER very rapidly- for China it has increased from three percent in the late 80s to about 20 in the recent years; while for India the percentages were five and 17 respectively. As per study by the British Council, China and India are at the top places in terms of enrollments of 37 million and 28 million respectively (Tilak, April 2013).

As regards financing of higher education, China and Russia rely more on the principle of cost-sharing and 'user-charges' a system popularly described as "state opportunism" while Brazil and India rely more on private sector. Public expenditure per student (PPP\$) is high in Brazil (\$ 2907) and Russia (\$ 2,889) but much less in India and China. In Brazil and India, it has declined over the years while for Russia and China, it has increased. Expenditure on education as percentage of GDP for Brazil, Russia and India is 5.1 per cent, 4.1 per cent and 3.7 per cent respectively. For China, it is much less. Brazil has a constitutional norm which stipulates that not less than 15 per cent of the government expenditure should be allocated to education and that is strictly adhered to. Private higher education is growing in all the four BRIC member countries, it is heavily subsidised in China and Russia as compared to that of in Brazil and India; and it is happening under strict government control in the former countries (i.e. China and Brazil), while it is out of government control in the latter and is left to the mercy of the markets. Lastly, high quality engineering education is confined to elite institutions in India and China is aggressively encouraging research publications and patents. Further comparison between China and India for the higher education is discussed below.

While higher education reforms in China were initiated along with economic reforms in 1978 and prior to that, higher education in China was the responsibility of the government, was free and even the government provided for the living expenses of the students. However since 1978, the system of higher education had changed and the concept of cost-sharing and cost-recovery was introduced and tuition fees were levied. As such higher education institutions in China were expected to diversify their sources of revenues and the Government provided higher level funding to top class institutions to make them world class. To lure experts to Chinese Universities, the government launched a series of schemes since the mid-1990s, and offered some combination of a one-off bonus of up to \$ 160,000, promotion, an assured salary and a housing allowance or even a free apartment. A "foreign expert thousand-talent scheme" launched in 2011, has enticed around 200 people. Spending on universities has increased six-fold. The result has also been striking; the published research articles from higher education institutions during 2005-12 rose by 54 per cent, patents granted went up eight fold (*The*

Economist, November 22, 2014). As pointed out by the NKC, during the period 1991-2001, growth in the number of doctorates has been 20 per cent in India compared to 85 per cent in China (Narayana Committee Report, 2012).

China's education system was similar to India's, and there were sufficient quality opportunities for outstanding students. Both had highly competitive entrance examination to seek places in the nation's best universities. The National University Entrance Exams (NUEE) provided entry to Beijing University and Qinghua University – the two biggest higher education names and brands in the country. In addition “Top 100” Chinese universities were public institutions, and they were well-resourced. Similar to an Indian IIT graduate, China's universities turned out thousands of Bachelor degree holders who could easily gain entrance at the top universities in the U.S., Britain and elsewhere. In fact, China was turning out many more top candidates each year than India, as it had more universities of world-class quality.

Comparison of higher education in China and India indicates that:

- China was turning out to be a more important International Education Market than India.
- China and India faced similar challenges in their higher education sector with intense competition for admission to the best institutions and universities. But China was far ahead on the supply side with nearly 100 high quality institutions and was investing heavily in creating many more, leaving India far behind. As a result China was turning out many more top quality students than India.
- China had opened up higher education both for private and foreign investment. Foreign investors could come in by tying up with local Chinese partners.
- Unlike India, China was experiencing a great deal of two-way international student traffic. China had become one of the world's great study-abroad destinations. Currently more than a lakh foreigners study in Chinese universities, and that number was swelling each year. China was the number-one choice for U.S. students who wanted to study in Asia (conversely very few Americans study in India mainly because they perceived high security risks). In addition, powerful nearby economies and advanced technological societies of South Korea and Japan were sending huge number of students to China. China was active and aggressive about becoming a major player in international education. It recognized that huge sums of money leave the country when students go

abroad, and it was keen to tip that trade balance in its favour. As reported in *The Economist* (November 22, 2014), Chinese youths make up over a fifth of all international students in higher education in OECD, a club mostly of rich countries. More than a quarter is in America.

Recognising financial constraints, the Chinese government opened up the higher education to the private sector and was encouraging private and foreign investment. Despite, bureaucratic controls, provincial education ministries were actively monitoring to ensure that their goals to encourage foreign investment in higher education are met. “We want to bring in foreign investment and we want to bring in education expertise,” said Mr. Ding Hongyu, the Director of the Office for International Cooperation and Exchange at the Beijing Municipal Education Commission. “A foreign partner must find a Chinese partner, but it is not restricted for institutions to choose certain partner at certain levels. It’s logical for them to work with another university, but if they chose to work with high school or a kindergarten, they can.” (*The Economist*, November 2014).

III. HIGHER EDUCATION REFORMS AND FIVE YEAR PLANS

Historically, India embarked upon reforms in higher education since late ‘40s, roughly on an average once in every 15 years, reform in higher education had been introduced. Various major milestones for reforms initiatives are illustrated in BOX A

BOX A

Committees/Commissions

- The University Education Commission (1948) under the chairmanship of Sarvapalli Radhakrishnan, which led to the establishment of University Grants Commission (UGC);
- The Kothari Commission (1964 -66 which served as the foundation for Education Policy of 1968;
- The Committee of Members of Parliament on Education 1967 –National Policy on Education –Dr. Triguna Sen , Chairman (to consider the Report of the Education Commission and to prepare the draft of Statement on National Policy on Education);
- National Commission on Teachers on Higher Education (1982);
- The New Education Policy (1986);
- Acharya Ramamurthy Committee (2000) Programme of Action Document of the National Education Policy 1986 (1992), which brought about a paradigm shift in general, professional and technical higher education that led to growth of self financed private higher educational institutions and establishment of many regulatory bodies like, the All India Council for Technical Education, the National Council for Teachers Education (NCTE), the Distance Education Council (DEC);
- National Knowledge Commission (2007 -09) led by Sam Pitroda; and
- The Committee for the Renovation and Rejuvenation of Higher Education under the chairmanship of Prof. Yashpal (2009).

Committees/Taskforces

Besides the above reform initiatives, there have been reports and recommendations of number of committees and taskforces appointed by the MHRD and UGC. Some of these were:

- Gajendragadkar Committee on Governance
- Gnanam Committee on Administrative Reforms,
- Suneri Committee on the Gnanam Committee recommendations,
- Pylee Committee on fee policy, and
- Punneya Committee on Financing of Universities and colleges.

Other Committees

In addition, many other committees made recommendations regarding various issues concerning curricula, administration, governance, examination reforms, governance, funding, autonomy, accountability. Pay Review Committees appointed every ten years have also made recommendations relating to improvement in the teaching-learning process and accountability and performance of teachers. Besides, the Administrative Reform

Commission Reports contained sections on reforming higher education.

Of late, courts have laid out series of guidelines and regulations in aspects relating to admission, fee-fixation, attendance, discipline, examination, governance and curricula for higher education.

The plethora of recommendations over the last six decades should have resulted in a more realistic and informed assessment of higher education, However to quote Furqan Qamar (2011), “we know so little about our higher education system in objective terms that we often identify our problems wrongly and therefore end up with misplaced prescriptions”.

Of late, we have a multiplicity of regulatory authorities making higher education over-regulated and under-governed. In this respect, the National Knowledge Commission argued for the establishment of an Independent Regulatory Authority in Higher Education (IRAHE) which was to take over the approval, recognition and regulatory functions of the UGC, AICTE, NCTE, MCI, and DEC leaving UGC to focus on the funding function. Other recommendations of the NKC relating to financing of higher education included as:

- Increase the government support for the higher education to at least 1.5 per cent of GDP from the present level of 1.15 per cent;
- Autonomy for the universities to set student fees level, tap other sources and also allow the commercial use of facilities like land;
- The student fees should meet at least 20 per cent of the total expenditure of universities;
- Engage professional (private) firms to generate alumni contribution and license fees; and
- Permit entry of foreign institutions in India and promotion of Indian institutions abroad, and formulation of appropriation policies to promote competition in higher education.

Some of the above recommendations by the NKC were made earlier by other committees.

Subsequently, the Yashpal (YP) Committee (2009) on Renovation, and Rejuvenation of Higher Education, constituted by the MHRD, argued on similar lines that of NKC that “the multiplicity of regulatory authorities with overlapping and conflicting mandate have resulted in a compartmentalisation of knowledge” that has been detrimental to higher education. The YP Committee argued that all universities to become multi-disciplinary and recommended the establishment of an overarching National Commission for Higher Education and Research (NCHER).

As a consequence of the above recommendations on reforming higher education, following five separate bills were introduced in the Parliament:

- ❖ Establishment of a national educational tribunal;
- ❖ Establishment and regulation of a national accreditation authority;
- ❖ Regulation of entry and operation of foreign education institutions;
- ❖ Prohibition of unfair practices in higher, technical and professional institutions; and
- ❖ National Commission for Higher Education and Research (NCHER).

Further in terms of allocations for the education sector, elementary education has a lion's share, and the share of higher education is 11.89 per cent while the share of technical education is 4.78 per cent. The XII Plan approach paper has set a target of spending 25 per cent of the total budget on higher and technical education. Similarly, the approach paper also mentions a target of public spending 1.0 per cent of GDP on higher education and 0.5 per cent of GDP on technical education. As mentioned earlier, expenditure on higher education in India as a percentage of GDP is approximately 1.15 per cent, while the US and South Korea spent 3.1 per cent and 2.4 per cent of GDP respectively. XII plan envisages a radical shift in the entire governance paradigm in the higher education sphere (see Box B).

The Twelfth Plan recommends that “there must be a strategic shift from mere expansion to improvement in quality higher education. For this, the focus should be not only on larger enrollment, but also on the quality of the expansion. During the Twelfth-Plan period, an additional enrollment of 10 million could be targeted in higher education equivalent to 3 million additional seats for each age cohort entering the higher education system. This would significantly increase the GER bringing it broadly in line with the global average.” The Working Group on Higher and Technical education for the 12th Five Year Plan has projected a resource requirement of Rs 413,367 crore, such a large amount would require innovative and newer avenues of funding (Narayana Murthy Committee, 2012).

Box B

Shift in Governance Paradigm in Higher Education

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

IV. PRIVATE SECTOR ROLE IN HIGHER EDUCATION

As discussed, there is greater emphasis on the growth of higher education; the NKC Committee, Yashpal Committee and the successive five year plans envisaged setting up of new institutions of higher education. Higher education had been primarily the responsibility of the government and since public finances have been constrained, private sector's role in higher education is being recognised; though there have been divergent views on the subject.

Beginning of 1990s saw the widespread *laissez-faireism*, i.e. non-intervention by the state and absence of any policy; this was followed by pro-private approach. A big non-violent shift took place from policies of welfare-statism in higher education to a market-based approach to higher education.

The Tenth Five Year Plan provided that "Laws, rules and procedures for private, co-operative and NPO (not-for-profit organisation) supply of education must be modernised and simplified so

that honest and sincere individuals and organisations can set up universities, colleges and schools. Oppressive controls on fees, teachers' salaries, and infrastructure and staff strength must be eliminated".

Similarly, the Eleventh and the Twelfth Five Year Plans had recommended adoption of Public-Private Partnership approach in setting up institutions of higher education, as was recommended by the NKC. Further, High Level Group on Services Sector (March 2008) of the Planning Commission observed that there was a need to involve private and corporate sector fully for expanding facilities for higher education and the private sector should have the autonomy in respect of fees and even 'for-profit' entities be allowed in higher education. However, private sector institutions should be subject to regulations on matters related to curriculum and standards of staffing and physical infrastructure. Earlier Birla-Ambani Report 2000 suggested that private universities bill should be passed and the user-pay principle should be enforced in higher education. The matter had been hotly debated and discussed, there has been a general consensus that there should be greater role of private sector on higher education and that privatisation should be restricted to a 'minimum desirable level' (Agarwal 2009)

It would be pertinent to mention that the Central Advisory Board of Education Committee (CABLE 2005) on Financing of Higher Education in its report in 2005 observed as,

"Growth of self-financing courses in higher education institutions and private higher education should be regulated to avoid vulgar forms of commercialisation. While stating that philanthropy in education should be encouraged by the government through appropriate fiscal incentives, the committee noted that the 'overall role of private sector in education cannot be limited'".

In this regard, Azim Premji Foundation recognises the limitation of private partnership and states that, "The role of private partners and private capital in education has been given high importance in recent times. In our view, this approach is a fundamentally flawed one. Given the scale, diversity and deep inequities of India, private entities can only have a minor role to play in providing education (primary or higher). It is the government that must spearhead the effort to provide good education at all levels – private partners can only play a limited supplementary role in specific and specialised areas of expertise".

It would be appropriate to mention that the K.B. Pawar Committee (2012) constituted by the UGC had 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 makes 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 are 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 government has initiated a new scheme of PPP in setting up 20 IITs. It needs to scale 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

Further, the Twelfth Plan emphasises on the increased role of private sector in the growth of higher education. The Plan provides the following:

- Private sector has played an instrumental role in the growth of higher education, it accounts for 64 per cent of the total number of institutions and four-fifth of enrolment in

professional courses (or one-third overall), as compared to 43 per cent and 33 per cent respectively a decade ago. However, this growth is restricted to specific areas and there are concerns about quality and governance process.

- 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.
- Private sector growth in higher education (including technical) should be facilitated and innovative Public-Private Partnerships (PPP) should be explored and developed.
- The 'not-for-profit' tag in higher education sector should, perhaps, be re-examined in a more pragmatic manner so as to ensure quality without losing focus on expansion and equity. Deserving private institutions could benefit with access to public funds in the form of loans, financial aid for students and competitive funding for research.
- Reasonable tuition fees in higher education need to be supplemented with appropriate publicly-funded financial aid.
- Scale and reach of scholarship schemes and student loans need to be enhanced. Government guarantees for student loans could be considered as emphasised in the Eleventh Plan. The central principle should be that no student who is eligible to be admitted should be deprived of higher education for financial reasons.
- There is a need to have a clear policy to manage private education and a statutory and transparent framework for its operation for driving private growth further in a legitimate and balanced manner.

As such, private sector in higher education has grown over the years and operates in several forms. These forms include, private universities, or deemed universities, or institutions set up by various religious and social organisations or by business houses that operate under the provisions of charitable societies or trusts, or private training institutions that operate as for-profit entities, or private institutions mostly *de facto* for profit. As a result, a large number of private entities operate in higher education with a different purpose. Some of the entities have first rate rating and have spread out having campuses in foreign countries.

Many private institutions were set-up by individuals or business groups, or charitable or social groups; these are private institutions for public purpose. The institutions set-up by business houses or by charitable and social groups have professional management. However, in certain family run institutions, family members are at the helm of affairs to run the institute and operate as a family business, or as a personal venture, many are being run for personal interest with profit motive, and at times have dubious methods to make money. Such institutions should be

subject to strict regulations and the institutions should run on professional lines. There is a need to regulate such institutions and to ensure enforcement of the law and rules to ensure requisite quality of infrastructure and faculty so that such institutions do not defraud students but run professionally; and the regulatory body has to ensure enforcement of regulations.

In the words of Agarwal (2009) “there is now growing realisation that the private higher education sector is inevitably destined to grow. Thus, there is a need to build safeguards to prevent dilution of quality and ensure that private participation does not lead to exclusion”. Further, private higher education has flourished in low-risk profit segment of higher education. Most private institutions are commercially oriented (though they may claim to be otherwise) and prepare graduates for the job markets. The private higher education has grown in India in a policy vacuum and there are several concerns of private sector-- concern of low quality, poor infrastructure in the pursuit of profit. Agarwal (2009) concludes that, “the State will have to negotiate equality and equity through a fair, transparent, participatory regulatory system that will be driven more by consumer interests. A coherent policy framework that recognises the complementarities of public and private higher education and ensures the healthy growth of both is required. A sound regulatory framework that keeps the interest of the students at the centre for domestic as well as foreign providers is needed.”

A report by ASSOCHAM (2009) has embarked on the greater role of the private sector in higher education as the government’s expenditure on higher education as a percentage of GDP declined from 0.77 per cent in 1991 to 0.7 per cent in 2009. The report projects India to emerge as one of the largest education markets in Asia over the next five years worth 55 billion dollar. The reports attributed growing share of the private sector in higher education to factors like, inability of public university system to meet demand of rapidly growing population, and declining trend of public expenditure in higher education. Further, as mentioned earlier, Twelfth Plan projects that India could capture higher share of global knowledge-based work, by increasing its export of knowledge-intensive goods and services by focusing globally bench marked quality higher education. This is as the developed economies and even China will face a shortage of 40 million skilled workers by 2020 (Twelfth Plan Vol. III Para 21.181).

According to a study, *Indian Education Services- A Hot Opportunity*, the Indian education system has witnessed remarkable growth in terms of number of new institutions and enrolments in the past couple of years. However, the current education infrastructure is insufficient to meet

the growing demand for higher education. One of the major reasons for low education funding is the relatively low involvement of private sector investments.

Private Role in Higher Education: Global Experience

As per information for 78 countries, India's level of private enrollment exceeds 55 cases and trails behind just 22. Private sector in India including private aided institutions accounted for 30.7 per cent (for the year 2005-06) of enrollment and 42.9 per cent (for the year 2005-06) of institutions; the corresponding percentage for the United States were 23.2 and 59.4 (for the year 2000). As such the private enrollment in India exceeded that of the United States. This is against high private share in East Asian countries, Latin America, South Korea, Taiwan and Malaysia. Private Research University is held in high regard in the United States as major private universities occupy all but three or four of the top 25 slots in most rankings in the United States. In India, no private university has the profile of a world-class research university (Agarwal 2009).

As such, higher education system in India is more privatised compared to other capitalist or market economies, like the US, UK, Canada and Australia. (Tilak October 4, 2014). In the US about one-fifth to one-fourth of the total number of students in higher education, are in private institutions, the remaining students go to public universities (Agarwal 2012). In contrast, in India, about 66 per cent of students in general education and 75-80 per cent in technical education are enrolled in private, self-financing institutions. Further, philanthropy and charity have been replaced with greed for profit and narrow, selfish financial interest. Also the fees in private universities in India is about 50 to 80 times higher than those in public institutions; in contrast, private universities in countries with a sizable private sector, like, Japan, Korea, or the US, charge a fee that is eight to ten times higher than fees in the public institutions. In this respect to quote Tilak (October 4, 2014), "The massive private higher education system in India has been detrimental to the character of education as a public good. Private education essentially views education as private good, yielding benefits to the individual student, and is not concerned with social values or national concern. The greater the extent of private higher education in the country, the faster will be the disappearance of the public nature of education. The social responsibility of higher education needs to be valued, protected and nurtured, and this is not possible in a system dominated by a profit-motivated private higher education system" He continues, "A strong, vibrant high quality public higher education system, accessible to all, is the solution to many of the ills plaguing the country. Along with this, philanthropy-based private

education ought to be encouraged. There is no place for a profit-seeking private higher education in a democratic society that aims to transform itself into a knowledge society and an advanced economy, with faster inclusive growth as its main maxim”.

As regards private role in higher education, additional points of concern are as:

- As a result of the decision to have more IIMs and IITs in the last year, there are 19 IIMs and 21 IITs, but most of the IIMs and IITs set-up during 2008 are operating from make shift campuses and face challenges in terms of their quality of teaching and research. Further, despite the plan to increase in the number of institutions in the higher education like IIMs, number of aspirants for the CAT (Common Admission Test) is reducing from 241,000 in 2008 to 189,000 for the year 2014. As a result, a number of other management and engineering institutions have closed down and number of applicants seeking admission is waning. It is a signal towards mismatch between demand and supply; and qualitative aspects – both physical infrastructure and academic inputs, most of the institutes are short of faculty by over 25 per cent. Further, the IIMs draft Bill is also a step towards adversely affecting the autonomy of IIM management in matters like, appointment of the director, fee structure, tenure, remuneration and terms of service.
- There is lack of clarity on the question of private investment in education, and the recommendation to give education the status of an infrastructure sector so as to enable it to access inexpensive domestic and foreign funds needs to be considered favourably by the government.
- Our education system has not much to show in areas of research and innovations and produces mostly unemployable graduates. At present around five lakh engineering student graduates from India engineering colleges and this number is estimated to cross one million in three-four years, only 25 percent are found employable and the industry invest heavily for further training for making others employable. Similarly, number of patents filed by Koreans with the US Patent and Trademark office on a per capita basis is 277 times more than ours and that too by spending 75 per cent less money per patents *vis-a-vis* India (Narayana Murthy Committee, 2012).
- Just four institutions from the country make it to the top 400 and none to top 200 in the Times Higher Education (THE) World University Ranking for 2014-15. Panjab University and Indian Institute of Science (IISc) Bangalore were the best placed universities in India with a rank in the 276-300 grouping; and IIT Bombay and IIT Roorkee were placed in the 351- 400 bracket. As against this, two Chinese Institutions number in the top 100

in Times Higher Education (THE) World University Rankings. (*The Economist* Nov. 22, 2014).

In this respect, it is viewed to create an institution of ranking system for Central universities and other academic institutions. Such ranking would create a data driven culture which would have a positive impact on the governance of the institute and would be a check on its output. It may be mentioned that global ranking surveys like, QS World University Ranking, The Times Higher Education (THE) ranking use methodologies that emphasise academic research and faculty, citation in journals, employer reputation, academic reputation, faculty-students ratio, and the international composition of faculty and students. It is observed that Indian universities/Institutions perform badly on many of these points and the creation of a national system of ranking in India would be a good data base. Such system of ranking can be developed by an agency like Crisil, an institution already involved in ranking of business schools.

Higher Education: Critical Challenges and Issues

Having discussed growth, significance and reform process of higher education; and also knowing that the higher education in India has great potential and opportunities in terms of export of higher skill services, as the developed countries and even China are reported to face shortage of skilled manpower in the foreseeable future, let us discuss the critical challenges and issues relating to higher education in India. Such challenges and issues could be explained under three categories as:

- Governance Issues
- Excellence And Improving Academic Quality Issues
- Financing Strategy Issues

Governance Issues

As stated earlier, there are many regulatory bodies; the higher education in India is over regulated and less governed. It has been put to constant reviews and reforms, and there has been a committee approximately every fifteen years with little record of implementation outcome. Good governance warrants grant of autonomy and making the institutions accountable. This would entail managing the higher education institutions professionally devoid of politics and profiteering for personal gains. However, the reviews smoke of political agenda. For example, the former Human Development

Minister had directed the expansion of higher education by 50 per cent and announced opening of number of higher professional institutions and institutions of higher learning within three years, as a part of his party's game plan (Bala Krishnan, 2015). A number of Committees like, National Knowledge Commission lead by Sam Pitroda and Prof. Yaspal Committee were appointed. These committees recommended a number of legislative measures and five such bills, as stated earlier, are pending before the Parliament for enactment.

The point of consideration is as:

- Instead of bringing out new legislative measures and bills to guard against lacuna and weak areas of governance, should not the existing regulatory bodies, like UGC or AICTE, be reformed, or strengthened. Enactment of a fresh legislation is a cumbersome and time consuming process and the five proposed legislations would also require coordination. More important aspect is that regulatory process be professionally managed and be devoid of politics. Similarly, private institutions/universities should be professionally managed rather than by a handful of family members who run the institution/university as a family venture. Let us ponder over the point that how many of the private institutions/universities have professionally managed trusts or boards and how many trusts/boards are family dominated? It is on the analogy that in the corporate world, companies for better governance are required to have professional boards and to have independent directors; similarly, the trusts/boards of private universities/institutions should have professionals as well as independent members on their trusts/boards.

In this respect, the government needs to play a sensitive and less intrusive role in governance and regulation of higher education than it does at present. The government role should be calibrated according to the type of institution involved. For upper tier institutions, the role could be promotional and evaluation; for mid-tier institutions, it should be a steering role; and for lower tier institutions, the role should be more actively regulatory one. In principle, governance should shift from inspection-based process to auto autonomy and accountability through independent third party validation, regulation by mandatory self-disclosure and objective evaluation scheme.

Governance warrants following the principles of autonomy and accountability, for that purpose, the universities should develop themselves into autonomous communities of teachers and students who should engage in the pursuit of learning and excellence. Autonomy within the framework of national policy lies in three categories as: selection of students; appointment and promotion of teachers; and the determination of courses of study, methods of teaching and the selection of areas and problems of research. To safeguard the university autonomy, 'most important is to appoint the right persons as vice-chancellors who should be distinguished educationists or eminent scholars with relevant administrative experience' (Dr. Triguna Sen Report, 1967); and the appointment process should be free from bureaucratic or political hassles. Further, the principle of autonomy should be extended within the university system itself. There should be a system of delegation of administrative and financial powers to the departments and divisions in the university and they should be managed like a committee of professors and faculty within the department.

Accreditation plays a central role in the regulatory arrangement of institutions of higher education and is mandatory in many countries. In India only 161 universities and 4,371 colleges had been accredited by the National Assessment and Accreditation Council (NAAC) by March 31, 2011 (Narayana Murthy Committee 2012). The Twelfth Plan provides for mandatory accreditation of institutions of higher education and also of each programme offered by the institution with clear incentives and consequences. In order to handle large-volume accreditation, multiple accreditation independent non-profit bodies should be established and also new law is to be enacted for the purpose. It may be mentioned that in India, National Assessment and Accreditation Council, an autonomous body, was established by the University Grants Commission in 1994 in pursuance of the recommendations made by the National Policy of Education, 1986 and the Programme of Action (POA), 1992 which laid special emphasis on evaluating the quality of higher education in India. Under the new methodology introduced by NAAC w.e.f. April 1, 2007, the higher education institutions are assessed and accredited by a two-step approach. In the first step, the institution is required to seek 'Institutional Eligibility for Quality Assessment (IEQA)' and the second step is the assessment and

accreditation of the institute under the grades 'A', 'B', 'C' for accredited institutions; and 'D' for those which are not accredited. NAAC has identified seven criteria-

- i. Curricular aspects,
- ii. Teaching-learning and evaluation,
- iii. Research, consultancy and extension,
- iv. Infrastructure and learning resources,
- v. Student support and progression,
- vi. Governance and leadership, and
- vii. Innovative practices as the basis for its assessment procedure.

So the issue is why not accreditation of an institution/university and programme by an autonomous professionally managed board be made mandatory?

It would be pertinent to mention the case of replication of higher education misadventure of Chhattisgarh state of setting up of 97 private universities in 2002 by a State in northern India, though the Supreme Court later set aside in 2005 the decision of setting up of the private universities in Chhattisgarh. The Technical University of the northern state allowed affiliation of over 700 professional colleges of MBA and B.Tech. by overlooking all the basic formalities and requirements. This resulted in the supply far exceeding the demand and that lead to unethical practices by a new class of middlemen who beguiled the rural students with a professional degree and also creation of fake documents for substandard students (Sinha, Sujata, 2014).

It raises an issue, would the process of strong objective accreditation, not guard against such unethical practice? And should not there be strong regulatory measures to avoid such practice of affiliating professional colleges-- MBA or B.Tech.?

Further, for an educational institution, just like a manufacturing unit, there are inputs, processes and output. Inputs (students) and processes (academic curriculum) are subject to over-regulations but there is absence of any norm relating to output or its quality, i.e. employability or research output. As stated earlier, India produces every year approximately five lakh engineers of which hardly 25 per cent are employable that too after in-house training by the recruiters. It highlights the need to look into the aspects of quality of output though institutions are constrained with the fixation of fees, faculty quality and their remuneration. As mentioned earlier, research output is

negligible for institutions or universities in India, and India does not figure in the top 200 universities of the world. In the recent convocation of the Indian Institute of Science, Bangalore, Infosys founder Narayana Murthy told the audience that there is not one major global commodity that could be traced to the research work of the IIT and IIMs. To guard against this practice of quantity vs quality, autonomy and accountability coupled with incentives and liberal funding would be a step in that direction (Shiv Visvanathan, 2015).

There is a question of affordability and accessibility, as result of disparity in access of education to weaker sections or backward classes of society, the high cost of private education has affected its access to the poor and weaker sections. Though there are reservation policies, there are strong arguments favouring and criticising these policies. While these policies have significant positive effects on the mobility of weaker sections, it is widely felt that vote bank politics, and not any educational, social and economic rationale explain the continuation and even expansion of these policies. They are largely criticised for causing a fall in the quality and standard of higher education in India and for demotivating students belonging to backward sections of society about the value of secondary education. (Tilak and Biswal, Oct-Dec 2013). In this respect, Yashpal Committee's Report *Renovation and Rejuvenation of Higher Education (2009)* talks of 'invisible wall' of present education system, i.e. reservation system is one which is acting as a hindrance in the quality outcome.

As a part of governance, the Twelfth Plan continues to focus on Three Es' namely expansion, equity and excellence and these are planned to be achieved through the principles of quality, diversity of higher education opportunities to have world class research universities, and to impart vocational skills to meet the changing market needs. Capacity addition of 10 million students is planned during the Twelfth Plan to raise GER from 17.9 per cent in 2011-12 to 25.2 per cent by 2017 -18; and to 30 per cent by 2020-21. This would be through the inter-linkages between expansion, equity and excellence.

Lastly, as far reaching changes have taken place in the higher education in the last fifty years, the country lacks comprehensive data for purposes of policy formulation and

review. As such, good governance warrants that there is need to have a review and develop system of data across time and geography both at the states, regions and the country level. The data collection should be designed to the International Standards Classification of Education Data finalised by UNESCO. No doubt, All India Survey of higher education is conducted by the Central Government, and this is a first step towards creating a comprehensive higher education data management, the onus on providing such detailed data lies with the individual educational institutions.

Excellence and Improving Quality Issues

As regards quality of higher education, Prof. A. K. Sen (1971) in his Lal Bahadur Shastri Memorial Lectures delivered in March 1970, refers to the rapidly deteriorating standard of higher education and states that “this has been noted by many authorities and is certainly well known to the teaching community”. In his views, the university education has grown much faster and this is partly reflected by general decline in the qualifications of teachers in colleges and universities. In this respect, he refers to the Education Commission (1966) which summed up the deteriorating position as:

“There is a general feeling in India that the situation in higher education is unsatisfactory and even alarming in some ways, that the average standards have been falling and that rapid expansion has resulted in lowering quality. The examination results, the reports of Public Service Commissions, the views of employers and the assessment of teachers themselves, the results of research done—all seem to support this conclusion...

... over a large area of education, the content and quality are inadequate for our present needs and future requirements, and compare unfavourably with the average standards in other educationally advanced countries. What is worse, the large gap between the standards in our country and those in the advanced countries is widening rapidly. Many of our educationists and public men, however, have not fully realised how serious are the actual conditions, academic and physical, that obtain in colleges and universities. Even those who are broadly aware of the situation, fail to notice its poignancy because they have become used to such conditions”.

As mentioned earlier, higher education institutions are plagued by a shortage of well-trained faculty, poor infrastructure and outdated and irrelevant curricula; about 50 per cent of sanctioned faculty positions in universities have been lying vacant for more than two decades, despite tremendous increase in enrolment and these institutions have resorted to teachers on contractual, part-time, visiting and guest lecture basis which adversely affect teaching and research.

Though initiatives were taken in the Eleventh Plan to address faculty shortages by raising the retirement age of faculty, or by giving further extension, or enlisting professionals and experts from outside academic institutions as adjunct faculty; these measures fall short of the expected results and it raises an issue: will such measures solve the problem of quality faculty shortage considering the increase in the number of institutions?

During the Eleventh Plan, Indian higher education moved from 'elite' to 'mass' higher education (threshold of 15 per cent GER) and is now moving towards universal higher education (threshold of 50 per cent GER). Further, the Twelfth Plan strives to create diverse educational opportunities to cater to the growing number of passing out higher secondary educational institutions and also considering the diverse need of the economy. Four key principles that strive to drive the strategy for higher education are:

- (i) Need based expansion considering location, subject areas and discipline;
- (ii) Expansion be aligned to economy needs, specific focus on skill-based programme;
- (iii) The philanthropic sector should be invited and incentivised to infuse more funds and build larger, sustainable and higher quality private institutions;
- (iv) Expansion be carefully planned to provide better access to the poor and disadvantaged social groups and first generation learners from backwards areas; and.

Expansion should not be of institutions of general type but also develop institutions of new kinds best in terms of research, international scientific frontier, engage the best researchers in the country, ensuring educational content and curricula of world standard relevant for the country problems.

In this respect, the Twelfth Plan emphasises that improving academic quality is its major objective and the higher education needs to prepare graduates not only for immediate employment but also for an economy in which most people will not only change jobs but also change careers several times in their lives. This would require inculcating the ability in students to think creatively, read critically, construct effective arguments using persuasive evidence, write clearly, remain flexible and look at issues with an open mind. This in turn would require the right curriculum, better teaching-learning processes, sharing of best practices nationally and internationally and the ability to impart a well-rounded and socially conscious education.

Educating the mind without educating the heart is not education at all.

-- President Pranab Mukherjee

The Twelfth Plan provides for setting up of universities for research and innovation with the target of 20 such institutions by the end of Twelfth Plan-- public or private or PPP; and create 20 Centres of Excellence as world class research centres within the existing universities and institutions of national repute; and 50 centres for training and research in the frontier areas of science and technology, social science and humanities.

Technical excellence had to be complemented by quality education in humanities otherwise by focusing only on engineering education, India would at best produce highly disciplined robots whose make up is biological but whose thinking is exceedingly narrowly focused on technology.

-- M.N. Buch

(letter to Dr. Manmohan Singh, the then Prime Minister as reported in Hindustan Times, June 21, 2015)

The issue of quantity vs. quality warrants that having gained a quantitative numbers, and being one of the largest higher education institutions in the world, one needs a holistic frame that links knowledge, democracy, and education. There is a need to have a state sponsored Committee of professionals, representatives of all stakeholders, industry, students, alumina, and teachers. The Committee's report should reflect the higher education needs of future and be one which is not shelved but is implementable. This would warrant that the higher education institutions should have financial autonomy as regards mobilisation of resources from user fees, consultancy structures according to their level of excellence. The governing boards should be left free to involve policies relating to donations, endowments, attracting philanthropy, awarding scholarships, instituting chairs, faculty development programmes, accumulation and deployment of reserves and surplus, keeping in mind the overcharging principle of equity while fixing fees and determining the amount of scholarships. It would be appropriate to mention the study by the Higher Education Funding Council (HEFC) of the UK which found that the best ranked universities of the world are also those who lavishly fund higher education. Examples include, Stanford with 11,000 students in 2008 had an operating budget of \$ 3.2 billion and an endowment of \$ 12.6 billion; the University of California system in 2009 had an operating budget of \$ 20.84 billion for 2.26 lakh students; and Caltech in 2008 had an operating budget of \$ 2.35 billion for 2,135 students (Fuqan Qamar, August 2011).

FINANCING STRATEGY ISSUES

There has been a manifold increase in the expenditure on higher education under the five year plans. As mentioned earlier, in the Twelfth Plan, the outlay on higher education has been two-

and half times of the actual expenditure in the Eleventh Plan. The Central Government spending on higher education has increased over six-fold between 2006-07 and 2011-12. In contrast, state non-plan funding grew at a modest pace though institutions in the state sector have also expanded significantly.

The Central and state governments jointly fund the spending on higher education, the Central government share is about 30 per cent while the state governments fund the remaining 70 per cent, mostly under the non-plan head. Table 8 shows funding responsibilities of the country's universities and colleges.

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

In the Twelfth Plan, there is paradigm shift in funding from demand-based grants and input based budgeting to normative and entitlement based grants and outcome base budgeting and it will replace the line item budget to block grants.

The country spent about 1.12 per cent of GDP on higher education in 2011-12, the household spending and private sector investment has grown more rapidly than the government spending ; the state government spending has fallen short of funding requirement. As recommended by the National Knowledge Commission (NKC), the Twelfth Plan provides for it to increase to at least 1.5 per cent of GDP, out of a total of at least six per cent of GDP for education. It may be mentioned that it was the Central Advisory Board of Education (CABE) Committee (2005) on financing higher and technical education that earlier argued for allocation of 1.5 per cent to higher education (1.0 per cent for higher general education and 0.5 per cent for higher technical education).

As private higher education institutions are charging higher fees, it was argued that higher education institution should revise their fee structure such that fee revenue accounts for 20 per cent of total spending. As mentioned earlier, the Knowledge Commission also recommended that students' fee should meet at least 20 per cent of the total expenditure on universities,

though that recommendation was earlier made by the Justice Punnayya Committee on Central universities. Other sources of finances include the use of land available with the universities and colleges though it would raise issues concerning governance and the aspects relating to academic purposes.

With liberalisation, private institutions have been allowed in the professional and technical courses, though there is absence of exact policy on private sector role in higher education. Private sector is allowed as non-profit-agency under Section 25 of the Companies Act, there is a need to look into the enormous fund requirement for higher education in the foreseeable future.

One view could be to allow private institutions in higher education, grant them autonomy in fee fixation and other matters, tax them on their profit and the tax revenue should be utilized as scholarship for the needy students pursuing higher education. The question of affordability would be of supreme consideration. It raises an issue whether: Higher education is a public good, or private good, or merit good? If state could meet the entire financial needs of higher education, which in the present economic scenario appears bleak, it could be public good; otherwise it could be a merit good.

Lastly, since philanthropy which was prevalent in India, is on the decline, there should be measures to incentivise philanthropy and institutions of higher education should run as a professional organisation on non-profit basis. Scholarship/stipend should be granted to cover all costs. In addition, provision of transport facility, grants for books, examination fee are also provided. As per Dr. Triguna Sen Committee (1967) there is an urgent need to evolve a more equitable and egalitarian basis for the award of scholarships and grant of admission to important institutions of higher education. Further, the Committee recommended that “in order to encourage good students to join the teaching profession, however, a person who has received a loan scholarship should be entitled to a remission of one-tenth of the loan for each year of service as a teacher”.

Summing Up

Higher education in India has grown over the years in number and is one of the highest in the world having over 260 lakh students on roll; GER has increased above 21 per cent; having 715 universities and over 46,43 colleges. Investment in higher education has also grown over the years manifold; Twelfth Plan outlay for the higher education is Rs. 110,700 crore and annual budget of Rs. 16,900 for the year 2014-15.

However, in terms of quality, higher education is in crisis; performance as reflected by ranking of Indian Institutions/Universities in the world top 200, or employability of Indian graduating engineers is not worth the name and many of the engineering and management institutions have closed down due to non-availability of students.

As a reform measure a number of committees have been appointed, approximately one committee every fifteen years without any implementable outcome; and a number of draft bills are in the offing, the outcome of all this is more confusing than any solution.

Need of the hour is to go for good governance, provide autonomy for the functioning of the Institutions/universities; appointment of the CEO should be on merit and be devoid of political interference. Institutions normally have a scanty budget for scholarship/stipend and research and spend only about one percent of their total expenditure on scholarship/stipend. Very few institutions have fee collection as 20 per cent of their total expenditure, and their fee revisions are very infrequent; though certain private institutions charge higher fees.

There is a mismatch between demand and supply, supply exceeding the demand, as number of candidates appearing for CAT has declined over the years and a number of institutions offering engineering and MBA have closed down. This reflects poor planning and a national loss as the resources deployed in buildings and other infrastructure are being frittered away.

In short, higher education is in crisis as regards the quality education and following issues needs to be debated:

- Education should be devoid of politics: politicking of higher education be stopped by the government, institution management, teachers and students; appointment of the CEO should be on merit; there should be autonomy in recruitment of teachers, students and finalisation of teaching curriculum and fee fixation.
- Professionalise the regulatory bodies and agencies: make regulatory process objective one with mandatory self-disclosure and objective evaluation.; accreditation of every institution be made mandatory.
- Have a clear policy regarding the private sector and foreign universities involvement in higher education. With the opening up of the economy, will it not require such involvement! Non-profit private institutions should be run professionally and be subject to strict regulation. Philanthropy be encouraged and incentivised.

- Encourage output in terms of research/consulting and value-based teaching with attractive and motivating incentives; liberal scholarship/stipend. Every institution should have a budget outlay for research/consultancy and scholarship.
- Plan for capacity building both in terms of development of faculty and physical infrastructure.

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Table 1

Higher Education Institutes --Capacity

	1950-51	2006 -7	2011-12	January 2015
University Level	30	N A	690	726
Institutions:				
■ Central Universities			44	NA
■ State Universities			306	NA
■ Deemed Universities			130	NA
■ Private Universities			145	NA
■ Institutes of National Importance			60	NA
■ Institutions set up by State Legislature			5	NA
Colleges	750	29,384	46,430	38,000
Students (million)	2.63	16.98	25.9	28.0

Source: Tenth Five Year Plan Vol. II Chapter 2.5 Table 2.5.1

Economic Surveys: Various Years

@ 73 per cent of colleges are privately managed (of 58 per cent are private unaided, while 14 per cent are private aided

@@ of the teachers 61per cent are males and 39 per cent females i.e. at all India level 64 female teachers per 100 male teachers

Pupil-teacher Ratio (PTR) in colleges and universities is 23

Table 2 Growth in Institutions and Enrollment in Higher Education

	2006 -07	2011-12	2016-17 (target)
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	Institutions No.	Enrollment (Lakh)	Institutions No.	Enrollment (Lakh)	Enrolment (Lakh)
Central Institutions	145	3.10	221	5.63	
State Institutions	11,094	60.28	16,547	84.00	110.4 110.4
Private Institutions	18,145	75.12	29,662	128.23	
Open & Distance Learning (O&DL)	-	27.12	-	42.0	12.0
Total	29,384	165.82	46,430	259.86	359.4

Sources : XII Five Year Plan (2012-17) Social Sector Vol. III (Table 21.10 pp 94 & 97)

UGC, AICTE, NCTE, Indian Nursing Council (NCTE)

Table 3

Higher Education Enrolment; Growth by Field of Study during XIth Plan

	2006-07		2011-12	
	Total Enrolment (akh)	Percent	Total Enrolment (akh)	Percent
Arts	54.86	39.6	65.78	30.2
Science	25.43	18.4	30.57	14.0
Commerce & Management	22.87	16.5	34.34	15.8
Education	6.21	4.5	13.00	6.0
Engineering	8.06	13.0	54.68	25.0
Medicinal, Nursery & Parma	5.98	4.3	12.02	5.5
Agriculture & Veterinary	0.93	0.7	1.21	0.6
Others	1.16	0.8	2.78	1.3
Law	3.0	2.2	3.48	1.6
Total	18.50	100	217.86	100

Source XII Five Year Plan (2012-17) Social Sector Vol. III (Table 21.9 p 94)

Table 4

Gross Enrolment Ratio GER in Higher Education

	2010-11	2012-13
Male	20.8	22.3
Female	17.9	19.8
Total	19.4	21.1

Table 5

Plan Expenditure on Different Sectors of Education (Rs. Crore)

	EE	SE	HE (of which Others		Total	
Ist Plan 1951-56	85 (56)	20 (13)	48 (31)	14 (9)	153 (100)	
2 nd Plan 1956-61	95 (35)	51 (19)	127 (46)	30 (10)	273 (100)	
3 rd Pan 1961-66	201(34)	103 (18)	285 (48)	73 (12)	589(100)	
Plan Holiday 66-69	75 (24)	53 (16)	195 (60)	37 (11)	323(100)	
4 th Pan 69-74	239 (30)	140 (18)	507 (52)	16 (14)	786(100)	
5 th Plan74- 79	317 (35)	156 (17)	439 (48)	107 (14)	912(100)	
6 th Plan 80-85	836 (33)	530 (21)	1164(46)	273 (11)	2530(100)	
7 th Plan 85-90	2849 (37)	2301 (30)	2483 (33)	498 (7)	7633(100)	
1990-92	1729 (37)	1053(22)	1945(41)	118(3)	4727(100)	
8 th Plan 92-97	9201(47)	3498 (18)	6901(35)	2198((11)	19600(100)	
9 th Plan 97-02	16370(66)	3234(13)	5304(31)	2373 (9)	24908(100)	
10 th Plan 02 -07	28750(65)	5575 (13)	9500 (22)	4700 (10)	43825(100)	
11 th Plan 7 - 12	118500(50)	47400(20)	71100(30)	NA	237000(100)	
12 th Plan 12-17	343028 (76)		110700(24)	NA	453728	

EE= Elementary Education

SE = Secondary Education

H E= Higher Education, it includes Adult and technical education

Sources :Dr. R.V Vaidyanathe Ayyar Educational Panning & Administration in India :
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Table 6

Scholarship and Stipend : Higher Education

Year	Total Government Expenditure on Higher Education (Rs. Crore)	Scholarship & Stipend (Rs. Crore)	Scholarship & Stipend % Total
2005-06	5,828	29.05	0.50
2007-08	6,256	32.05	0.51
2011-12	19,505	214	1.09
2013-14	24,518	259	1.05

Source: Outcome Budget for Higher Education: Various Years

Table 7

Aggregate Public Spending on Education (Both by Centre and States) during Eleventh Plan

	Elementary Education (EE)	Secondary Education (SE)	Higher Education (HE)
Rs.1244797 Crore	535,253	311,209	398335
States %	44	30	30
Centre %	30	12	50
Aggregate %	43	25	32

Table 8

Funding Responsibility for Universities and Colleges

Funding Responsibility	Universities	Colleges
Central Govt. (both Plan & Non-Plan	152	69
Central Govt. (Plan only for State Institutions via UGC	144	6,295
State Govt. (Plan and Non-Plan	316	13024
No Funding from Central or State Govts.	191	19,930

Source : Twelfth Pan Vol. III Page 118 Table 21.13