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Intrinsic Challenges in the present Higher Education

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Abstracts:

Almost to this year in 2010, we first brought together educationists, policy makers and national and international experts to explore problems and possible solutions for our education system. The outcome was Education Choice Campaign! In 2007 we began to focus fully on school education through the ***School Choice Campaign****. The mission of this Campaign is to ensure the* ***Right to Education*** *of* ***Choice to every child*** *by promoting the efficient use of public funds and encouraging equity and quality through diversity and liberalization rather than uniformity. We follow a three pronged approach:* ***School vouchers, Regulatory Reforms*** *and* ***Encouraging Edupreneurs****. The mantra of the* ***Campaign*** *is Fund Students, Not Schools! It means full choice and open competition: Choice not just for richer students and competition not just among elite private schools for these richer students. But choice for all students, rich and poor, and competition among all schools, government, elite private and budget private. School vouchers empower poor parents to exercise choice and compel schools to compete even for their children. Universities and Colleges should uplift their slandered for Higher Education System. Government should have new Bills, Acts and Policies for enhancing and strengthening its Higher Education System.*

The emergence of a worldwide economic order has immense consequences for higher education more so under the changes that have taken place in the recent past with regard to globalization, industrialization, information technology advancement and its impact on education aided to these are the policy changes that have taken place at the UGC, AICTE, DEC, NCTE, Medical Council, ...BOR Council, Architecture Council and such other regulatory bodies from time to time to accommodate these development and yet maintain quality students in higher education. The landscape in general, has changed towards a new order. It is obvious Centre and state governments and that the institutions and academic and non academic staff need to gear themselves to deal with the challenges posed by those to achieve the slated, and this demands review of beaten track, set notions, comfort, attitudes and work styles. It is time for all those who are concerned with policymaking, planning, administration and implementation of Higher Educations to revitalize the very thinking on the subject and put it on the right track.

As is known that the Indian higher education system is not only large but also the most complex one. Keeping these in view, present paper is focused on the following : (i) Education system in India and its growth – both in terms of institutions and enrolment. State-wise distributions ; and descipline-wise achievements, (ii) Impact of such a growth on the society and the needed corrections, (iii) issues related to affordability of students and the needed attention in terms of financial inputs. (iv) The role of regulatory body in this changed present condition, the needed policy changes to face the present day challenges such as the global demand for qualified man power and the role of higher education in training this work force for fulfilling the national and international needs. (v) The role of academic research in fostering innovation in Indian economy has been evaluated, its weaknesses have been outlined and the way forward is suggested in the paper.

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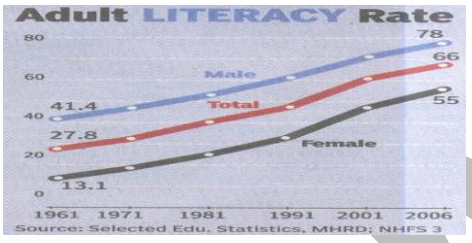
Education System in India

INDIA HAS one of the biggest education systems in the world. On a typical day, roughly 290 million students are attending classes somewhere. That's more than the total population of I any country in the world, I except China, India and the US. Most of these students are in school there are over 1.2 million schools ranging from pre-primary to senior secondary. Over 1.1 million students attend colleges and universities. Then there are those learning vocational skills in diverse streams. A vast army of teachers over 6.3 million of them guides and nurtures the young, on their way to adulthood.

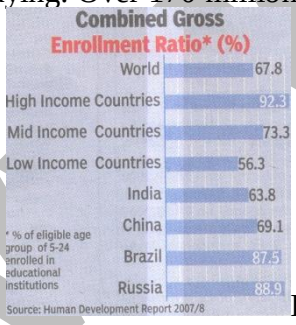
When India became independent, a large majority of people was illiterate, thanks to the policies of the erstwhile colonial rulers. Since then, s considerable strides have been made in expanding literacy, though India has still not managed to ensure education for its entire population.



In 1961, only about 28% Indians were literate. In 2006, estimates put the literacy rate at about 66%. That's an impressive jump of nearly 40 percentage points. It has taken 60 years, but the numbers involved are truly enormous.

However, it still leaves over 380 million people illiterate. That is the largest number of illiterates in any one country, more than the total population of India at the time of Independence and would be the third at largest country by population.

Even the impressive figure of number of students-290million has a similar flipside. The total number of children and youth, in the age al group of 6 to 24 years, is about 460 million. This is the age group that should ideally be in the education system. But only about 63 % of them at are studying. Over 170 million potential students are left in the lurch.



How does this compare with other countries? In high income countries, over 92% of the eligible age group (5-24 years) is studying. In the middle-income countries, this share is about 73%, while in low-income countries it is down to 56%. In China, the ratio is 69%, somewhat similar to India's. But Brazil with about 88% and Russia with 89% are almost there with the high-income group.

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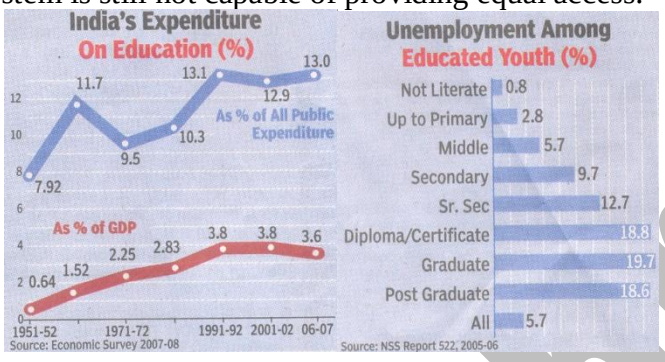
Experts and policy makers cite many reasons to explain why so many have been left behind by the country's education juggernaut. Apart from the pervasive curse of poverty, which forces young people to quit studying and start working as early as possible, there are also issues of social imbalances.

There are four great divides that slice up Indian society and pervade every aspect of life, including education. They are: rural-urban, men women, rich-poor and caste. In each case, there is a disadvantaged section, which finds it difficult to get access to educational opportunities, and thus gets left out. Thus, women, scheduled castes and tribes, agricultural labourers and small farmers, all have lower literacy rates, lower enrollment ratios and higher dropout rates at various levels. Although there is vast improvement since 60 years ago, and the striving is there, the system is still not capable of providing equal access.



Then there is the question of relevance of education - after all it is being sought primarily to get a good job. A recent National Sample Survey report found that unemployment among youth was highest among graduates, post-graduates I and technical diploma or certificate holders - in the range of 19-20%. This is way above the current unemployment rate of about 6% for this age group. The reasons for this are that in most cases the educational qualifications and job requirements don't match, and in any case, the numbers of jobs being created are highly insufficient.

What can be done to improve the spread of education at all levels, and ensure that education for all becomes a reality, rather than a mere dream? While experience the world no lover shows that general economic advance spurs the spread of education like nothing else, there can be no doubt that a massive effort is required to provide well-rounded education to all our country's people. h Such an effort involves resources as well as people to carry out the task. The major responsibility for such a g gigantic enterprise has to rest with the government in terms of providing at least the bulk of resources, as a also providing some kind of regulatory framework for both the quantitative and qualitative aspects of education. But, what has been the government's role on these counts till now?

Underfinancing Education

In 1951-52, the central and state governments put together, spent Rs 64.46 crore on education. This was about 8% of all public expenditure incurred, and just a tiny 0.64 % of the, gross domestic product (GDP) of that year. Since then the expenditure on education has increased tremendously. In 2006-07, the total expenditure on education at all levels was nearly Rs.1.33 lakh crore. As a share of all public expenditure, this works out to about 13%, and as a share of GDP, it is about 3.6%.

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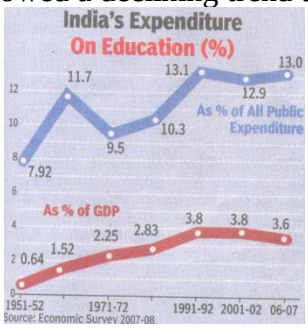
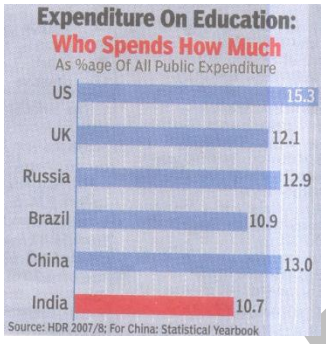
In fact, the peak in educational expenditure occurred in 1999-00, when it was 14.6% of all governmental expenditure. The next year, it hit a peak, as a share of GDP, at 4.3%. Since then, it showed a declining trend till 2004-05, after which, it has once again risen slightly.



It is apparent that this scale of expenditure is insufficient to meet the challenge of educating1.2 billion Indians. How much should the government spend? Forty years ago, the Kothari Commission, set up by the government to recommend ways of improving the education system, argued that at least 6% of the GDP should be allocated for education. But, government spending has always remained be-low par, creating several of the problems given above. In most of the advanced countries, spending on education remains in the range of 4-6% of GDP.



Even in emerging economies like Brazil and Russia; the share of public spending on education is well above 10%, while as a share of GDP it is similar to India's. In China, spending on education as a share of GDP appears to be low at about 2.8 %, but this is due to differences in accounting methods.

Low spending by the government has led to two harmful consequences, - one, growing inequity in education, as those with better resources, get better education, while the majority have to do with mediocre or poor educational standards; and two, 4 a decline in quality of education as management and monitoring becomes more patchy.

Most Students Pass, Few Actually Learn

POLICY MAKERS may think up a hundred reasons for creating and running the education system, but for the common man it all boils down to one question: *Pappu* paas hua kya? This has arisen because, shorn of Its frills, the present education system is primarily a mechanism by which each individual is given a flag or a maker by which he or she tens society – 'I have passed the 10^{th} or 12th or BA, so I can do this or that job.'

Most people feel that it is unfair to judge 12 years of schooling on the basis of a three-hour examination. But that is the way it works, currently. So, how do Indian students perform in examinations at various levels?

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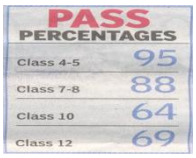
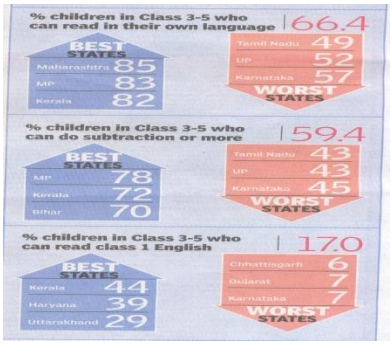


At the primary stage, most students sail through exams - the pass-out percentage is over 95% for class 4 and 5 for the whole country. At the middle school stage, the overall pass percentage drops slightly to 88%.

Students face their first public exam; conducted by 35 state boards, in class 10. The pass-out percentage plummets to 64%. Pass percentage is as low as 42% in MP and 50% in Rajasthan, while it is 86% in Delhi and 77% in Tamil Nadu.

Class 12 is the most important exam, as the students future whether academic or occupational is largely determined at this stage. Overall, 69% students clear this exam. Again, some board like Delhi, Jharkhand and UP show very good result. In general, the performance of students in this exam is much better as a lot is riding on it.



There are no other indicators by which the outcome of school or college education can be measured in any student. Pratham, a non-governmental organization, carries out a survey of learning levels among primary students. In its 2007 report, it was found that among children in class 3-5, only 66% could actually read In their own mother tongue, about 60% had learned basic mathematical skills like subtraction and a mere 17% could read class 1 level English.

9 out of 10 in Class 1 won't get to college

'India does a good job of getting its children to start school, but it fails miserably to keep them studying as they grow older'

Some dramatic changes have taken place in India's education system in the past couple of decades, of which only a few are reflected in statistics. Enrollment has increased tremendously in schools, technical and professional courses, colleges, distance learning centers, even coaching and tuition centers. Official enrollment figures reflect this increase, but cannot capture the immense and universal aspiration for education that continues to sweep the country. Unlike the bygone days when it was often necessary to persuade people to send their children to school, today parents largely see it as a bounden duty, while the youngsters themselves are busy working out different options of studies.

For instance, take the school system. The number of students enrolled in elementary education (classes 1 to 8) was about 1.9 crore in 1951. It is now estimated at over 13 crore, about seven times more. For classes 9 to 12, the enrollment has increased from about 15 lakh in 1951 to over 3.7 crore, an over 25-fold increase.

In higher education, there has been a 70-fold increase in enrollment. In 1951 there were only 1.7 lakh students pursuing education beyond class 12. Now the number is touching 1.2 crore.

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While the spread of education re-fleeted in these numbers is undoubtedly impressive, one needs to look at it from another perspective - is everybody getting education? To find out, we have to look at two things - how many children or youth in the age group 6-24 years actually get into educational institutions, and how many manage to complete their education.

The proportion of students enrolled for class 1 to 5 in the total number of children in the 6-11 years age group, called the Gross Enrollment Ratio (GER) for that age group, is about 107%. That means virtually all children in this age group and some who are older but in these classes are enrolled in schools. However, for class 6 to 8, this proportion, for the age group 11-14 years, falls to about 70%. It continues falling in the next stage of class 9 to 12 also - just about touching 40%. By the time we reach higher education, the proportion of students has fallen to an abysmal 10%.

This unfortunate reality is reflected also in the drop-out rates. By class 5, about one third of the students have dropped out, by class 8, about half have quit, and by class 8 nearly two-thirds of them are no longer in school.

Clearly, with each advancing class through the school system and then in the higher education system, students keep leaving the education system. For some reason, the great aspiration and striving for getting educated and making it good in life peters out midway, so much so that only one out of 10 persons makes it to higher education institutions.

Gross Enrolment Ratio
(% Share Of Total 6-24 Age Group)

	All	SC	ST	W
Class 1-5 (6-11 yrs)	107.8	115.3	121.91	104.67
Class 6-8 (11-14 yrs)	69.93	70.17	66.98	65.13
Class 9-12 (14-18 years)	39.91	34.68	27.68	35.05
Higher Education (18-24 years)	9.97	6.72	4.86	8.17

Selected Educational Statistics, MHRD

DROP-OUT RATES (%)

The traditional disadvantages suffered by SC/ST groups are reflected in drop-out rates

	All	SC	ST	W
Up to Class 5	29	34.21	42.32	25.42
Up to Class 8	50.84	57.26	65.87	51.28
Up to Class 10	61.92	71.25	78.97	63.88

Selected Educational Statistics, MHRD

School without roofs, buildings without toilets: poor infrastructure is a major impediment to education

Though it is a tradition in India to tell children tales of the golden past when venerable sages taught their students in the shade of trees, deep inside the forest, everybody knows that today's schools or colleges cannot function like that. Students and teachers need classrooms, chairs and

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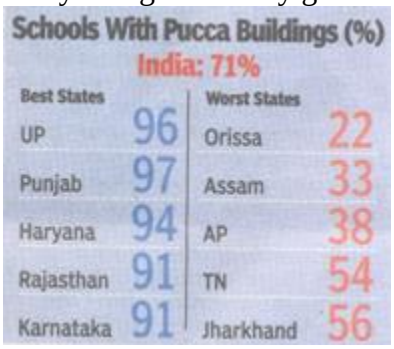
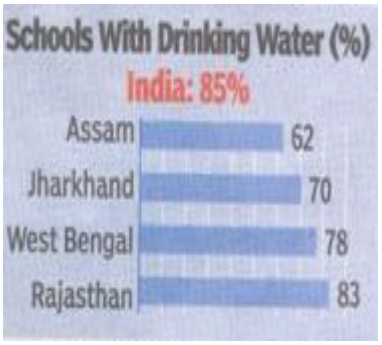
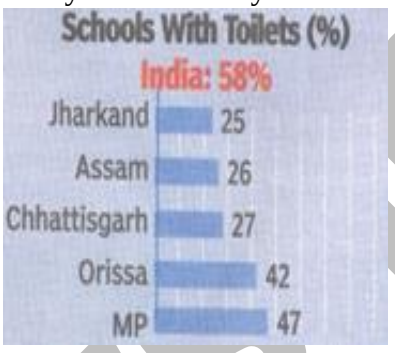
desks, libraries, laboratories, auditoria, hostels, gyms and computer terminals. These basic facilities are perhaps as important as teachers and, hence, a close look at the facilities available today will give a fairly good indication of the health of the country's education system.







Higher Education in India: As it grows

After independence, which coincided with the post-Second World War era, India made concerted efforts to improve access to higher education and the system grew rapidly after independence. By 1980, there were 132 universities and 4738 colleges in the country enrolling around five percent of the eligible age group in higher education. No doubt Indian higher education is one of the second largest; other one is China and the United States. Yet is one of the most complex ones. Up till 1980, the growth of higher education was largely confined to liberal arts, science and commerce. Not only the government supported higher education by setting up universities and colleges, but also took over the responsibility of running the institutions set up through private sector, which were known as grant-in-aid (GIA) institutions or private aided institutions. *In such institutions, though the private sector financed major part of the capital costs, public subsidies were provided to them to meet a part of the recurrent costs, and occasionally for some capital works. Public funding was accompanied with considerable regulation of private institutions by the government* (World Bank, 2003).

Over a period of time, private aided institutions became a mirror image of the government run institutions. This had serious repercussions on the future of higher education in India. During this period, this de facto nationalization of private higher education not only killed community-led private initiatives, but gave a serious blow to the standards of the private colleges, many of which had over the years set high academic standards for themselves. On the other, the growing demand for higher education resulted in rapid growth in enrolment as its relevance in business and industry was felt by people and also due to the affordability of the middle income group. Increased demand for higher education laid considerable stress on governmental resources which resulted in private participation in higher education. The state had no choice than to accept private participation for two reasons: (i) Quality-wise they had maintained standards and (ii) State Resources were limited. The reforms in early 90s saw the middle class population larger, younger, and richer and the country supported entrepreneurship. Thus, education was seen not only as a status symbol but also as a means to get ahead of others. Privatization of higher education has been natural outcome of several policy changes such as liberalization, privatization, privatization, etc. during 1991. All these set a pace for accelerated growth of higher education by the private sector in the country. Till late 1990s, there was of affiliated colleges in the universities. Yet, there was realization amongst the promoters of private institutions about the powers of the regulatory mechanism of the universities and the state governments with regard to

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checks and balances on key items such as admissions and fee regulations. Thus, the autonomy of private institutions was not questioned. Thus the efforts towards moving out of the strangle held of affiliating universities lead to the establishment of deemed-to-be universities and a way to get the degree granting powers. Between 2000 and 2005, 26 private-sponsored institutions got the deemed university status. Since education is on the concurrent list and the State governments can themselves establish private universities through legislation in the state legislature. By early 2005, seven private universities were set up in different states and were also recognized by the UGC. Attracted by the advantages of the above, a newly constituted state - Chhattisgarh in central India set up of 97 universities with all India jurisdictions in the year 2002. These had neither established proper structure or functions or structure function relations. This was struck down by the Supreme Court in February 2005 leaving the fate of nearly fifty thousand students registered in these universities astray; the future of those who acquired degrees from these *'so called'* universities remains uncertain. The Chhattisgarh case is an example towards a caution to the regulatory system as the gaps that exist in these regulatory bodies and its impact on the system.

There has been an appreciable growth in the number of universities and colleges in India since independence from 25 and 700 in 1947 to 354 and 17625 in 2005. The total enrolment increased from a meager 0.1 million in 1947 to 10.48 million in 2005 resulting in twelve fold increase in number of university level institutions and twenty-eight fold increase in number of students. Yet it can cater to only 7% of the age group population viz 18 to 25 years which is lower than even that of developing countries as Indonesia (11%), Brazil (12%), and Thailand (19%). This small proportion of the targeted population enrolled in formal education at the tertiary level is indicative of the huge gap between access and demand for higher education in India. The demand is so high that no country in the world, no matter how rich it is, can afford to meet by the state funds alone, especially such types which are tuition free or highly subsidized by the state. The total enrolment increased from a meager of 0.1 million in 1947 to 10.48 million in 2005. The bulk of the higher education system lies in its 131 affiliating universities. It contributes around 89 per cent of the total enrolment.

Table: 1 Growth of Higher Education Institutions and Enrolment in India

Year	Universities*	Colleges	Total	Enrollment (Lakhs)
1947-48	20	496	516	2
1950-51	28	578	606	2
1960-61	45	1,819	1864	6
1970-71	93	3,277	3370	20
1980-81	123	4,738	4861	28
1990-91	184	5,748	5932	44
2000-01	266	11,146	11412	88
2005-06	348	17,625	17973	105

Source: *University Grants Commission*

**Includes central, state, private and deemed-to-be universities as also institutions of national importance established both by the central and the state legislatures.*

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Typology and Growth Trends of Higher Education Institutions

Type	Ownership	Financing	No. of Institutions*	Enrolment*	Growth Trends
Government Universities	Public	Public	240	1000000	Not Growing
Private Univ	Private	Private	7	10000	Emerging on the scene
Deemed Univ – Govt. Univ	Private or Public	Public	37	40000	Growing Slowly
Deemed to be Univ-Pvt Unaided	Private	Private	56	60000	Growing Rapidly
Govt. College	Public	Public	1500	1000000	Not growing
Pvt. Aided College	Private	Public	5000	5000000	Not growing
Pvt. Unaided College	Private	Private	4000	3000000	Growing Rapidly
Foreign Univ	Private	Private	150	8000	Emerging on the scene

State wise Distribution of Higher Education Institutions vs GER in %

States/UTs	Universities	Deemed	National Importance	Research Institutions	Arts Science & Com. College	Engg. Tec & Arch College	Gross Enrolment ratio in HR. Edu. %
Andhra	18	5	0	5	1330	238	9.51
Arunachal	1	0	0	3	10	1	6.37
Assam	5	1	1	0	317	3	8.67
Bihar	11	1	0	11	743	7	7.3
Chattisgarh	9	0	0	0	213	2	7.77
Goa	1	0	0	0	24	4	13.47
Gujarat	10	2	0	16	422	32	9.65
Haryana	4	3	0	0	163	41	10.56
HP	4	1	0	2	69	2	12.76
J & K	5	0	0	0	73	4	4.95
Jharkhand	4	2	0	1	146	5	7.27
Karnataka	13	6	0	1	930	120	8.12
Kerala	7	1	1	1	186	66	9.92
MP	14	3	0	0	513	56	7.66
MAH	19	13	1	21	1208	177	12.3
Manipur	2	0	0	0	58	1	13.19
Meghalaya	1	0	0	0	48	0	10.94

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Mizoram	1	0	0	0	26	0	9.51
Nagaland	1	0	0	0	36	0	4.33
Orissa	8	1	0	0	567	19	8.71
Punjab	5	2	1	0	209	16	8.53
Rajasthan	9	6	0	0	456	39	8.77
Sikkim	1	0	0	1	2	1	6.29
TN	16	9	2	1	441	96	10.91
Tripura	1	0	0	0	14	1	5.84
UP	22	7	1	10	733	69	7.03
Uttranchal	4	2	1	0	47	2	12.25
WB	14	1	2	11	354	43	8.21
A & N Island	0	0	0	0	2	0	0
Chandigarh	1	0	1	0	12	2	28.68
D&N haveli	0	0	0	0	0	0	NA
Daman&Diu	0	0	0	0	1	0	NA
Delhi	5	8	2	1	63	16	10.94
Lakshadweep	0	0	0	0	0	0	NA
Pondicherry	1	0	0	0	11	5	17.88

Source: Pawan Agarwal, Higher Education in India, The Need for a Change , ICRIER, WORKINGPAPER NO. 179 , MAY 2006

Today Higher Education system is geared for the mass catering to meet the demands of a vibrant democracy committed to the principles of equity. India today's takes the pride for its best of the Institutions and products. Yet it is not happy with its institutions that are not of that quality and hence the products are of the same quality.

The World Bank report of 1994 highlights the worth of higher education wherein it is considerable that institutes of higher learning benefit state and society in several ways: they equip individuals with advanced knowledge and skills to discharge responsibility in government, business and professions; produce new knowledge through research and at least serve as conduit for the transfer, adaptation and dissemination of knowledge generated elsewhere in the world. The taskforce constituted by World Bank and UNESCO during 2000 has also observed that higher education helps increase wages and productivity that directly enrich individuals and society. As against these world opinion in its paper on government subsidies (1997) that higher education as 'non – merit' good based on the reasoning that it benefited individuals more than the society. The Birla Ambani reports on the policy framework for Educational Reform too suggested that the government subsidies on higher education should be minimal it should concentrate on Primary Education sector as per Constitutional guarantees and perhaps focus Secondary Education area too. They felt private universities by legislation is perhaps the answer to the malady.

According to the census 2001, the overall literacy rate in the country has gone up by 10 percent during the last 10 years. The vision of SSA (Sarva Shiksha Abhiyan is to provide useful and relevant elementary education of satisfactory quality for all by 2010 (universal retention by 2010) and it is possible that more (8-10 percent) of this freshly educated lots would seek admission at college level in the next 8 to 10 years. As against the current capacity of eleven million college seats created in the last 150 years, we require to create an additional capacity of eight to 11.7 million college seats in the coming eight to 10 years. Obviously this is a gigantic task that cannot be addressed by the government alone.

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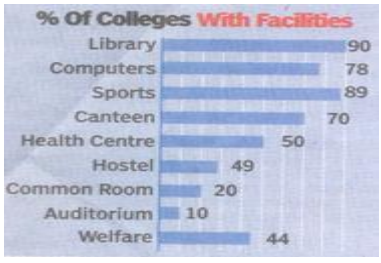
Over the time there has been emergence of new types of providers of higher education in India. Not only private institutions proliferated, distance education programmes gained wider acceptance, public universities and colleges started self financing programmes, foreign institutions started offering programmes either by themselves or in partnership with Indian institutions and non-university sector also grew rapidly.

The growth of higher education in India has been largely guided by the serviceable prerequisite of the economy. After independence, the role of the state in planning out a development path and also in building higher education institutions was guided by mutuality of purpose. Most observers of higher education in India feel that performance of higher education institutions has been less than satisfactory in terms of access, equity and quality. The reason of course is said to be ambivalent attitude of the state".

Now there is an urgent need to work for the development of the educational sector to meet the need of the emerging opportunities, increasing younger generation population and challenges of the 21st century. Knowledge is the base for overall growth and if the nation has to be competitive and to be at par with the globalization pace, we will have to respond to the market forces. Encouraging investment in education both public and private by itself will also contribute towards employment, as education is labour intensive. Supply should cater to all those who aspire for higher education of their choice and be employable. Accordingly output at secondary level should also be calibrated and the quality standards through Accreditation should meet the confidence of the market forces. The demand and supply should be synonymous to future growth. Thus, a long-term integrated policy on education, which encompasses standards from the school to the tertiary level, which can deliver the required proficiency, is to be put into place on emergent basis. To reach and achieve the future requirements there is an urgent need to relook at the Financial Resources, Access and Equity, Quality Standards, Relevance and at the end the Responsiveness.

COLLEGE CONUNDRUM In colleges and universities, the situation is far better in terms of the basic necessities like buildings, classrooms, toilets and drinking water. All colleges have these, though maintenance is an issue. There are about 14,000 general colleges and about 3,000 professional colleges in India. General colleges can be recognized by the University Grants Commission if they meet certain minimum conditions of physical and academic facilities. Nearly 6,000 colleges have got such recognition. More stringent standards are laid down by the National Assessment & Accreditation Council (NAAC). About 20% of colleges and 40% of universities have so far been assessed and accredited by NAAC.



According to the NAAC, just 9% of colleges were of high quality, 66% were of medium quality and 24 % were of low quality. Over 90 % colleges have libraries. The number of books ranged from an average of over 15,000 titles in A grade colleges to about 6,500 titles among C grade ones. Since better colleges had more students, the availability of books per student actually

was not that different – about 10 books per student in better colleges and 7 in bottom ranked colleges.

About 78% of colleges have computer centers. But even in the better colleges, a terminal is shared betweei1145 students, while in C grade colleges 546 students struggle to use one terminal.

Only about half the colleges have healthcare facilities and hostels. Only 10% have auditoria. Less than half offer welfare schemes for the more disadvantaged sections of students.

Better colleges organized 55 workshops and seminars for their students, compared to 17 such events in the poor quality colleges, on an average.

Regulatory Maze

Massive and complex machinery manages the Indian education system. Education being on the con-current list of the Constitution, its responsibility is shared between the; Union government and state governments. The predominant bulk of the schooling system lies within the ambit of state governments, while higher education is mostly run by the Union. For the school system, curriculum is largely determined by the National Council of Education, Research & Training (NCERT), a central body. All monitoring and supervision of schools at the grassroots level is carried out by the education departments of state governments, or local bodies. Examinations are conducted by 35 boards.

For professional and vocational streams, there are centralized bodies that grant recognition and lay down functional norms. Thus, the All India Council for Technical Education (AICTE) supervises professional colleges, in collaboration with various professional bodies like Medical Council of India. Some professional institutions are run directly by the central government, including the famous IITs and IIMs. On the other hand, Industrial Training Institutes (ITI), which forms the backbone of the vocational stream, are run by the labour ministry.

The National Council of Teachers Education (NCTE), another central body, supervises the training of teachers and setting up of teachers' education colleges. Higher education is largely controlled by the University Grants Commission (UGC), which not only funds colleges and universities, but also lays down norms for appointments and recognition. In this maze of statutory bodies, there are two which are specifically charged with ensuring quality standards - the National Assessment and Accreditation Council (NAAC) for general colleges and universities, and the National Board of Accreditation (NBA) for professional colleges, recognized by AICTE. It is a measure of just how much importance quality standards are given that these bodies have accredited only a small fraction of the institutions for which they are responsible. For instance, of the over 1400 engineering colleges in the country, only about 8% are accredited by the NBA. Similarly, only about 20% of the over 14,000 general colleges have been assessed by the NAAC. School education remains unassessed for all practical purposes.

The Way Forward: From its very shape of the education and education system present today in India, it is evident that there is a very serious effort required in terms of creating new channels of education, developing a standard delivery system of education, generating funds to support the universalisation of primary education and other levels, increasing the vocational training at all levels to create able manpower in the society, streamlining the technical and higher education towards quality offering, modeling standards at all levels for public private partnership, building research oriented institutions and bridging the academic and economy gap. Some of the issues which are recognized to be of great concern and require immediate attention with reference to

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the changing social structure, economic growth, opening up to borderless economy and increased attention towards the public policy system and private partnership need to be addressed.

There is a realization that driven mainly by the private sector, the higher education system in India has grown fast over the last two decades; however this expansion has been chaotic and unplanned. From an elite system of higher education, it is moving towards mass system of higher education. Expansion of enrolment without adequate public financing and emergence of the private de facto for-profit providers of higher education has changed the relationship between the higher education institutions and the government and its regulatory arms. The drive to make higher education socially inclusive has led to a sudden and dramatic increase in numbers without a proportionate increase in material and intellectual resources. As a result, academic standards have become unsettled and have been placed in jeopardy in the university-system in the country since the 1960s.

There are many basic problems facing higher education in India today. These include inadequate infrastructure and facilities, large vacancies in faculty positions and poor faculty thereof, outmoded teaching methods, declining research standards, unmotivated students, overcrowded classrooms and widespread geographic, income, gender, and ethnic imbalances. Apart from concerns relating to deteriorating standards, there is reported exploitation of students by many private providers. Ensuring equitable access to quality higher education for students coming from poor families is a major challenge. Students from poor background are put to further disadvantage since they are not academically prepared to crack highly competitive entrance examinations that have bias towards urban elite and rich students having access to private tuitions and coaching. Education in basic sciences and subjects that are not market friendly has suffered.

Autonomy and Affordability

When we talk of autonomy then it is not just for the private institutions and the self financed institutions but also autonomy for the institutions, which are under the government either fully or partly financed by the government. The type of autonomy which ensures that the stakeholders are protected-particularly the students-against dilution in quality or being misled. Concerning autonomy, the law must delegate the necessary decision making power to the institution – for changes in curricula and teaching methods, for internal self-governance, for interaction with other organisations nationally and internationally and for economic transactions. It is also very important that accountability must follow autonomy. When it comes in forms of financial autonomy as has been observed by educationists in the past, the case for subsidy in the supply of education to the individual consumer is based on the premise that education is a mixed good involving substantial external benefit. It may be noted in this context that even in a highly developed country like the US where private universities charge much higher tuition fees than state universities, tuition fees from less than 40 per cent of the costs; the rest comes from alumni support, endowments, etc. It can be suggested that:

1. Those who can afford to pay should not be subsidized, particularly in the light of scarce available financial resources. Even if government commits to providing need based scholarships to all students it is currently subsidizing, at worst, it may be still spending what it is spending today, but at best, it may have surplus funds to invest in higher education.

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2. Those who are subsidized by public funds owe something in return, either by way or repayment or services.

Other time tested as well as innovative sources may be tapped; some examples include eased bank loans, innovative financial instruments, mobilization of industry and individuals to institute scholarships with tax and naming incentives, alumni support and endowments, cross-subsidization within institutions, but without diluting merit.

Quality assurance: Need of an Independent Accreditation System

There is a need of an independent accreditation agency with a conglomerate of government, industry, academia; society etc. means all stakeholders of the education to ensure that the stakeholders particularly the students are not taken for a ride. They should be able to know whether a particular institution delivers value or not, then things can be under control to some extent.

Relevance

In the changing new world order higher education should equip students only with generic skills rather than tailor them to meet the specific requirements of industry.

This is due to the realization that evaluation of economic needs is often random and approximate and could change often. It is argued that the generic skills together with flexibility and adaptability and an acceptance of the need for life-long learning, will provide young people with the best basis for a career in any area, including industry and for the unforeseen needs of the future. Adaptability in higher education needs to be nurtured in two ways – first by creating conditions for a continuous updation of curriculum and content as per changing needs and secondly by shuffling admission capacities between different institutions and courses as per job market needs. Coexistence of high graduate unemployment and shortage of skills reflects the paradox of the Indian higher education system. To avoid mismatch, capacity of the higher education system has to be aligned to the job-markets.

Internationalization of Education

There has been a very aggressive approach by USA, UK and Australia in few decades on spreading their education outside the country and these countries have taken some of the issues in their parliamentary bills to expand and develop the vocational and higher education outside the country. In Asia, Singapore, Malaysia, Dubai are such places, which have made few locations of Education offering with quality while providing minimum infrastructure. As commented by Dean, London Business School that 'India lacks in offering basic infrastructure and location to offer quality education from the reputed universities of the world'. There is a need of very clear view on Education Policy on the internationalization of the higher and other level of education in either form by inviting the foreign players in the Indian education and by providing the Indian education players through and official channels to the countries, which have opportunities for Indian educational institutions.

Vocationalization of Education

There is a gap between the need of the employment terminals i.e. industry and the academic institutions. With the reducing government employment opportunities and increasing economy-oriented employment, close links need to be fostered between vocational institutions and user industry and also technical and professional institutions and industry. It is important to recognize the level of involvement of the industry and thus create interest of the industry in developing the quality, financial support, acceptance of the produce, creation of more employment etc.

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Public-Private partnership

A public – Private Partnership Model should be developed and encouraged by the government to create a self-sustainable model of education in times to come. Looking at the whole scenario, there is a need for interaction between universities, academic institutions of higher learning, industry, R&D institutions and funding agencies. A few interventions needed are (i) Develop a database of facilities available in the university, Industry and R&D institutions. (ii) Involvement of Industry in the curriculum development and also implementation of the curriculum (iii) Faculty exchange and participation in industry and vice-versa in university and specialized institutions (iv) setting up a business development cell on partnership and (v) Promoting entrepreneurship in education system We have to be optimistic that private-public partnership and the Industry interface will take place in the field of education at all levels, and particularly in the backward regions, which is the need of the hour. To achieve excellence, we thus need to create a real partnership between government, educators and industry – Partnerships that can provide our high- tech industries with skilled workers who meet the standards of their industry. It is important to mobilize resources, arrest the process of declining resources, liberalise the conditions and procedures for grant of autonomy to institutions of higher learning, adopt new ways and means to raise funds to make the system more efficient, responsive and accountable and encourage participation of private enterprise for creating a network of institutions.

Higher Education and Status of Academic Research

If we see the number of researchers engaged in Research and Development activities as compared to other countries we find that we have merely 119 researchers, whereas Japan has 5287 and US has 4484 researchers per million of population. Even in absolute terms, number of researchers in India is much smaller compared to US, China, Japan, Russia, and Germany. Numbers of doctoral degrees awarded in all subjects are 16, 602 out of which 6774 are in Arts and 5408 in science and rest in others (professional subjects). India has a little over 6000 doctorates in Science and engineering, compared to 9000 in China and 25000 in US. It increased rapidly from a little over 1000 in 1990 to over 9000 in recent years in China. In comparison, there has been a modest increase in India. National Science Foundation (NSF) - Science and Engineering Indicators – 2002 shows that in the US, about 4% of the science and engineering graduates finish their doctorates. This figure is about 7% for Europe. In India this is not even 0.4%. Data on doctorates particularly in science, engineering and medicine suggests that only a few institutions have real research focus. In engineering there were merely 650 doctorates awarded in 2001-02. Of these 80 percent were from just 20-top universities. In science, 65 percent of the doctorates awarded were from the top-30 universities.

The above data paints a grim picture of the status of research in India. The performance of university sector was quite significant in 1950s and 1960s. It has fallen significantly in recent years. In developed countries there is a very strong relationship between UG/PG teaching and research and students have a good exposure to eminent research scientists, which is lacking in the Indian system. The academic institutions in India are often severely under-resourced. These have insufficient linkages amongst themselves and with the society at large. Quality is a major issue in social science research as well. The approach of doctoral research in social sciences need to be more analytical and comparative and be related to society, policy and economy. A study conducted on Social Science Research Capacity in South Asia – 2002 showed that the share of the Indian universities in the special articles published in the Economic and Political Weekly was

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only about a 25 percent. This too was dominated by only three universities, namely - Jawaharlal Nehru University, University of Mumbai & University of Delhi.

The sorry state of the art status of Indian research is also due to to lack of adequate linkages between universities and research labs on one hand and universities and businesses on the other. Because of lack of finance the required infrastructure and experimental facilities for research are scarce and whatever less exists is not being optimally utilized due to lack of collaborative work and absence of culture of sharing of facilities. Status of doctoral education is disturbing. Their numbers are not increasing to meet the growing demand from the public sector research labs and higher education institutions. There are a small number of university level institutions that produce a decent number of doctorates. Even amongst them, there is a suspicion about the quality of doctoral education from at least some that are not known to be reputed, yet contribute to a significant numbers of doctorates. The number of Ph.Ds from Indian Universities should increase with proper standards. This should be seen in the context of extremely low fraction of Ph.Ds in India in relation to M.Sc./B.Tech., as compared to what it is in USA, UK, Germany,

Japan etc. The emphasis for research will clearly emerge if we have Universities with only Departments and separately Universities having affiliated colleges. Research fellowships for Ph.D. students need to be enhanced In order to attract more students to join Ph.D. programs at various universities and colleges, the numbers and quantum of JRF and SRF needs major revision, especially in view of the fact that other professions provide much more lucrative salaries and perks.

Meritorious doctoral students should be recognized through teaching assistantships with stipends over and above the research fellowships Identifying talented, meritorious students and encouraging them through recognition is very important to attract students into research and teaching. It will be very useful to provide teaching assistantships to the deserving students joining Ph.D. programs in the Universities. These students should assist faculty members in laboratory work and/or in tutorials for a certain specified number of hours. This will improve laboratory practical and keep meritorious students in touch with teaching during their Ph.D. research programs. It would also be encouraged that young school students should be given stipends to spend time in active laboratories and institutions of DAE, DST, DBT, CSIR, ICAR, ICMR, Space, Defense, Public and Private sector R&D companies and selected Universities.

Post-doctoral research culture must be promoted for improvements in R&D Unlike the advanced countries, where a large pool of post-doctoral research fellows carries out the bulk of high-quality research, there is a near total absence of a post-doctoral culture in India. One way of encouraging the growth of such an environment in India would be to give positive recognition to good post-doctoral research work in India at the time of appointing faculty/scientists.

The government should also start new institutes for education and research in various discipline as it has started in Kolkota and Pune, and the third planned at Chandigarh. A new institution for design and manufacturing has been set up at Jabalpur. These are efforts in the right direction, but for a country of the size of India, much more needs to be done.

New information and communication technologies have changed the entire development paradigm. The new technologies offer vast opportunities for progress in all walks of life. It offers opportunities for economic growth, improved health, better service delivery, improved learning, and social and cultural advances. India's information and communication technology expenditure is not only a decent 3.8 percent of the GDP; new technologies are highly affordable

in India. This has helped in rapid increase in its usage. Though efforts are required to improve the country's innovative capacity, yet the efforts should be to build on the existing strengths in light of new understanding of the research-innovation-growth linkage.

Conclusion:

According to an IDFC-SSKI report, Indians spend $50 billion annually on private education. The four segments of the education market — plus two, higher, vocational and supplemental — present a $80-billion opportunity by 2012. It is expected to grow at a CAGR of 16%, says a CLSA Pacific study. The Government is working on the draft rules for the RTE Act and is taking its time to ensure that it is well thought through and covers all the various aspects and anticipates all the potential pitfalls.

It is the responsibility of the UGC to maintain the quality of our higher education and research. However, this must be achieved by nurturing excellence instead of spending a disproportionate amount of energy creating barriers to entry, and preventing new colleges and universities from coming into existence. For this reason, one principal activity of a revised UGC should be to rate universities and institutes of higher education. As we know from the modern industrial sector, good quality rating is vital for the economy and successful nations spend a lot to collate information and rate corporations. The UGC should, likewise, produce and publicize ratings of and information about all universities and institutes of higher education. This should be a detailed, annual exercise and be prominently available on a website.

Kapil Sibal is away courting the foreign universities to get them to set shop in India. He should be courting Indian investors too and far more aggressively at that. An Indian university can get off the blocks much faster and we may know how to run it better. There's enough and more of money in India and the knowhow, experience and skills required to set up and run an university can easily be acquired by an Indian entity. What we need most today is the vision, the largeness of outlook and the willingness to invest money. More importantly, to think big over the really long term, well beyond one's lifetime. He stated in an International Conference held on 4th December 2010 at KES College Mumbai, that there are 5 elements required to uplift Indian higher education- **Competitions, Flexibility, Authority of Idea, Research and Professionalism**. He also insisted that Govt. Introducing 4 New Educational Bill:- **Educational Malpractices Act, Accreditation Bill for every educational Institutions, Public Private Partnership, National Vocational educational Bill**. My apprehension, however, is that without more detailed plans of action and sharper targets these broad aims will remain unfulfilled, like so many well-meaning previous pronouncements. There are many areas where we need reform. If our nations development is to be sustained and we want to be a progressive and enlightened nation, then it is imperative that we reform our system of higher education.

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