Increasing Public Expenditure on Education

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The UPA government's commitment to increasing the share of public spending on education to 6 per cent of GDP has been expressed in the National Common Minimum Programme. This is a very important commitment, especially given the huge shortfalls in good quality education to the population, and has clear implications for future growth as well. It could be argued that, given the current levels of public spending on education (at 3.2 per cent of GDP) and the international average of such spending (at 5 per cent of GDP), this is a very high figure to aim at, with unnecessary ambition at the current juncture given the known fiscal constraints and low prevailing tax-GDP ratios. However, it can be argues that given the inadequate state of education in the country, it may even be necessary to aim at a higher proportion than 6 per cent. In any case, there are several reasons why this is both a necessary and desirable goal for the medium term.

- Quite apart from its social and economic effects, education must be seen as a basic human right, which is recognised in the Universal Declaration on Human Rights but which has still not been made available to all citizens of India. In fact, the government of India has still failed to meet the commitment made in the Constitution at the time of constituting the Republic more than five decades ago, of providing universal primary education to all our children.
- Not only is an unacceptably large proportion of our population still illiterate, but the gaps in provision of education are huge at all levels. There is major excess demand for quality public education, ranging from pre-school and elementary schooling to higher education, technical training and professional courses.
- It is well known and now widely accepted that investment in education is critically important for the future economic growth and social cohesiveness of society. Many of the potential payoffs to society from various types of public investment in education are not immediately apparent but are nevertheless very important. (For example, the much hyped software boom itself reflects at least partly the earlier public investment in IITs.) Further, there are huge

advantages to society in having the general level of education in society improve, not only because the quality of the workforce improves, but because various other aspects such as health, nutrition and sanitation are positively affected, and also because educated citizens can be more effective participants in a democratic civil society.

- It is obvious in theory and evident in practice that this is one area in which relying on private provision will lead to very substantial under-provision and socially suboptimal outcomes, because the social returns to education far outweigh the private returns. Relying on private profitability to determine investment in this area, even in higher education, is socially inefficient and does not ensure future knowledge needs, which must necessarily be determined not just according to current market considerations but through some sort of plan-based assessment of the likely future requirements of society. In any case, profit-based provision of education typically excludes a major part of the population and does not ensure either merit or adequate representation by gender, class or social group, making in undemocratic in content. This is not to deny the usefulness of private investment, but simply to state that this cannot replace public expenditure in this area.
- While public spending of education typically tends to increase with per capita GDP, this is not the inevitable pattern and can be influenced by public policy attitudes. In fact several developing countries that have made very substantial public investment in education, have subsequently reaped the benefits in terms of faster and more broad-based growth. Thus, in some countries of East Asia, public spending on education had increased to as much as 8-10 per cent of GDP during the 1980s and first half of the 1990s, allowing these countries not only to improve the quality of their workforce dramatically, but also subsequently to take advantage of this to promote economic activities that involve moving up the international value chain.

Current levels of public education spending

Although education is a concurrent subject in the Constitution, at present the bulk of public education spending is undertaken by the State Governments. Within this, most is on revenue expenditure, of which the

largest single item is salary payments. Table 1 indicates the level of total public spending on education by Centre and States in 2004-05. This is dominated by spending of the Education Departments at Centre and State level, but also includes expenditure on education made by 30 other government departments.

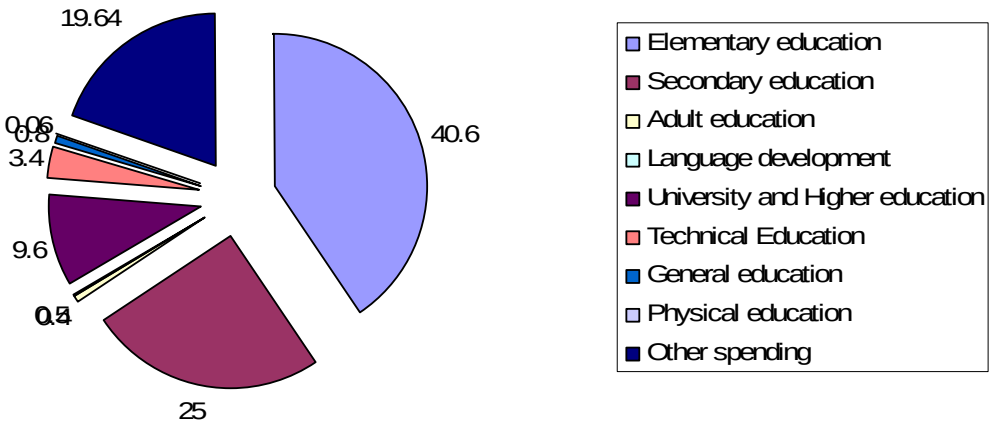
Table 1: Government expenditure on education, 2004-05

	Revenue expenditure	Capital Expenditure	Total expenditure
Centre (Rs. Crore)	19,141	Neg.	19,141
Centre (per cent of GDP)	0.62	Neg.	0.62
States (Rs. Crore)	79,913	866	80,796
States (per cent of GDP)	2.57	0.03	2.6
Total (Rs. Crore)	99,055	866	99,937
Total (per cent of GDP)	3.19	0.03	3.22

Source: Analysis of Budgeted Expenditure on Education, 2002-03 to 2004-05, MHRD

The very low extent of capital spending is worth noting, especially given the very large infrastructure gaps in the country. There are still large numbers of villages and urban settlements without government schools in the approachable vicinity, as noted below. There is also substantial overcrowding in existing schools. Around 18 per cent of rural primary schools still do not have any building, and another 20 per cent function out of only one room, which would clearly affect both the quality and effectiveness of teaching in such schools. The inadequacy of other basic infrastructure (separate toilets for girls and boys, clean drinking water supply, electrical fittings and fans, etc.) not to mention advanced teaching aids including computers, is also well-established not only for many primary schools but also for a substantial proportion of secondary schools and institutions of higher learning. Clearly, in the initial phases of increased public spending on education, there is therefore a strong case for increased capital expenditure particularly to meet these very obvious requirements.

Chart 1: Revenue expendiutre of education departments as share of total education expenditure



As Chart 1 indicates, the bulk of public spending is directed to elementary education, the revenue expenditure on which accounts for more than 40 per cent of all public spending on education. However, even in this area, the current availability is far below need, and there are important issues of poor quality some of which also stem simply from inadequacy of resources. However, it should be noted that this distribution of public spending is unlike many middle-income developing countries which place a larger proportion of public resources on higher and technical education. In the urge to ensure universal and compulsory primary education (which is an essential goal) the importance of increasing public investment in technical and higher education must not be ignored.

Implications of increasing public spending to desired ratio of GDP

The stated goal of the Government would imply a near doubling of the current education expenditure as a share of GDP. Obviously. this cannot occur within one year, as there is also the question of absorptive capacity. If we suppose that the share increases gradually (as defined below) rather than immediately, and that nominal GDP (at market prices) increases at 12 per cent per annum as the Planning Commission has projected, then we get

the following total amounts. Obviously the bulk of these resources (around 80 per cent as is currently the case) must be devolved to States.

Table 2: Projected increases in public education expenditure

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
GDP	3105,512	3478,173	3895,554	4363,020	4886,583	5472,973	6129,730
Education spending as % of GDP	3.5	4	4.5	5	5.5	6	6
Education spending in Rs. crore	99,937	139,127	175,300	218,151	268,762	328,378	367,784
% share of capital spending in total	0.87	0.9	6	5	4	3	2
Projected capital expenditure	869	1,252	10,518	10,908	10,750	9,851	7,356
Projected revenue expenditure	99,068	137,875	164,782	207,244	258,012	318,527	360,428

Note: Projection of GDP at current market prices.

Currently, capital expenditure is only 0.87 per cent of total public spending on education. However, the gaps in physical infrastructure which can only be met with increased capital spending are very large. Therefore in the initial phases of the expansion, a greater proportion of resources must be devoted to capital expenditure, which could then taper off (still to a higher proportion than currently) over time.

The share of this expenditure to be allocated to different heads must be based on various criteria, which include:

- the immediate need to fulfil certain constitutional and legal norms and obligations, including for child care (Supreme Court ICDS judgements), universal access to education (Right to Schooling legislation) and school meals provision (Supreme Court judgements), etc.

- the assessment of physical requirement for education infrastructure based on existing gaps, such as ensuring pre-primary and primary schools in every village, access to secondary schools within 5 km of habitation, etc.
- the projection of changing demographic structure and the consequent increase in age-cohorts requiring schooling at various levels.
- the need to ensure adequate access to higher education to reach at least the minimum norm of 8 per cent of population of relevant age group (15-24 years), and preferably the international norm of 15 per cent (the current ratio in India is 3 per cent).
- the perceived social requirement for various types of technical and professional skills in the country in future.
- the need to ensure at least some world class institutions of higher education and learning with international quality of physical and intellectual resources.

Legal obligations of the Government

The most pressing immediate legal obligation relates to providing mid-day meals in primary schools. The cost of this at existing rates, for 2006-07 has been estimated at Rs. 3452 crore. However, this is based on the existing number of schools and does not take into account either the need to increase the number of schools and school-going children so as to provide education for all, or the need to repay arrears to FCI for past food disbursement. Therefore the actual number may be closer to Rs. 5000 crore required per annum at current prices.

The need to ensure universal schooling facilities at least at elementary level, followed by eventual fulfilment of the norm of 9 years schooling as envisaged in the Right to Education Bill, will require very large increases in physical infrastructure are described below. In addition there will be need for substantial increase in teaching staff and making available pedagogic material, newly developed and in translation. Currently only 56 per cent of children in the age group 5-9 years are attending school, according to the Census. Ensuring that all such children are in school will require a near doubling of existing teaching staff. Since in any case existing schools are

understaffed and teacher-student ratios are very low, an actual doubling of teaching staff may be required to meet the national norm of 1 teacher per 40 students that GoI has declared to UNESCO. In addition, in several states, there is a dual system of elementary education, with "parallel schools" operating under Sarva Shiksha Abhiyan and similar schemes, under which teachers are not paid salaries but "honorariums" at much lower rates. Bringing the remuneration for such teachers into line with other teachers will require further allocation for salaries. Assuming that salary costs are currently around 80 per cent of revenue expenditure of the education departments, this will imply a doubling (in constant price terms) within 5 years.

This means that revenue expenditure will have to increase by at least the amounts described in Table 3 in order to meet the legal obligations of the Central Government. (Since 0-4 years and 5-9 years both amount to 11.3 per cent of population according to Census 2001, there is no estimated increase in the number of elementary school age children over the XIth Plan period.) This means that around 80 per cent of the projected increase in revenue expenditure will have to cater to meeting the legal requirements of the Government regarding primary schooling, leaving only 20 per cent of the increase for secondary, higher and technical education.

It should be noted that other concurrent costs of teaching have not been included in this, such as teaching material, running expenses of schools, etc., and that this would imply a substantially larger amount of revenue expenditure. Further, there would be additional costs in terms of teacher training etc., which are required to ensure quality education. This suggests that even raising total public expenditure on education to 6 per cent of GDP over the XIth Plan would still leave some gaps in provision of universal schooling and in quality of education (which is certainly affected by resources even if resources are not the only factor).

Table 3: Financial effect of meeting Government's legal obligations

	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Rev exp of Education Dept	80,287	89,921	100,712	106,755	119,565	133,913	149,982
Per cent assumed increase in salary payments			33	66	100	100	120
Salary payment increase in Rs. crore			26,588	56,366	95,652	107,130	143,983
Rev exp with increase in salary payments			127,300	163,121	215,217	241,043	293,966
School meals		5,000	5,300	5,618	5,955	6,312	6,691
Total rev exp			132,600	168,739	221,172	247,356	300,657
Per cent of projected total revenue expenditure			80.5	81.4	85.7	77.6	83.4

Some estimates of physical need for education infrastructure

If we assume that the entire population of children between the ages 5 to 14 years should be in school by the end of the XIth Plan, this creates a minimum need for physical infrastructure. Accordingly the financial requirement is estimated in Table 4.

Table 4: Financial cost of new classrooms required

Population aged 5-9 years	1162,32,967
Population aged 10-14 years	1105,93,462
Total population aged 5-14 years	22,68,26,429
Classrooms required (at 40 students per room)	56,70,661
Currently available classrooms	34,00,000
Funds already allocated for additional classrooms	6,75,000
Gap of required classrooms	15,95,661
Estimated cost per classroom (2005 prices)	Rs. 1.5 lakh
Total cost for required classrooms	Rs. 23,934 crore
Per cent of total projected capital expenditure	48.5 %

Based on 2001 Census and Dept of Education estimates

It is apparent that just meeting this basic requirement would cover nearly half of the projected increase in capital expenditure over the XIth Plan period.. There is the further issue that many rural schools are situated in distant places which reduce the access of rural children. According to the NSS 58th Round, around 20 per cent of villages do not have pre-primary facilities even within 2 km of the village, and 12 per cent do not have primary schools within 2 km. This is an especially important issue for girl children, which makes the physical requirement for more school even greater.

All this has still left out the issue of physical requirement for secondary education and for institutions of higher learning, which will be even larger than currently because of the change in demographic structure. This will imply additional capital and revenue expenditure to the tune of at least 2 per cent of GDP over the XIth Plan period, despite the fact that most of the projected amount can easily be swallowed up by the requirements of elementary education.