Reforming Public Spending on Education and Mobilising Resources

Lessons from International Experience

The problems with the structure of public spending on elementary education are threefold: high share of teacher salaries in recurring expenses, higher fiscal priority accorded to secondary education at the state level, and sustainability, as external funding for DPEP runs out. This paper examines the scope for reform in the pattern of education spending and considers ways to mobilise additional resources for elementary education, including earmarking funds for the same.

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I Introduction

While India's central government has been increasing expenditure on elementary education, the overall fiscal problems of state governments remain severe – especially in the states which account for two-thirds of the country's children out of school (Andhra Pradesh, Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh, West Bengal). Since state governments account for around 90 per cent of total education expenditure in the country, there is little likelihood of elementary education receiving the priority it deserves nationally, unless the fiscal problem at the state level is resolved. The ratio of the states' combined fiscal deficit to state domestic product is said to be around 5 per cent. The decline in education expenditure in relation to national GDP, which occurred through much of the 1990s, was accounted for by the sharp decline in state expenditure that offset the increasing trend in central expenditure [Srivastava 2002]. The total share of central and state spending on education as a percentage of GDP had risen to 3.4 per cent by 1989-90 to 1990-91, but since then it has remained below that level and was 3.1 per cent in 1997-98.[1]

An educationally advanced state like Tamil Nadu had higher per capita spending (Rs 106) on education, compared with educationally poor performing ones (Uttar Pradesh Rs 61 per capita; Bihar Rs 65 per capita) in the year 1995-2000. However, the more important point is that elementary education must be given priority if the fundamental right of universal elementary education is to be achieved. In the 1990s, elementary education spending per child was much higher in high-performing states like Tamil Nadu (Rs 363 in 1995-2000) than in educationally backward states (e g, UP or Bihar). Madhya Pradesh and Rajasthan, which made major advances in literacy during the 1990s – over 20 percentage points between Censuses 1991 and 2001, compared to the national average of 13 percentage points – had much higher per child spending on elementary education (Rs 296 and Rs 293 respectively) than UP (Rs 183), Bihar (Rs 232) and West Bengal (Rs 150). Clearly, there is a case for the states performing poorly in elementary education to mobilise additional resources, to meet the goal of 'Sarva Shiksha Abhiyan' (education for all), announced by the central government in 2001: if completion (not mere enrolment) of eight years of quality education by all children in age group 6-14 by 2010.

This paper examines the scope for reform in the pattern of public spending on education at the state level in Section II. In Section III, it looks at the mobilisation of additional resources for elementary education and examines the pros and cons of earmarking funds for the same at the central and state levels.

II Reforming Public Spending Patterns at State Level

While the amount of expenditure on elementary education matters, the efficiency and equity of the spending is, at least, equally important. A main determinant of the efficiency of education spending is the distribution between various heads of recurrent spending, since it accounts for, on average, 85-90 per cent of education spending at the elementary level in developing countries. A major determinant of the efficiency of recurrent spending is the allocation towards teacher salaries compared with non-teaching inputs since the balance between the two ensures that there is neither a shortage of teachers, nor a shortage of teaching-learning materials. The main determinant of equity in education spending is its distribution by levels of education, namely, elementary, secondary and higher.[2]

Most states with the poorest educational indicators have serious problems with the structure and sustainability of their pattern of public spending. The high-achieving states have a relatively higher per capita expenditure on elementary education than the rest. The low per capita expenditure in the educationally backward states is the result of three factors: their low resources in general, relatively low fiscal priority attached to education by state governments (in certain cases), and simply the number of school-age children in the state (the latter itself a function of the higher than average fertility rate and the consequent age structure of the population).[3] In other words, even though there are some educationally backward states that give a high fiscal priority to education, the age structure of their population has the effect of reducing their per capita spending. The main problems regarding the structure of public spending on education are threefold: one, the extremely high share of teacher salaries in

total recurrent spending at the elementary level; two, the fiscal priority accorded to secondary rather than elementary education by state governments; and three, its sustainability as external funding for the district primary education programme (DPEP) runs out. All these problems have serious equity and efficiency implications. We discuss each in turn here.

Significance of Teacher Salaries

Teacher salaries at the elementary level account for a higher share of recurrent expenditure in states in India, on average, than in other developing countries: 97 per cent[4] in India versus 90-95 per cent (Africa and elsewhere). States establish the salaries of teachers separately, but most follow central guidelines for both scales and increments, so that salaries are largely comparable across the country. It is worth comparing the salaries of Indian teachers with income per capita across regions. Average salaries relative to GDP per capita in the mid-1990s were 1.79 in Latin America, 1.84 in Asia, 5.9 in South and East Africa, and 7.28 in West and Central Africa [Carnoy and Welmond 1996]. In India, teacher's salary as a multiple of SDP per capita is as high as 13.6 in UP an educationally backward state, as compared with the highest in Africa [Mehrotra and Buckland 2001]. The average per capita SDP in five other educationally backward states (Bihar, Rajasthan, MP, West Bengal and AP) is comparable with that of UP, as are teacher salaries;[5] In US dollar terms salaries are again high as compared to other developing countries, where starting salaries of teachers are at least US $ 150 per month (at the official exchange rate in 2001). In other words, even in the richest Indian state, the ratio of a teacher's salary to SDP per capita is comparable with African levels. Despite relatively high salaries, though, teacher absenteeism is high and worse still, salaries completely squeeze out recurrent non-salary expenditure, and create a poor working environment for the teacher.

The real problem is that states have limited resources to recruit teachers at regular government salary scales, and many states have banned recruitment of new teachers. In fact, the common response of state governments in the 1990s has been to hire para-teachers at a fraction of the regular teacher salaries. This may be a short-term solution, but it comes with its own share of problems.

One reason that might explain evidence of greater commitment and lower absenteeism among para-teachers is that they do not have permanent contracts. In other words, it is possible that if para-teachers were put on permanent contracts, their behaviour (as reflected in large-scale absenteeism and general attitude to work) might become comparable to that of regular teachers, who see themselves as part of the permanent civil service. At the same time, state governments hiring para-teachers need to adopt a medium-term strategy with regard to salaries. There is an issue of fairness and equity, have as para-teachers are paid a fraction of a regular teacher's salary for doing much of the same work. In the medium-term the way to resolve the issue is to raise their salaries gradually over time (the fiscal implications of which will have to be squarelyfaced), while probably retaining the practice of periodic renewal of short-term, contracts subject to good performance.

However, good performance is itself partly dependent upon adequate training for para-teachers. Studies on para-teacher schemes suggest that, on the learning achievement side, there are as great worries about schools run by para-teachers as there are about regular primary schools. Thus, in a study of the most well-known para-teacher schemes – the Shiksha Karmi Programme (Rajasthan), Alternative Schools, Education Guarantee Scheme Schools, and Shiksha Karmi Yajana (all in MP), and Volunteer Teacher Scheme (Himachal Pradesh) – the overall performance of students in all programmes was as poor as in government schools with regular teachers [DPEP 1999]. There is a need for a quantum leap in the training of para-teachers and their monitoring and supervision. The para-teacher programmes that have succeeded in the world have had a heavy component of both training and monitoring as well as support for para-teachers [Lovell 1992]. There has indeed been a significant increase over the 1990s in central government expenditure on centrally sponsored schemes for teacher training. Much of the expenditure has gone towards creating the physical infrastructure of District Institutes of Education and Training (DIETs), and the Block and Cluster Resource Centres. This capital expenditure and the infrastructure created has now to be translated into functional training, monitoring and supervision of teachers and para-teachers, involving a steady flow of recurrent expenditures.

Higher Education versus Elementary Education

The second set of problems regarding the structure of public spending on education derives from its distribution by level. For all of the first four decades after independence (1950-89), the share of higher education in total education expenditure (for all states, plan and non-plan) was around a quarter, rising to 31 per cent over 1970-76, and remaining at that level till 1985-86 [Tilak 2000]. This share was much higher than that obtaining in all industrialised countries one hundred years ago.[6] Indeed, it is worth comparing the distribution of education expenditure by level in India with that of now industrialised countries around 1900 (Table 1), as well as with other developing countries (Table 2).

By 1900 most of the countries in North America and Europe, as well as in Australia and New Zealand, had full primary

Table 1: Public Education Expenditure in Industrialised Countries (1900)

Countries	Year	Elementary	Secondary	Elementary + Secondary	Higher	All Levels
Value as percentage of GNP						
NZ	1900	–	–	1.65	0.08	1.74
Australia	1900	–	–	1.18	0.05	1.23
Canada	1900	–	–	1.13	0.07	1.2
USA	1900	–	–	1.16	0.08	1.24
Japan	1890	0.58	0.02	0.61	0.08	0.69
UK	1900	0.49	–	–	–	0.61
France	1898-1902	0.6	0.15	0.75	0.08	0.83
Germany	1900	1.11		1.26	0.16	1.42
Belgium	1880	1.04	0.16	1.07	0.04	1.1
Netherlands	1881	0.81	0.08	0.89	0.15	1.12
Netherlands	1900	1.05	0.21	1.26	0.1	1.37
Norway	1900	0.65	0.05	0.7	0.07	0.77
Share by level (per cent)						
NZ	1900	These four		95.3	4.7	100
Australia	1900	non-Euro leads,		95.9	4.1	100
Canada	1900	plus Belgium		94.2	5.8	100
USA	1900	emphasised primary-secondary, not higher		93.6	6.4	100
Japan	1890	85.2	3.4	88.7	11.3	100
UK	1900	80.4	–	–	–	0
France	898-1902	72.5	17.8	90.3	9.7	100
Germany	1900	77.8	11	88.7	11.3	100
Belgium	1880	94.2	2.4	96.7	3.3	100
Netherlands	1900	77.1	15.5	92.5	7.5	100
Norway	1900	83.7	7	90.7	9.3	100

Source: Kingston, Mc Gill-Queens University Press, 1993.

enrolment and had considerably expanded secondary education, just as literacy rates were approaching 90 per cent. However, despite the high levels of literacy and enrolment every country was still allocating 90 per cent of education spending to elementary and secondary levels. Quite a different situation has prevailed in India and other developing countries. In fact, even more striking is the fact that, in industrialised countries over three quarters of public education spending was going to the elementary level, which is higher than the allocation it obtained in India over 50 years of independence. In India, the share of education spending allocated to higher education, over the first 40 years after independence, was much higher, and has continued to be 50 in the last 10 years (12-13 per cent of public education spending), than what is was in industrialised countries around 1900. The price for this neglect of elementary education (relative to higher education) was paid by the poor in India – and is demonstrated by the fact that, over half a century after independence, the literacy rate in India in 2001 was still only 65 per cent (a rate achieved by China in 1980). It is also demonstrated by the fact that India has over a third of the world's children, aged 6-11, out of school, and it's total illiterate population is larger than the nation's total population in 1947 (or even 1967).

Since the beginning of the 1990s the problem in India has not been with the share of higher education in public education expenditure but with the share of secondary education. We demonstrate this partly by comparing the structure of public education spending in Indian states (Table 3) with that of other developing countries (Table 2), since this is an indicator of fiscal priority accorded by the state to a particular level of education. When making comparisons with other developing countries, it should be borne in mind that the share for secondary education expenditure in India is only for four years (classes 9-12) of schooling, as 'elementary' is defined as classes 1-8, whereas in all other countries it is for either six or seven years (grades 7-12 or 6-12). In other words, one would expect that the share in public education expenditure for secondary education in Indian states would almost always be less than that in other developing countries. The facts are otherwise. In most Indian states the share of secondary education is higher than in Latin American middle-income countries, although they have secondary enrolments higher than those in most Indian states, and higher than in low-income African countries, with lower secondary enrolment rates. On average, in Indian states, the share of secondary education in total education expenditure in the 1990s has been in the range of 30 to 33 per cent [Tilak 2000].

Indian states can be classified into two types, using the share of secondary education expenditure in total education expenditure as a criterion: those which allocate less than 25 per cent, and those which allocate more than 30 per cent (Table 2). Those in the first group (Assam, Bihar, MP, Orissa) all have low secondary enrolments and have tended to allocate at least 55 per cent of education spending to elementary education (they have demographic reasons for doing so, since they have a high fertility rate and hence larger than average elementary-age cohort size). For them to be allocating to secondary education nearly as much as low-income African countries, when secondary education involves only four years, does not appear justifiable. It is largely the children of the non-poor who have access to secondary education in India and who have the ability to pay the out-of-pocket costs of secondary schooling. Public subsidisation of free government schooling at the secondary level, in a situation where primary education, let alone upper primary, is far from universal, has adverse consequences for equity.

In the second group of states there are two sub-categories: those with relatively high elementary and secondary enrolments (Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra and Tamil Nadu) (group 2 in Table 3); and those with low elementary and secondary enrolments (Rajasthan, UP, AP, and WB) (group 3 in Table 3). For the former, the high elementary enrolment rates imply that the transition rate to secondary education is going to be higher so their relatively high allocations are probably justified (though, as stated earlier, for a four-year period the shares still look higher than other low- and middle-income countries). However, for the states in the second sub-category to be allocating as much as they do to secondary education, with the worst elementary education indicators, seems grossly inequitable. This gross inequity is accentuated by the fact that, at least in UP and West Bengal, the state subsidises of private secondary schools,

Table 2: Public Recurrent Expenditure on Education in Low- and Middle-Income Countries by Level

(Per cent)

	1990					1996					Primary Education Duration in year
	Pre-Primary + Primary	Secondary	Tertiary	Unallocated	Total	Pre-Primary + Primary	Secondary	Tertiary	Unallocated	Total	
Africa											
(a) LICs											
Benin	-	-	-	-	100	59.1	21.7	18.8	0.4	100	6
Burkina Faso	41.7	25.8	32.1	0.4	100	56.6	25.1	18.3	0	100	6
Burundi	46.8	29.1	22	2.1	100	42.7	36.7	17.1	3.5	100	6
Central African Rep	52.7	14.6	21.5	11.2	100	53.2	16.5	24	6.3	100	6
Chad	47.1	20.9	8.2	23.8	100	43.5	24.2	9	23.3	100	6
Comoros	42.4	28.2	17.3	-	100	36.6	35.1	17.2	11.1	100	6
Côte d'Ivoire	49.7	35.6	14.6	0.1	100	45.2	36.2	18.6	0	100	6
Ethiopia	53.9	28.1	12.1	5.9	100	46.2	23.7	15.9	14.2	100	6
Gambia	41.6	21.2	17.8	19.4	100	48.9	31.6	12.9	6.6	100	6
Ghana	29.2	34.3	11	25.5	100	-	-	-	-	100	6
Guinea	32.5	28.3	25	14.2	100	35.1	29.6	26.1	9.2	100	6
Kenya	50.3	18.8	21.6	9.3	100	-	-	-	-	100	8
Lesotho	51	27.4	18.9	2.7	100	41.2	29.2	28.7	0.9	100	7
Madagascar	36	26.1	26.8	11.1	100	30	33.4	21.1	15.5	100	5
Malawi	44.7	13.1	20.2	22	100	58.8	8.9	20.5	11.8	100	8
Mali	-	-	-	-	100	45.9	21.6	17.7	14.8	100	6
Mauritania	33.3	37.7	24.9	4.1	100	39.4	35.3	21.2	4.1	100	6

(Contd)

Table 2: Public Recurrent Expenditure on Education in Low- and Middle-Income Countries by Level (*Contd)*

(Per cent)

		1990					1996					Primary Education Duration in Year
		Pre-Primary + Primary	Secondary	Tertiary	Unallocated	Total	Pre-Primary + Primary	Secondary	Tertiary	Unallocated	Total	
	Senegal	43.9	25.7	24	6.4	100	34.2	42.5	23.2	0.1	100	6
	Tanzania	41.6	20.2	18.4	19.8	100	41.5	18.4	23.2	16.9	100	7
	Togo	30.4	25.8	29	14.8	100	45.9	26.9	24.7	2.5	100	6
	Zimbabwe	54.7	27.6	13.5	4.2	100	51.7	26.4	17.3	4.6	100	7
	Average	41.1	25.7	19.9	13.3	100	45	27.5	19.8	7.7	100	
(b)	MICs											
	Botswana	31.1	48.8	12.2	7.9	100	-	-	-	-	100	7
	Gabon	-	-	-	-	100	-	-	-	-	100	6
	Mauritius	37.7	36.4	16.6	9.3	100	31	36.3	24.7	8	100	6
	Morocco	34.8	48.9	16.2	0.1	100	34.6	48.8	16.5	0.1	100	6
	Namibia	42.1	29.1	8.5	20.3	100	58	28.9	13.1	0	100	7
	Seychelles	28.2	40.7	9.5	21.6	100	27	38.7	16.2	18.1	100	6
	Swaziland	31.2	24.5	26	18.3	100	35.8	27.1	26.6	10.5	100	7
	Average	34.2	38.1	14.8	12.9	100	37.3	36	19.4	7.3	100	
Asia												
(a)	LICs											
	Azerbaijan	13.1	66.1	10.4	10.4	100	14.6	63.9	7.5	14	100	4
	Bangladesh	45.6	42.2	8.7	3.5	100	44.8	43.8	7.9	3.5	100	5
	China	32.7	34.4	18.6	14.3	100	37.4	32.2	15.65	14.75	100	5
	Kyrgyzstan	8.5	57.9	10	23.6	100	6.6	68	14.1	11.3	100	4
	Lao People's Dem Rep	42.2	43.5	3.9	10.4	100	54.9	26.4	7.9	10.8	100	5
	Mongolia	13.9	48.8	14.5	22.8	100	19.9	56	14.3	9.8	100	4
	Myanmar	-	-	-	-	100	47.7	40.3	11.7	0.3	100	5
	Pakistan	45.4	28.1	16.6	9.9	100	47.7	29.6	13.2	9.5	100	5
	Tajikistan	56.2	21.6	14.6	7.6	100	50.4	20	16.4	13.2	100	4
	Indonesia	-	-	-	-	100	73.5	-	24.4	-	100	6
	India	38.9	27	14.9	19.2	100	39.5	26.5	13.7	20.3	100	5
	Average	32.9	41.1	12.5	13.5	100	39.7	40.7	13.3	6.3	100	
(b)	MICs											
	Bahrain	30.4	45.8	-	-	100	27.9	45.1	-	-	100	6
	Iran, Islami Rep of	33.2	39.2	13.6	14	100	29	33.9	22.9	14.2	100	5
	Jordanie	62.4	-	35.1	-	100	64.5	-	33	-	100	10
	Kazakhstan	-	-	-	-	100	10.4	61.1	13.4	15.1	100	4
	Malaysia	34.3	34.4	19.9	11.4	100	37.3	35.5	20.2	7	100	6
	Philippines	-	-	-	-	100	54.7	23.5	17.8	4	100	6
	Thailand	56.2	21.6	14.6	7.6	100	50.4	20	16.4	13.2	100	6
	Turkey	-	-	-	-	100	43.3	22	34.7	0	100	5
	Korea, Republic of	44.4	34.1	7.4	14.1	100	45.3	36.6	8	10.1	100	6
	Average	49.3	35.02	17.3	-1.62	100	43.8	34.7	18.6	2.9	100	
(c)	HICs											
	Japan	40.4	43.1	10.2	6.3	100	39.3	41.8	12.1	6.8	100	6
	Hong Kong	26.6	38.8	30.8	3.8	100	21.9	35	37.1	6	100	6
	Singapore	29.6	36.5	29.3	4.6	100	25.7	34.6	34.8	4.9	100	6
	Average	32.2	39.5	23.4	4.9	100	29	37.1	28	5.9	100	
Latin America												
(a)	LICs											
	Haïti	53.1	19	9.1	18.8	100	-	-	-	-	100	6
	Honduras	49.1	17.2	18.2	15.5	100	52.5	21.5	16.6	9.4	100	6
	Average	51.1	18.1	13.7	17.1	100	52.5	21.5	16.6	9.4	100	
(b)	MICs											
	Argentina	50.5	26.1	17.6	5.8	100	45.7	34.8	19.5	0	100	7
	Belize	61	20.2	8.1	10.7	100	62.8	25.8	6.9	4.5	100	8
	Bolivia	-	-	-	-	100	50.7	9.8	27.7	11.8	100	8
	Chile	56.4	15.3	21.6	6.7	100	60.4	18.9	16.4	4.3	100	8
	Colombia	39.3	30.9	20.7	9.1	100	40.5	31.5	19.2	8.8	100	5
	Costa Rica	38.2	21.6	36.1	4.1	100	40.2	24.3	28.3	7.2	100	6
	Cuba	25.7	39	14.4	20.9	100	31.9	33	14.9	20.2	100	6
	Domenica	59.5	27.1	2.5	10.9	100	-	-	-	-	100	7
	Ecuador	34.4	34.2	18.3	13.1	100	38.4	36	21.3	4.3	100	6
	El Salvador	-	-	-	-	100	63.5	6.5	7.2	22.8	100	9
	Guatemala	-	-	-	-	100	63	12.1	15.2	9.7	100	6
	Mexico	-	-	-	-	100	50.3	32.5	17.2	0	100	6
	Panama	37	23.3	21.3	18.4	100	29.8	19.2	24.5	26.5	100	6
	Paraguay	43.9	22.6	25.8	7.7	100	50	18.1	19.7	12.2	100	6
	Peru	-	-	-	-	100	35.2	21.2	16	27.6	100	6
	Suriname	60.5	14.5	8.8	16.2	100	-	-	-	-	100	6
	Uruguay	37.5	30.3	22.6	9.6	100	32.6	29	19.6	18.8	100	6
	Average	45.3	25.4	18.2	11.1	100	46.3	23.5	18.2	12	100	

Source: World Education Report, 2000.

by paying for the salaries of their teachers. This is essentially a process whereby the state absorbs the schooling costs of those who can afford to pay. The share of primary education in West Bengal's education spending is barely comparable to that of middle-income African countries (which have higher primary and secondary enrolments) and lower than that of low-income ones.

Containing Public Subsidies to Private Secondary Education

Subsidies to the private sector, at the elementary and secondary levels, are a major drain on public resources. According to NSSO data for 1995-96, the private-aided schools' share in enrolment tends to rise with the level of education: it is lowest at the primary level, rises sharply at the upper primary level, and is highest at the secondary and higher secondary level. In fact, more than half of the children at secondary or higher secondary level are in private (aided and un-aided) schools.[7] The process of turning schools from being un-aided to being aided by government subsidies involves considerable unhealthy practices.

There are several equity issues which arise for the practice of converting un-aided schools to aided one. It is mainly the non-poor who are able to make their way past the elementary school barrier (8th grade) to enter secondary school.[8] The fact that a very significant proportion of total enrolment at the secondary level is in private schools only serves to confirm this hypothesis, given that out-of-pocket costs in private schools are higher than in public schools.[9] Yet the decision to give a school a grant-in-aid, i e, convert it from being un-aided to aided, is not based on well defined principles or objective criteria. To be eligible for aid, a private un-aided school must be recognised and, to be eligible for recognition, it must be a registered society, have an owned rather than a rented building, employ only trained teachers, pay salaries according to government prescribed norms, have classrooms of a specified minimum size and charge only government-set fee rates. It must also instruct in the official language of the state and deposit a sum of money in the endowment and reserve funds of the education department. However, as Kingdon (2000) rightly notes, many aided schools do not fulfil all the conditions of recognition, and ultimately the decision is taken on political grounds.[10] Initially, it is political pressure from the teachers of a particular private school, which leads to it becoming part of the grant-in-aid list.

Two consequences, for the rest of the education system arise from this phenomena of conversion from un-aided to aided schools. One, it is inefficient for the effectiveness of public schools, and two, the outcome is inequitable since it increases subsidies to the non-poor.[11] For one, the school stops charging fees from its students. In other words, contrary to the principle that a fiscally squeezed state should be targeting its subsidies to the poor, the state actually stops cost recovery from a section of the population which is able to pay, and subsidises them. For another, teachers are no longer accountable to either the parents or the private management, since their salaries come directly from the state government – a clearly worse outcome for the parents and children in terms of accountability.

A second set of outcomes ensues for state spending on public education. Teachers begin to be paid government salary scales directly from the state government, i e, the salaries of teachers rise dramatically in most cases, since the majority of teachers in un-aided schools receive salaries well below what government schoolteachers receive [Kingdon and Muzammil 2001]. In addition, while all other school recurrent costs were earlier being met from fees paid by parents, now they are met by the state. A significant proportion of government expenditure at the secondary level is devoted to this kind of subsidisation of the non-poor.

There is a strong case for the elimination of the nationalisation of secondary private schools, except under very strict conditions. First, it could be argued that in schools where there is widespread evidence of private mismanagement, teacher salaries might be

Table 3: Distribution of Public Education Expenditure by Level by State

State		Total Expenditure on Education (Rs in Crore)	Elementary (Per Cent)	Secondary (Per Cent)	Univ/ Higher (Per Cent)	Adult (Per Cent)
First Group						
Assam	1990-91	440	56.6	26.8	10.9	0.5
	1995-96	938	61.0	24.8	9.6	1.2
	1997-98	1,138	61.0	24.0	8.9	0.4
	1999-2000 (BE)	1,848	65.6	23.6	6.7	0.4
Bihar	1990-91	1,198	62.7	20.3	10.8	1.3
	1995-96	1,996	67.6	19.4	9.7	0.6
	1997-98	2,499	66.0	19.9	10.8	0.2
	1999-2000 (BE)	3,957	71.0	19.3	7.7	0.1
Madhya	1990-91	875	59.4	23.7	11.3	1.2
Pradesh	1995-96	1,539	61.5	22.9	12.0	0.3
	1997-98	1,804	63.8	20.4	12.1	0.3
	1999-2000 (BE)	2,050	64.6	17.0	12.8	0.3
Orissa	1990-91	445	55.0	24.3	14.4	0.9
	1995-96	926	55.0	24.6	16.3	0.4
	1997-98	1,193	57.3	24.8	14.6	0.2
Second Group						
Gujarat	1990-91	888	52.5	32.1	10.0	0.9
	1995-96	1,786	51.6	34.4	9.6	0.3
	1997-98	2,164	54.0	33.1	8.8	0.1
	1999-2000 (BE)	2,804	55.0	31.9	8.3	0.2
Himachal	1990-91	183	56.6	31.1	8.1	0.7
Pradesh	1995-96	318	56.2	32.8	8.4	0.2
	1997-98	467	56.8	31.8	8.9	0.2
	1999-2000 (BE)	665	61.4	28.1	8.2	0.2
Karnataka	1990-91	781	52.2	28.4	14.3	1.2
	1995-96	1,653	53.2	31.4	13.6	0.5
	1997-98	2,121	53.7	31.4	13.0	0.3
	1999-2000 (BE)	2,955	53.8	31.7	12.1	0.2
Kerala	1990-91	761	52.4	29.9	12.1	0.1
	1995-96	1,407	47.8	30.8	15.8	0.0
	1997-98	1,721	46.9	31.3	16.5	0.0
	1999-2000 (BE)	2,761	51.3	31.6	12.2	0.0
Maharashtra	1990-91	1,706	40.4	39.8	12.6	0.8
	1995-96	3,204	49.6	43.8	Na	0.4
	1997-98	4,674				
	1999-2000 (BE)	5,992	45.2	38.9	10.8	0.2
Tamil Nadu	1990-91	1,262	49.4	35.5	10.4	0.7
	1995-96	2,113	47.2	37.1	9.7	0.5
	1997-98	2,822	47.9	36.9	9.8	0.2
	1999-2000 (BE)	4,023	43.7	32.6	17.6	0.1
Third Group						
Andhra	1990-91	988	46.0	28.2	21.3	0.7
Pradesh	1995-96	1,682	43.1	31.9	20.8	0.2
	1997-98	2,163	43.6	30.4	21.1	1.1
Rajasthan	1990-91	797	54.4	32.1	9.2	1.0
	1995-96	1,677	56.0	32.6	7.6	0.8
	1997-98	2,122	55.1	34.3	7.4	0.2
	1999-2000 (BE)	3,081	55.6	31.9	6.9	0.1
Uttar Pradesh	1990-91	2,080	58.2	29.6	7.9	0.9
	1995-96	3,310	56.3	32.9	7.4	0.3
W Bengal	1990-91	1,355	35.8	46.1	13.4	0.5
	1995-96	1,926	33.2	47.4	12.9	0.2
	1997-98	2,432	31.8	48.0	11.9	0.3
	1999-2000 (BE)	4,802	24.9	33.2	9.1	0.2

Note: The sum of shares does not equal 100 per cent due to the exclusion of some sub-sectors.

Source: Sajitha Bashir (2000), Government Expenditure on Elementary Education in the Nineties, European Commission, New Delhi.

paid directly by the state, but the remaining costs of the school might not be met by the state. Even more, teacher salaries should not be fixed at government salary scales unless the teachers have the same level of qualifications. In government schools, increasingly, new teachers are being hired in schools at para-teacher salaries, which are a third lower than those of regular teachers. In other words, a formula needs to be worked out whereby the fiscal burden on the state does not increase on account of the nationalisation of private secondary schools, rather, a sharing of costs between parents and the state would be advisable. Free riding needs to be contained. Second, grants-in-aid should be awarded only when there are some performance guarantees by the school management and teachers. The systems to provide grants-in-aid in other countries need to be studied and applied to suit the Indian context. The policy implication is clear: there is scope for inter-sectoral restructuring of education expenditure at the margin, implying that additional public spending should mainlyconcentrate on elementary, rather than secondary education and should go to government schools.

Additional Resources for Higher Education

It was noted earlier that the share of higher education in education spending has fallen sharply in India in the 1990s, compared with the first four decades since independence. Nevertheless, the adverse consequences of the heavy emphasis on higher education for 40 years are still being felt: India has the dubious distinction of having one-third of the world's illiterates population and more than half of the world's children out of school. To complete the picture, it is thus important to take a look at the situation in India in relations to higher education.

Since private returns to higher education are greater, and most who are able to reach higher levels of education are the non-poor, there is a strong case, on the grounds of equity, for greater cost recovery at the university level than what is currently taking place. In UP, for example, tuition fees for arts and social science undergraduates in 2000 were Rs 50 (US $ 1.05) per month, which is less in real terms (whether calculated in rupees or US dollars at market exchange rates) than what it was in 1975 (Rs 12 or US $ 1.50 per month). Higher fees are levied for professional courses like MBA but they are still nowhere near full cost recovery. Nonetheless, reform in the fee structure at the secondary level is slowly making progress, as in the case of UP.[12] Tilak (2002) argues that while in central universities cost recovery has remained minimal, in state universities, cost recovery increased, from very low levels in the early 1990s to approximately 20 per cent of recurrent costs, on average, in the late 1990s. Given that most of those reaching tertiary levels of education belong to the non-poor, on grounds of equity, the state cannot subsidise higher education at the cost of elementary education. At the same time, fee exemptions for the poor will have to increase at the tertiary level.[13]

Meanwhile, the condition of university facilities leaves much to be desired, with poor maintenance, inadequate library facilities and so on. If higher levels of cost recovery in universities are going to be acceptable, it can only be on condition that the additional funds so raised are not returned to the government treasury but used for the direct improvement of facilities.[14] Universities must link cost recovery to better facilities like improved library facilities (i e, fees used to buy library books) and loans or scholarships for poor students, especially scheduled caste, scheduled tribes and other backward class girls.

In the professional institutes of higher education – the Indian Institutes of Technology (IIT), the Indian Institutes of Management, all engineering colleges, medical colleges and management institutes – there has been some increase in cost recovery in the 1990s. However, preliminary estimates suggest that the scope for cost recovery is much greater than what it is currently.[15] Thus, in the IITs the cost to the government per student per annum is Rs 1,25,000, however, students are still paying only 29 per cent (about Rs 36,000 per year) of that amount, despite the fact that majority of students belong to upper-middle or upper class families. This low level of cost recovery from students has taken place slowly over the 1990s, from a baseline of nearly zero. Most importantly, the scope for cost recovery is particularly high since nearly half the students go abroad (mostly to the US) for further studies and take up employment abroad, only to rarely return to India. In other words, most of the social benefits of such highly subsidised study at public expenses flows abroad. Given their class background, the majority of these non-resident Indians (NRI) do not contribute significantly to dollar remittances to India.

The point is not that there have been no returns to the economy as a result of the creation of high quality institutes of engineering and technology. Rather, the point is simply, that for at least three decades, there has been little basis, in terms of equity or efficiency, for the heavy public subsidisation of non-poor students in such institutes. Korea is no less of a player in the IT world today, despite the fact that most of its universities and institutes of higher education are in the private sector. In India, however, unlike in Korea, the cost of heavy public subsidies to higher education in the first four decades after independence has been borne by the majority of the poor, who have been denied access to elementary education of high quality.

Higher cost recovery in publicly funded medical colleges would have the added advantage of stemming the excess demand for the limited seats that such government medical schools offer. During the 1960s and 1970s many developing countries promoted a major increase in training physicians mainly through subsidies to higher education, so that before long these countries were having problems absorbing an increasing numbers of doctors. In fact, one result in India was the large-scale emigration of doctors to the UK and US, so much so that there are now more Indian doctors per thousand persons in the US, than there are in India.[16] At the same time, in India, there has been an undersupply of nurses and para-medical staff, with seriously adverse consequences for the quality of primary health services in the country [Planning Commission 2002]. There is no optimal level of physicians per capita or optimal nurse-to-physician ratio, but a rule of thumb is that nurses should exceed physicians by at least two to one. However, in 1990 the ratio was well under two to one in India (1:1), Latin America, and the west Asia [World Bank 1993]. At the same time, the World Bank recommended a package of health services for low-income countries, including public health and minimum essential clinical interventions, which require about 0.1 physicians per 1,000 people and between two and four graduate nurses per physician [World Bank 1993]. In 1993 India already had a doctor per 1,000 people ratio of 4.8.

Greater cost recovery in publicly funded medical schools could serve to reduce the flow of prospective physicians to government medical colleges in the future, and public resources could be diverted to the training of nurses on a much wider scale. In other

words, in principle, whenever cost recovery is to be increased at higher levels of education, it must lead to improved facilities at that level of education. At the same time, there should be diversion of new public resources to services that have a public good nature (e g, basic health services) and large positive externalities.

There are important lessons to be drawn from the experience of other countries, particularly from some east Asian countries where all primary schoolchildren went to public schools, while most secondary- and tertiary-level students went to private schools. For instance, in Korea almost all primary schoolchildren (99.5 per cent in 1965 and 98.5 per cent in 1975) were in publicly funded schools, but in 1965 only 55 per cent of lower-secondary (59 per cent in 1975) and 42 per cent of higher-secondary (39 per cent in 1975) schoolchildren were in public schools. At the college and university level, the share of students in public schools was only 27 per cent in both 1965 and 1975. Accordingly, two-thirds of public education expenditure was allocated to primary education in the 1960s, and even in 1980, two decades after primary enrolment was universalised, half was still going to the primary level. Enrolment at private colleges and universities reached 82 per cent of total tertiary enrolment in 1995 [World Bank 1998]. This pattern of public spending was not only equitable, it was also efficient. By contrast, on average in India, the share of elementary education (8 years of education, as opposed to Korea's five years) in total education expenditure (centre and states combined) has never exceeded 50 per cent in the half century since independence. The policy implication for India is that the private sector should be encouraged to set up new additional secondary schools (without public subsidies), just as the private sector in higher education is expanding.

Additional resources have to be found for Indian universities but not necessarily from public sources. Cost recovery is one source, but universities should mobilise additional resources from non-government sources. For example, science departments could seek research funds from private foundations and enterprises while social science departments could seek research funding from international agencies. Unfortunately, the central government's expenditure on R and D is not pro-poor, so that research funds for universities from central government sources cannot increase unless government priorities change. In 1996-97, nearly three quarters of the central government's R and D expenditure went to the Department for Defence Research and Development, the Department of Space, and the Department of Atomic Energy (64.1 per cent of all research expenditure going to the three departments together), including 9.3 per cent for the Council for Scientific and Industrial Research.[17] The two areas of research that concern ordinary people – agriculture and health – receive barely 10 per cent of all central government research funds. The share of the Indian Council of Medical Research (ICMR) was 1.1 per cent, and that of the Indian Council of Agricultural Research 9.7 per cent. It is interesting that the share of the ICMR is the same as that of the Departments of Biotechnology and of Ocean Engineering. With central government research funding squeezing out all but a few prestige areas of research, there is little scope left for university departments in the natural sciences to attract research funds from the central government.

Resource mobilisation from alumni of universities who are non-resident Indians (NRIs) should also be actively pursued. NRI funds could be mobilised, through alumni associations, for universities, Indian Institutes of Management and medical colleges. IITs – or at least some of them – are already actively pursing NRI alumni as sources of funding.

III
Mobilising Resources and Earmarking Funds for Elementary Education

The prospect of achieving universal primary education (UPE) and universal elementary education (UEE) by 2007 and 2010 respectively (the objective of the central government's Sarva Shiksha Abhiyan (SSA) launched in 2002) appears dim unless additional resources are mobilised by the government. This section examines the prospects for such resource mobilisation.

It was noted earlier that the fiscal deficits of the poorest states are so serious that, while inter-sectoral reallocation in favour of education from other sectors is desirable, it may not be feasible. In addition, the prospect of intra-sectoral reallocation within the education sector (from higher levels of education to lower levels) will be limited unless the total envelope for education can be increased. The total envelope for education can be increased at the central or the state government level only if the revenue-to-GDP ratio rises and does so within a short span of time, so that within 10 years momentum can be built up for UEE in the laggard states. This section briefly examines the international experience with respect to earmarked taxes, the revenues from which would benefit elementary education only. It also spells out the case for and the features of possible earmarked funds at the central and state levels for elementary education.

Normally when a new tax is imposed, there is much public resistance, but when a source of revenue is identified for specific programmes that are known or seen to have a high social benefit (e g, reduced population growth), the normal resistance of taxpayers to new taxation can be overcome. This is especially true in India when, at least in the minds of the elite, the benefits of elementary education can be directly linked, through publicity and advocacy campaigns, to reduced population growth. This is one major factor in favour of earmarking taxes. Such taxes have been used in many countries at different times and have taken a variety of forms, such as these on property, businesses, commodities (especially intoxicants and tobacco), imports, and interest or dividends.

These taxes can be levied at the national or other levels of government, an issue that will recur later.

An argument against earmarking revenues for specific purposes has been that they might not add to the resources of the particular purpose they are meant for, as the government may simply divert general resources hitherto devoted to, say, education, to other purposes. Government resources are fungible, and the possibility of diversion has also been the argument made against project aid from foreign donors. For instance, it may simply help the government to divert its own resources and use them for military purposes.

Clearly, if earmarking is to be used for elementary education, specific safeguards have to be built into the spending mechanism. For instance, the District Primary Education Programme (DPEP) funds have been given by the central government to state governments on condition that the states at least maintain the 1991-92 level of their expenditure on elementary education. A criticism of this modality is that the state expenditure level has been pegged at a fixed level for ten years. Thus, while the state government's own expenditure on elementary education may not have fallen as a result of this stipulation, it also provided an incentive to

the state government not to increase its spending on elementary education. Similar problems have arisen in other countries. For instance, in 1986 Pakistan introduced the 'Iqra' surcharge on some imports and earmarked the revenue for education, unfortunately, education did not gain much on account of the fungibility of funds. Making available additional resources is the key to achieving the desired outcomes, and earmarking will require a more ingenious mechanism to ensure the full commitment of state governments to increased spending on elementary education.

Despite the risks associated with it, earmarking revenues has been implemented in industrialised countries for education. For instance, earmarked taxes have been used for education in the US at the state level. In 1987 Indiana instituted a US $ 750 million increase in corporate and personal income taxes to fund the governor's programme of educational excellence. A sales tax was used by three states in the US in the 1980s: Arkansas financed a comprehensive education reform package funded by a US $ 155 million increase in the sales tax; Tennessee raised US $1 billion for its Better Schools Programme by levying a sales tax of US $ 0.01; and South Carolina did the same for an education initiative and mobilised US $ 217 million by means of a US $ 0.01 sales tax [Lockheed et al 1991].

There are examples of earmarking from every region in the developing world. The Republic of Korea, for instance, which was a high achiever in terms of mass schooling very early in its development, has used earmarking to good effect. In 1982, the government found that the general budget was unable to meet the costs of the education system, so it introduced a five-year education tax on spirits (liquor), tobacco, interest and dividend income, and on the banking and insurance industries. Five years later the tax accounted for 15 per cent of the education ministry's budget. Finding it successful as a means of raising additional resources, the government extended it for an additional five years. Other Asian countries have also had earmarked taxes. Nepal's Village and Town Panchayat Amendment Acts (1964 and 1965) enabled local authorities to introduce an education tax. The Philippines has had a special education fund that relies on revenues raised from taxes on real estate. Similarly, in 1985 China enabled its local authorities to impose an extra tax in cities and towns to fund compulsory education. The tax was raised from local enterprises and individual peddlers, including a 3-5 per cent tax on the annual income of collectively run enterprises.

Earmarked taxes for education have also been used in Latin America and Africa. Botswana has been seen as a modern-day high achiever in terms of mass schooling [Duncan et al 1997], but its tradition of mobilising resources for education goes back nearly 100 years. Lockheed et al (1991) report that during colonial times the demand for schools that taught academic subjects (especially English) rather than religion (taught by the missionaries), in the villages of Botswana, rose as people came into contact with traders and travellers. As a result, tribal chiefs and their people established independent tribal schools. The chiefs then started levying a tax on each hut in the village to finance the community school. Similarly, in Guinea the 'sous-préfecture' collects a poll tax from all persons of 15 years and older, which goes towards financing education and other social expenditures. Brazil imposed a 2.5 per cent salary tax on the wages of employees in the private sector, which it will use exclusively for primary education. The federal government collects the tax, two-thirds of which go to the states. Which level of government is the appropriate tax-levying authority is an important issue in federal India as well. Should an earmarked tax be raised by the central government or be left to the discretion of state governments? This issue is taken up later.

Given that Brazil is, like India, a large federal country that has used earmarking for primary education, it may be useful to dwell on its experience briefly. Brazil is a highly decentralised federation, with the constitution of 1988 acting as a benchmark for Brazilian federalism. The 27 states and 5,559 municipalities together account for over one-third of total government spending and revenue collection. The share of sub-national government spending in total government expenditure in Brazil is comparable with the OECD average and that of other large, decentralised federations like the US, Germany, Canada, India, the Russian Federation and Australia. In contrast with the municipalities, the relative share of the states in total government revenues has fallen since 1988. The states now transfer to the municipalities in their jurisdiction more than they receive from the federal government through revenue sharing. Municipal governments have increasingly taken on the expenditure functions given to them by the constitution, especially in the social area [Alfonso and de Mello 2000].

In Brazil, spending on social programmes at the sub-national level is characterised by extensive earmarking of revenues. The constitution of 1988 requires sub-national jurisdictions to earmark 25 per cent and the federal government to earmark 18 per cent of their revenues to finance outlays on education. But these targets were not always met at the sub-national level because of shortfalls in financing, especially in poorer states and municipalities. Hence, to finance sub-national spending on education a fund (FUNDEF) was created in 1988 to reduce shortfalls and to increase the coverage of the municipal, rather than the state primary education system. States and municipalities are required to earmark 15 per cent of their revenues to finance outlays on primary education. Earmarking has also been extensively used to fund health care. The national health care system created by the 1988 constitution replaced the old system, which provided health insurance only to formal sector workers and their families. The new system was implemented in the early 1990s to extend publicly-provided health care services to the poorer states. The system combines centralised financing with decentralised delivery of services. As in the case of education, the municipalities were not always able, or willing, to perform the functions assigned to them by the constitution for fear of shortfalls in transfers from the federal government. To deal with this problem, a new federal levy on financial transactions was created with revenues earmarked for financing health care spending. The states and municipalities are now required to earmark 12 and 15 per cent, respectively, of their revenues to finance outlays on health care.

The education fund, FUNDEF, in Brazil, helps in the equalisation of expenditure capacity in education between poorer and richer states. With this objective, a floor was introduced for municipal outlays per student, and the federal government is required to top up spending in a case where the sub-national government is unable to meet the minimum spending requirement. To reduce pay inequality across the states and within the education sector, 60 per cent of the resources spent on primary education are earmarked for wages and salaries, and the remaining 40 per cent to finance capital outlays and operations and maintenance.[18]

Alfonso and de Mello (2000) argue that earmarking revenues in both education and health have yielded good results in Brazil. Since 1998, the coverage of the municipal primary education system has increased significantly, and pay differentials have

been reduced across and within states. The municipalities have become the main providers of primary education, even in states where the coverage of the municipal primary education system was limited. As in education, minimum per capita transfers in the health sector have been implemented for a number of preventive care programmes, including pre-natal care, oral hygiene and immunisation. Health sector reforms are more recent, but preliminary evidence shows that explicit targets for coverage and a progressive funding schedule have resulted in increased coverage.

This experience from a wide variety of countries seems to suggest that, designed appropriately, earmarked funds from dedicated revenues for specific purposes for a specific sector can play a useful supplementary role in general budgetary allocations to that sector.

International experience does point to certain pitfalls that should be avoided if earmarking is resorted to. Potter and Diamond (1999) point out that in most OECD countries comprehensiveness and transparency are achieved by designing a budget system with three key characteristics: annuality,[19] unity[20] and universality. The last principle states that all resources should be directed to a common pool or fund, in other words, earmarking resources for specific purposes is generally to be discouraged. These three characteristics are needed to ensure that all proposals for government expenditure are forced to compete for resources, and that priorities are established across the whole range of government operations. It will be immediately obvious from these principles that they are derived mainly from the macroeconomist's concern for budgetary control, and the fear that extra-budgetary funds (EBFs) into which earmarked resources are placed, might diminish the finance ministry's ability to determine resource allocation. Given the experience of runaway budget deficits since the early to mid-1980s in many developing countries, this concern is by no means unfounded. In fact, one can anticipate the ministries of finance in the central and state governments in India resisting attempts to earmark funds for elementary education.

In fact, the two major international financial institutions (IFIs) have tended, by and large, to frown upon earmarking. The *Guidelines for Public Expenditure Management* (1999) of the International Monetary Fund (IMF) and the World Bank's *Public Expenditure Management Handbook* (1999) both take a broadly similar position. Most often earmarked revenues have been deposited into extra-budgetary accounts or funds. Such EBFs generally refer to accounts of government transactions that are not included in budget totals and usually do not operate according to budgetary execution procedures. Such transactions may, for example, be financed through foreign aid or earmarked revenues not included in the budget. The IMF's guidelines note that the purposes of such EBFs could vary, for instance, they are often set up for reasons not consistent with principles of good governance. They may allow the president or some parts of the executive branch to bypass the normal budget procedures (for instance, the 'comptes spéciaux' in African francophone countries).[21]

However, if adherence to the three general principles of budgeting ignores the institutional development needs of certain sectors (which has traditionally been the case in India), then in limited instances, the case for earmarking resources is a legitimate one. The case for earmarking is strong as it is not existing financial resources that are earmarked, but new resources that are mobilised for the sake of primary education.

Another reason for creating such accounts is to earmark revenues for specific purposes. Thus a common purpose for which funds have been used are roads, road maintenance services, and in some cases, for capital expenditures. Potter (1997:5), though, appropriately asks, 'However noble the cause of safeguarding resources for an area like road maintenance, it raises inevitable questions: if (RFs Road Funds), why not Health Funds, Higher Education Funds, etc?'[22] The IMF guidelines, in fact, state that EBFs may be established specifically to divert expenditures out of the budget, sometimes with the aim of publishing a lower fiscal deficit. So the guidelines point to a number of disadvantages of EBFs: (i) they can result in a loss of aggregate expenditure control, (ii) they can distort allocation of resources by circumventing the budget process and review of priorities, (iii) earmarked revenues can become entrenched so that funding is no longer based on priority needs, (iv) less transparency may lead to inefficiency and misuse of funds, (v) they can facilitate rent-seeking and abuse monopoly power, (vi) they lead to less flexibility to reallocate at the margin when budget is under stress, (vii) they are incompatible with good cash management practices.[23]

In this context, it is useful to point out some key questions that are worth addressing before an EBF is set up (see Appendix). Too many EBFs should indeed be discouraged.[24] Much of the IMF's scepticism about EBFs derives from the indiscriminate use of funds in many African countries as well as in countries of the former Soviet Union. Nevertheless, the selective use of funds is more appropriate, for instance, social security funds are a feature of many countries and many examples of earmarking funds for education and health services have been given above. Earmarking funds for infrastructure, especially road maintenance, is fine if it prevents the diversion of resources needed for road maintenance (often seen as not politically attractive) to other purposes and leads to higher capital expenditure in the long term. The World Bank has encouraged a 'second-generation road fund' as part of its Roads Management Initiative launched in 1988, emphasising the transparency and accountability of these funds, which are financed by user charges. Gwilliams and Shalizi (1997) note that these new funds 'compensate for political and administrative myopia and ensure the allocation of resources to a low profile economic activity with particularly high returns', especially when they go hand in hand with some form of user-charge financing.

Possible Nature of a Fund for Elementary Education

As long as the caveats mentioned above are taken into account, there appears to be a case for – the central and state governments in India – to adopt the earmarking of funds for elementary education, with dedicated revenues. In other words, there need to be certain and predictable sources of finance for the fund and there should be no scope for the diversion of resources from the funds towards other purposes determined by the spending authority. There is a strong case for India to follow the Brazilian example, with the central government raising the revenue. One compelling reason for this is that leaving the matter to the discretion of the state government alone may or may not result in the tax actually being levied, given that state governments have shown themselves to be rather variable in their commitment to elementary education. Second, despite the increased commitment, generally, to the cause of elementary education in the country, the performance of states with respect to enrolment and literacy in the 1990s has still been highly inconsistent. In other words, there is a need for better equalisation of per capita resources for elementary education across states. Hence, there

is a case for resources to be allocated to the states that are in greatest need and those that show the best performance. Only the central government can respond to these requirements. Besides, the assistance to states from the centre under the SSA is based on an 85:15 sharing arrangement during the 9th Plan (1997-2002), 75:25 during the 10th Plan (2003-07), and 50:50 thereafter. Clearly, it is mainly the centre that would have to mobilise the additional resources if the objectives of the SSA are to be realised. This is especially the case when the expected decline of external funds for DPEP I and II materialises.

Possible sources of revenue have already been mentioned above: property, business, intoxicants and tobacco, imported luxury goods, interest and dividends. There is also a strong case to make corporate donations towards such earmarked funds tax deductible. Many transnational companies in India (and, for that matter, in developing countries in general) would attempt to curry favour with the host country and government by providing tax-deductible finances for such a fund. There may well emerge competitive donations from the large domestic corporations, provided that the transfers were tax-deductible.

In addition to these national sources for a fund, one could envisage additional local sources of revenue to supplement the resources of the dedicated fund earmarked for elementary education. Some earmarked taxes could be collected by local governments in urban areas, for instance, a poll tax. These are usually rejected by policy-makers for being regressive, but the poll tax should clearly exempt the poor (e g, those living in slums) and should not be used for funding general budgetary expenditure. A second is a surcharge on local property taxes on houses and land. In most developed countries, property taxes are a major source of financing for education – making some school districts more coveted by parents than others, if they have children of school-going age. What is again important is that these additional sources be used specifically for local schools, to supplement the national fund discussed above.

Another major issue in respect of earmarking is what the funds will be used for. Unless quite specific uses have been pre-identified, the case made to the public for imposing such a tax may not be received well. Two uses of the revenues raised through an earmarked tax are proposed here. One would be to create a textbook fund in each state to enable government schools to place textbooks at the disposal of the teacher and the school. The principle would be to enable each school to acquire sufficient textbooks in each subject for every child attending school. The books would not be given to children to take home but kept in the school for use during school hours. In addition, for the younger children for whom textbooks may be less useful, instructional materials (e g, flashcards) could be purchased.

A second urgent need is for additional teachers for those schools that have only one teacher. It is proposed that a para-teacher, at a salary lower than the regular one, be appointed for single-teacher schools, and that the salary be paid out of the fund created from earmarked tax revenues.

IV
Conclusion

This paper has focused on the need for reforming the structure of education spending at the state level. It has emphasised the inordinately high share of total elementary education spending on teacher salaries, as well as the bias in favour of secondary education in many states in public education spending. It has also argued for much greater cost recovery in higher education than is currently underway. All of these have serious consequences for both the efficiency and equity of public education spending. Finally, it also made the case for new taxes for elementary education, and the earmarking of funds from such revenues for elementary education, both at the state and central levels.[25]

Appendix: Key Questions Concerning Extra-Budgetary Funds (EBFs)

What is the purpose of the EBF? What is the rationale for keeping such a fund off-budget?

Financing Issues

What is the source of funding? Does the source of funding make sense? Does it help to relate marginal benefits to marginal costs: for example, user fees? How are user fees determined? Are there limits to prevent abuse of monopoly power (especially if demand is inelastic)? Are there general benefits (positive or negative externalities, the public good) in addition to user benefits that justify support from general budget revenues? If there is a split, how is the share of financing determined? Is the source of financing an important government revenue, and can the government afford to lose the associated degree of flexibility in prioritising expenditures? Do earmarked revenues detract from the government's capacity to collect traditional revenues? If there is a split, how is the share of financing an important government revenue determined, and can the government afford to lose the associated degree of flexibility in prioritising expenditures? Do earmarked revenues detract from the government's capacity to collect traditional revenues?

Expenditure Decisions

How are expenditure decisions concerning the EBF made? What use is made of cost effectiveness or cost-benefit analysis? Does the management of the EBF promote efficiency, for example, through quasi-market mechanisms or through mission statements, objectives, and performance measures? How are consumer interests represented and taken into account in expenditure decisions? If the EBF is governed by a board, is membership of the board biased toward certain needs – for example, regional needs?

Management Issues

Does the management of the EBF meet good governance requirements? Is it free of political interference, or is it unduly influenced by suppliers or trade unions? Is it possible for funds to be diverted to other uses? Can these accounts be 'raided' for other uses? Is the EBF independently audited?

How are the cash resources of the EBF handled? Does the government have access to these funds for overnight borrowing to minimise government borrowing needs? Does the treasury or ministry of finance have the legal right to reduce funds available for expenditure in EBFs if the budget is under severe pressure?

Source: IMF (1999). EPW

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Notes

[The views in the paper are those of the author, and do not reflect those of any organisation he is associated with.]

1 Srivastava (2002) notes that other departments contribute one-fifth to one-third of total spending on education in the centre and 12-15 per cent of total spending on education in the states. Including education spending by other departments, education spending as a share of GDP was about 4.1 per cent in 1988-89, and fell to 3.8 per cent in 1997-98.

2 Equity in public spending can also be assessed through benefit incidence analysis. Lack of data does not permit an analysis of the benefit incidence of public education spending in India. However, for an analysis of who benefits from education spending – the poor or the non-poor – in developing countries, see Mehrotra and Delamonica (forthcoming).

3 For instance, compared with a national average total fertility rate (TFR) of 3.4 (1995-97), the TFR in educationally backward states was 4.9 in UP, 4.2 in Rajasthan, 4.1 in MP and 4.5 in Bihar. What is remarkable is that despite these high fertility rates, Rajasthan and MP had much higher per child expenditures on elementary education at least in the latter half of the 1990s.

4 This figure is 93 per cent if non-education department expenditure on education is taken into account in this estimate [World Bank 1996]

5 Per capita SDP in the richest state is 2.2 times that of these six states incuding UP.

6 In India, the share of higher education in education expenditure has fallen in the 1990s from its high share over a period of four decades (1950-1989), just as it has in most developing countries.

7 The requirement for government schools to be located within one kilometre of every habitation, has resulted in a large number of very small schools, a shortage of teachers, and multi-grade teaching. Most government schools offer education from only classes 1 to 5. However, aided and un-aided schools tend to serve larger populations, and hence offer classes 1 to 12 [Bashir 1997].

8 There is overwhelming statistical evidence that enrolment rises with income, i e, the higher the level of family income, the higher the share of children enrolled in school, and the higher the number of years of education completed before they drop out. For evidence in India, see Srivastava (2000). For evidence in other developing countries, see Delamonica and Minujin (2003), and Mehrotra and Delamonica (forthcoming).

9 Even those who are in government secondary schools are there because they can bear the opportunity cost of forgone income that comes from being in school instead of working.

10 While Kingdon (2000) analyses the situation in UP, the process is not dissimilar in other states.

11 See Mehrotra et al (2002) for a further discussion of these issues.

12 The percentage of total revenue receipts in education compared with revenue expenditure was 3.3 per cent in 1999-2000 and rose to 3.6 per cent in 2000-01 [Srivastava 2002].

13 For a further discussion of these issues at an international level, see chapter 7 of Mehrotra and Delamonica (forthcoming).

14 Otherwise there is a risk of student agitation, and an initiation of a cycle of demonstrations leading to the closure of universities for extended periods of time, with annual university timetables completely disrupted.

15 This may be not the case anymore for the prestigious Indian Institutes of Management, where total student charges may amount to as much as Rs 100,000 per annum per student.

16 For a discussion, see Human Development Report for South Asia 1996, on education.

17 It is hardly surprising that the individuals who led the space, defence and atomic energy research establishment (Homi Bhabha, Sethna, Ramanna, and Kalam) were also the ones who have been awarded the Bharat Ratna, the nation's highest civilian honour.

18 Alfonso and de Mello (2000) explain the higher share for recurrent expenses by pointing out that quality depends upon teachers' motivation, and that capital spending leads to corruption at the municipal level. The same issues apply in the case of India.

19 Annuality means that the budget is prepared every year, covers only one year and is voted and executed every year, even though most OECD and some developing countries now develop their annual budgets within a multi-year perspective, by preparing a medium-term revenue and expenditure framework.

20 Unity means that revenue and expenditure (and borrowing constraints) are considered together to determine annual budget targets.

21 Under such circumstances, the IMF's fiscal economists are recommended to identify all these funds and then ensure they are consolidated on a gross basis in fiscal tables, even though it is recognised that if the expenditures cover security or presidential spending it may be difficult to do so.

22 The World Bank had found that a lot of road funds created in the 1960s and 1970s suffered from serious problems.

23 Not surprisingly, there have been letters of intent (LOIs) signed by governments and the IMF in recent years, to minimise the use of such EBFs. See, for example, Reports on the Observance of Standards and Codes (ROSC), LOIs, and other documents relating to the Central African Republic, Czech Republic, Central American economies, Ecuador, Latvia, Korea, Romania and Ukraine, at http://www.imf.org/external/np/rosc or external/np/loi.

24 Curiously, the IMF does not seem to define 'too many'. There is little in the literature suggesting that a certain percentage of public expenditure would be deemed too high for allocation to EBFs.

25 It deliberately avoided the issues related to inter-sectoral restructuring of expenditure at the state level from, say, unproductive subsidies to education. Thus, one could legitimately argue that if state governments were to recover their costs better on utilities (electric power in particular, but also irrigation water), the public resource needs of elementary education would be automatically met. The political economy of that set of issues is too complicated to be within the scope of this paper.

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