

OCCASIONAL PAPERS

12

Educational Finances
in India

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ADMINISTRATION

EDUCATIONAL FINANCES IN INDIA

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November 1985.

Without implicating for any of the errors that remain in this paper, the author wishes to acknowledge the comments, suggestions and help offered by C.B. Padmanabhan, N.V. Varghese, K.M. Bahauddin and A. Mathew on an earlier version of the paper. Thanks are also due to P.N. Tyagi for lending his cartographic skills, and to Padam Singh and Jai Prakash for typing it on the Word Processor.

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EDUCATIONAL FINANCES IN INDIA

Jandhyala B.G. Tilak

"Organised educational systems do not run on slogans and good intentions. They run on money. Not that all the problems of education can be solved by throwing money at them. But without money to secure the essential physical resources of education (buildings, equipment, materials, supplies) and the human resources (teachers, administrators and custodians), organised educational systems would collapse onto an empty centre" (Philip Coombs, 1985:137).

1. Introduction

An attempt is made in this paper to present a review of growth of educational finances in India, during the post-independence period, diagnose the problems associated with educational finances and then to make a few suggestions to improve the situation.

During the post-independence period in India large scale expansion has taken place in the educational system in terms of number of students, institutions and teachers. The financial resources that flow into the educational system also registered a rapid expansion. Various dimensions of this growth in financial resources need to be noted. Finances include sources and management of educational finances as well as the process of spending and using funds. In the following pages, we discuss

- (a) Growth in the expenditure on education in absolute terms and as a proportion of GNP, budget, etc.
- (b) Source-wise contribution of finances to education : the governments, local bodies, non-governmental sources such as students/parents in the form of fees, and other maintenance expenditure, and other voluntary contributions such as donations and endowments.
- (c) The pattern of allocation of resources to education: the plan and non-plan allocations; and centre-state transfer of resources.
- (d) The pattern of intra-sectoral allocation of resources within education, i.e., between different layers of education; and
- (e) Unit costs of education.

Financial resources that are being poured from the public exchequers into the education systems in the countries of the world are no more trivial, so that they can be kept outside the theoretical framework of public finance. In fact, as education is an all pervasive development activity, besides being a non-profit enterprise, it should be given special treatment.

Because of the very inherent characteristics of education such as the 'merit want' nature of education, mixed financing of education is unavoidable. The state as well as the private sector together have to finance education. Secondly, basically two considerations should prevail on those who are involved in financing education essentially from the state coffers. The objective of education is human resource development, which in turn leads to overall national development. The world 'profit' does not figure in the theory of educational finances. Secondly, distributional consideration will be much more relevant in case of education than in case of normal economic activities. Equity, efficiency and diversity are the three major goals that should guide the educational planners. These are indeed not necessarily conflicting goals when viewed in a spatial and temporal frame. Both the immediate outcomes and long range effects of education would form the basis for financing education in an optimal manner (Schielfelbein, 1982). Besides, adequacy, built-in-flexibility and autonomy constitute the basic principles of financial soundness of the education system (Panchmukhi, 1977). As the mechanism of financing education has a significant bearing on the outcome of education, if education system has to produce desired results, decisions regarding its financing should be based on sound principles, rather than being derived from projections based on mechanistic trends.

With this in background, let us review the growth of educational finances in India. Even though we do not investigate in detail into the factors that determine the pattern of growth of educational finances in India, it would be easy for the reader to judge at the end of the paper, whether the financing patterns and mechanisms in India regarding education are based on any sound and rational principles.

We shall first analyse these aspects relating to all-India and then highlight a few major inter-state disparities. We shall largely use the following indicators for our analysis:

- i) expenditure in millions of rupees.
- ii) expenditure as a proportion of GNP.
- iii) expenditure as a proportion of the total budget.
- iv) expenditure per head of the population, and
- v) expenditure per pupil.

To neutralise the effect of general inflation, atleast some of the above need to be analysed in current and real prices. The paper analyses the broad trends and discusses the main characteristic features of these trends. Factors that explain these trends are not deeply probed in here. In this sense, the paper should be treated as an account of the status of received situation over the time period in the independent India regarding the financial aspects of education. Such an analysis is expected to be very useful at this stage of planning and policy formulation. We have not only completed three and a half decades of development planning, which is not a short span for a newly independent country, we are also completing the perspective plan period, the only perspective plan prepared by the independent India, by the Education Commission. The plan ends by 1986. There is a strong need for a long term perspective plan in education in the country. If at all any such plan is going to be attempted, or a new educational policy is formulated, a quick review of the achievements and failures will be a basic prerequisite. The present paper is one in this direction.

2. Educational Finances in India

2.1 Growth in the expenditure on education

A glance at the figures on expenditure on education given in Table 1 shows that over the years it has increased as a proportion of GNP. At the inception of planning (1950-51) India was spending 1.2% of GNP and by 1982-83, this proportion increased to about 3.6%¹. In absolute terms, this increase at national level was more impressive: the educational expenditure increased by about 94 times from 550 million in 1947 to Rs. 51860 million in 1983. This impressive growth is more than offset by increase in population, more particularly enrolments and increase in prices. In per capita terms the increase has been by 51 times only. Starting from a very low figure of Rs. 1.5 per capita in 1947 we reached a figure of Rs. 76 per capita by 1983. In contrast, the expenditure per pupil increased only by 7.5 times during the period 1950-51 to 1979-80, a period for which we have some detailed data (in fact more detailed data are available only upto 1976-77) from Rs. 44.53 to Rs. 337.50. However, as a proportion of

the total (revenue) budget, central and states together, government expenditure on education has not increased significantly. While the growth has been fluctuating, it increased from 11.9% in 1967-68 to a meagre 13.8% by 1982-83, with an all time high proportion of 14.1% reached in 1970-71 and in 1974-75 (Table 2). On the whole, the pattern of expenditure on education in India shows a smooth growth, as shown in Figure 1. As we show later, the growth in the expenditure on education does not reflect clearly any national commitment towards a particular educational objective. As Mishra (1985) puts it rightly expenditure on education "is guided more by in-built structural needs implying a smoother trend than any strong demand for the same or a planned effort to boost it up in view of its perceived impact of the right kind".

TABLE 1

Expenditure on education in India

Year	Total (Rs. in 10 millions)	Proportion of GNP (%)	Per capita (Rs.)	Per pupil (Rs.)
1950-51	114	1.2	3.2	35.6
1951-52	125	1.3	3.4	38.3
1952-53	138	1.5	3.8	40.3
1953-54	148	1.5	3.9	40.9
1954-55	165	1.8	4.3	41.8
1955-56	190	2.0	4.8	42.7
1956-57	206	1.8	5.1	44.3
1957-58	241	2.1	5.9	48.0
1958-59	266	2.1	6.4	49.1
1959-60	300	2.3	7.0	51.1
1960-61	344	2.5	7.9	53.7
1961-62	396	2.7	8.9	54.1
1962-63	442	2.8	9.7	57.3
1963-64	484	2.7	10.4	60.0
1964-65	535	2.5	11.3	62.6
1965-66	622	2.8	12.8	70.0
1966-67	698	2.8	14.1	99.6
1967-68	811	2.7	15.7	111.7
1968-69	898	3.0	17.3	120.2
1969-70	1010	3.0	19.1	132.0
1970-71	1118	3.1	20.7	141.7
1971-72	1285	3.3	23.2	157.9
1972-73	1373	3.2	24.3	159.8
1973-74	1450	2.7	25.0	-
1974-75	1807	2.9	30.5	200.6
1975-76	2105	3.2	34.7	230.1
1976-77	2304	3.2	37.9	231.1
1977-78++	2719	3.4	42.9	284.4
1978-79++	2960	3.4	45.7	292.5
1979-80+	3500	3.9	52.8	337.5

Note : + Quick estimates.

++ Budget expenditure only.

Source : Based on Education in India (Various volumes)

TABLE 2

Percentage of education expenditure on education department
to total budget (Revenue account)

Year	State/Union Territory	Centre	Total
1967-68	19.8	1.6	11.9
1968-69	20.2	2.0	12.5
1969-70	20.5	2.3	13.0
1970-71	21.4	2.8	14.1
1971-72	20.3	2.5	13.4
1972-73	19.8	2.4	12.6
1973-74	20.6	2.0	13.0
1974-75	23.2	2.1	14.1
1975-76	22.9	2.0	13.7
1976-77	22.7	2.3	13.8
1977-78	21.4	2.1	12.7
1978-79	21.8	2.2	13.1
1979-80	21.6	2.0	13.1
1980-81	20.9	2.0	12.8
1981-82	20.8	1.9	12.5

Source : Handbook of Education & Allied Statistics (New Delhi, 1983)
p.130.

The pattern of growth in the expenditure in the states is also of the same kind. In some states like West Bengal the proportion of state income (SDP) invested in education remained more or less constant during 1960-61 to 1976-77 and it was 2.6%, the second lowest among the major states in India. Remarkable increase can be noted in case of Orissa where the proportion has increased from 1.9% to 4.1% and in Jammu & Kashmir where it has increased to the same level from 2.2%. It was only in Kerala and Himachal Pradesh wherein the proportion has crossed 6%, a goal set by the Education Commission (1966) for the country as a whole. In per capita terms, the increase has been by about 3-5 times in most states. The exception is only West Bengal where the increase has been less than 2.5 times. Expenditure per pupil also increased remarkably in several states and it has been the highest in Orissa, 6.5% times increase, followed by six times increase in Kerala (Table 3).

GROWTH OF EXPENDITURE ON EDUCATION

(in 1950 - 1951 Prices)

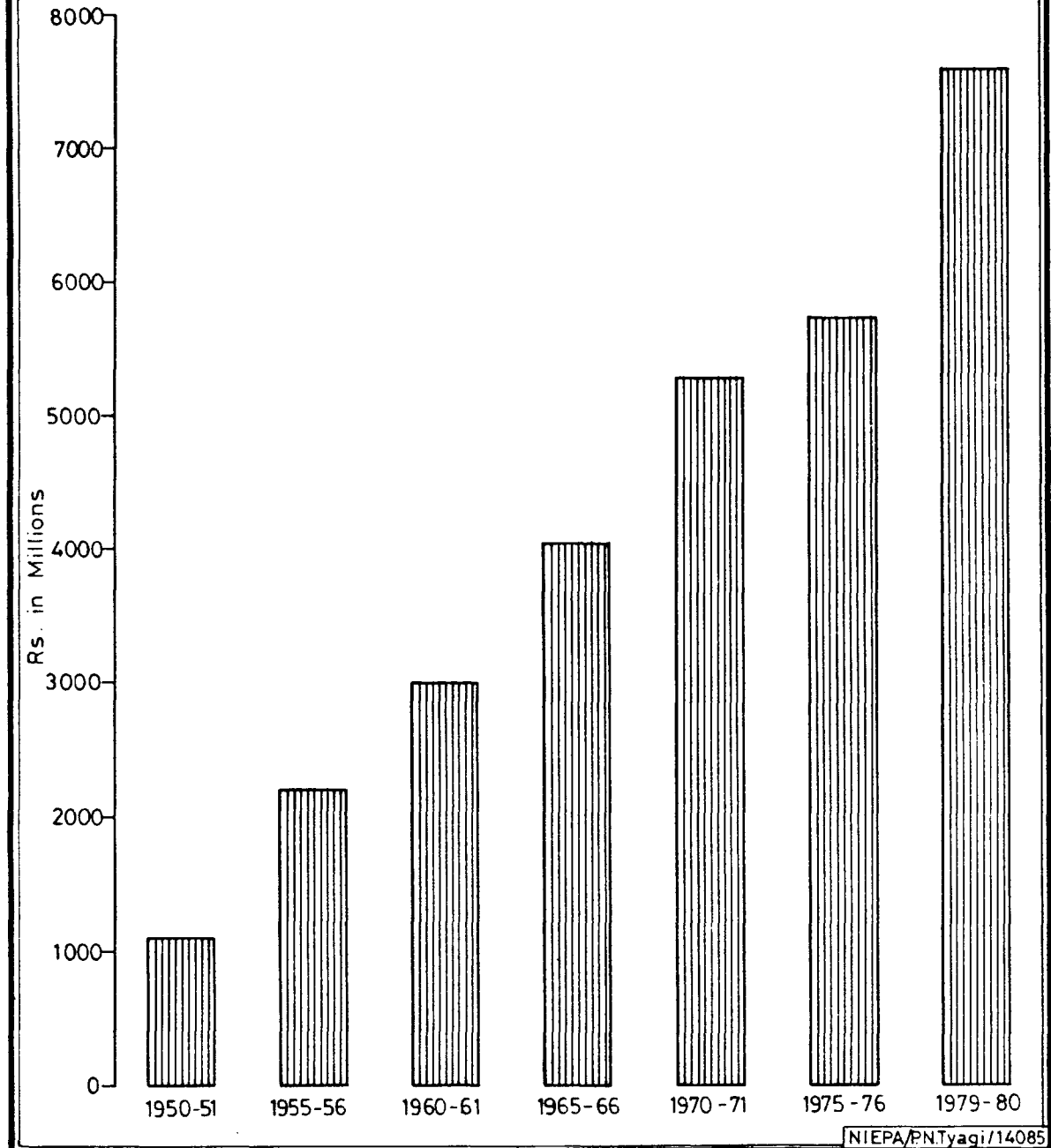
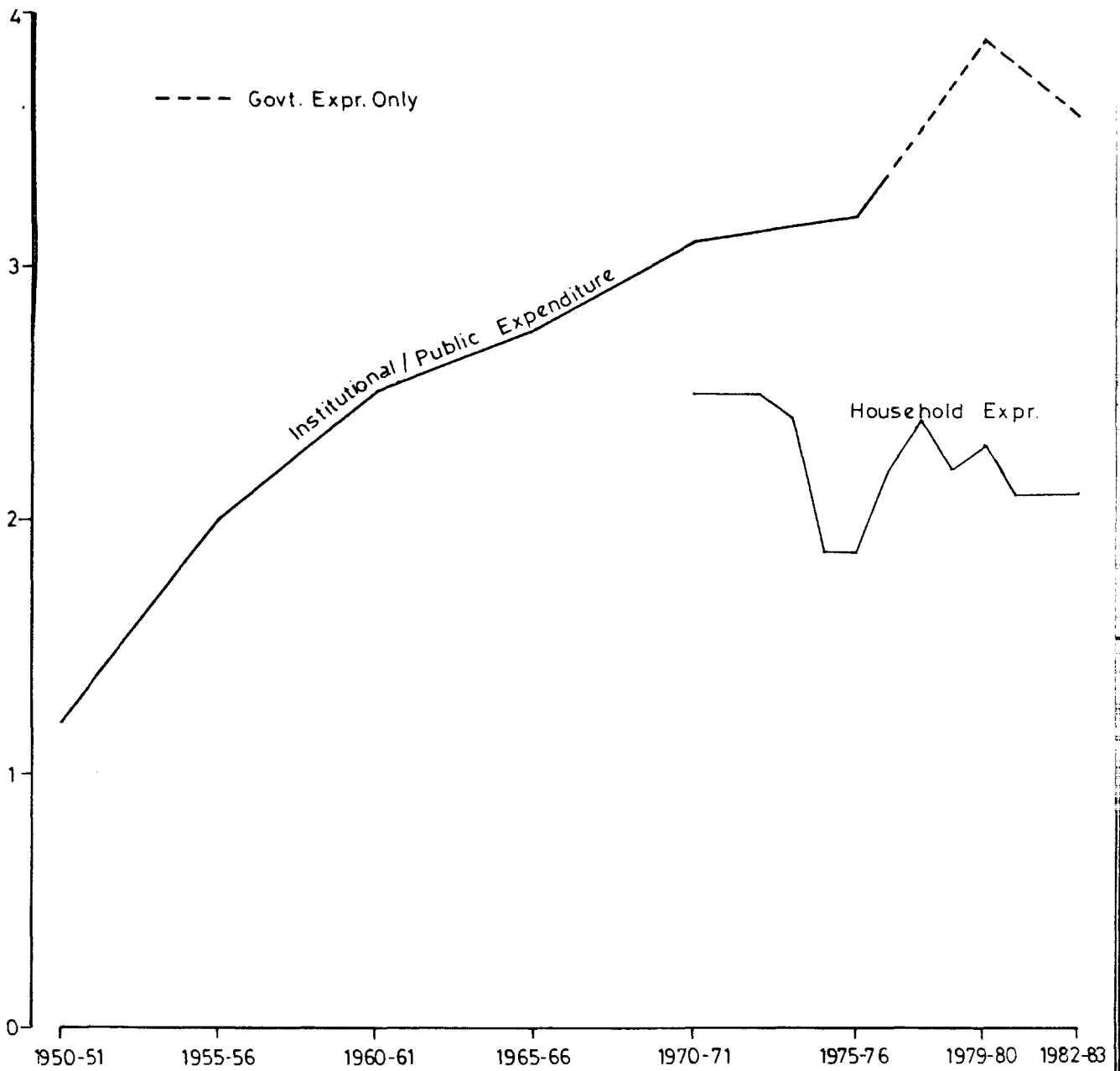


Fig. 1

GROWTH OF EXPENDITURE ON EDUCATION AS % OF GNP



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Fig. 2

The budget expenditure on education as a proportion of total revenue budget, has not increased substantially even at the state level, as we notice in Table 3, except in a few backward states like Bihar (the growth has been from 18.9% in 1960-61 to 30.0% in 1982-83), Orissa (from 12.8% to 23.6%) and Uttar Pradesh (from 14.5% to 20.6%). This is essentially because of a very low base at which these backward states started. In an equally good number of states, in fact, the proportion has declined. The most striking case is West Bengal where a decline by 10% points can be noted. Other states include Madhya Pradesh, Maharashtra, Jammu & Kashmir and Gujarat.

These figures as they stand may provide a seemingly distorted picture unless supported by one or two other related dimensions of these expenditures. Firstly, inflation played havoc with education systems, as Coombs (1985: 144) rightly observed.

TABLE 3

Educational efforts by States in India

State	Educational expenditure as % of SDP		Educational expenditure per Capita (Rs.)		Cost per pupil (Direct/Re-curring) (Rs.)		Budget expenditure on education as % of total (Rev.) budget	
	1960-61	1976-77	1961-62	1975-76	1960-61	1976-77	1960-61	1982-83
Andhra								
Pradesh	2.3	3.6	7.5	25	53.1	235	23.2	26.9
Assam	2.2	3.2	8.4	29	42.7	166	21.1	27.5
Bihar	2.3	3.1	5.2	17	32.9	150	18.9	30.0
Gujarat	2.5	3.6	10.1	41	66.0	254	23.4	23.1
Haryana	NA	2.5	NA	35	NA	234	NA	21.0
H.P.	NA	6.2	NA	65	NA	312	NA	23.0
J & K	2.2	4.1	8.4	40	55.4	232	16.3	14.8
Karnataka	2.6	3.6	9.0	35	46.7	187	21.2	23.5
Kerala	4.2	7.4	12.7	60	47.2	284	36.0	36.1
M.P.	2.3	3.5	7.4	37	63.5	202	24.2	20.3
Maharashtra	3.0	3.3	13.9	51	59.6	233	25.2	21.3
Orissa	1.9	4.1	4.5	26	28.9	189	12.8	23.6
Punjab	2.7	3.0	10.3*	60	64.8	261	20.6	27.3
Rajasthan	2.4	3.5	7.1	29	65.2	275	24.5	26.9
Tamil Nadu	2.8	4.4	11.4	37	51.1	198	23.3	26.4
Tripura	NA	5.3	-	49	NA	245	-	-
U.P.	2.2	3.5	6.0	27	54.3	149	14.5	20.6
W. Bengal	2.6	2.6	10.6	25	60.2	170	37.1	26.8
All India	2.5	3.2	8.8	35	53.7	211	22.5	24.3

* Includes Haryana

Source : Computed on the basis of Education in India and Budget Expenditure on Education (Various volumes).

The figures given above are at current prices and the apparently impressive picture gets belittled if they are converted into constant prices. During this period the whole-sale price index increased from 114 to 493 while the index of educational expenditure for 100 to 874. In other words, while the educational expenditure at current prices in

India registered a compound rate of growth of 12.5%, in real terms the rate of growth is only 6.7%.² The real growth in educational expenditure per head of the population has been only 4.5% and the same per pupil has been still less, 2.8% (Table 4). It may be noted that the Education Commission (1966) desired that total expenditure on education should increase to Rs. 40364 million by 1985-86 in 1965-66 prices from about Rs. 6000 million in 1965-66, i.e., at an annual rate of growth of 10%. A simple conversion of our figures into 1965-66 prices reveals that by 1979-80 we have reached the level of about Rs. 11700 million, at a deplorable pace of 3.4% per year. Similarly the Commission desired that per capita expenditure on education should increase from Rs. 12 in 1965-66 to Rs. 54 in 1985-86 in 1965-66 prices at an annual rate of growth of 7.7%; but we have reached the level of Rs. 18 by 1979-80 in 1965-66 prices at a rate of growth of 2.1%. It may be noted that in West Bengal the rate of growth in real terms is as low as 1.4% compared to 9.1% at current prices. Secondly, even though the educational expenditure as a proportion of GNP showed an increase during this period, this share is quite low when these figures are compared with those of the other less developed countries. e.g., it is 4.9% on average in African countries and 5.1% on average in Asian countries (Table 5). In some of developed countries like the Netherlands and Sweden it is as high as 9%-10%. Moreover, these proportions at national level and also the proportions in almost all states, excepting Kerala, Himachal Pradesh and Tripura, are far below the 6% norm specified by the Kothari Commission, and more importantly adopted by the Government of India in the National Policy Resolution of Education (1968).

TABLE 4

**Expenditure on education in India at current and constant
(1950-51) Prices**

Year	Total (Rs. in Millions)		Per Capita (Rs.)		Per Pupil (Rs.)	
	At Current Prices	At Constant Prices	Current Prices	Constant Prices	Current Prices	Constant Prices
1950-51	114	114	3.2	3.2	35.6	35.6
1955-56	190	221	4.8	5.6	42.7	49.7
1960-61	344	297	7.9	6.8	53.7	46.3
1965-66	622	406	12.8	8.4	70.0	45.7
1970-71	1118	531	20.7	9.8	141.7	67.3
1975-76	2105	577	34.7	9.5	230.1	63.2
1979-80	3500	764	52.8	11.5	368.5	80.4
Growth Rate (%)	12.5	6.7	10.2	4.5	8.4	2.8

TABLE 5

Expenditure on education in the world

	Expenditure on Education as % of GNP		Expenditure on Education Per Capita (US\$)	
	1970	1982	1970	1982
World Total	5.4	5.8	57	181
Africa	4.1	4.9	9	39
America	6.2	6.4	152	424
Asia	3.5	5.1	10	67
Europe (including USSR)	5.2	5.6	92	298
Oceania	4.3	5.8	103	490
Developed Countries	5.7	6.2	137	455
Developing Countries	3.3	4.3	7	40

Source : Statistical Year Book, 1984 (Unesco, Paris).

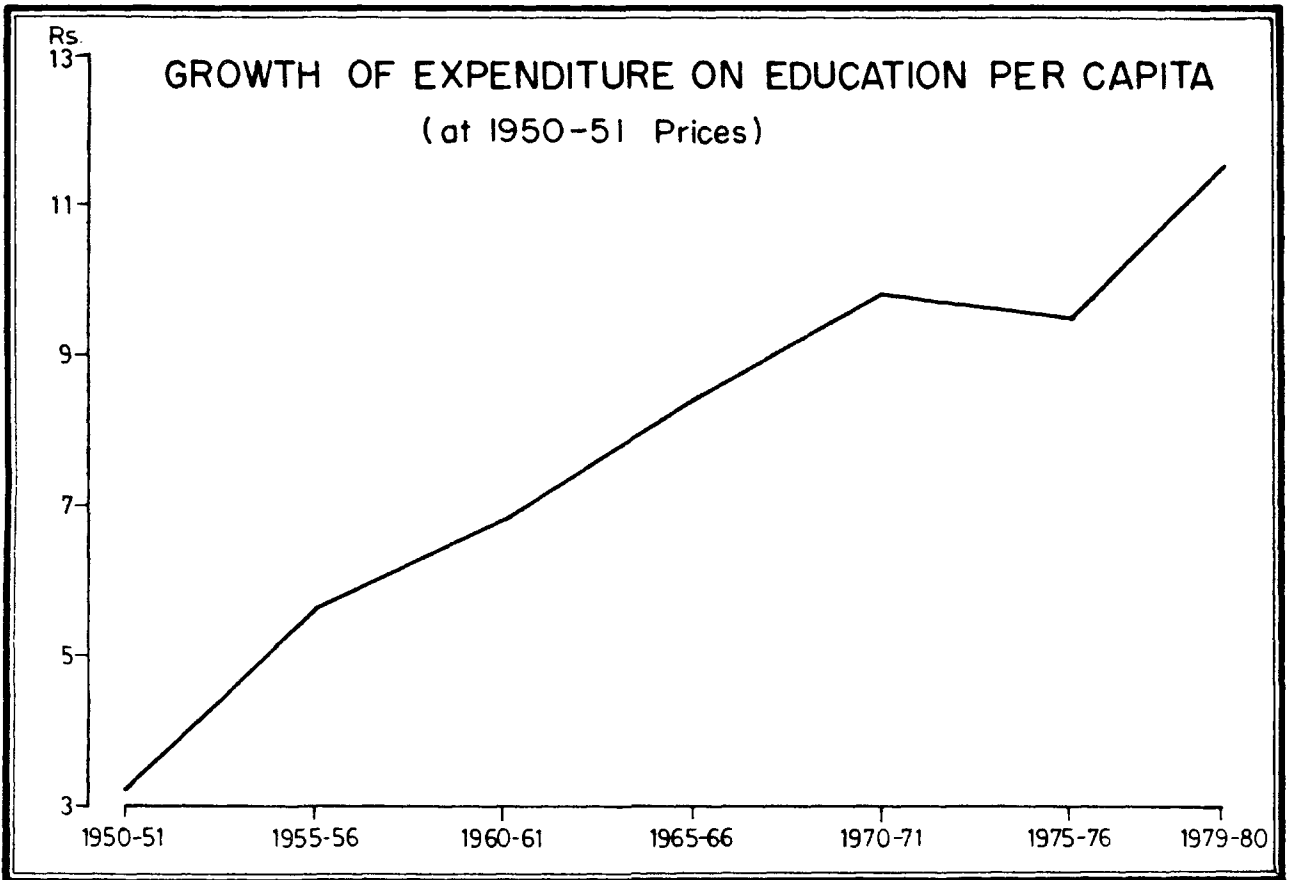


Fig. 3

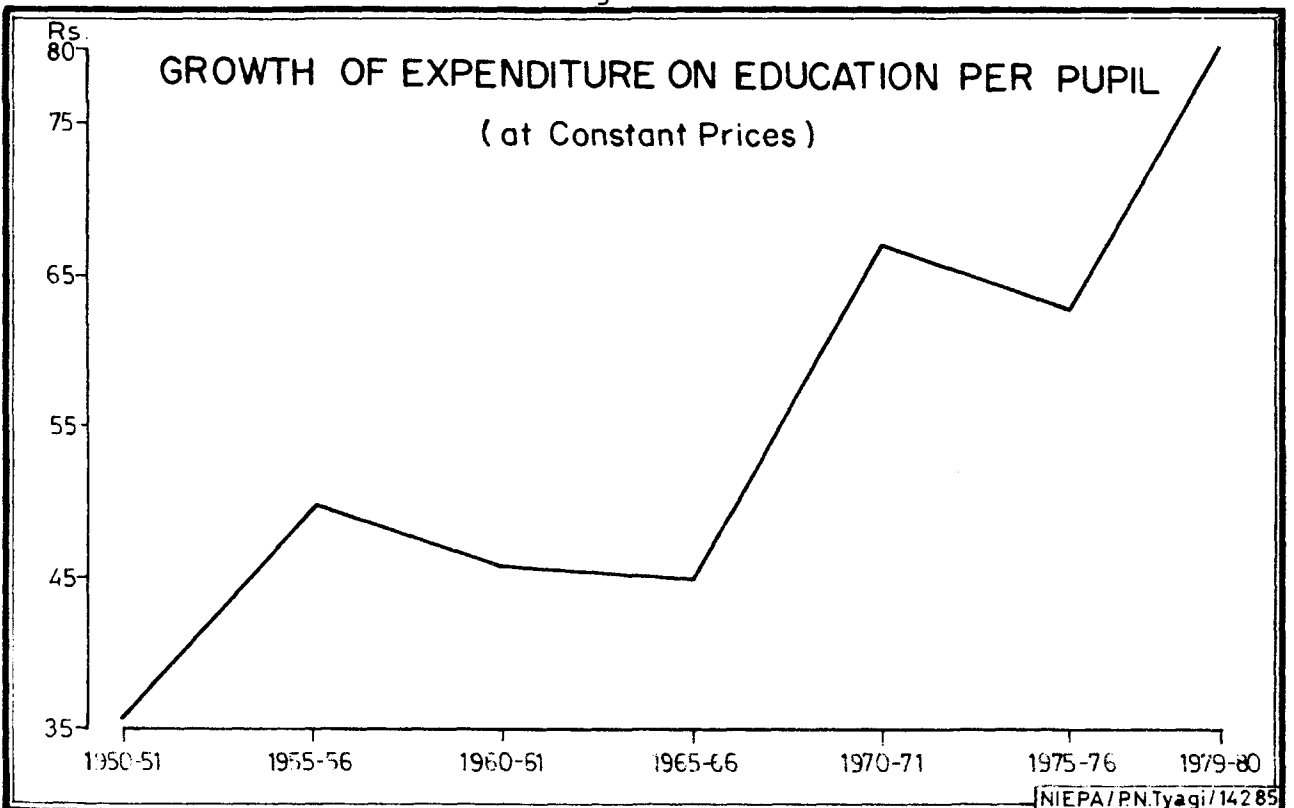


Fig. 4

It is not easy to explain the variations in the educational efforts of various states. It is not necessarily true that a state or nation invests more (or less) in education than others because it is economically rich (or poor). In fact the available evidence does not show any systematic pattern. For example, a state like Kerala which is economically a poorer state invests as high as 7.4% of her income on education (1976-77) and Punjab which has the highest per capita income invests about 3% of her state income, and Haryana the second richest state 2.5%. Even states like Rajasthan, Uttar Pradesh, Bihar, Assam, Andhra Pradesh and Orissa whose per capita incomes are about half or less than half of that of Punjab invest a higher proportion of their incomes on education than Punjab. The co-efficient of rank correlation between the two (for the 17 major states) is not only small, but also more importantly negative : it is -0.2678. As Coombs (1985:164) aptly concludes, "the priority a particular society attaches to education in comparison to other public goods and services is most strongly influenced by that society's cultural background and traditions, its present goals and aspirations, and not least of all, the nature of its political system and climate. With other things being equal, some societies, including some of the poorest will undoubtedly invest considerably more of their scarce resources in education than other societies" (emphasis added).

2.2 Source of Educational Finance

Education sector receives finances from multiple sources: governmental and non-governmental. This is essentially necessary because of the very characteristics of education. In centrally planned or socialist economies, education is fully financed by the state, as in these economies education is a social necessity and a form of social investment. In purely competitive market economic systems education is financed fully by the private sector. These are extreme cases. On the other hand, in most economies, as most of them (particularly most of the non-socialist economies) are mixed economies, the public and private sectors necessarily coexist and fund the education system together (Tilak & Varghese, 1985). As education is a public merit good and as market mechanism cannot succeed in providing it due to (a) 'public goods', (b) consumer ignorance, (c) technical economies of scale, (d) externalities in production and consumption and (e) inherent imperfections in the market (Blaug & Mace, 1983), state has to intervene and invest in education (West, 1965). Besides, education being a long term investment, benefits from which flow after a long gestation period, private sector may not be

ready to make optimum investment in education. Hence, state's share in funding education would be more than that of the private sector particularly in developing countries like India than in developed countries (Lewin et al., 1982). In India the share of the government sector has increased to as high as 85% of the total education finances by 1980-81.

The various sources of finances for education in India can be classified as follows: (a) governmental sector: (i) Central government, (ii) State government, and (iii) Local government/bodies (Zila Parishads, Municipalities and Panchayats), and (b) Private/non-governmental sector: (i) Students/parents, e.g., fees, maintenance costs, and (ii) rest of the community, e.g. endowments and donations.

We do not have sufficiently reliable data at the macro level on maintenance costs incurred by the students/parents, and hence most analyses of educational finances were confined to the rest of the ones given above and the aggregate is referred to as total educational finances. But to ignore these household costs is too costly for educational planning in the long run (Tilak & Varghese, 1985). To briefly note, the maintenance expenditure, including fees met by households, which can be called household investment in education has increased from Rs. 8960 million in 1970-71 to Rs. 25680 million by 1982-83 at an annual rate of growth of 9.2% and quite interestingly in real terms there is absolutely no increase between 1970-71 and 1982-83, even though there are ups and downs in between. As a proportion of GNP it has declined from 2.5% to 2.1% during this period (Table 6), and as per capita in real terms it declined from Rs. 16.6 in 1970-71 to Rs. 12.6 in 1982-83. These figures, along with the figures on institutional (public) investment further indicate that households respond more promptly than public bodies to educational needs (Schultz, 1981). The income elasticity of expenditure by the households is much higher than that by the institutions (Tilak, 1985-b).

TABLE 6

Household expenditure on education in India

	Total (Rs. in 10 millions)		Per Capita (Rs.)		Total as % of GNP
	At Current Prices	At 1970-71 Prices	At Current Prices	At 1970-71 Prices	
1970-71	896	896	16.6	16.6	2.5
72	992	930	17.9	16.8	2.5
73	1092	964	19.3	17.0	2.5
74	1280	1034	22.1	17.9	2.4
75	1171	846	19.7	14.3	1.9
76	1253	844	20.6	13.9	1.9
77	1597	927	25.7	15.0	2.2
78	1515	866	23.9	13.7	2.4
79	1523	790	23.5	12.2	2.2
80	1712	812	25.8	12.2	2.3
81	1928	817	28.4	12.0	2.1
82	2163	843	31.2	12.1	2.1
1982-83	2568	896	36.2	12.6	2.1
Rate of Growth %	9.2	Zero	6.7	-2.4	

Source : Based on National Accounts Statistics 1970-71 to 1979-80 and 1970-71 to 1982-83 (New Delhi, Central Statistical Organisation)

Of the total educational finances, excluding the household expenditure, the share of the central and state governments has increased from 57% at the inception of planning in the country to 80% by 1980-81. The share of every other sector declined. In the federal system with decentralised planning, local governments like Zila Parishads, Panchayats, etc., being the micro units of planning have a significant role to play in the development of education but the financial share of the local bodies in the total educational finances declined from 10.9% to 5.0% during the same period. Fees used to contribute to 20% to 30% of the total income of the education sector during the pre-independence period. But it too declined to 12% in 1980-81 from about 20% in 1950-51. In earlier days no elaborate

organisation for educational finances existed in India. Education was largely funded by individuals and religious organisations in the form of voluntary contributions like donations and endowments. Even at the beginning of the present century such contributions used to account for about 1/4 of the educational bill (Misra, 1962). But by 1950-51 the figures came down to 11.6% and within three decades it became almost insignificant, touching as low a figure as 3% (Table 7).

The steep increase in the role of the government and relative fall of all other sources in financing education in the independent India are not totally un-understandable. Infact, it is in conformity with the general "law of ever-state increasing activity" working in several countries of the world. Further, specifically in India, educational facilities available in the pre-independence period were insignificant. Independence had created an abnormal increase in the social demand for education and the government has to share the responsibility in a big way. Secondly, building a new socio-economic system after the end of the colonial rule required large scale manpower with varied skills. So the government could not but expand educational investment. Thirdly, government policy towards equality in education led to the growth in educational expenditures, since it involves huge subsidies to students particularly belonging to weaker sections (Tilak, 1980-a). Thus it seems that public expenditure on education has increased in India during the post independence period to meet the social demand for efficiency and for equity.

TABLE NO.7
Source-wise contribution of resources to education in India
(Percent)

	1950-51	1960-61	1970-71	1980-81
Government Sector				
Central and State Governments	57.1	68.0	75.6	80.0
Local Governments (Zila Parishads, Municipalities, Panchayats)	10.9	6.5	5.7	5.0
Private Sector				
Fees	20.4	11.2	12.8	12.0
Endowments etc.	11.6	8.3	5.9	3.0
Total	100.00 (1140)	100.00 (3444)	100.00 (11183)	100.00 (46875)*

Note : * Estimate; () Rs. in millions

Source : Education in India Vol. 1 (Various Years); and
Planning Commission for 1980-81.

It is to be noted that the contributions of all the sources in absolute terms increased almost at the same rate of growth of around 10%, but the relative shares of non-governmental sources significantly declined (Tilak, 1980-a). This is because with respect to all the above aspects the private sector could not keep up with the pace required even though there has been a positive rate of growth in their contributions, and as such the government has to take the major responsibility.

Among the major states in India we find only 3 states where the relative share of the government to total educational finances declined during 1960-61 to 1976-77 (Table 8). In Uttar Pradesh the share of the government sector came down to 50% by 1976-77 from 59% in 1960-61, in Gujarat, from 86% to 71% and in Rajasthan from 84% to 82%. In all other states, there has been a significant increase in the

share of the government. It is noteworthy that 30% of the educational bill in Uttar Pradesh is met by the local bodies, while the share of the local bodies is practically nil in several other states. In every other state the share of the local bodies and also of fees and other sources showed steep decline.

TABLE 8
Educational finances by sources in India, 1960-61 and 1976-77
(percent)

States		Govt.	Local Bodies	Fees	Other	Total	
Andhra Pradesh	A	65	14	13	7	100	(257)
	B	87	1	6	6	100	(1551)
Assam	A	76	Negl.	18	6	100	(90)
	B	85	1	10	4	100	(481)
Bihar	A	71	2	19	8	100	(226)
	B	81	-	9	10	100	(1405)
Gujarat	A	86	7	20	7	100	(190)
	B	71	12	11	6	100	(1529)
M.P.	A	82	4	8	6	100	(202)
	B	88	Negl.	7	5	100	(1108)
Tamil Nadu	A	64	12	13	11	100	(318)
	B	80	6	6	8	100	(1859)
Maharashtra	A	61	9	21	9	100	(489)
	B	69	15	11	5	100	(2697)
Karnataka	A	72	3	12	12	100	(177)
	B	79	Negl.	6	15	100	(1164)
Orissa	A	76	3	9	12	100	(75)
	B	86	3	5	6	100	(689)
Punjab	A	70	Negl.	19	10	100	(188)
	B	81	-	13	6	100	(918)
Rajasthan	A	84	Negl.	9	6	100	(127)
	B	82	4	7	7	100	(953)
Uttar Pradesh	A	59	7	23	11	100	(397)
	B	50	30	14	6	100	(2799)
West Bengal	A	62	3	27	7	100	(341)
	B	70	5	15	5	100	(1601)
All India	A	68	7	17	8	100	(3443)
	B	75	10	10	5	100	(23103)

Note : () Rs. in Millions; A: 1960-61; B: 1976-77

Source : Education in India 1960-61 and 1976-77.

While it may require a detailed investigation into the role of local bodies in education in Uttar Pradesh, it is felt that the figure 30% reflects more an accounting procedure, rather than the actual role of local bodies in financing education. Rather it is observed that 30% includes large amounts of resources transferred by the state government to local bodies. The resources generated actually by the local bodies (from non-governmental -- centre and state -- sources) may be very small. All this is indicative of the system of flow of resources in the state, from the state to local bodies, rather than of the efforts of the local bodies in mobilising resources for education.

While government funded education can be welcomed as it provides equal access to education for all, such a pattern of financing education has serious implications. The contribution of fee being rather insignificant at almost all levels of education and the government footing the educational bill almost totally, education in India turned out to be relatively 'free' for all, if we ignore the private maintenance cost and the opportunity cost. Further, education system caters to the needs of relatively better-off families and this is particularly more true at increasing levels of education. Then it is obvious that educational expenditure, like the major part (90%) of government expenditure, is financed from indirect taxes which are paid mainly by the poor majority. In such a context, education system becomes highly regressive transferring the resources from the poor to the rich. Hence, there is need for changing the pattern of financing education.

It is now being realised that the government's capability in funding education has reached a saturation point relatively, and at the same time private sources cannot be reckoned as major reliable sources. All this suggests the need for a search for non-traditional sources of finances for education.

2.3 Allocation of Resources to education

Despite such a rapid growth in the resources allocated to education in general and that made by government in particular, it is increasingly argued that the resources are not only inadequate but also that the pattern of allocation of resources has been creating more problems than solving them. What is the pattern of allocation of resources?

Government resources flow into the educational sector in India in the form of (a) plan resources and (b) non-plan resources. Plan resources are invested in the further development of education including marginal expansion of the system such as construction of new buildings, recruitment of new teachers, facilities for new enrolment, expenditure on innovations, etc. and non-plan expenditure denotes maintenance expenditure incurred on the existing educational infrastructure. Small plan outlays get translated into huge non-plan outlays at the end of each plan. While the plan expenditure sets the direction for future development, non-plan expenditure maintains the existing structure. The non-plan expenditure constitutes more than 4/5 of the total expenditure and it has increased at a rate of growth of 14.8% per annum during 1950-51 to 1980-81 (Table 9). In contrast, the plan expenditure forms a small percent, about 15%. However, the rate of growth is 11.5% per year. It is obvious that if we convert these figures into constant prices, the absolute figures and the rate of growth would be reduced significantly, even though their relative position remains the same.

2.3.1 Plan Expenditure

Plan expenditure on education in India has shown a rapid rise since the inception of planning in the country. The absolute provision of outlays for education multiplied more than 16 times since the first five year plan. The first plan invested Rs. 1530 million on education. This figure rose to Rs. 2730 million in the second five year plan, to Rs. 5890 million in the third plan, to Rs. 7860 million in the fourth plan, to Rs. 9120 million outlay in the fifth plan, to Rs. 2524 million in the sixth five year plan and to as high as Rs. 6383 million in the draft seventh five year plan (1985-90). Thus, it seems that increasingly larger resources are being allocated for education (Table 10). But when we look at the problem in real prices, expenditure on education declined from the third five year plan onwards up to the fifth five year plan.³ The expenditure on education in the fourth five year plan was less than 4/5 of the expenditure in the third plan and the expenditure in the fifth plan was about 3/4 of the expenditure in the fourth plan. It is only in the sixth plan this trend was reversed and the expenditure in the sixth plan (expenditure in the first four years and outlay for the final year) is likely to be about double the expenditure in the fifth plan and is slightly above the expenditure in the third plan in real terms; and the outlay in the seventh plan is about 1.8 times the outlay in the sixth plan.

TABLE 9

Plan and non-plan expenditure on education in India

(Rs. in 10 millions)

	Plan Expenditure		Non-Plan Expenditure		Total	
1950-51	20	(28)	51	(72)	71	(100)
1960-61	90	(38)	144	(62)	234	(100)
1965-66	178	(41)	259	(59))	437	(100)
1970-71	115	(14)	731	(86)	846	(100)
1973-74	225	(17)	1086	(83)	1311	(100)
1977-78	324	(14)	1991	(86)	2315	(100)
1978-79	413	(16)	2245	(84)	2658	(100)
1980-81	520	(14)	3226	(86)	3746	(100)
Rate of Growth %	11.5		14.8		15.0	

Source : J.B.G. Tilak (1984) 'Centre-state relations in financing education in India', Occasional Paper No. 5 (NIEPA, New Delhi)

TABLE 10

Expenditure on education in the five year plans

(Rs. in 10 millions)

	In Current Prices	at constant (1970-71) Prices	% of total Plan outlay
First Five Year Plan	153	304	7.86
Second Five Year Plan	273	526	5.83
Third Five Year Plan	589	966	6.87
Fourth Five Year Plan	786	764	5.17
Fifth Five Year Plan	912	585	3.27
Sixth Five Year Plan	2835*	1047	2.59
Seventh Five Year Plan ⁺	6383	1894	3.55

Note * Includes 'actual' expenditure for the first 3 years, 'revised' expenditure for 1983-84, and outlay for 1984-85.
+ Outlay (draft)

The share of educational sector in the total plan expenditure has been consistently declining 7.86% in the first plan, 5.83% in the second plan, 6.87% in the third plan, 5.0% in the fourth and 3.2% in the fifth plan. The proportion is as low as 2.6% in the sixth Plan. It is being proposed only now to reverse this trend in the seventh plan. Thus, not only has the relative importance given to education in the plan expenditure gradually declined, but also the relative share of education in any Five Year Plan has been the lowest, despite the hymns sung in praise of education in every plan document (Tilak, 1977). The closest figure is 5.7% allocated to transport and communications in the sixth five year plan. All the major sectors received more than 5 times the allocation made to the education sector.

It would be very interesting and useful to understand the mechanism (if there is any) of allocating resources for education in the plans. Ideally, resources are allocated for any sector, including education, either on the basis of investment effectiveness (say the rate of return consideration) or on the basis of manpower requirements or on the basis of national commitment to education. Our commitment to education has been expressed in clear terms at several places, starting from the constitution and the Five Year Plans to several official pronouncements (Tilak, 1977). In some advanced

capitalist countries resource allocation in education might be based on social demand criterion or rate of return; and in planned economies on the basis of manpower planning. A quick review of Indian experience reveals that no scientific criterion is being strictly adhered to in the country (Tilak, 1980 - b, & 1983) nor our explicit commitment and planned efforts match. For instance, the approach to the fifth five year plan based on the recommendations of the working group on education, proposed an outlay of Rs. 32000 million for education for the five year plan. The Draft plan fixed the allocation at Rs. 17,260 million (54% of the Approach proposal). In the final plan document the allocation was reduced to Rs. 12,850 million (40% of the approach proposal and 75% of the draft proposal) and the actual expenditure on education during the four years of the Plan (1974-78) was of the order of Rs. 9120 million. Even if we assume that the annual expenditure in the fifth year of the Plan, if allowed, would have been Rs. 223 million, one fourth of Rs. 9120 million, the total plan expenditure on education would have been 36% of the approach proposal, 66% of the draft proposal and 89% of the plan allocation. A bunch of important question that arises in this context needs to be thoroughly investigated. Some of these questions are : (i) what is the actual mechanism of allocation of plan resources for education? (ii) what is the rationale behind such a drastic cut in the outlays particularly when inflationary trends are on? Does such a reduction in monetary outlays not result in more than visualised reduction in real resources? and (iii) lastly, what projects are dropped on scaled down and in which parts of the country. No plan document provides answers to any of these questions. Similarly in the sixth five year plan, the Planning Commission approved an outlay of Rs. 25240 million (Rs. 7350 million in the central sector and Rs. 17890 million in the state sector), while the Ministry of Education proposed Rs. 36020 million (Rs 8910 million in the central sector and Rs. 27110 million in state sector). The working group on education, however, recommended Rs. 18350 million in the state sector. Similarly in the draft seventh plan, as against the recommendation of the Working Group for Rs. 154400 million Rs. 63830 million, i.e., about two - fifths are allocated. It is obvious that if any scientific criteria formed the basis for initial allocation, a cut in the allocation would not be possible later, except when physical targets are also reduced.

Thus it is clear that resources allocated for education in five year plans are mere crude figures, if not magic numbers. It is further necessary to note that, as the outlays are seemingly not based on any cost calculations and projections, they are inadequate for the targets laid down in the Plan. For instance, let us see the sixth

five year plan. The plan allocated Rs. 9050 million for early childhood and elementary education. The same plan aims at enrolling additionally 18 million children in primary and middle classes on full-time basis by the end of the Plan. Assuming a 'smooth expansion' over the plan period, it would not be far off the mark to estimate that Rs. 7900 million would be required merely to meet this target of full-time enrolment at the same pathetic standard of facilities as at present. (The total educational expenditure on elementary education in 1979-80 from Central and State budgets was Rs. 12510 million. The total enrolment in these classes during the same period was 90 million. The annual cost per pupil works out to Rs. 145). It is important to note that the plan does not suggest any alternative strategies of reducing cost per pupil, nor does it compromise on physical targets. Thus we are left with Rs. 1150 million for five years for early childhood education, to meet the needs of quality improvement, additional incentives, non-recurring facilities, etc., for 100 million children in primary and middle classes, i.e., Rs. 2.13 per child per annum. A teacher with 40 children can spend Rs. 85 a year to improve buildings and to do all those great things that our educationists want the teachers to do. It is rightly concluded that "it seems obvious that the various strategies proposed in the Sixth Plan would be starved of funds, unless qualitative targets are lowered, perhaps through phasing, through delays, or through poor implementation. This is possibly what happens in plan after plan, in reality and in practice, if not in official figures of enrolment. But as this necessary compromise occurs at the operational or implementation stage rather than at the design stage, it can hardly be expected to add to morale or to efficiency or to contribute to sound planning. It is clear that the problems of financial resources must be faced squarely as the most urgent problem in education" (Veeraraghavan, 1982).

In the same context, another point is to be noted. That is with regard to the year-wise allocation of resources in the plan allocation of the five year plan outlay between the five years of the plan period. In ideal conditions, one expects that about one-fifth of the five year plan outlay will be allocated for each year of the plan. But in general, during the first two years disproportionately small amounts are allocated and in the last one or two years disproportionately larger amounts are allocated resulting in temporal imbalances of allocation of resources during the five year plan period. For example, in the first year of the sixth plan 12% of the total educational expenditure of the plan was spent; in the second year 15% and in the third year 19%. It is only in the fourth year 24%

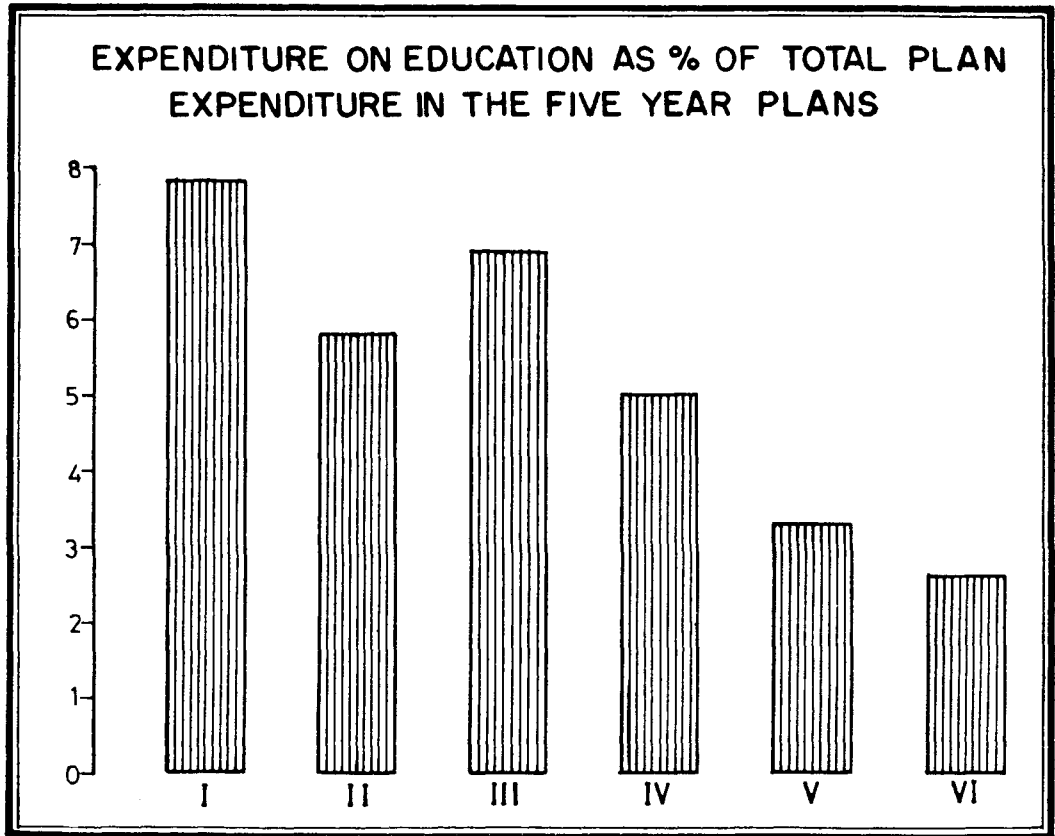


Fig. 5

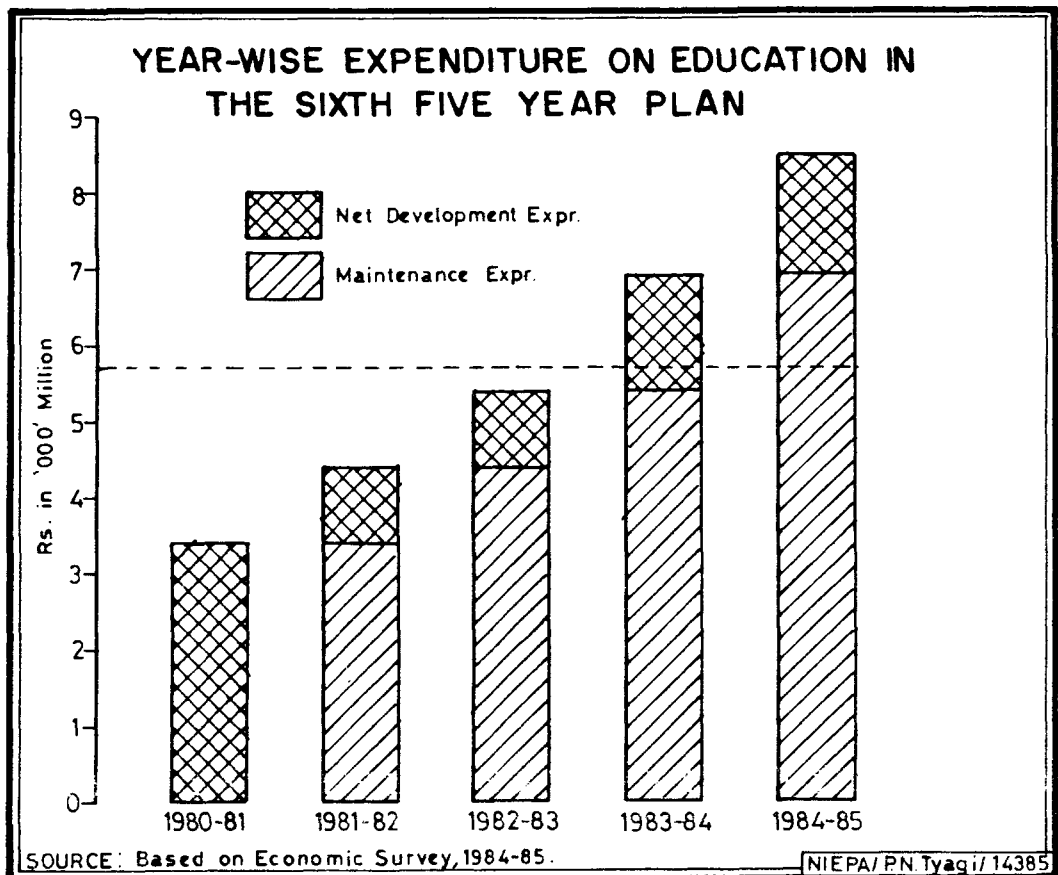


Fig. 6

of the total was spent, and in the final year of the plan, as the deficits of the earlier years are to be covered, as high as 30% was allocated. Even in earlier five year plans the bulk was spent during the last two years of each plan period. For instance, in the first plan period 31% of the plan expenditure was spent in the last year. The corresponding proportion was 33% in the second plan and 30% in the third plan. In contrast, in the first year 13% was spent during the first plan, as low as 9% in the second plan, and about 12% in the third plan. "The expenditure on plan schemes gained momentum towards the end of each plan" (Paadit, 1976: 11).

Basically, why the total five year plan outlay is not equally allocated in the five years? One possible explanation is as follows: if the allocation in the beginning year of the plan is less, i.e., disproportionately less development activities are initiated, their corresponding maintenance costs which are anyhow called plan expenditure until the end of the five year plan would be less. On the other hand, when large chunks are allocated in the fourth or fifth year of the plan period, their maintenance costs would not be felt, because by the end of the plan the whole expenditure becomes non-plan expenditure. The whole mechanism throws light on one important aspect: the year-wise allocations being an increasing function of time, the net development expenditure in the five year plan would be of a higher order, rather than in the case when the total allocation is equally distributed. e.g., in the sixth plan, the net development expenditure, gross-minus maintenance expenditure (cross shaded are in Figure 6) amount to Rs. 8386 million. (This is however more true, if we assume that total plan expenditure is on items like additional teachers, maintenance expenditure in a year on whom would be equivalent to the plan expenditure in the preceding year.) On the other hand, if the total outlay was equally distributed, such development expenditure would have been only Rs. 5671 million. However if more or less one-fifth of the total outlay was allocated in the first year itself, the development schemes on which it was spent would be firmly put on the ground within the plan period itself and their continuity would be more assured. Secondly large scale allocation at the end of the plan period may also not allow proper utilisation or under-utilisation of plan outlays.

We note the same from Table-11. Many a time the actual expenditure in a five year plan turns out to be much less than the allocation made in the beginning of the plan. Except in the third five year plan expenditure had always been less than the outlay allocated. The difference was about 10% in the first five year plan

and was of the same order in the fifth plan after adjusting the total outlay for a four year period. Another exception may be the sixth five year plan. All this is quite surprising, particularly when it is argued that the plan outlays themselves are inadequate for the education system. This may partly be due to the pattern of time phasing of the plan outlays, discussed above. Mishra (1985) also makes a similar point with respect to the several stages in the preparation of the educational budgets: "a common tendency of budget makers in respect of education general ... has been over the years to under estimate in the beginning of the year, over estimate during the middle of the year and end up actual expenditure less than the revised estimate." All this basically reflects the inaequancies in the planning machinery, in translating the five year plans into annual plans and in executing them.

TABLE 11

Outlay for and expenditure on education in the five year plans

(Rs. in 10 Millions)

Plan	Outlay	Expenditure	Column (3)-(2)	Column (4) as % of (2)
1	2	3	4	5
First Five Year Plan	170 (7.2)	153 (7.9)	17	10.0
Second Five Year Plan	277 (6.2)	273 (5.8)	4	1.4
Third Five Year Plan	560 (7.5)	589 (6.9)	-29	-5.2
Fourth Five Year Plan	822 (5.2)	786 (5.0)	36	4.4
Fifth Five Year Plan	1284 (3.3)	930 (3.2)	354	27.6
Sixth Five Year Plan	2524 (2.6)	2835 (2.6)	-311	-12.3

Note : () % total plan outlay/expenditure

Source : A Handbook of Education and Allied Statistics and Economic Survey 1984-85.

2.3.2 Non-Plan Expenditure

All this presents a partial picture because education budgets are largely maintenance budgets, plan expenditure forming a small part of the total expenditure on education and the one that forms a large chunk, i.e., the non-plan expenditure is excluded from discussion until now.

The distribution between the plan and non-plan expenditure is found to be sound in principle; but in practice it is found to be creating several problems, essentially because of their inadequate definitions. For example, how to distinguish between a new building for a new school and a new building for an old school? Should the latter be treated as plan expenditure? The existing practice does. The result is provision of even any minimum facility to an existing under-poverished school is never treated as a committed expenditure, and as a 'commitment'. For instance, even though the Eighth Finance Commission was convinced of the argument and gave awards for construction of buildings for the existing un-poverished primary schools, the Planning Commission termed it as plan expenditure, and included it in the outlay for the seventh five year plan. In fact all resources, including resources for expansion, needed to maintain the same enrolment ratios, involving rise in enrolments, in the schools should be treated as a commitment or non-plan expenditure. Such an approach would be more meaningful and helpful particularly in the context of universalisation of education. Resources required for increasing the enrolment ratio may be treated as development/plan resources (NIEPA, 1983).

Let us examine the trends in the distribution of plan and non-plan outlays between the union government and the states. During the first three five year plan periods the share of the Central Government in the total plan outlay for the education has been of the order of 25%. During the fourth and the fifth plan periods this figure increased to one-third. In the sixth plan the share of the central government was reduced to 30% (Table 12). After the educational sector was brought into 'concurrent' list from the 'state' list, one expects that the share of the central government would increase in the educational outlays. The marginal decline in the share of the central government in the sixth five year plan (which is incidentally the first five year plan of the Congress government after the Constitutional amendment) belies such expectations. The earlier criticism that there was only physical (or non-financial) concurrency

in education and that there was no real financial concurrency perhaps still holds good (Tilak, 1984). The Draft Seventh Plan attempts at correcting this anomaly. Even when we consider the plan and non-plan expenditure, we note not an altogether different picture. Contribution of the state governments far exceeds that of the central government at any time during the post-independence period. Until the third plan, the share of the central government had been on a rapid increase, from 6.8% in the first plan to 17.5% in the second plan and to nearly one-fifth, i.e., to 20.1% in the third plan. On the basis of this limited evidence only, Pandit (1976:7) concluded that "the burden of financing has been shifting to higher tiers of government. In fact, the management of educational finance has become a significant function of the central government". But the latter developments proved that this was not true. From the fourth five year plan onwards, the contribution of the central government has been less than 10%, the remaining 90% being the states' contribution (Table 13).

Resources also flow from government in two forms - in the revenue account of the budget and in the capital account. While in the revenue budget the share of education sector is reasonably large, in the capital budget the share of education is infinitesimally small, the net result being pushing down the share of education in the total budget. But most analyses are confined to revenue budget only and give the impression that larger allocations are being made for education in the budgets. For instance, it is generally argued that nearly a quarter of the budget goes for education. This is true with respect to only revenue accounts of state budgets. If we take into account central and state budgets, both revenue and capital accounts, the total budget resources available for education form just 8.8%. Further, we also notice that while in the central budget the share of education sector is only 1.8% it is nearly 18% in the budgets of the states and union territories (Table 14; see also Table 2).

TABLE 12

Contribution of centre and the states to educational finance
in India (%) (plan expenditure)

Plan	Central Government	State Government	Total
First Five Year Plan	26	74	100 (153)
Second Five Year Plan	25	75	100 (273)
Third Five Year Plan	26	74	100 (589)
Fourth Five Year Plan	33	67	100 (823)
Fifth Five Year Plan	32	68	100 (1235)
Sixth Five Year Plan	29	71	100 (2524)
Seventh Five Year Plan*	37	63	100 (6383)

Note: Figures in () are Rs. in 10 million.

Source : Five Year Plans (Various volumes)

TABLE 13

Centre-state partnership in financing education
(Plan and non-plan expenditure)

(Per cent)

Period	Central Government	State Government	Total
First Five Year Plan	6.8	93.2	100 (4146)
Second Five Year Plan	17.5	82.5	100 (8496)
Third Five Year Plan	20.1	79.9	100 (16554)
Fourth Five Year Plan*	8.0	92.0	100 (56430)
Fifth Five Year Plan*	8.5	91.5	100 (89385)
1976-77	9.0	91.0	100 (23488)
1977-78	8.6	91.4	100 (27191)
1978-79	9.3	90.7	100 (29597)

Note : * Onwards Revenue Account only

** 4 Year period, i.e. upto 1977-78

Figures in () are Rs. in million.

Source : J.L.G.Tilak (1984) : "Centre-state relations in financing education in India, NIEPA Occasional Paper No. 5 (New Delhi).

TABLE 14

Budgeted expenditure on education by education and
other departments, 1982-83

	Expenditure (Rs. in 10 million)	% of total Budget
Centre		
Revenue	558.0	2.4
Capital	0.1	0.0
Loans and advances	3.0	0.0
Total	561.1	1.5
State & Union Territories		
Revenue	5178.3	24.7
Capital	45.4	1.1
Loans and advances	6.3	0.2
Total	5230.0	18.0
Total		
Revenue	5736.3	13.0
Capital	45.6	0.5
Loans and advances	9.3	0.1
Total	5791.1	8.8

Source : Analysis of budgeted expenditure on education 1982-83 to 1984-85, (New Delhi, Ministry of Education, 1985,) p.4

It may also be noted that the centre's pattern of allocation of resources to the states either through the Planning Commission or through the Finance Commission has not been taking into account the educational needs or economic capabilities of the states. This is clear when we glance through the state-wise approved outlays for education in the five year plans, or the awards of the Finance Commissions on the one hand, and educational development (or under development) of each state and state income on the other. It is found that in either case the allocations are highly random and adhoc in

nature (Tilak, 1984), defeating the very purpose of central intervention in financing education. An important objective of central intervention in finances is, after all, centre-state equality in educational efforts, the latter indicated by expenditure on education per capita or per pupil. The centre has to distribute the resources out of the collective pool, essentially keeping in view of the interests of the backward states, so that we move towards overall equality in education development. This is, after all, a basic principle of financing in a federal framework.

2.4 Intra-Sectoral Allocation of Resources

Until now we are confined to the allocation of resources to education as a whole. Intra-sectoral allocation of resources within education, i.e., between different levels of education is as important as the one discussed until now. Of the three principles of allocation of resources to education generally discussed, viz., manpower requirements criterion, rate of return, and the principle of social demand, it is widely felt that rate of return criterion is a useful tool particularly in the context of intra-sectoral resource allocation. The abundant research that is available on this aspect clearly indicates that returns to lower levels of education are higher than to higher levels of education suggesting allocation of more resources for lower levels of education. Few policy planners in India and in many countries of the world paid due attention to rate of return estimates (Tilak, 1982). There is also abundant research to support the investment in lower levels of education contributes more to income distribution and reduction in poverty, besides to economic growth, compared to investment in higher levels of education. When all these are overlooked, one at least expects commitment towards social objectives. But we have not been serious even with respect to our objectives enshrined in the Constitution like universalisation of elementary education within 10 years. One expects a priori that resource allocation policy to be guided either by scientific rational criteria like rates of return, or by the social objectives.

An analysis of intra-sectoral allocation of resources in India during the plan period shows a lopsided emphasis on different layers of education. A clear cut shift in the priorities is quite obvious from the figures in Table 15. In the first plan, 56% of the total plan resources to education were allocated to elementary education, 13% to secondary, 9% to university education and 13% to technical education. The allocation to elementary education came down drastically in the subsequent plans, to 35% in the second plan, to 34%

in the third plan and to 30% in the fourth plan. Then it has increased to 35% in the fifth plan and to 36% in the sixth five year plan and then tends to decline to 29% in the Seventh Plan. The figure reached a lower limit of 17% in the annual plan of 1966-67. At the same time expenditure on other levels, excepting technical education, shows an increment. In the first plan only 13% of the total educational expenditure was meant for secondary education and by second plan it increased to 19% whereas that for university level increased from less than 1/10 to about 1/4 in the fourth and fifth plans and then reduced to about 1/5 in the sixth five year plan. Technical education also suffered with a diminution in allocation from 21% in the third to 11% in the Sixth Five Year Plan. Even in the first plan the allocation was marginally higher, 13%.

TABLE 15

Intra-sectoral resource allocation in education
in India in the five year plans

(Rs. in millions)

Educational level	Expenditure					Outlay		
	First plan	Second plan	Third plan	Plan holiday	Fourth plan	Fifth plan	Sixth plan	Seventh Plan ⁺
Elementary [*]	85 (56)	95 (35)	201 (34)	75 (24)	239 (30)	317 (35)	906 (36)	1830 (29)
Secondary	20 (13)	51 (19)	103 (18)	53 (16)	140 (18)	156 (17)	398 (16)	..
University	14 (9)	48 (18)	87 (15)	77 (24)	195 (25)	205 (22)	486 (19)	..
Other General ^{**}	14 (9)	30 (10)	73 (12)	37 (11)	106 (14)	127 (14)	457 (18)	..
Total general	133 (87)	224 (82)	464 (79)	241 (75)	680 (87)	805 (88)	2247 (89)	..
Technical	20 (13)	49 (18)	125 (21)	81 (25)	106 (13)	107 (12)	278 (11)	682 (11)
Grand Total	153 (100)	273 (100)	589 (100)	322 (100)	786 (100)	912 (100)	2524 (100)	6383 (100)
% to total plan outlay	7.86	5.83	6.87	4.86	5.04	3.27	2.59	3.55

Note : * includes pre-school education

** includes teacher education, social education (youth services) cultural programmes etc.

+ Draft

.. Break-up is not available

Source : A Handbook of Education and allied Statistics and Draft

We can divide the plan period into three phases depending on the pattern of allocation of resources to education viz., Phase I: 1951-56; Phase II: 1956-69 and Phase III: 1969 and after (Tilak & Varghese, 1983). Phase I witnessed a substantial part, nearly 3/5, of the total plan educational resources, being allotted to elementary education, i.e., high priority was given to elementary education and a low priority to higher and technical education. Phase II showed a drastic decline of resources allocated to primary and a doubling or trebling of resources allocated for university education. In fact, the expenditure on higher education reached a proportion of 24% by 1967-68, while the corresponding figures for elementary education showed a decline from 56% in first plan to 17% in 1966-67. Phase III, i.e., period after 1969 showed a slight reversal of these trends. The proportion of elementary education showed an increasing trend and that of university and technical education showed a gradual decline.

The resources to secondary education showed that after an initial jump from 13% to 19% between the first and the second plans it got relatively stabilised. However, it is to be noted that though phase II showed marginal improvements so far as elementary education is concerned, it has yet to go a long way to reach the proportion that it obtained in the first plan. As it has been shown elsewhere (Tilak & Varghese, 1983), had the pattern of intra-sectoral allocation of resources in education sector adopted in the first five year plan continued, universalisation of elementary education would have been an easy task, if not already accomplished by now.

All this may present a partial picture because non-plan expenditure is also equally important. But the trends in total, plan plus non-plan, expenditure are also the same. The share of primary education in the total 'direct' educational expenditure, plan and non-plan combined together, also showed similar steep decline. It declined from 40% in 1950-51 to 25% in 1975-76. At the same time the share of higher education showed a phenomenal increase from 20% in 1950-51 to 30% in 1975-76 (Table 16). Further, if we consider the rate of growth of direct expenditure on different levels, it again tells us the same story. The rate of growth of expenditure was higher at the higher levels of education and lower at lower levels. For instance, the compound rate of growth of direct expenditure on primary education between 1950-51 to 1975-76 is only 10.5% where as that of higher education for the same period was 14.5% .

Such a pattern of intra-sectoral allocation of resources is unexplainable. While one should not want to under-value the contributions of higher education (see Schultz, 1981: 40-56), one has to see the whole problem in the context of 'the most conspicuous failure of the Indian education system' with regard to universalisation of elementary education (Kurrien, 1983:1). It is high time to realise that "any developing country that continues to give priority to higher education has far less chance of achieving universal primary education by the end of this century than if it puts a cap on higher education expenditures" (Coombs, 1985:160).

TABLE 16
Trends in intra-sectoral resource (total) allocation
in education in India
(Rs. in millions)

Year	Direct expenditure on						Total indirect Expenditure	Grand Total
	Primary	Middle	Secondary	School Profi	Higher	Total		
1950-51	366 (40)	77 (8)	231 (25)	60 (7)	184 (20)	921 (100)	232	1,153
1955-56	540 (37)	154 (11)	376 (26)	81 (6)	293 (20)	1148 (100)	449	1,897
1960-61	630 (25)	429 (17)	689 (27)	146 (6)	565 (22)	2573 (100)	870	3,444
1965-66	1213 (26)	810 (13)	1504 (32)	105 (2)	1241 (27)	4673 (100)	1192	5,853
1970-71	2365 (25)	1709 (18)	2700 (28)	128 (1)	2709 (28)	9611 (100)	1572	11,183
1975-76	4463 (25)	3410 (19)	4636 (25)	206 (1)	5410 (30)	17925 (100)	3122	21,047
1976-77 ⁺	5467 (25)	4121 (19)	6051 (28)	210 (1)	6033 (28)	21883 (100)	1220	23,103
Annual Com- pound Growth	11.0	16.5	13.4	4.9	14.3	13.0	6.6	12.2

Note : * includes professional, technical, vocational and special types.

+ Cols. 2 to 7 : recurring expenditures; Col. 8 : non-recurring expenditure

Source : Education in India (Various years)

It is necessary to note that while public expenditure per pupil on every level of education increased by several times during the last 25 years, the 'real' expenditure per pupil on all levels of education, excepting primary, declined during the same period. While the real expenditure per pupil increased marginally during short phases, over the long period, i.e., 1950-51 to 1975-76, this has declined suggesting that we are increasingly spending less and less amount of resources per pupil on education at middle, secondary and higher levels. Even at the primary level of education the growth has not been high. The annual rate of growth was 1.1%. At secondary level the rate of growth was -0.1%, in general colleges -1.5% and in professional colleges it was -2.4% (Table 17). Thus we notice that the effect of price inflation affected adversely the higher education more significantly than any other level i.e., the real expenditure per pupil declined more at higher levels of education and within higher level it is the professional education which suffered most. Nevertheless, it should be noted that in absolute terms the expenditure per pupil, both at constant and current prices, is much higher at higher levels of education than at lower levels of education at any point of time and the expenditure per pupil at higher professional level has been two-three times higher than that at higher general level. (see Figure 8)

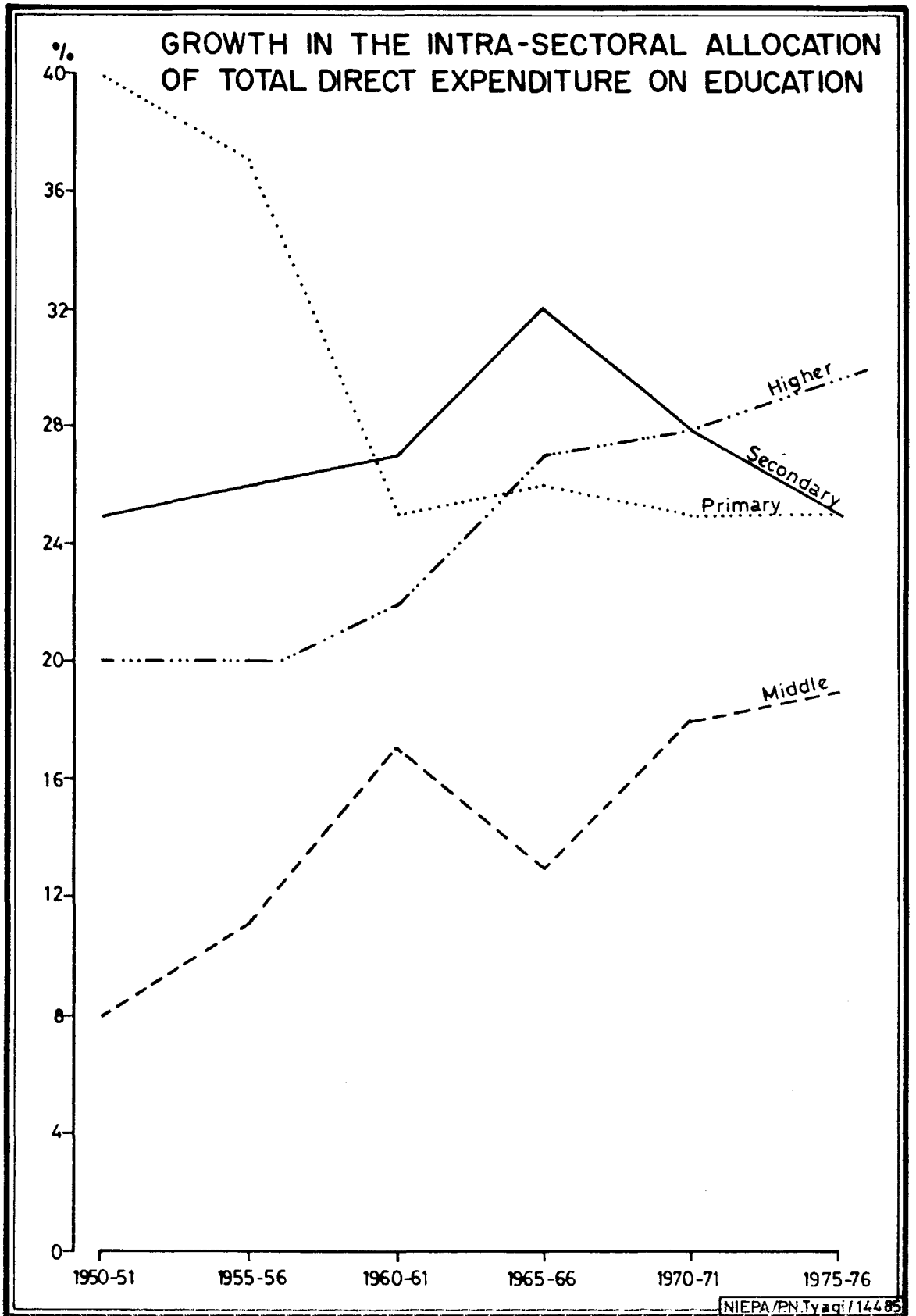


Fig. 7

TABLE 17

Cost of education per pupil in India at
current and constant prices

(Rs. per Annum)

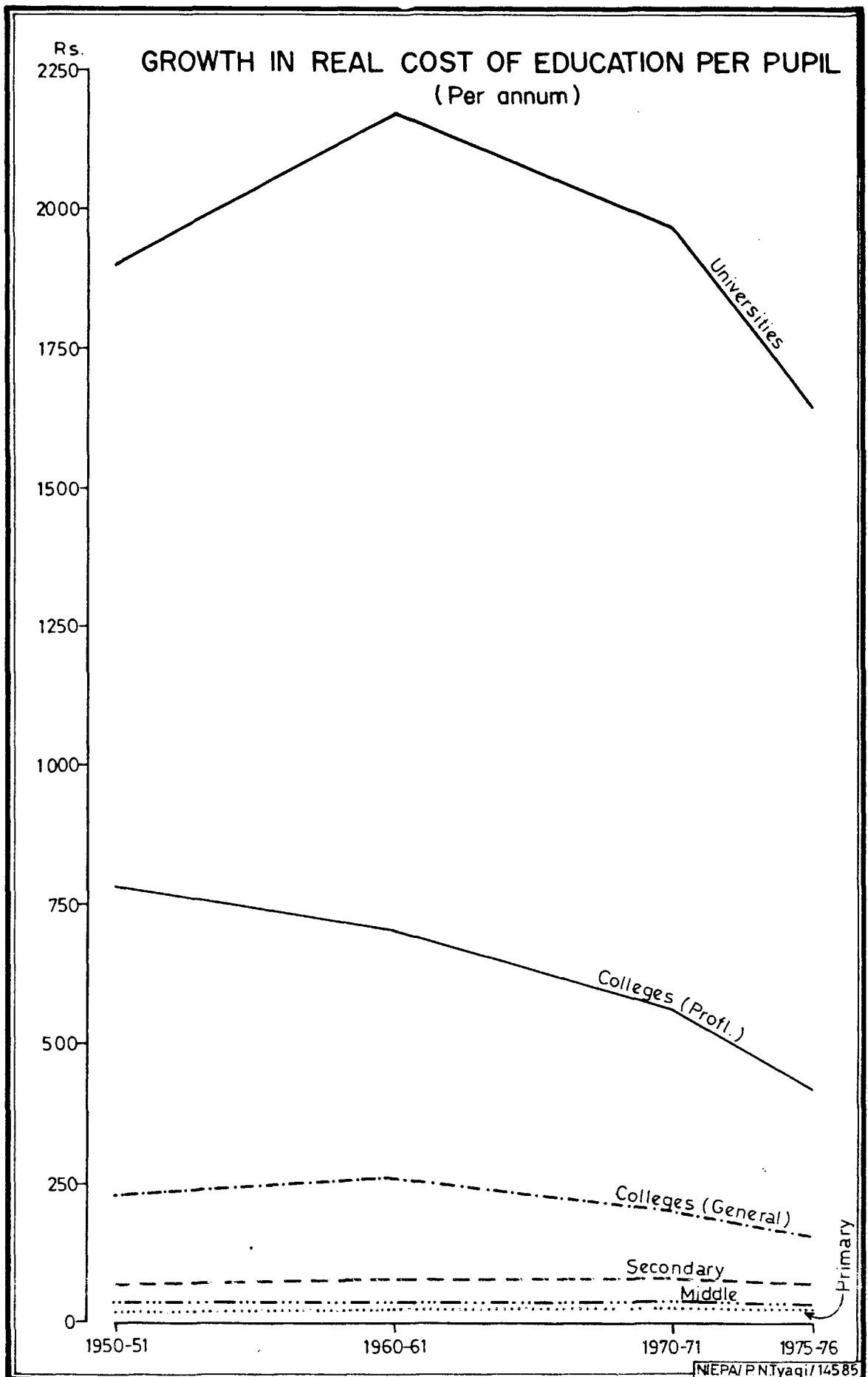
Year	Primary	Middle	Secondary	Universities & Institut- ions of higher education	Colleges (General)	Colleges (Profess- ional)
A. At current prices						
1950-51	19.9	37.1	72.9	1905.6	231.6	779.2
1960-61	27.6	40.5	91.7	2524.2	302.4	813.4
1970-71	57.0	84.9	168.4	4141.2	421.6	1179.0
1975-76	95.9	114.2	257.7	5993.6	572.5	1539.0
Growth rate (%)	6.5	4.6	5.2	4.7	2.5	2.8
B. At constant (1950-51) prices						
1950-51	19.9	37.1	72.9	1905.6	231.2	779.2
1960-61	23.8	34.9	79.1	2176.0	260.7	701.2
1970-71	27.0	40.3	80.0	1967.1	200.2	560.0
1975-76	26.3	31.4	70.7	1645.6	157.2	422.8
Growth rate (%)	1.1	-0.7	-0.1	-0.3	-1.5	-2.4

Source : Based on Education in India (Various Volumes).

When we look at state wise figures on inter-level distribution of resources within education (Table 18), we note that in no state the allocation for primary education exceeds 30% of the total direct expenditure on education in 1975-76, except in Orissa where it is 35%. In Gujarat it is as low as 8.6%. In contrast, the share of higher education is more than one-fourth in many states, and 30% in Karnataka. In several states, including backward states like Jammu & Kashmir and West Bengal and in Karnataka and Maharashtra, in fact, the share of higher education exceeds that of primary education.

It is to be noted that not only the pattern of allocation of resources discriminated against lower levels of education, but also that the lower levels of education suffered more whenever the resources were to be axed. For example, let us look at the varying impact of the difference between the draft and plan proposals on various levels of education in the fifth five year plan. The Plan outlay on elementary education was reduced by 45% of the Draft proposal, while that of university education was cut by 13% only and technical education by 5%. Further the approach suggested allocating 50% of the total educational resources to elementary education and the Draft suggested the figure to be 43%, while the final plan expenditure turned out to be 35%. On the other hand, the corresponding figures for university education were 13% in the approach 20% in the Draft, 23% in the plan and 22% was actual expenditure (Table 19).

Why does the policy of resource allocation discriminate lower levels of education and favour higher levels of education, even though it is increasingly asserted that the benefits of lower levels of education accrue to the masses and those of the higher levels to the elite (Bowles, 1971), that investment in lower levels of education contributes more to reducing poverty and inequality than that in higher education (Fields, 1980; and Tilak, 1985-a) and that returns to investment in lower levels of education are higher than to higher levels of education (Tilak, 1980-c). Perhaps the explanation is simple. The policy makers are obviously biased in favour those levels of education that benefit their own class of people. The question that guides the policy makers in general is: "What levels of schooling are more particularly 'crucial' and which less?" (Carnoy et al, 1982). While political influence on education cannot be done away with when the education systems are almost totally funded by the government, the question should focus on "what type of political pressure and politicisation is benign and what is not..... whether education



purposes are subsumed by the political system, or whether political system, or whether politics becomes a means for strengthening or redefining educational goals" (Rudolph & Rudolph, 1972:95).

TABLE 18

Intra-sectoral distribution of resources in education
(1975-76)

(Per cent)

State	Primary	Middle	Elementary	Secondary	Higher	Total Direct	Total Indirect	Grand Total
Andhra Pradesh	28.9	11.6	40.4	28.7	25.7	94.5	5.1	100
Assam	30.3	12.7	43.0	21.7	21.9	87.0	13.0	100
Bihar	27.7	19.3	47.0	13.8	28.4	87.0	13.0	100
Gujarat	8.6	33.0	41.6	23.7	20.5	85.5	14.5	100
Haryana	18.2	9.5	27.8	36.6	25.0	89.3	10.7	100
Himachal Pradesh	17.9	22.4	40.2	32.9	18.7	91.7	8.3	100
Jammu & Kashmir	13.6	18.5	32.2	22.4	20.0	74.6	25.4	100
Kerala	21.3	20.1	41.5	32.4	18.0	91.7	8.3	100
Karnataka	13.9	27.1	41.0	14.8	30.2	86.2	13.8	100
Madhya Pradesh	22.0	10.7	33.3	13.8	13.7	60.7	39.4	100
Maharashtra	14.0	25.2	39.1	26.8	22.6	88.5	11.5	100
Orissa	35.4	13.8	49.2	18.9	18.6	86.9	13.1	100
Punjab	15.1	9.0	24.1	28.1	28.1	84.1	16.0	100
Rajasthan	22.9	23.5	46.4	25.5	21.3	93.5	6.5	100
Tamil Nadu	26.0	15.8	42.4	27.2	21.5	90.9	9.1	100
Tripura	23.0	10.1	39.1	33.3	11.5	83.9	10.1	100
Uttar Pradesh	25.7	8.6	34.2	25.0	20.0	79.3	20.7	100
West Bengal	26.7	3.7	30.4	27.2	28.9	87.5	12.5	100

Source : J.B.G. Tilak & N.V. Varghese (1983) "Resources for education in India", NIEPA Occasional paper No. 2 (New Delhi).

Table 19

Cutting Resource for Education in the Fifth Five Year Plan
(1974-1979)

(Rs. in 10 millions)

	Proposed		Outlay	Actual Expenditure (1974-78)
	Approach	Draft	Plan Document	
Elementary Education	1600 (50)	743 (43)	410 (32)	317 (35)
Secondary Education	600 (19)	241 (14)	250 (19)	156 (18)
University Education	400 (13)	337 (20)	292 (23)	205 (22)
Others	400 (13)	201 (14)	140 (10)	127 (14)
Total General	3000 (94)	1562 (91)	1092 (85)	805 (88)
Technical	200 (6)	164 (9)	156 (12)	107 (12)
Grand Total	3200 (100)	1726 (100)	1285 (100)	912 (100)

Source : J.B.G. Tilak (1983), "On Allocating Plan Resources to Education, Margin, 17/3 (October) p. 101.

In fact for an equilibrium growth in educational development, any economy should start with investing a large part of the educational resources in elementary education and a small part in higher education and as development takes place, the former proportion can be gradually reduced, and the latter gradually increased. For example, Japan invested 84% of its educational budget on 6 years of elementary education in 1885 and a meagre 8% on higher education. By 1960 the latter figure could increase only upto 13% and the former was reduced to half, 42%, the rest about 45% having been spent on secondary

education (Education Commission, 1966:864). On the other hand, in India we started with allocating a meagre proportion, 40%, of the educational expenditure to primary education in 1950-51, and within two and a half decades it was reduced further, to 25%; in contrast, the share of higher education increased from one-fifth to more than one-fourth. The Education Commission suggested that at least two-third of the total should be invested in school education and about one-third on higher education. As the experience reveals, this however, is not adequate. At least $3/4$ of the educational budget should have been invested in elementary education, and this should be the strategy at least for the near future, if we are serious with objectives like universalisation of elementary education (Tilak and Varghese, 1983).

Now let us turn to intra-sectoral allocation by sources. It is clear from Table 14 that out of the central budget less than 2% is spent on education, while in the states' budget 18% is spent for the same in 1982-83. A careful analysis leads us to notice that a large part of the cost per pupil is met by state governments, whether it is recurring costs or non-recurring costs. While at every level of education the contribution of state governments is the highest, it declines by increasing levels of education (Table 20). In other words, while for primary education the state government's share is three-fourth of the total, for higher education it is about half. The share of central government is less at lower levels of education, than at higher levels of education. That is, the central government feels less responsible for lower levels of education than for higher education. While it is in conformity with the role of central government as assigned by the Constitution (as on before the 42nd amendment) with respect to education, it is unfortunate that central government should not have been made responsible for the Constitutional Directive of universalisation of elementary education, which is indeed starved of funds.

Further, contributions of local bodies is relatively higher understandably at lower levels of education than at higher levels. Fee, a non-voluntary contribution of students is about 20% of the total recurring costs at higher level of education, and even at secondary general level it is reasonably high. It is necessary to note that the endowments and donations constitute a significant part of the non-recurring costs. In 1976-77, one-fourth of the non-recurring costs were met from endowments and donations. It is as high as 42% at secondary general level, 28% at middle and 22% at higher level. The theory of endowments and donations in education (Panchamukhi, 1977) easily explains why they are concentrated on non-recurring items.

Temporal comparisons, however, reveal that the respective relative shares of local bodies, endowments and donations and that of fee in total educational expenditure declined rapidly at every level, and correspondingly the relative share of the government has been rapidly increasing.

TABLE 20

Institutional costs of education by sources
in India 1976-77

	Central Govt.	State Govt.	Univer- sities	Local bodies	Fees	Endow- ments	Total
Recurring							
Primary	0.6	75.8	-	20.7	1.6	1.3	100 (5467)
Middle	0.6	79.7	-	14.1	3.3	2.2	100 (4121)
Secondary(G)	1.2	79.1	-	1.5	14.2	3.9	100 (6051)
Secondary(V)	1.9	84.3	1.0	1.0	1.0	7.7	100 (210)
Higher	15.8	51.6	3.8	1.4	19.6	7.6	100 (6033)
Total	4.9	70.9	1.1	8.6	10.4	4.0	100 (21883)
Non-recurring							
Primary	6.5	70.1	-	15.0	-	8.4	100 (107)
Middle	3.7	63.3	-	5.5	-	27.5	100 (109)
Secondary(G)	4.2	50.2	-	3.3	-	42.3	100 (239)
Secondary(V)	7.7	61.5	-	-	-	30.8	100 (13)
Higher	37.9	35.0	2.5	2.8	-	21.8	100 (752)
Total	25.2	43.9	1.6	4.1	-	25.2	100 (1220)
Total							
Primary	0.7	75.7	.	20.6	1.6	1.4	100 (5574)
Middle	0.7	79.3	.	13.9	3.2	2.9	100 (4230)
Secondary(G)	1.4	76.4	.	1.6	13.6	5.4	100 (6290)
Secondary(V)	2.2	82.6	0.9	1.3	4.0	9.0	100 (224)
Higher	18.3	49.8	3.6	1.5	17.5	9.3	100 (6785)
Total	6.0	69.4	1.1	8.4	9.9	5.2	100 (23103)

Note : Secondary (V) includes vocational, technical, professional and other types; and Secondary (G) includes general education

. : Negligible

- : Nil

() : Rupees in millions

Source : Education in India 1976-77, Vol. II.

However, it is to be reiterated that even with respect to providing elementary education, which is a Constitutional obligation, the governments, central and states together, do not take full responsibility. 25% of the recurring cost, and about the same proportion of non-recurring costs were met by the non-governmental sources. The remaining 75% of the costs, met by the government, is, however, hardly adequate to provide any meaningful level of educational facilities. For example, as per the fourth all-India educational survey, 0.2 million habitations or nearly one-fifth of all habitations of more than 300 persons have no school of their own. 40% of the existing schools have no pucca buildings, another 40% have no black boards, 50% have no facilities for drinking water. One-third of total number of primary schools are single teacher schools. Hence it may be desirable to make it obligatory on the part of the government to take complete responsibility of providing good quality elementary education throughout the country. The government should not be allowed to transfer this responsibility to others. All this also reveals that the scope for better utilisation of the existing school facilities is very much limited. At best certain uneconomic/non-viable schools can be merged with nearby viable schools; and on the basis of average attendance of children teacher-pupil ratios may be re-worked out. These measures may result in saving some sizeable resources. On the basis of some more economy measures, Adisheshiah (1975) feels, that about 25% of the education budget can be saved which otherwise goes waste.

2.5 Costs of Education

We have already noted in Table 17 that the costs of education have increased significantly only in current prices and the real increase has been negative except at primary level of education. This apparent reduction in costs is due, it should be noted, not to any improvement in educational technology, but due to more rapid increase in enrolments relative to total resources for education. Resources are being thinly spread. Such a reduction in costs is not desirable. Only real reduction in costs that is due to better technologies of educational production can be welcomed.

As no systematic methods have been used elaborately to estimate non-recurring cost per pupil, we do not have reliable estimates of non-recurring costs. If we ignore the non-recurring costs, and confine to recurring costs, we notice that (Tables 22 and 23) higher education is not as costly as is generally feared. While the cost per pupil is

the highest in research institutions, institutions of national importance and institutions deemed to be universities, the same in the normal universities is about Rs. 5000 in 1976-77; degree level education on average costs and about Rs. 1000 per pupil and undergraduate education slightly higher Rs. 1336. Among the different faculties at degree (and above) level, cost per pupil was the highest in public health, followed by business management and veterinary science. While the cost per student in arts, science and commerce disciplines is only Rs. 720, it ranges in between Rs. 3000 and Rs. 5000 in several other professional courses.

Now let us look at few other dimensions of unit costs of education. Unit costs can provide valuable elements for studying the allocation of educational resources. A comparison of unit cost of

TABLE 21

Institutional costs of education per pupil in India
by levels, 1976-'77

(Rs.)

	Recurring costs	Non-recurring costs	Total institutional costs
Primary*	110.36 (98)	2.24 (2)	112.60 (100)
Middle	161.79 (97)	5.28 (3)	167.08 (100)
Secondary(G)+	309.08 (96)	12.18 (4)	321.25 (100)
Secondary(V)++	224.49 (95)	11.22 (5)	236.73 (100)
Higher**	1386.48 (89)	163.17 (11)	1549.65 (100)
Total	219.09 (95)	12.03 (5)	231.11 (100)

Note : Figures in () are percentages to total institutional costs of education.

** : includes, general, professional and others.

* : includes pre-primary.

+ : general education.

++ : includes vocational, professional, technical and other types.

Source : Education in India, 1976-77, Vol. I & II.

TABLE 22

Institutional costs of education per pupil by
objects in India, 1976-77

	Rs.	% to Total Cost	Percentage to the total recurring/ non-recurring cost
Recurring			
Salaries of teaching staff	165.34	71.6	75.5
Salaries of non-teaching staff	21.97	9.5	10.0
Maintenance of buildings	2.46	1.0	1.1
Maintenance of equipment and furniture	1.82	0.8	0.8
Apparatus, chemicals etc.	3.06	1.3	1.4
Libraries	1.09	0.5	0.5
Stipends, fee concessions etc.*	6.26	2.7	2.9
Games & sports	1.30	0.6	0.6
Hostels	1.30	0.6	0.6
Other items	14.43	6.2	6.6
Total recurring cost	219.04	94.8	100.0
Non-recurring			
Libraries	0.93	0.4	7.7
Buildings	5.17	2.2	43.0
Equipment	1.94	0.9	16.2
Furniture	0.88	0.4	7.3
Other items	3.09	1.3	25.8
Total non-recurring	12.02	5.2	100.0
TOTAL	231.06	100.0	

Note * : includes scholarships and other financial concessions.

Source : Education in India in 1976-77.

elementary education and those at higher education reveals the extent of misallocation of resources (Tilak 1985-b). Unit costs (direct) at university level per student in India were more than 60 times those at

primary level in 1975-76. Quite contrary to general opinion, direct costs of general education are only 6 times the costs of primary level; and even the costs of professional college education were just 10 times higher; and quite interestingly there is a drop in relative costs per student in university and higher education overtime. For example in 1950-51 the ratio of unit cost of university education to primary education was 95.7 and it was reduced to 62.5 by 1975-76. More details are given in Table 21. This fall in relative spending per student is due, according to Psacharopoulos (1980) to economies of scale. The relatively lower spending per student has enabled, as Carnoy et al (1982:59) noted, the country to expand university education relatively rapidly. It is to be noted however that as a percentage of total expenditure on education, the share of higher education has increased overtime.

Then, objective-wise classification of unit costs reveals that teachers' salary cost amounts to more than 70% of the total costs and costs of the non-teaching staff amount to about 10% (Table 22). Next to salaries of the teaching and non-teaching staff, the major item is financial concession to students, which constitutes about 6% of the total costs. If we analyse by levels of education, we notice that at primary level teachers salary costs amount to 93% of the total cost, salaries of non-teachers to 1.9% and buildings to 1.1%. The corresponding figures for middle level of education are 88.3%, 3.5% and 1.3% respectively; and so on. Thus, one may conclude that teachers' cost increases as a proportion of the total cost, as one goes down the educational ladder. Another important thing to be noted is that costs on fixed capital such as buildings increase with increase in levels of education. That many primary schools are run in open space, kachha buildings, inadequate rooms etc., is a clear indication of the same.

TABLE 23
Recurring & Non-recurring Cost Per Pupil (Rs.)
in Higher Education in India 1976-77

	Recurring	Non-recurring	Total
Universities	4992	1091	6084
Institutions deemed to be Universities	10856	1701	12557
Institutions of national importance	21638	3308	24945
Research Institutions	30106	8957	39063
Degree & Above			
Arts, Science & Commerce	720	44	764
Agriculture & Forestry	4209	422	4301
Business management	20525	8830	29753
Education	1831	107	1938
Engineering, Technology & Architecture	3307	393	3700
Journalism	82	-	82
Law	256	30	285
Medicine *	4658	560	5219
Pharmacy	2540	745	3285
Public Health	36953	560	5219
Music & Fine Arts	1089	49	1138
Oriental Studies	275	20	295
Physical Education	5204	589	5793
Vet. Science	10361	5198	15558
Others	3774	802	4576
Total	965	86	1051
Below Degree (Diploma/Certificate)			
Arts, Science & Commerce	253	4	257
Agriculture and Forestry	1890	80	1970
Education	1337	40	1377
Engineering, Technology & Architecture	1610	134	1714
Medicine *	823	409	1332
Pharmacy	1459	101	1560
Public Health	2132	-	2132
Music and Fine Arts	448	7	455
Oriental Studies	175	-	175
Physical Education	854	756	1610
Others	1743	90	1833
Total	1336	96	1432
Degree & Below Degree	100.6	88	1094

Note: : * Excluding Dentistry, Public Health, Nursing and Pharmacy.

Source : Education in India Vol. I & II, 1976-77.

TABLE 24

Cost ratios in education in India

	Universities/ Primary	Colleges (Genl.)/ Primary	Colleges (Prof.)/ Primary
1950-51	95.7	11.6	39.2
1960-61	91.4	11.0	29.5
1970-71	72.7	7.4	20.7
1975-76	62.5	6.0	16.1

Source : Based on Table 15.

Thus, an analysis of institutional costs of education reveals clearly that non recurring costs constitute a very small percentage of the total institutional costs of education. It constitutes less than 5% at school level and about 11% at the higher educational level. In other words, formation of fixed capital in education such as buildings takes place at a very slow pace. This is clearly understandable as we very often find not only schools, but also colleges and even universities with no basic infrastructure facilities like buildings, furniture and equipment.

Thus the present pattern of spending does not contribute much to physical capital formation. Further an analysis of the expenditure at the university level reveals that only about half, or even less than half of the revenue budget is spent on academic services, and the residual on general administration and auxiliary services (Padmanabhan, 1984 and also Tilak, 1985-c). A large part of the residual is indeed municipal expenditure (Raza et al 1984). In other words, what we call expenditure on education consists of a large part of expenditure on non-educational items in which case the 'net' expenditure on education is indeed much less than what we have noted until now.

3. Summary and Conclusions

What follows is a quick review of what has gone before and what does it call for. Education systems like all modern organisations run on money. We need more resources for education - both for schools and colleges. The additional resources are required for the following reasons : rise in enrolments, backlog of needed construction, need to expand the system (particularly for universalisation of elementary education and adult literacy), for diversification of the systems (e.g. vocationalisation), for maintenance, if not improvement in the quality of education, and to combat the rise in prices. Without adequate resources, the education edifice collapses. Education system in India suffers from gross inadequacy of resources to such an extent that a large number of schools are run in open space, the children suffering from heat, cold and rain. Even most basic requirements like black boards, chalks etc., are highly inadequately provided. A large proportion of primary schools are single teacher schools. This pitiable situation is not confined to school system only. Several colleges and even some universities suffer from similar problems of under/inadequate provision of resources. When planning was launched in India as high as 7.9% of the plan outlay was spent on education in the first five year plan. Ever since the proportion has been consistently declining. Had atleast the same proportion continued to be allocated in the following five year plans, the education situation to-day would have been much different from what it is. The back log accumulated over the years with respect to several aspects of the infrastructure, viz., school buildings, furniture, equipment, etc., and teacher in almost every level of education is so high that perhaps the problem cannot altogether be solved within a few years.

Essentially constrained by the resources, many educational plans and reforms failed miserably. The Constitutional Directive of universalisation of elementary education -- including, in its true spirit, universal enrolment, universal retention, universal provision of facilities and universal quality in education -- which was to be achieved two and a half decades earlier still eludes. It is feared that it can not be realised even by the turn of the century. Even after three and a half decades of planning, two thirds of the population are illiterate. It does not, however, mean that the other one-third are educated. A majority of them are mere literates. The weaker sections still lag far behind the general population in education. The long proposed curriculum reforms in secondary education including vocationalisation programmes could not progress noticeably. The measures to establish match between higher education

and employment could not even take off. All these under achievements, if not failures, are not totally due to inadequacy of resources; but the inadequacy of resources did hinder the growth. After all, money is not a sufficient condition for development, but it is a necessary condition without which the system can not meaningfully exist.

In this paper we have made a quick review of our achievements and failures with respect to financing education and the broad pattern of financing. A thorough analysis would have required a lengthier treatment; here we have only scratched the surface in order to get a general idea of what we might have found, have we gone more intensively and extensively. In this last section, let us first briefly recapitulate the main points that emerge from the preceding analysis before we make a few suggestions in the concluding part of this paper.

3.1 Summary

While at present the public expenditure on education constitutes about 3.6% of GNP (a remarkable increase from 1.2% in 1950-51), it is much less than what it should be - 6% as recommended by the Kothari Commission, and also less than the corresponding figure relating to several developing and developed countries. Further, the targets laid down by the Education Commission with respect to levels of expenditure, both in absolute terms and in per capita terms, look to be beyond our reach in the near future.

While there is a 15 fold increase in the plan outlay for education in current prices, the increase is just three fold in constant prices or in the real terms. Moreover the plan outlay in real terms indeed went on declining from the third to the fourth and from the fourth to the fifth five year plans. Besides, as a proportion of total plan expenditure, expenditure on education declined from 7.9% in the first five year plan to 2.6% in the sixth five year plan. In view of this long term consistent trend, one may even doubt whether the draft proposal of the seventh plan of 3.5% would at all materialise. It is also noted that the allocation of resources to education is made rather arbitrarily in an adhoc manner. Hence it is possible to drastically reduce the plan resources at various stages of planning without correspondingly reducing the physical targets. In the same context it is also found that plan schemes get momentum only at the end of the five year plan period.

Third, while the share of the government (excluding local governments) in the total expenditure on education increased from 57% in 1950-51 to 80% in 1980-81, the share of every other sector declined: the share of local bodies declined from 10.9% in 1950-51 to 5% in 1980-81 that of fees declined from 20% to 12% and the share of endowments and donations from 11.6% to 3%. The household expenditure on education is also not an exception, despite the fact that per capita income has increased significantly. As a proportion of GNP the household expenditure declined from 2.5% in 1970-71 to 2.1% in 1982-83 and during the same period household expenditure on education per capita declined from Rs. 16.6 to Rs. 12.6 in real terms.

It may also be noted that the contribution of the central government to the total government expenditure on education has had been on a rapid decline. It was 6.8% in the first five year plan, increased to 20% in the third five year plan, and ever since it has never crossed 10%. This is true even during the post-42nd amendment period, when education was brought into the concurrent list. In other words, the role of the state government in financing education has increased significantly.

The cost per pupil in education in India has increased by nearly 5 times, from Rs. 35.64 in 1950-51 to Rs. 176.73 by 1976-77 at an annual rate of growth of 6.4%. As a percentage of per capita GNP the same has also registered an impressive growth from 7.64% to 14.8% during the same period. But when we take note of increase in prices, we note that the growth has not at all been impressive; in fact, it is negative at all levels except at the primary level. At primary level of education there had been 1.1% rate of growth per annum in real expenditure, and the rate of growth is negative in all other cases; the decline is nearly 10% at the university level and as high as 40% at the professional college level.

This takes us to the intra-sectoral allocation of resources. Out of the total plan outlay for education, 56% was allocated for elementary education in the first five year plan, 13% for secondary education and 9% to university education. Since then the share of elementary education declined, finally, to 29% in the draft seventh five year plan and that of university education increased to 19% by the end of the sixth plan. Even the cuts made on the plan allocation during the planning process affected the lower levels of education more severely than higher levels of education. One may say that this is with respect to only plan expenditure. But even when we consider the total expenditure, plan plus non-plan (non-plan expenditure

constitutes more than four-fifths of total expenditure), the trend does not show any significant deviation. Out of the total direct expenditure on education 40% was spent on primary education in 1950-51, 8% on middle schools, 25% on secondary schools, 7% on professional, vocational and technical schools and 20% on higher education. An analysis of intra-sectoral allocation in 1975-76 reveals that the share of primary education declined steeply to 25%, and that of higher education increased to 50%. Further, expenditure on higher education increased at a faster rate of growth than on primary education. All this suggests that there is a clear bias in allocation of resources in favour of higher levels of education and against lower levels of education. In the same context, it is also to be noted that a large part of the expenditure on education is incurred on salaries of the teachers. More than 70% of the cost per pupil forms of salary cost of the teachers, and the cost of physical capital formation like on buildings constitutes a meagre 2%; in the capital account of the budgets, central as well as states, the share of education is negligible, if not nil. Further, at higher levels of education a large part of the cost is incurred on non-educational items, which can be called 'municipal' expenditure like construction of roads, health, sanitation, etc.

Another important aspect to be taken note of is with respect to public expenditure on education and disparities, inter-regional as well as inter-individual. The public expenditure on education per pupil varies very widely between different states. For example, it was Rs. 162 in Uttar Pradesh in 1976-77, while it was Rs. 336 in Himachal Pradesh. Public expenditure on education per head of the population varies between Rs. 21 in Bihar and Rs. 76 in Nagaland. Similarly inter-group and inter-individual variations in public expenditures on education have been found to be quite significant, producing unequal effects such as unequal distribution of education and incomes.

3.2 Towards improvement

The preceding quick diagnostic review of the financial aspects of the education situation in the country leads one to make a number of suggestions. We describe some of them below. Some of the suggestions given here do not necessarily follow from the preceding analysis.

At the very outset, we should note the need for perspective (long-term) plan for education in the country. Until now no such plan is attempted, because if a plan is made, after all money has also to

be provided for it. A country which has accepted the principle of planned development cannot afford to have no perspective plan for education unless the country wants to treat education still as a 'marginal issue' (Naik, 1979). Absence of a long term plan in education is perhaps one of the main sources of ills of the system.

With regard to the resources, the present projections indicate that the resource position of the education sector may not significantly improve; in fact, it may substantially deteriorate in the developed as well as developing countries, including India. But there is every reason that such a trend should be checked in general, and in developing countries including India in particular. If we truly believe that 'the future of the nation depends on our class rooms', there is no alternative but to provide more resources for education. The extent to which we can increase expenditure on education without affecting other priorities will, of course, depend on the socio-political conditions (World Bank, 1981:70).

From the international standards, and more importantly from the point of view of bare minimum educational needs of the country the proportion of public expenditure on education to GNP in India needs to be raised to at least 6% and that should be maintained for a long time to come. In fact, if qualitative improvements have to be made in the education system, along with high rates of retention, the system may need much higher proportion of GNP.

Allocation of resources to education should be based upon certain well-defined meaningful physical norms, and rational criteria. It should be noted that a cut in the budget for education results in under achievement of the physical targets set for the education sector. Allocation of resources to the education sector must not be determined by the residual available after other so-called 'priority' needs of the economy have been met, but must depend upon the needs of the education sector for maintaining the fastest long-term rate of growth of the economy.

When several sectors of the education system still suffer from inadequacies of several kinds of resources, a declining proportion in the education outlay of the total plan outlay needs to be checked. While in a very long-run period such a proportion need not necessarily be on an increasing trend, given the existing conditions, there is need for the proportion to be increasing at least in the near future.

In fact, the concepts of 'plan' and 'non-plan' expenditure should be more meaningfully defined. Provision of all necessary inputs to even the existing schools should be treated as a commitment. It would be better if we treat all resources required to maintain the same enrolment ratios in schools as commitment/non-plan expenditure.

It will be against the spirit of the Constitution to allow elementary level of education to suffer from inadequacy of resources. As far as funding elementary education and literacy programmes are concerned, it should be viewed in the framework of the Constitutional Directives. Educational planners and others tend to argue for raising local/community resources for these levels of education. On the other hand, the centre and state governments should take the complete responsibilities of funding these levels of education and dependence on other sources for these levels of education would be against the spirit of the Constitution and would be at variance with the emphasis laid upon the egalitarian character of the Constitution. For safeguarding democracy and strengthening the foundations of the integrated nation, it is necessary not to compromise with the requirements of these basic needs. If at all any resources are to be raised, the efforts should be concentrated on other sectors of education, several of which have a direct relationship with organised sector. Further by not providing adequate resources for elementary education and literacy programmes, sectors connected with the masses living in rural areas get neglected. Subsidy to technical and higher levels of education is after all, an indirect subsidy for organised sector. Hence there is every reason to reduce the subsidy at these levels. As about 85% of the public expenditure on education is financed by indirect taxes which are paid relatively in large proportion by masses, there is no justification for public subsidisation of higher education, as higher education caters to the needs of the relatively better off sections of the society. From the way it is financed, it is clear that higher education emphasises the principle "to-nim-that-nath-shall-be given". It is only legitimate that mass education that covers elementary education, non-formal education, adult education etc., should be provided with sufficient resources. In fact, a drastic reallocation of resources in favour of mass education is an urgent need.

Just as agricultural education is the responsibility of the Ministry of Agriculture, health education that of the Ministry of Health, all other professional, vocational and technical types of education should be funded by industrial and other Ministries and public and private sector organisations. In fact, every department

should take into account the education and training requirements for its activities and make provision for it. (Construction of school buildings under the National Rural Employment Programme is an interesting example in this context.) Further, if we say 5 major sectors like industry, and energy reduce their share in the total plan outlay by say 1% and allocate it to education, the share of education becomes 7% - 8% of the total plan outlay, a proportion equivalent to that in the first plan. Alternatively all the public and private sector organisations who employ educated manpower may be required to pay for education in the form of a tax.

Besides, other budgetary sources should also be tapped. Education cess should be fixed at a level that generates more resources. Even a small cess or an education levy on non-essential commodities or services like rail/air-tickets may generate substantial amount of resources for education; and since it can be as small as say 5 paise per rail ticket or a rupee per air ticket, etc, it will not be felt as a burden by the commuters. Alternatively, say a 5% cess on items like imports as in Pakistan may generate sizeable resources for education. In some Latin American countries like Chile, lotteries are run and bonds are floated to generate supplementary resources for education. The educational vouchers being used in countries like USA and UK can be viewed as yet another additional resource.

A discriminatory fee structure, particularly in higher education, based on the economic background of the students would result in greater mobilisation of resources, besides making the education system less regressive in nature.

Serious efforts should be initiated to encourage individuals and organisations through tax incentives and other measures to make large endowments and donations to the education sector. Institution of a National Education Promotion Fund on the lines of the Socially Useful Development Fund for compulsory education in Yugoslavia may be worth attempting. In the same context, one method often discussed is increasing the role of private sector, or privatisation of education. The examples of Philippines and other countries provide a case for it. But this basically depends upon the philosophy of the society. Obviously there is no justification for the growth in private aided schools and colleges, a large part of the cost of running which is met by the government.

In fact, the whole nation should feel responsible for the development of education in the country. However, given the experience, mobilisation of cheap local resources, revision of fee structure etc., should be viewed only as peripheral sources of mobilisation of additional resources for marginal improvements in the education system. After all, they cannot become primary and reliable sources of revenue for large scale improvements in the system. The government can not but continue taking more responsibility for education.

With respect to the devolution of resources from the Union Government to state governments for education, meaningful criteria should be adopted so that the whole mechanism works as a mechanism of awards/disincentives. The grants should be education-specific and non-transferable. The grants should attempt at clearing the backlog in the provision of facilities to the schools, that get accumulated over years. Particularly to reduce regional imbalances, larger involvement of the central government is needed, and it should make efforts for crash subsidisation of the worse-off states by the better-off states through the medium of national level agencies. Local bodies may be guaranteed of a minimum level of resources either transferred from the state governments, or to be generated on their own.

Intra-sectoral resource allocation policy in education should favour lower levels of education as long as the goals like universalisation of elementary education, universal adult literacy etc., remain unfulfilled. Only when these goals are met, the relative shares of the other sectors of education can be increased. After all, even if 'education for all' were to include secondary and higher education, it has to necessarily start from elementary education.

Out of the total education budget, there is need for an increasingly larger share to be devoted to activities on physical capital formation such as construction of buildings and purchase of durable furniture and equipment, without which the education edifice may not be able to deliver the goods in the long-run.

A minimum level of resources for education per pupil, correspondingly in costs of education should be defined, and in no region and and time, actual costs per pupil can be allowed to fall below this minimum level. Costs of education in real terms per pupil in a given year should not normally be less than the corresponding costs of the preceding year, unless there is a significant change in

educational technology. There is a need for further reducing the imbalance in cost structure of the education system, i.e., efforts should be made to reduce the ratio of cost of higher education to the cost of primary education to the extent possible.

In the provision of resources for education by schools, a minimum level of resources per school should be defined, like the number of class-rooms, number of teachers, blackboards, maps, open space play ground etc., and all efforts should be made to provide these minimum level of resources to all schools. With respect to certain other resources, cluster approach to education planning may be adopted, according to which schools in a cluster share certain resources with other schools in the same cluster.

The scope for better utilisation of non-financial resources available within and outside the education system, should be explored, and provision for meeting the costs to utilise them, which would obviously be much small, should be made. Further, to the extent possible, all non-viable schools and colleges, should be gradually eliminated.

There is no justification for allowing the rural areas to suffer most in the provision of resources and thereby in good quality education, as the rural masses contribute substantially to the public resources. Rural-urban allocation of resources should be proportionate to the distribution of population, so that the present trend of contributing to urban development at the cost of rural development, of metropolis at the cost of development of villages, towns and cities, and to the development of the other countries, through out migration at the cost of development of the domestic economy is checked.

The funding mechanism including the grants-in-aid policies, the fees policies, etc., should be primarily equity and justice oriented, and secondarily resource generation oriented. It should be noted that the system of financing education has significant implications for income distribution.

Low cost technology in education becomes necessary at all levels of education. Low cost methods like open learning systems may be adopted as supplementary to the conventional system and care should be taken to see that the quality is not sacrificed for the sake of finances.

Opening middle or secondary schools having classes from 1 onwards will be a better proposal than opening primary schools and secondary (Classes VI-XI) schools separately as it reduces the effective costs of primary level education, besides making it qualitatively better, as pupils in primary level classes will share the same common resources that are available to the pupils in high/higher secondary classes. This will also reduce the wastage/dropouts particularly between primary level and middle/secondary levels.

Every institution should be provided and encouraged to maintain some financial resources over and above the general requirement for good 'house-keeping' purposes and to encourage innovations. The schools should be encouraged to generate their own resources, independent of the grants to be received by them.

National development requires strong educational structures. Educational edifices become strong, healthy, efficient and can make maximum contribution to the economy, provided the autonomy of the education institutions is protected and respected. This should be well recognised.

The methods of national income accounting should take into account the investments made in education, including the household investments. Elaborate attempts should be made to collect detailed statistics on education, including the household costs at micro levels.

Above all, the investment nature of education expenditure should be clearly recognised. "It is misleading to treat public expenditure on schooling as 'welfare' expenditure, and as a use of resources that has the effect of reducing 'savings'" (Schultz, 1981:53). It should be recognised that education is a long term investment that contributes to socio-economic development quite significantly. No nation goes bankrupt by investing in education of her people.

NOTES

1. In fact the comparable figures are Rs. 1140 million in 1950-51 and Rs. 2504 million in 1976-77. The figures relating to later period are based on government expenditure only. Further, it may be noted that we use the terms 'public expenditure and 'institutional' expenditure almost synonymously, as distinct from private or household expenditure incurred by the students and/or their parents. The former includes fees paid by the students and voluntary contributions received from the community. See Tilak (1985-b) for an elaborate classification. While in general, total includes both, i.e., public and private, most often due to paucity of data total is defined as equivalent to total institutional expenditure.
2. Expenditures at current prices are converted into constant prices, using the all-india wholesale price index and the state income deflators, depending upon the availability of data. This is certainly not the best method, as the commodities that enter the education activity constitute a minor component of the basket of commodities, that is used to construct the wholesale price index. More importantly, the relative weightage of the commodities would differ quite significantly. Hence the whole sale price index cannot serve the purpose adequately. But in the absence of appropriate price indices to convert the educational expenditure into constant prices, we have no other alternative but to use it.
3. Since the expenditure in the five year plans is spread over five years, conversion of the actual expenditure of the plan into real expenditure is not an easy task. We have used national income deflators (derived from GNP in current prices and CNP at 1970-71 prices corresponding to the total period of each five year plan) for converting the expenditure in the five year plans into constant terms. (I am grateful to Brahm Prakash for the discussion that resulted in evolving out this method).
4. Direct expenditure is defined as that 'which is incurred directly for running the education institutions, such as salaries of the teaching and non-teaching staff, expenditure on equipment, maintenance of buildings, etc.' Direct expenditure does not include expenditure on direction, inspection, buildings (other than maintenance), non-recurring equipments, scholarships, stipends, and other financial concessions, hostel charges,

including mess charges etc. Further, data on only direct expenditure are available by levels of education and rest, indirect expenditure as an aggregate, upto 1975-76. Hence, level-wise analysis generally ignores indirect expenditure. In 1976-77, the latest year for which detailed data are now available, the concepts of 'recurring' and 'non-recurring' expenditure replace 'direct and indirect' expenditure.

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