Financing Human Development
MONOGRAPH SERIES

Matching Human Development across Maharashtra with its Economic Development

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May 2010

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Preface

This is the eighth (and the last) state report prepared under the research project ***Financing Human Development*** undertaken by the National Institute of Public Finance and Policy. The project work was completed (barring publication of a few state reports) by March 2010 and was part of a larger programme titled ***Strengthening State Plans for Human Development,*** executed by the Planning Commission and sponsored by UNDP India.

The research team for this study was led by Tapas K. Sen. Other members of the team included H.K. Amar Nath, Mita Choudhury and Surajit Das. The Governing Body of the Institute does not take any responsibility for the contents of this monograph; the responsibility lies with the authors.

M. Govinda Rao
Director

Acknowledgements

We would like to express our sincere thanks and gratitude to a number of people who had extended support, cooperation and guidance for this study. While we would not be able to put down the names of all the people who had spared time and effort to shape this report in its present form, we are greatly indebted to all of them for their help.

We owe a special thanks to the officials of Government of Maharashtra, without whose cooperation this study would have been an impossible task. We are especially thankful to the Planning Department of the state for acting as the nodal agency and facilitating our work. In particular, we owe sincere thanks to V.K. Agarwal, Sunil Soni S.M. Aparajit, and R.D. Redkar for their cooperation. Dnyanesh R. deserves a special mention as our main interface in the Planning Department and for organising most of our meetings and discussions in the state with great efficiency. We are also grateful to a number of officials in other departments of the state who had provided valuable insights with data and discussions on issues related to school education, health and family welfare, nutrition, water supply, sanitation and rural development. We express our deep sense of gratitude to Narendra Kawade, Y.B. Patil, P. Dokay, S. Pawar, Chandrakant Gudewar, Vijay Pandey, Vijay Desai and Ujjwal Uke among others in these departments. We are also thankful to the officials of the Maharashtra Human Development Mission, Aurangabad and the Nutrition Mission, Government of Maharashtra for providing us with an exposure which was invaluable for the study. We would particularly like to acknowledge Naresh Gite and P.N. Khade for their support.

We also owe thanks to the Planning Commission and UNDP India for their guidance and support for the project. We thank R. Sridharan and Rajat Sachar of the Planning Commission and Seeta Prabhu, Suraj Kumar and Ritu Mathur of UNDP India for providing us this opportunity to carry out the project and extend guidance whenever required on various aspects of the project.

At the institute, M. Govinda Rao, Director of this institute has been a constant source of help and encouragement to the study team. We express our heartfelt thanks to him. Diwan Chand and Gita Bhatnagar, though not a part of the study

team, have significantly contributed to this study with public finance data. We express our gratitude to them. Finally, we would like to extend our thanks to Rita Wadhwa, Kavita Issar and the entire publication team for their efforts in publishing these reports. Any remaining errors of omission and commission are entirely our responsibility.

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I. The Setting

1. Introduction

Maharashtra, created out of a bifurcation of the erstwhile Bombay Presidency (containing Western Maharashtra and Konkan regions – the other part formed Gujarat) and adding to it the Marathwada region from the erstwhile Hyderabad as well as the Vidarbha region from the former Central Provinces and Berar, is currently the second largest state of India in terms of population and the third largest in terms of area. This history of the state continues to have relevance today, primarily because of developmental disparities between the regions. Konkan and Western Maharashtra (particularly Mumbai – or Bombay as it was known earlier – and Pune – or Poona as it was known earlier) had the advantage of an earlier start in the process of economic development, not only compared to the rest of the state, but also compared to the rest of the country barring the area around the cities of Calcutta (now Kolkata) and Madras (now Chennai). This was mainly because of the importance of these three cities as port cities serving large inland areas with useful productive base; this prompted the British traders to set up their bases in these cities and eventually promote these cities as industrial hubs as well. Between the three, the port of Bombay was relatively more important, being on the West Coast and having the shortest sea route to England; this eventually resulted in its pre-eminence in financial transactions and this has continued over the years to make Mumbai the 'financial capital' of India.

Building on this early start down the path of industrial development, the state is now counted among the 'high income' states of India with a per capita income of Rs. 47051 (at current prices) in 2006-07, ranking third among the states (just overtaking Punjab, after lying below it for several years, but continuing to stay below Haryana) excluding the NCT of Delhi, the highest being that of Goa. But this achievement has been somewhat marred by the sharp regional disparities that persist and the (consequent) high levels of poverty in the state (30.7 per cent in 2004-05), though the latter shows improvement in recent years. This has been a matter of concern and official Committees (like the Dandekar Committee) have also confirmed the regional imbalances and, in fact, estimated the 'development backlog'. The disparities are both in economic and human development, although a more disaggregated analysis, say by districts, does not exhibit such clear-cut patterns; there are better-off districts in the backward regions as also backward districts in

better-off regions. All the same, the regional patterns are unmistakable and constitute a well-defined task of spreading the benefits of economic development as well as human development more evenly across the state.[1] Of these, our immediate concern here is human development, but since these two are somewhat related and financing human development often is facilitated by economic development,[2] it may be of use to briefly examine the macroeconomic trends as also the district-wise picture.

2. Socio-Economic Background

The state had a population of 9.69 crore in 2001, about 9.5 per cent of the population of the country, and was the second largest state in terms of population. It has an area of 3.08 lakh sq. km. (third largest after Rajasthan and Madhya Pradesh) and the average population density thus works out to 315 persons per sq. km., a figure similar to the average for the country. Of the total population, more than 42 per cent was urban in 2001, making the state one of the more urbanized ones in the country. Correspondingly, nearly 55 per cent of the population depends on agriculture for livelihood. Population growth in the state has been higher than the average for the country, possibly because of substantial net in-migration. Of the total population, 10 per cent are Scheduled Castes (SC) and about 9 per cent are Scheduled Tribes (ST).

Geographically, there is substantial diversity within the state, with fertile coastal areas, the Western Ghats along the long coastline, and part of the vast Deccan plateau (underlined by rocks of volcanic origin); the latter, depending on the type of topsoil and availability of water, is unevenly fertile and is suitable for different types of crops/ agricultural technology. The northern and north-eastern borders of the state have substantial forest cover (the state has 17 per cent of the area under forests officially). While Maharashtra is served by several major river systems, a sizeable area of the state can be characterized as relatively dry areas, prone to droughts (137 talukas have a long-term average rainfall of below 750 mm.). Further, out of about 200 lakh ha. of operational holdings (2000-01 Agricultural Census), actual utilization of irrigation potential in 2006-07 was about 23 lakh ha., with another 8.5 lakh ha. irrigated with wells.

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[1] Human development indices for 2001 computed for the six revenue divisions range from 0.723 for Konkan (including Mumbai) to 0.646 for Nagpur, with the average for the state at 0.672.

[2] The link works through the higher availability of public resources that economic development generally results in, as also some relaxation of the constraints on human development imposed by income poverty.

The 2001 Census puts literacy rate in the state at 77 per cent; NSS 64th Round (2007-08) data reveal that this has likely risen to 78.2 per cent. However, more than half the population does not continue education beyond the primary level. Life expectancy at birth was about 70 years as per 2001 Census and infant mortality rate (Sample Registration System or SRS) was 34 in 2007 (the target by 2010 is 20). In terms of poverty, however, the state fares poorly, having a level of poverty headcount ratio only a little below Uttar Pradesh (30.7 as against 32.8), a state with much lower per capita income.

The economy of the state, as indicated by its gross state domestic product (GSDP), has grown at an impressive rate of 6.8 per cent over the period 1990-00 to 2007-08 in real terms. This is despite a negative growth in 2000-01 (because of drought); excluding that year, the average annual growth has been over 8 per cent. Figures 1.1 shows the growth of GSDP and the changing shares of broad sectors in GSDP respectively. It can be seen that the services sector has been growing faster than the other two sectors, increasing its share in GSDP substantially, even when it accounted for more than half of the GSDP in 1999-2000 itself. The share of agriculture and allied sector has been steadily falling and has dropped to only about 13 per cent of the GSDP now; this immediately points to a rather mechanical explanation of persisting high poverty level – more than half the population of the state trying to earn their livelihood within less than 15 per cent of the state's product. This explanation is mechanical because it does not explain why the poor cannot move to other sectors that constitute 'bigger shares of the pie'; such an explanation has to be sought in their ability to equip themselves with appropriate skills for a switch of the method of earning their livelihood – in other words, human development.

Figure 1.1 Relative Growth of Sectoral GSDP (1999-00 prices) and Changing Shares of Major Sectors in GSDP, 1999-00 to 2007-08, Maharashtra

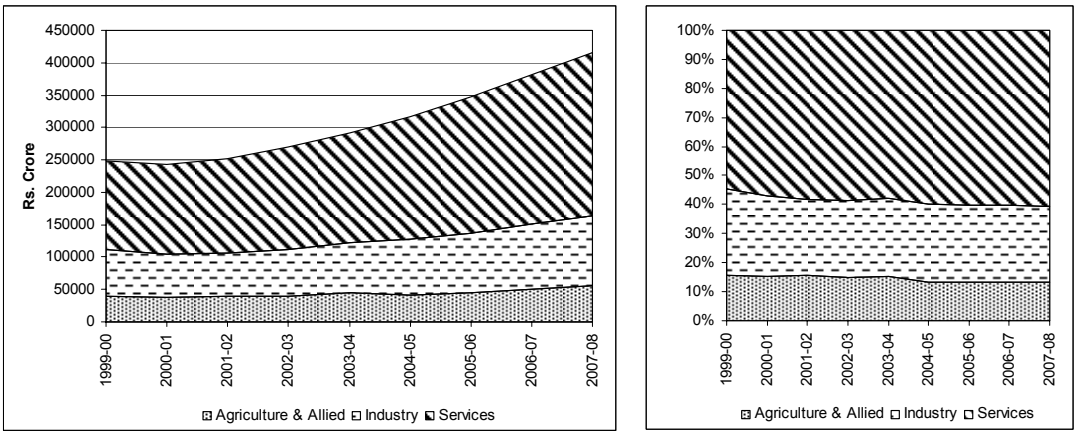
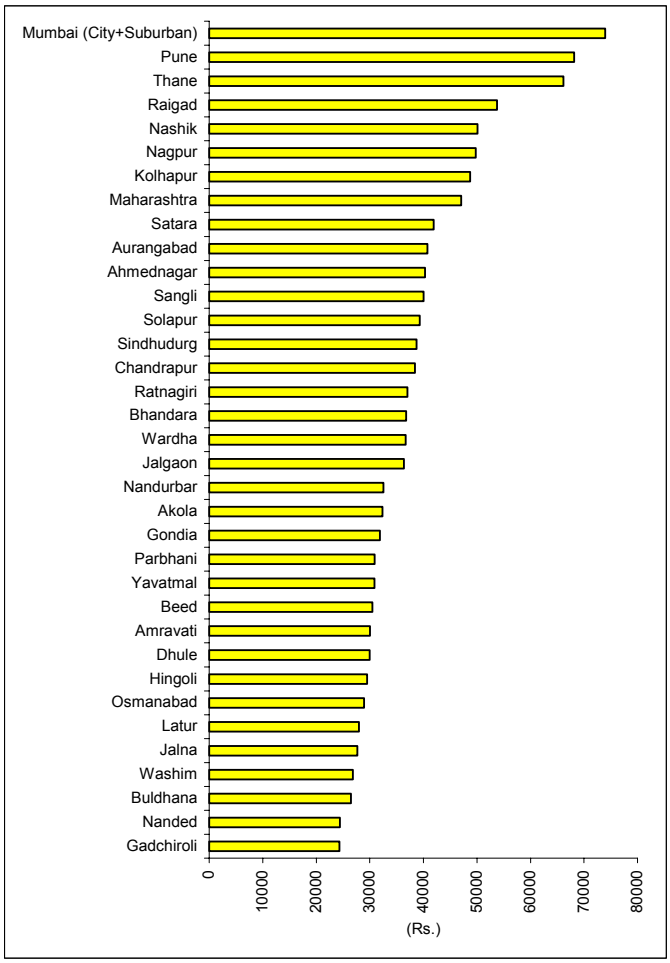


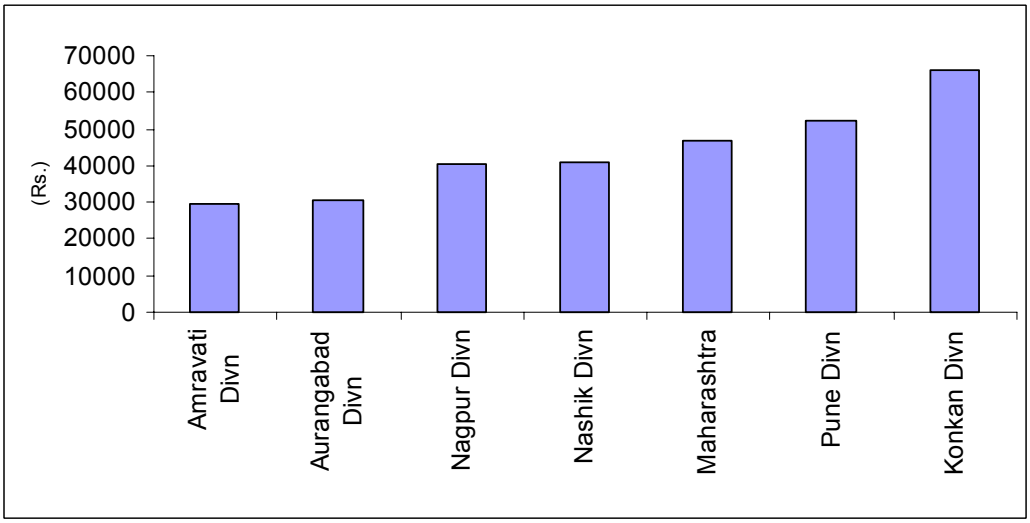
Figure 1.2 Per Capita District Incomes, 2007-08



Source: *Economic Survey of Maharashtra 2008-09*

Some idea of the regional imbalances in development within the state alluded to earlier can be had from district level SDP data. It can be seen from Figure 1.2 that the per capita incomes of districts vary significantly among them, with the lowest (Gadchiroli) being almost a third of the highest (Mumbai). There are only seven districts above the state average, clearly influenced by the presence of a large city in the district or contiguous to it. All other 27 districts lie below the average, with the lowest being almost half of the average. Figure 1.3 provides an idea about the inter-divisional spread in per capita income.

Figure 1.3 Per Capita Income 2007-08: Revenue Divisions



Poverty estimates by region (Mishra, Duggal, Lingam and Pitre, 2008) also confirm the unequal distribution of poverty. While the entire coastal area, Pune division and Ahmednagar district have relatively low incidence of poverty, the rest of the state, and particularly the Eastern region (Nagpur division minus Nagpur and Wardha districts), exhibit persistent and considerably higher levels of poverty. Only the Inland Eastern region (Amravati division plus Nagpur and Wardha districts) seems to have significantly lower level of poverty in 2004-05 as compared to 1993-94. Similarly, particular social groups (STs and SCs) have significantly higher poverty levels than others even in 2004-05, with more than half of the rural STs estimated to be poor. Muslims, in comparison, have far lower incidence of poverty (28 per cent) in the state. The statistics thus clearly point out the regional and social dimensions of poverty and the related inequities. It stands to reason that these inequities may be coinciding in pockets with development deficit; if so, the policy imperative clearly is to identify these pockets and devise schemes exclusively for these pockets, ring-fencing a significant share of available resources for them.

3. State Finances

The low per capita incomes of several bottom-ranked districts of the state depicted above indicate the inadequacy of private incomes to pay for basic ingredients of human development in the case of a large section of the citizens. As such, the role of the state in providing these to those who cannot afford it becomes important. In turn, the ability of the state to do so depends substantially (though not wholly) on the public finances of the state. Figure 1.4 charts a few broad indicators of the financial health of the state government and it shows a fairly robust position barring a couple of years (2003-04 and 2004-05, when fiscal deficits were relatively high). Revenue deficits were actually higher in the three preceding years, although fiscal deficits were not, implying low levels of capital expenditure. The last two years of the period covered (2006-07 and 2007-08) have been particularly good, with revenue surpluses in both years and even a fiscal surplus in 2007-08. The expenditure-GSDP ratio has been fairly stable since the beginning of the decade except in the last two years; one may be tempted to conclude that the improvements in the deficit indicators were achieved by cutting expenditures. Actually, the sharp growth in GSDP caused the expenditure-GSDP ratio to drop, while it facilitated higher receipts and thus lower deficits. In 2008-09, however, revised estimates indicate that the slowdown in economic growth resulted in reappearance of fiscal deficit, although revenue surplus position has been maintained (perhaps even improved) – mainly thanks to postponing a part of the burden of salary revision and one time receipts from irrigation corporations (on account of guarantee fees).

Figure 1.4 Recent Trends in Deficit and Expenditure in Maharashtra, 1993-94 to 2007-08

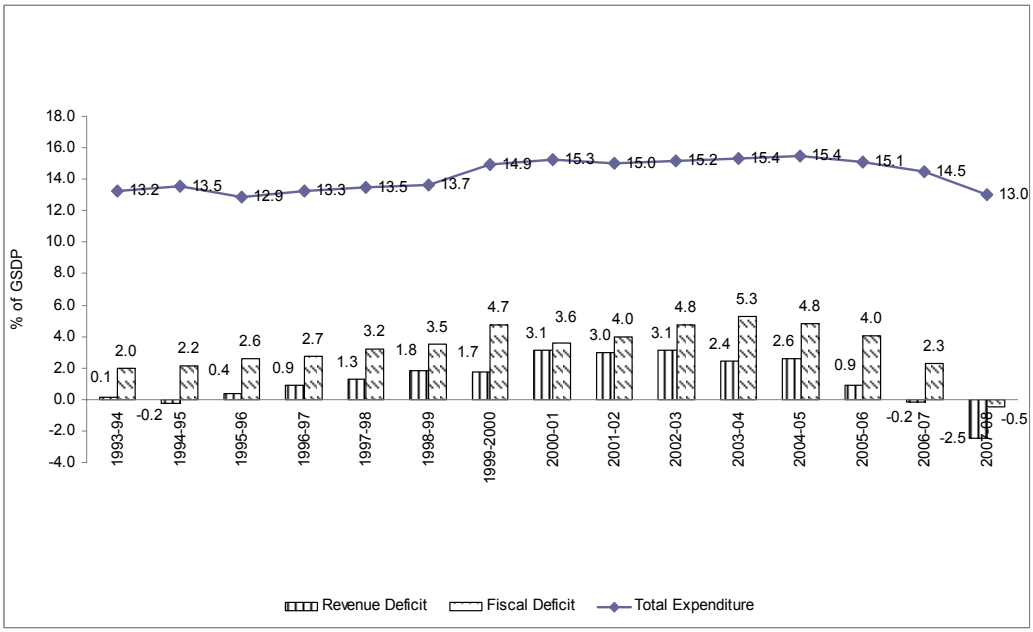
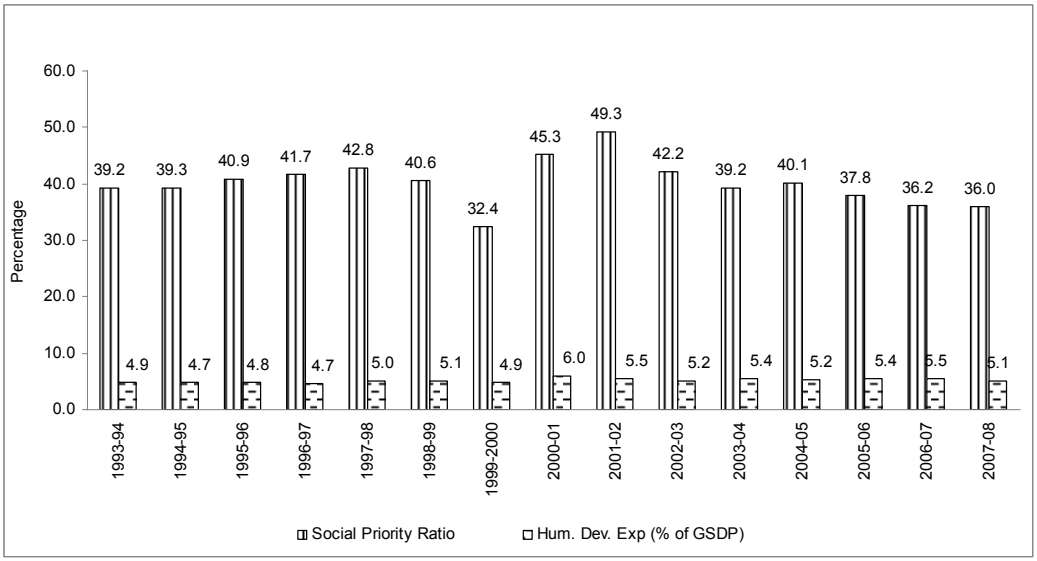


Figure 1.5 Trends in Human Development Expenditures in Maharashtra, 1993-94 to 2007-08



Healthy state finances do not automatically ensure adequate public provision of services supporting human development, particularly that of the poor. While broad budgetary trends do not reveal the distribution of public services, it is possible to see whether the pattern of budgetary allocations favours human development or not. Figure 1.5 depicts two budgetary parameters that provide pointers to the budgetary allocations for human development. It shows that in terms of both the indicators,

public expenditure on human development may be relatively inadequate: human development expenditure as a ratio of GSDP has risen in the present decade as compared to that in the years of the previous decade, but the highest is still less than 6 per cent and mostly below 5.5 per cent – levels below those observed in most other states. Similarly, the social priority ratio is around 40 per cent on an average over the period examined (although the highest is 49.3), below what is generally considered necessary as a rule of thumb; what is of greater significance is that it shows a declining trend since the beginning of the decade, a trend that is not likely to help the cause of human development.

Maharashtra, with a high level of per capita income, is obviously better equipped to deal with poverty and other issues of human development. This is because (a) private spendings substantially supplement public expenditure in a high income state, and (b) the state would normally have less significant resource constraint. Given the relatively good indicators of human development in the state, the priorities of the state are rather obvious; to improve the human development status from 'relatively good' to one of the best, focusing strongly on the issue of persistent poverty and regional imbalances.

II. The Poverty Issue

1. Introduction

Maharashtra is one of the states with a relatively high percentage of people below poverty line. In 2004-05, 31 percent of its population were estimated to be below the poverty line, dropping only six percentage points from the 1993-94 level of about 37 percent. In between, the poverty ratio in 1999-00 was estimated at around 25 percent but this figure is not comparable to the other figures mentioned above because of methodological differences; more than 10 percent of India's poor were then estimated to be living in Maharashtra (Table 2.1) – the third largest concentration of poor persons in any state in terms of absolute numbers, next only to Uttar Pradesh and Bihar. Tamilnadu, West Bengal and Karnataka had roughly the same level of poverty as Maharashtra in 1993-94, but had brought it down to 25 percent or below by 2004-05; in the case of Maharashtra, the percentage point reduction in poverty was only about half of that achieved by these states. With increasing urbanization, partly driven by intra-state migration of the rural poor as also migration from other states, poverty level in urban areas of Maharashtra is higher than in the rural areas. The rural poverty level declined from 38 percent in 1993-94 to 30 percent in 2004-05 whereas urban poverty declined only marginally from 35 percent to 32 percent during the same period.

Table 2.1: Poverty Incidence in Selected States

State	State share of India's		Percentage of poor in total population of the state		
	Poor	Population			
	1999-00	**2001**	**1993-94**	**1999-00**	**2004-05**
Madhya Pradesh*	8.28	7.91	42.52	37.43	38.29
Maharashtra	*10.52*	*9.42*	*36.86*	*25.02*	*30.75*
Orissa	5.92	3.57	48.56	47.15	46.37
West Bengal	6.91	7.81	35.66	27.02	24.72
All India	**100**	**100**	**35.97**	**26.10**	**27.54**

* Data for 1999-00 refer to undivided Madhya Pradesh, while that for 2001 refer to Madhya Pradesh after bifurcation.
Source: Planning Commission

To say that Maharashtra presents a peculiar combination of high per capita income and persistent poverty has become almost a cliché. Strangely enough, apart from providing facts that corroborate the uneven regional development and that there are clear indications from poverty correlates confirming non-income dimensions of poverty among the income poor in the state (Mishra and Panda, 2006 and Kamdar and Basak, 2003), it is difficult to find a clear answer to the basic question: why does

the paradox persist? Explanations like serious inequalities in the distribution of income really beg the question in the sense that the question simply changes to: 'why do the inequalities persist, or perhaps even rise, with rising per capita incomes?'[3] At this point, we do not venture a hypothesis, but received wisdom points to the inability of the poor to obtain the basic necessities of life, thus depriving them the opportunity of building up capital – financial or human (skills). The absence of either type of capital condemns them (and their families) to poverty forever. As such, to lift the poor out of the poverty trap, two kinds of initiatives are recommended: the first attempts to cover the basic necessities like food and housing (directly and/or through ensuring a minimum amount of family income), while the second tries to provide certain basic services like health and education to help the poor in building up human capital. We examine issues in elementary education and health services later; in this chapter we outline some of the programmes for poverty alleviation and their achievements.

The state has been aware of the problems of uneven regional development and the related one of substantive poverty in the state for several years now. It had taken the unique step of estimating the 'development backlog' of the relatively less developed regions and the investments required to erase the backlog; it also introduced the only large scale employment guarantee programme (EGS) in the country, which was cited as a success story for several years, long before the national scheme was rolled out perhaps to replicate the perceived gains of the programme across the country. At present, major poverty alleviation schemes in terms of resources are those under centrally sponsored schemes in Maharashtra. Prominent among them in terms of scale of operations are National Rural Employment Guarantee Act (NREGA), *Swarnajayanti Gram Swarojgar Yojana* (SGSY) and *Indira Awas Yojana* (IAY). The performance and impact under each of these schemes is summarized below along with a brief assessment.

2. SGSY

IRDP, TRYSEM, DWCRA and other schemes were restructured and launched with the name *Swarnajayanti Gram Swarojgar Yojana* (SGSY) in 1999. This scheme aims at ensuring sustainable self-employment of the beneficiaries, as individuals/households or through self-help groups. The scheme is implemented with the help of financial institutions, *Panchayati Raj* Institutions and District Rural Development Agencies (DRDA), and non-government organizations (NGOs) in the

[3] If income distribution remains the same with the average real income rising, absolute poverty should decline. If that does not happen to any significant extent, it implies increasing inequality.

district. These institutions are also involved in the process of planning and monitoring of the scheme. The scheme incorporates help from the NGOs in areas where they are involved in promoting self help groups (SHGs) as well as in the monitoring of the progress of the *swarojgari*s, the beneficiary households.

The scheme is designed to help the poorest of poor by establishing a large number of micro enterprises in the rural areas. The families getting assistance are selected on the basis of the list of BPL households identified through BPL census duly approved by *Gram Sabha*. The objective of SGSY is to bring assisted families above the poverty line within three years by providing them income-generating assets through a mix of bank credit and government subsidy. The rural poor such as those with land, landless labour, educated unemployed, rural artisans and disabled population are covered under the scheme. The scheme specifically focuses on the vulnerable section of the rural poor. Accordingly, the scheme provides for reservation for the SC/ST (of at least 50 per cent), for women (40 per cent) and the disabled (3 per cent) of those assisted. The basic idea here is to develop sustainable income generating self-employment by the beneficiaries instead of providing them with jobs. A crucial assumption is that the supported activity would generate enough returns to service the bank credit extended.

Table 2.2: Physical and Financial Progress under SGSY in Maharashtra

(Rs. Lakh)

	2000-01	**2001-02**	**2002-03**	**2003-04**	**2004-05**	**2005-06**	**2006-07**	**2007-08**
Releases From Centre	5770.72	3709.84	5410.33	5702.61	7409.42	7442.51	8702.09	13178.83
Releases From State	2669.22	1711.19	2341.95	2067.14	2410.19	2523.34	3087.08	4153.14
Total Funds Available	16152.02	11378.69	9043.01	9469.09	11288.14	11530.53	12427.62	18957.6
Subsidy	7587.71	6856.03	5661.55	5997.44	6955.15	7535.47	7267.1	11285.02
Revolving Fund	697.12	815.29	647.25	761.17	1036.71	1232.41	1338.15	1782.32
Infrastructure Development	2424.17	2011.26	1389.38	1358.94	1724.29	1663.77	1698.59	3216.89
Training	364.17	364.45	488.95	329.17	927.99	380.73	421.67	795.29
Other Expenditure	1160.13	349.36	56.58	393.16	0	0	695.22	1158.12
Total Expenditure (TOT-EXP)	12233.3	10396.39	8243.71	8839.88	10644.14	10812.38	11420.73	18237.64
Utilization (%)	75.74	91.37	91.16	93.36	94.29	93.77	91.90	96.20
No. of Individual *Swarojgari*s	72453	45245	21643	15165	10952	8600	7204	12256
of which SC and ST	26811	19796	9678	8244	6199	36121	4530	3198
Number of SHGs	1477	2350	3227	4309	5603	6128	6401	29678
No. of Individuals under SHGs	15546	25357	34129	45494	59194	65239	68582	107088
Subsidy as % of TOT-EXP	62.03	65.95	68.68	67.85	65.34	69.69	63.63	61.88
Infrastructure as % of TOT-EXP	19.82	19.35	16.85	15.37	16.20	15.39	14.87	17.64
Training as % of TOT-EXP	**2.98**	**3.51**	**5.93**	**3.72**	**8.72**	**3.52**	**3.69**	**4.36**

Source: Government of Maharashtra

An analysis of the financial progress of SGSY in Maharashtra (Table 2.2) shows that over the years expenditure has generally ranged between Rs. 82 and 122 crore, shooting up to Rs. 182 crore in 2007-08. Except for the initial year (2000-01), the utilisation levels have been around 90 percent. Central releases show a significant dip in 2001-02 along with state releases (possibly a case of inadequate matching funds allocated by the state), subsequent recovery (again in line with state releases) and a significant increase in both state and central releases in 2007-08. Subsidies as part of total expenditure are 60-70 percent in these years. Share of expenditure on infrastructure however declined from 20 percent in 2000-01 to 15 percent in 2006-07, increasing to 17.6 percent in 2007-08. Share of training is fluctuating around 4 percent with 8.7 percent in 2004-05 as the highest. Number of individual *swarojgari*s clearly shows a declining trend from 72000 in 2001 to mere 12000 in 2007-08, while the self-help groups have increased from 1477 to 29678 during the same period. Clearly, the increased expenditure is directed towards the SHGs in a preferred manner, which conforms to the basic strategy of the scheme. Except in 2007-08, SC and ST communities among individual *swarojgari*s have constituted more than 40 percent of the total. Number of individuals benefited through SHGs has risen from 15000 in 2000-01 to more than one lakh in 2007-08.

3. Direct Provision of Employment

The state's Employment Guarantee Scheme (EGS) was in operation from 1972 till April 1, 2008, when it was merged with NREGA. A survey of various studies on EGS (Patel, 2006) finds that EGS was more successful until the late 1980s as compared to the subsequent period. In any case, the positive features of the scheme include a high wage component and reasonable targeting implying appropriate spending pattern, part payment through food coupons ensuring some amount of food security, its demand-driven nature (replicated in NREGA), increased bargaining power of the agricultural labour, substantial provision of employment to women, a well-conceived funding system (using collections from profession tax, put into a statutory fund) and provision of employment when needed most (drought years and slack season in normal years), although it might not have been fully successful as a regular employment guarantee programme. On the negative side, the scheme is assessed to have failed in:

- creating durable social assets,
- compensating for the regional inequalities (regional distribution was not in favour of low income regions),
- increasing its outreach to the poor over the years,
- promoting skill development among its workers and

- providing adequate wages (at least the minimum wages).

Overall, the programme's impact on poverty levels (headcount) is uncertain, but it was felt to have reduced the intensity of poverty for the very poor. Its merger with NREGA in 2008-09 has actually reduced the impact in terms of both expenditure and person-days of employment provided compared to the combined impact of the two schemes in the previous year; hopefully, this will be made up in the subsequent years through expansion of NREGA.

Before the advent of NREGA, SGRY was one of the primary programmes for direct provision of employment in rural areas all over India. Wages were paid in both cash and kind (foodgrains) under this programme. In Maharashtra, its scope was not as large as EGS; person-days of work provided and expenditure under EGS in 2005-06 were 16.9 crore and Rs. 983 crore respectively, compared to 6.59 crore and Rs. 533 crore respectively under SGRY. A recent evaluation of SGRY in Maharashtra (Panda et al., 2005) found that the food-for-work component of SGRY had a mixed success record. While implementation was in general as per design and stated objectives, there were instances (generally below 10 percent of the total sample) of failure of targeting, beneficiaries getting work for only a week or so (average was about 30 days), lack of timely payment of wages and foodgrains, poor maintenance of records, and lack of timely interventions to prevent distress migration. Further, there was lack of people's involvement in identifying beneficiaries and undertaking works useful for the village. This programme has also been subsumed under NREGA.

Now, the entire public intervention in terms of direct provision of employment in rural areas is riding on NREGA with the discontinuation of both state EGS and SGRY. In Maharashtra, 12 districts were included for the implementation of NREGA in the first phase with another 6 districts added in the second phase. As of now, NREGA has been extended to all the 33 districts. The officially reported performance of Maharashtra in implementing the scheme during the previous year as obtained from the details given by the NREGA website (www.nrega.nic.in) are reported in Table 2.3.

As per official statistics, about 100 percent of the households that demanded employment have been issued job cards. Out of the total person-days of employment generated by the state under NREGA, 19 percent is for SCs, 42 percent is for the STs and 50 percent for women. With an expenditure of Rs. 222 crore, roughly 23 million person-days were generated under NREGA in the state in 2008-09. These

figures, however, exclude information for four districts (Kolhapur, Satara, Sindhudurg and Solapur) that are not available for any of the months in the website. Of the total expenditure, nearly 87 to 89 percent is spent on unskilled wages, another 5 percent on material and just about 4 percent on semi-skilled wages (Table 2.4).

Table 2.3: Detailed Progress of NREGA in Districts of Maharashtra in 2008-09

(lakh person-days)

District	Scheduled Castes		Scheduled Tribe		Others		Total	Share of Women in Col 8	Share of Women in Col 8 (%)
	Person Days	Person Days (%)	Person Days	Person Days (%)	Person Days	Person Days (%)	Person Days		
Ahmednagar	0.55	6.49	2.07	24.62	5.79	68.89	8.40	4.70	55.95
Amravati	2.06	22.26	4.75	51.25	2.45	26.49	9.26	3.35	36.11
Aurangabad	3.82	30.03	2.54	19.97	6.36	50.00	12.72	4.45	34.98
Bhandara	1.87	15.67	1.23	10.31	8.83	74.02	11.93	6.62	55.49
Chandrapur	0.74	18.80	1.15	29.06	2.06	52.15	3.96	1.68	42.47
Dhule	0.91	12.85	3.74	52.82	2.43	34.32	7.08	3.18	44.92
Gadchiroli	2.58	18.57	4.32	31.10	6.99	50.32	13.89	5.52	39.74
Gondia	2.10	15.00	2.52	18.00	9.38	67.00	14.00	8.40	60.00
Hingoli	5.69	28.97	4.12	20.98	9.83	50.05	19.64	19.64	100.00
Nanded	6.85	35.98	4.95	26.00	7.24	38.03	19.04	7.62	40.02
Nandurbar	1.28	4.03	26.70	83.99	3.81	11.98	31.79	16.85	53.00
Yavatmal	3.36	29.95	2.24	19.96	5.62	50.09	11.22	3.83	34.14
Akola	0.44	50.00	0.15	17.05	0.29	32.95	0.88	0.24	27.27
Buldhana	0.45	10.28	0.26	6.05	3.65	83.66	4.36	0.03	0.64
Osmanabad	0.43	18.94	0.05	2.20	1.79	78.85	2.27	0.97	42.73
Thane	0.02	0.05	33.77	99.86	0.03	0.09	33.82	14.48	42.80
Wardha	0.12	28.71	0.08	19.26	0.23	52.02	0.43	0.12	27.19
Washim	0.39	35.22	0.17	15.82	0.54	48.96	1.10	0.52	47.09
Beed	0.03	26.00	0.02	15.00	0.06	59.01	0.11	0.11	100.00
Jalgaon	0.02	14.36	0.04	29.25	0.07	56.40	0.13	0.03	24.34
Jalna	0.01	2.40	0.00	0.54	0.34	97.06	0.35	0.00	1.37
Kolhapur									
Latur	2.06	36.54	0.46	8.09	3.13	55.37	5.65	2.85	50.47
Nagpur	0.00	11.24	0.00	16.54	0.01	72.22	0.02	0.00	24.22
Nashik	0.60	25.99	1.71	73.97	0.00	0.04	2.31	2.22	96.05
Parbhani	7.14	44.91	0.16	1.01	8.60	54.09	15.90	7.07	44.47
Pune	0.00	10.85	0.00	0.00	0.02	89.15	0.03	0.03	96.90
Raigad	0.00	2.77	0.02	45.14	0.02	52.09	0.03	0.01	40.40
Ratnagiri*									
Sangli	0.10	10.02	0.00	0.00	0.92	89.98	1.02	0.41	40.49
Satara*									
Sindhudurg*									
Solapur*									
Total	**43.63**	**18.86**	**97.22**	**42.02**	**90.50**	**39.12**	**231.34**	**114.93**	**49.68**

* No information available

However, utilization percentage of available funds in 2008-09 was only around 44 percent. In 2007-08, it was even lower at around 38 percent. After the programme was extended to all the districts, utilization levels in 2008-09 have not picked up even in the phase one and phase two districts and are below 50 percent

overall. While utilization of available funds depends on demand for jobs in a demand-driven scheme like NREGA, it is surprising that with high levels of poverty and as many as four lakh households demanding employment in 2007-08, utilization levels are low. Clearly, the low utilization cannot be ascribed to lack of demand and most likely caused by administrative constraints. With recessionary trends setting in, demand for jobs could easily jump and hence it is imperative that the administrative machinery quickly gears up and is ready to face the challenges posed by a single scheme like NREGA filling the void left by the termination of SGRY and the state EGS.

Table 2.4: Physical and Financial Performance under NREGA in Maharashtra

(Rs. Lakh)

	2007-08	2008-09
Opening Balance	34346.68	31216.24
Release From Centre	5206.30	14526.94
State's Share	4454.00	2496.60
Total Available Funds	49783.33	51536.09
Total Expenditure	18907.21	22207.88
Unskilled Labour	16585.97	19853.13
Skilled labour	872.20	1018.26
Material	733.96	427.64
Other	715.09	908.85
Utilisation (%)	37.97	43.09
Total Person-days Generated (Lakh)	184.86	231.34
SC (Lakh)	34.08	43.63
ST (Lakh)	71.16	97.22
Others (Lakh)	79.62	90.50
Women (Lakh)	73.93	114.93
Share of States Contribution in Total (%)	46.11	14.67
Expenditure per Person-day	102.28	96.00

Source: As above

4. Housing: *Indira Awas Yojana* (IAY)

With high level of both rural and urban poverty, the housing problem is rather serious in the state. As per census 2001, there were nearly 9.31 lakh households living in dilapidated houses. Even with the other classification of temporary and *pucca* buildings, nearly 9.52 lakh households are living in temporary and unclassifiable houses. This amounts to nearly five percent of total households of the state; in rural areas, 6 percent of the households are living in dilapidated houses. Even as per the more recent state government survey held in 2005, nearly 9.70 lakh households in rural areas are living without houses and half of them do not even have land to construct the house (Table 2.5).

Table 2.5: Status of Housing in Maharashtra

Rural/ Urban	Total				Temporary		Homeless households as per State Government estimate, January 2005
	Total	Good	Liveable	Dilapi-dated	Service-able	Non-serviceable	
Total	18,808,298	9,895,298	7,981,283	931,717	952,037	504,522	
Rural	10,843,777	4,907,931	5,246,567	689,279	855,668	409,734	970,136
Urban	7,964,521	4,987,367	2,734,716	242,438	96,369	94,788	

Source: Census 2001 and Government of Maharashtra

Indira Awas Yojana (IAY) is the main programme through which the government helps the poor to build a house. This is a Centrally Sponsored Scheme with shared funding – the centre-state sharing is in the ratio of 75:25. As of now, the central assistance for construction of each house is Rs. 35,000, the state assistance is Rs. 8500 and the beneficiary is expected to contribute Rs. 1500 as labour charges. Since 2001-02, the Government of Maharashtra has constructed 4.18 lakh houses and has helped upgrade another 1.47 lakh till January 2008 under IAY. If one goes by the state government estimate of 9.7 lakh households not having house as on January 2005, after deducting one lakh houses constructed in 2006-07 and 2007-08, nearly 8.7 lakh households are yet get a roof over their head. Utilisation levels in implementing *Indira Awas Yojana* is consistently above 90 percent, so the problem essentially is of inadequate resources. The 37 percent utilisation level in 2007-08 may not really be that low, as the information pertains to only 9 months and much of the disbursements take place only in the last quarter.

Table 2.6: Performance Under Indira Awas Yojana in Maharashtra

(Rs. lakh)

Year	Funds Received		Total Funds Available	Total Expenditure	Utilisation (%)	*Number* of Houses Constructed	*Number* of Houses Upgraded
	Centre	State					
2001-02	10211.39	336.78	20051.11	16460.95	82	56006	22883
2002-03	9908.66	10959.93	22766.09	21137.66	93	54408	26520
2003-04	12570.40	9531.99	24287.23	22730.69	94	69633	32678
2004-05	15336.75	6128.31	23526.16	22732.85	97	69752	35625
2005-06	14960.63	9004.68	23893.20	22673.14	95	70336	23938
2006-07	16097.35	10705.12	26520.04	24512.9	92	72766	5661
2007-08*	11051.26	5746.65	22798.07	8391.26	37	25453	350

* Until January 2008

Source: Government of Maharashtra

While IAY is the major housing scheme for the rural poor in India, it is supplemented by the state scheme named *Rajiv Gandhi Gramin Niwara Yojana* (RGNY). Stream I of this scheme is for the BPL beneficiaries with a grant of Rs. 28,500, channelled through MHADA and relevant *Zilla Parishad*s, the beneficiaries

being identified by the *Gram Sabha*. Under this scheme, Rs. 144.31 crore were released to 50,815 beneficiaries against the target of 51,510 beneficiaries and 44,474 houses were constructed until March 2009. However, if the 2007 Housing Policy released by the state government is an indication, it is urban housing that preoccupies the state government (particularly the larger cities); the issue of rural housing gets rather short shrift and the only substantive policy stance regarding the same is the following: "All villages face acute shortage of land for house construction. The earlier Gaothan Extension Scheme facilitated land acquisition by Government. This scheme will be revived and the Collectors will be empowered to acquire land through consent. Villagewise list of those in need of houses will be prepared and housing plots will be allotted to them. To encourage the landowners to make housing space available, no Non Agriculture Tax would be levied in villages having less than 5000 population. To expedite the approval to layouts, multiple agencies such as the Collector, Sub Divisional Officers or *Tahsildar*s will be authorised to grant such approvals with concurrent jurisdiction." This is not particularly surprising in view of the acute urban housing shortage in the state, the extent of urbanisation and the relative growth of urban population. Even so, the policy indirectly admits the inability of the government to find necessary resources to solve the problem by itself, and essentially banks upon private initiatives and PPP, with facilitating legislative and systemic overhaul. However, the sustainability of a policy that largely ignores rural housing may be doubtful for various reasons, the main one being the view that the only sustainable solution would be reverse flow of households through adequate rural housing and related amenities. Urban housing schemes like *Valmiki-Ambedkar Awas Yojana* (VAMBAY), now merged with JNNURM, are probably much too small for the size of the problem in the state, although this may not be so in all other states. Substantial expansion of IAY in the state seems to be called for, although the decision is not for the state to make, unless it substantially expands the scope of its own scheme (RGNY).

5. Public Distribution System

The Rome Declaration on World Food Security, convened by FAO defines food security as, " when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life". The public distribution system (PDS) and its truncated version targeted PDS or TPDS specifically aimed at the poor is expected to achieve this objective by making foodgrains available at all times at a reasonable cost. There is some controversy regarding the desirability of targeting PDS to the poor only, but the basic issues regarding PDS remain the same: whether

the most needy are getting the benefit of PDS or not. As in rest of the country, public distribution system (PDS) for foodgrains and some other basic necessities is operated in the state with the central government setting the broad parameters and the state government supplementing it. The system in the state has the slightly unusual categorization of the PDS consumers into three types on the basis of income – yellow, saffron and white. The first two types of card-holders have the same entitlements in terms of quantity of foodgrains, but saffron card-holders pay a little higher price than the yellow card-holders. White card-holders do not get foodgrains through PDS. Apart from PDS, three other schemes: *Antyodaya Anna Yojana* (AAY) for the very poor households and Annapurna for destitute elders aged more than 65 years are in operation as Centrally Sponsored Schemes. Another – *Navsanjivan Yojana* (a state government initiative) – is in operation for selected villages in 15 districts mainly for the benefit of the tribal population, particularly those affected by floods during the rainy season, ensuring additional foodgrain availability.

Unfortunately, there are indications that the performance of Maharashtra in making foodgrains available to the poor through the PDS could stand improvement. There are 65.35 lakh households in the state with BPL cards, 10.01 lakh under Antyodaya Yojana and another 1.2 lakh under Annapurna scheme in the state expected to benefit from PDS. However, one is not sure whether all these families belong to BPL or some APL families are also getting the benefit (inclusion error), and more serious, whether all those that ought to be having the BPL card actually have it. Dutta and Ramaswamy (2001) find exclusion error in Maharashtra to be quite large – almost half the targeted group is found to be excluded. Planning Commission (2005) also found large exclusion error (33 percent) as also high leakage of foodgrains meant for the poor (27 percent). NSS 61st Round data for rural Maharashtra, however, show that the BPL card-holders in the two lowest expenditure classes obtained the bulk of their wheat/*atta* requirement from the PDS (18.76 kg. per household from PDS and 5.67 Kg. from other sources, compared to 9.29 kg. from PDS and 5.93 kg. from other sources in the case of all BPL card-holders from all expenditure classes). In the case of rice, PDS covered roughly half the requirements only for BPL cardholders in the two lowest expenditure classes and about 45 percent for all BPL cardholders. The reported data also indicate both inclusion and exclusion errors in the distribution of BPL cards if expenditure can be taken to be a reasonable proxy of income.

The distribution channel in Maharashtra comprises the state warehouses drawing foodgrains from Food Corporation of India (FCI) warehouses and issuing to

the fair price shop outlets in turn. There has been adequate allocation of foodgrains from the centre, and the state's offtake has been around 90 percent or less of the allocations. There were 51,574 fair price shops operating in the state as on 31st December, 2008. These included 33 mobile shops for Greater Mumbai. Nearly 25 percent of shops are run by cooperatives and the remaining 75 percent by individuals. It is surprising that with as many as 29,000 self-help groups (SHGs) in the state, the government is still depending largely on individually to run fair price shops. The state government has recently decided to involve SHGs for PDS in the state and is thinking of allotting 4000 cancelled FP shops to SHGs. Computerization of ration cardholder details and synchronizing the same with electoral data through computerization that is in process should help the state in covering the genuine BPL households.

6. Social Security and Old age Pensions

The older among the poor have a specific disadvantage – they cannot work and earn their living. Without family backup, it condemns them to premature death more often than not, at least a thoroughly undignified life that no one deserves. To prevent such helpless humiliation in life and death, a civilized state needs to care for the elderly as best as it can. Pension schemes for the poor among the elderly are thus an expression of the society's abhorrence to the practice of abandoning them to their fate. The Indira Gandhi National Old Age Pension Scheme (NOAPS) is a national level programme that is executed through the state governments in every state. In Maharashtra, this is supplemented by *Shravanbal Seva Nivruttivetan Yojana* (SSNY) funded with the state's own resources. While NOAPS provides Rs. 200 per month, SSNY adds another Rs. 300 to it for the poor and destitute among those above 65 years.

Sanjay Gandhi Niradhar Anudan Yojana (SGNAY), a scheme that merges two earlier schemes, is meant for destitutes below the age of 65 years; its beneficiaries include destitute orphan children, persons unable to work because of serious illnesses or physical disabilities, and women rendered destitute for various reasons. A single beneficiary gets Rs. 500, while a family of two or more gets Rs. 750 per month under this scheme.

The expenditure on the above schemes together for the year amounted to Rs. 431 crore. Officially, universal coverage is claimed; the district magistrate has the responsibility of identifying beneficiaries and has the authority to draw and disburse necessary funds from the exchequer. Table 2.7 provides performance details.

Table 2.7: Social Security Measures in Maharashtra

		2002-03	2003-04	2004-05	2005-06	2006-07
1. *Sanjay Gandhi Niradhar Yojana* (State Fund)	Expenditure (Rs. Lakh)	15473.83	15392.86	13017.6	9697.68	10304
	Beneficiaries (No.)	210279	264451	326506	234530	233116
2. *Indira Gandhi Niradhar Bhumiheen Yojana* (State Fund)	Expenditure (Rs. Lakh)	11028.46	9716.31	3119.93	2486.14	2770
	Beneficiaries (No.)	81971	214040	110768	88384	95527
3. *Shravanbal Yojana* (State Fund)	Expenditure (Rs. Lakh)		864.7	9572.79	15149.74	16068
	Beneficiaries (No.)		491980	615374	748938	742561
4. Indira Gandhi National Old Age Pension (centrally assisted)	Expenditure (Rs. Lakh)	3667	3994.1	7375.71	6801.91	13357
	Beneficiaries (No.)	409666	466658	615314	659429	742561
5. National Family Benefit Scheme (centre)	Expenditure (Rs. Lakh)	1826.34	2287.03	2515.83	1830.28	2033
	Beneficiaries (No.)	18263	22870	25158	18302	20339

Source: Government of Maharashtra

7. Additional Resource Requirement

a. Wage Employment

Given that NREGA is now essentially the only programme to bear the entire responsibility of providing wage employment, the estimation of additional resources required, if any, for this purpose focuses exclusively on that scheme. Since the programme is mainly demand-driven and not confined to BPL families only, this presents the difficulty of estimating the number of beneficiaries that need to be covered. However, the approach that is adopted here is that instead of trying to predict the number of beneficiaries, the requirements are based on full coverage of the identified BPL families. It is an 'as if' scenario – treating the programme as if its objective was to cover all BPL families of the state. A post-facto rationalisation of this approach lies in the presumption that demand for the type of jobs provided under the scheme is unlikely to arise from non-BPL families. Since there is a difference between the number of BPL families estimated by the Planning Commission and the state government, alternative estimates conforming to these two sets of estimates are provided along with another based on presently unfulfilled demand for jobs.

The exercise for estimating the additional resource requirement is a fairly simple one consisting of the following steps laid out clearly in Table 2.8:

- Convert the number of families to be covered to number of persons to be given jobs assuming one person from each family is to be covered;
- Convert thus estimated number of beneficiaries to number of person-days for which job is to be provided (number of beneficiaries X 100 days);
- Difference between the estimated number of person-days and actual number of the same for which jobs are provided represents ground to be covered, assumed to be unskilled labour entirely;

- Additional resource requirement for unskilled labour only is estimated at Rs. 100 per person-day;
- Total additional resource requirement for NREGA is estimated by scaling up the above using the existing proportion of expenditure on unskilled labour to the total expenditure;
- State's share in the total as estimated above derived as per the actual pattern of sharing of expenditures at present.

Table 2.8: Resource Requirement for Wage Employment

	(in Lakh)
Population Below Poverty Line	171.13
Converted to Households	42.78
BPL households as per BPL census	45.02
Number of Person-days needed to cover entire rural BPL population Under NREGA (Centre)	
As per Planning Commission Estimates	4278
As per BPL Estimates	4502
Number of Job-card holder demanding Employment as On March 31, 2008	9.07783
Man days required to provide employment all the people demanding Employment	907.783
Man-days generated under NREGA	419.85
Deficit	
As per Planning Commission Estimate	3858.15
As per BPL Survey	4082.15
As per Number of People Demanding Employment	487.933
Additional Spending on Unskilled wages at the Rate of 100 per day (Rs. Lakh)	
As per Planning Commission Estimate	385815
As per BPL Survey	408215
As per Number of People Demanding Employment	48793.3
Additional Total Expenditure under NREGA (Rs. Lakh)	
As per Planning Commission Estimate	460454.71
As per BPL Survey	487188.21
As per Number of People Demanding Employment	58232.84
Share of Additional States Contribution (Rs. Lakh)	
As per Planning Commission Estimate	46045.47
As per BPL Survey	48718.82
As per Number of People Demanding Employment	5823.28

Using the procedure outlined above, the estimated additional requirement on the state account for NREGA works out to Rs. 460.45 crore per annum using the poverty estimates of the Planning Commission. Using the state estimate of BPL population, it rises a little to Rs.487.19 crore. In contrast, going by the number of persons expressing their demand for jobs, the estimated requirement drops to a mere Rs. 58 crore, obviously because the demand for jobs on record is much smaller

than that implied by poverty estimates. This does not necessarily imply any anomaly, because self-employment and private employment will always account for some difference; whether that is an adequate explanation in the present case or not is beyond the scope of this study.

b. Housing

Average cost of construction of a new house in 2006-07 and 2007-08 under IAY, as per available data, was around Rs. 31756, though the allocation per new house was RS. 27000. The remaining cost is that of unfinished houses, where part payments are made to the beneficiaries. Based on information provided in section 4 above, and adjusting the same with the number of houses constructed under IAY over the relevant period, there is still a balance of 5.13 lakh to 8.01 lakh households without houses. The allocation under IAY has been raised to Rs. 35000 w.e.f. 2008-09, and the state provides an additional Rs. 8500 (Rs. 1500 is expected to be contributed by the beneficiaries themselves).

Table 2.9: Additional Resource Requirement for IAY

Number of Households living in dilapidated Houses (Census 2001)	931737
Number of Houses Constructed under IAY between 2001-02 to 2007-08	418354
Rural Housing Gap as per Census	513383
Rural Housing Gap as per the survey conducted by the State Government in 2005	970136
Number of Houses Constructed under IAY between 2005-06 to 2007-08	168555
Gap as per State Government Estimate	801581
Allocation per House under IAY (Rs.)	35000
By State in addition to standard IAY costing (Rs.)	8500
Resource Requirement (Total)	
As per Census 2001 GAP (Rs. lakh)	223322
As per State Survey Gap (Rs. lakh)	348688
Resource requirement (state) as per existing state contribution of 25% for IAY and Rs. 8500 per house [40% of the cost of the house (35000 + 8500)]	
As per Census Estimate (Rs. lakh)	89329
As per State Government Estimate (Rs. lakh)	139475

Table 2.9 works out the amount of additional resource requirement to cover the entire gap in rural housing, using the alternative estimates. The total requirement (central plus state share) is Rs. 893.29 crore as per the gap estimated using census 2001 estimates and the number of houses constructed under IAY since then till 2007-08. If we go by the state's estimate of housing gap as on January 2005, the state may require an additional funding of Rs. 1394.75 crore. Assuming that the gap is to be covered by the end of the 11th Plan, annual requirements work out to about Rs.

224 crore in the first case for each of the four years after 2007-08, and Rs. 349 crore per annum in the second. If the centre increases its allocation under IAY in proportion to the increase in the cost of each house from Rs. 27000 to 35000, the centre's allocation to the state may go up from the existing Rs. 120 crore per annum to Rs. 155 crore per annum. The remaining has to be met from the state exchequer, working out to Rs. 69 crore per annum in the first case and Rs. 194 crore per annum in the second case. Of course, the central allocation will depend on the target number of houses to be constructed under IAY during the entire plan period; we assume here that the entire gap is targeted to be covered.

Resource requirements for SGSY and other schemes for poverty alleviation are not estimated here, as the estimated requirement for NREGA ought to cover such requirements as well, having covered the entire estimated population of the poor in the state. With regard to the pension schemes and the other social security schemes, since full coverage is claimed, there ought to be no *additional* requirement, only funds required for continuation of the schemes.

III. Elementary Education

1. Introduction

The value of education has been well-appreciated in Maharashtra since long, thanks to early endeavours of social reformers and organised efforts to spread education among the masses. As a result of this, educational indicators for the state have been ahead of India as a whole for long, although they have not been as good as in Kerala or Tamil Nadu.[4] In 2001, Maharashtra had a literacy rate of 71 percent as against the national average of about 65 percent. Thus, while the present state of affairs is apparently not unsatisfactory, there is some ground to be covered before the state can ease up its efforts in this area. This is particularly so because there are obvious areas to concentrate on, as will be seen below. It also needs to be examined whether education is accessible to those who need it most for acquiring minimum skills for sustainable income earning opportunities, i.e. the poor and the disadvantaged.[5]

In rural areas of the state, primary education is the responsibility of the *Zilla Parishad* within the *Panchayati Raj* structure. This follows the overarching model of according the district level PRIs the pivotal status in the entire system of PRIs in Maharashtra. "At the village level, Village Education Committees have been established as bridges between the schools and the society. The objective of establishing these committees was to get the cooperation of influential and educated villagers in the implementation of the various government schemes of primary education, to raise resources for maintaining schools, to participate in the socio-cultural activities of the school, to supervise the attendance of the students and teachers, to make available educational material and help the sale of crafts prepared by students, to maintain the school property through repairs, and to help the students gain from their knowledge and experience" (IIE, 2006, Executive Summary).

The latest broad indicator of various aspects of elementary education, educational development index (EDI) constructed by NUEPA using data from DISE

[4] The fact that Maharashtra is a relatively urbanised state (47 percent of the population lived in urban areas in 2001) could also have helped in the spread of literacy.

[5] Paranjape (2007) concludes that "The distribution of education is extremely skewed, particularly in the rural regions and specially, among the socially backward sections." The study also finds gender, caste and region based inequalities.

puts Maharashtra at the seventh rank among the larger states in 2007-08 (NUEPA, 2009). EDI is a composite index covering four groups of indicators, representing access infrastructure, teachers and outcome. Maharashtra has a value of 0.727 of the index with the range for larger states being 0.791 (Kerala) to 0.406 (Bihar). We now consider various aspects of elementary education in some more detail.

2. School Infrastructure

Among the larger states, Maharashtra has a relatively high share of elementary schools under private management (about 30 percent in 2007-08, as per DISE). Out of the 30 percent share of private schools, about two-thirds (20 percent of the total) are government-aided. This structure is actually a result of private initiatives dating back to even the pre-independence era, when social movements exhibited early appreciation of the value of education. Of course, private initiatives were backed by private or community funding then; it is no more so as only about 10 percent of the schools are fully funded by non-government resources. As per the Economic Survey of Maharashtra 2008-09, there were about 88,000 schools in the state including primary, secondary and higher secondary schools in 2007-08.[6] Of these, almost 70,000 were primary schools.[7] DISE covered more than 87,000 schools for the same period (September 2007), so the coverage is adequate to draw general conclusions from their data set. More than 67 percent schools in Maharashtra are run by local bodies (usually *Zilla Parishad*s).

The quality of school infrastructure is, broadly speaking, good though improvements can be made. As per information from DISE for 2007-08, the average number of classrooms per school was 5.7 (all schools) and 3.2 (primary schools only). More than 84 percent of the classrooms were in good condition. There were 31 students per classroom on an average; this is quite reasonable compared to 47 in West Bengal and as high as 96 in Bihar. Single teacher schools constituted only 7.5 and 3.8 percent of primary and all schools respectively. 82 percent of the primary schools had drinking water facility in schools (higher for all schools); 70 percent of the primary schools had at least common toilets with 42 percent having separate

[6] This may be compared with about 65,000 schools in 1998-99 as reported in GoM (2002).

[7] Of course, many secondary and higher secondary schools also have elementary level classes. To get a rough idea, it may be noted that more than 87,000 schools (41764 primary + 26,667 upper primary + 18,841 secondary/higher secondary with primary/upper primary level classes) implemented Sarva Shiksha Abhiyan (SSA) scheme meant for elementary education in 2008-09.

toilets for girls (again, for all schools the percentages are higher). However, the state has been able to provide only 18 percent of all schools and 11 percent of primary schools with kitchen shed facility for cooking mid-day meals. Government schools without any building numbered 950 (primary) and 506 (upper primary) in Maharashtra as on 30th September, 2007. Further, there were 2,673 primary and 2,689 upper primary schools that were totally dilapidated and should have been declared as unsafe and meriting demolition. According to information provided by DISE, there were 26,836 schools (including government-aided, but not including unaided schools) without electricity connection in the state at the same time. The number of habitations eligible for having primary schools as per norm but not having any school as of 30th September, 2008 was 219 in Maharashtra.

3. Literacy, enrolment and dropout

As far as the literacy rate is concerned, the state of Maharashtra registered a literacy rate of 71 percent as compared to the all India average of 64.84 percent in 2001 (census).[8] This constituted an improvement in the literacy rate by 19 percentage points over 1991, a substantial increase. The male literacy rate was 80.37 percent and the female literacy rate was a considerably lower 62.55 percent. The literacy rate among rural women was only 51.14 percent in Maharashtra. As per Census 2001 data, literacy rate among scheduled castes (SC), scheduled tribes (ST) and Muslims were 59.81 (population share: 11.66 percent), 48.30 (population share: 9.48 percent) and 57.88 percent (population share: 11.32 percent) respectively. Thus, the tribal population emerges as the least literate among various socio-economic groups, women among them in particular. Among the districts of Maharashtra, the lowest literacy rates were observed in Osmanabad (57.55 percent), Nandurbar (57.66 percent), Gadchiroli (59.97 percent) and Aurangabad (60.95 percent) in 2001. Female literacy was lowest in districts like Gadchiroli (48.07 percent), Nandurbar (48.53 percent), Jalna (49 percent) and Aurangabad (50.17 percent). Gadchiroli, with the largest share of tribal population among the districts, is one of the socio-economically least developed districts in the state, and the low literacy levels there simply reflect this low level of development.

The quickly rising literacy rate is no surprise because the net enrolment ratio (NER) is almost 100 percent across the state (including Gadchiroli) in the 6-14 years age group. There is no noticeable gender bias in enrolment either. The overall NER

[8] The Economic Survey of Maharashtra 2008-09, quoting state sample data of NSS, puts literacy rate in 2007-08 at 79 percent.

for the state stands at 97.95 for the 6-11 year age group and 97.54 for the 11-14 year age group children. The variation across districts is small and among the districts exhibiting 'low' rates for children aged between 6 and 11 years are: Mumbai (86.32), Mumbai Suburban (89.12), Yavatmal (89.83), Aurangabad (92.85) and Ratnagiri (92.86). More or less a similar picture emerges for NER among 11-14 years old children with the poorest performer being the district of Mumbai Suburban (86.45). Amaravati and Yavatmal districts have achieved almost 100 percent enrolment among 6-11 years age group, but their performance is relatively poor with respect to upper primary section.

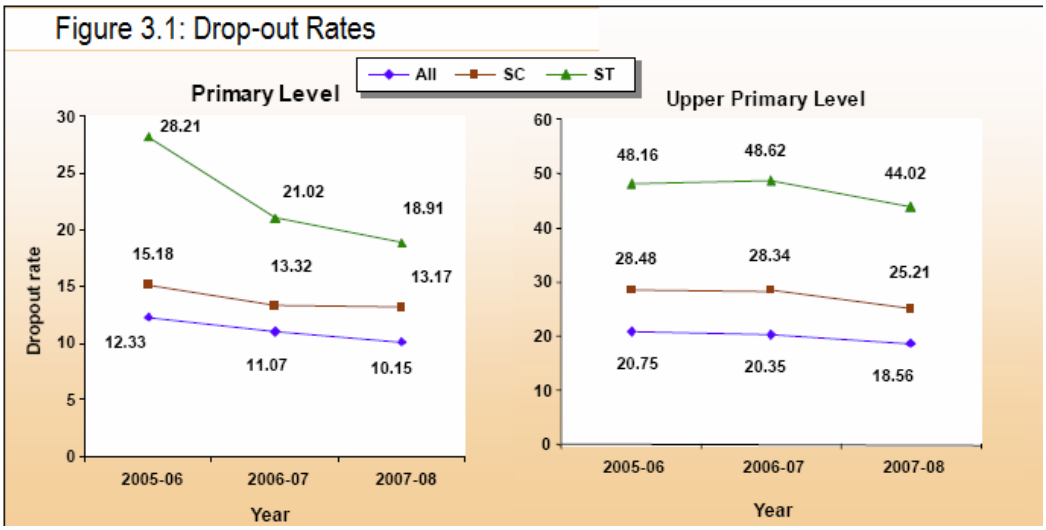
Table 3.1 District wise NER and Dropouts in Maharashtra as on 30th Sept. 2007

District	6-11 years Age Group		11-14 years Age Group	
	NER	Cohort Dropout	NER	Cohort Dropout
Ahmednagar	96.78	12.36	99.90	14.44
Akola	99.22	14.25	99.48	7.79
Amravati	99.87	10.28	88.43	9.44
Aurangabad	92.85	4.90	97.24	9.27
Beed	99.78	19.12	99.53	11.20
Bhandara	96.92	2.04	87.36	7.46
Buldhana	99.93	3.55	99.90	2.55
Chandrapur	99.94	10.10	99.91	9.73
Dhule	99.81	6.75	99.73	8.04
Gadchiroli	99.68	15.15	99.00	11.26
Gondiya	99.96	2.27	99.97	1.18
Hingoli	99.63	12.16	99.52	19.66
Jalgaon	99.75	8.39	99.65	3.94
Jalna	98.75	17.24	96.64	30.45
Kolhapur	99.81	13.65	99.90	16.84
Latur	99.74	18.25	99.67	15.65
Mumbai	86.32	4.63	95.46	-2.45
Mumbai (Suburban)	89.12	9.11	86.45	13.55
Nagpur	98.95	2.88	99.47	2.04
Nanded	96.73	4.54	89.15	4.98
Nandurbar	99.74	13.28	99.27	13.19
Nashik	99.41	8.70	99.40	17.15
Osmanabad	99.97	19.75	99.96	7.24
Parbhani	99.90	9.70	100.00	25.01
Pune	99.36	0.23	99.54	0.07
Raigarh	99.83	26.90	99.89	2.86
Ratnagiri	92.86	0.07	90.57	10.36
Sangli	99.61	5.78	99.39	7.68
Satara	97.89	4.00	94.36	4.31
Sindhudurga	99.65	5.65	99.04	8.80
Solapur	99.75	9.26	98.36	11.97
Thane	99.75	9.34	98.25	16.23
Wardha	97.08	1.12	99.84	2.78
Washim	99.95	7.33	99.88	10.97
Yavatmal	89.83	26.02	99.92	16.14
Total	**97.95**	**9.68**	**97.54**	**10.05**

Source: Government of Maharashtra

With more or less full enrolment of children of school-going age, it is also important to ensure that they remain in school, at least for a minimum length of time. Else, the trouble taken to bring them to school fails to bear any fruit. The extent to which the system fails to retain the students in school is measured by the dropout rate. If we consider the dropouts among 6-11 year age group, the state average is 9.68 and cohort drop-out among 11-14 year aged children is 10.05 percent in Maharashtra. The dropout rates among the children of 6-11 years age group are higher than the state average in Raigarh (26.9 percent), Yavatmal (26.02 percent), Osmanabad (19.75 percent), Beed (19.12 percent), Latur (18.25 percent), Jalna (17.24 percent), Gadchiroli (15.15 percent), Akola (14.25 percent), Kolhapur (13.65 percent), Nandurbar (13.28 percent), Ahmadnagar (12.36 percent), Hingoli (12.16 percent), Amaravati (10.28 percent), Chandrapur (10.1 percent) and Parbhani (9.7 percent). Among 11-14 years aged children, the incidence of dropouts are higher than the state average in districts like Jalna (30.45 percent), Parbhani (25.01 percent), Hingoli (19.66 percent), Nashik (17.15 percent), Kolhapur (16.84 percent), Thane (16.23 percent), Yavatmal (16.14 percent), Latur (15.65 percent), Ahmadnagar (14.44 percent), Mumbai Suburban (13.55 percent), Nandurbar (13.19 percent), Solapur (11.97 percent), Gadchiroli (11.26 percent), Beed (11.20 percent), Washim (10.97 percent) and Ratnagiri (10.36 percent). There is some overlap among the two sets of districts, but there is significant non-overlap as well, implying varying causes of dropout, that need to examined carefully; it goes without saying that these districts need special attention because school dropout is one of the most important problems in elementary education in Maharashtra today.

According to the household survey conducted by the state in December 2006, total number of out of school children in the state is 70,087 comprising 37,586 boys and 32,501 girls. Among out of school children in the 6-11 years age group, 22.5 percent belong to SCs, 14.5 percent belong to STs and 17.4 percent belong to religious minorities. Proportions of children of each of these social groups in the total number of 6-11 years aged children in the state are 14.8 percent, 12.5 percent and 11.7 percent respectively. Clearly, the dropout rates are disproportionately large among these social groups, particularly SCs. Among the out of school children in the age group of 11-14 years, 14.5 percent belong to SCs, 11.4 percent belong to STs and 22 percent belong to minorities. The proportions of SC, ST and minority children in the same age group are 15.5 percent, 10.9 percent and 10.7 percent respectively. Again, the dropout rate is disproportionately large for religious minorities but not so much for the other social groups; clearly, children belonging to religious minorities need special attention in the matter of retaining them in the schools.



Source: *Economic Survey of Maharashtra 2008-09*

Figure 3.1 provides information on drop-out rates as per the household surveys. They are still above 10 per cent at the primary level, though falling and the reduction in drop-out rates is particularly steep in the case of ST children. For the upper primary level, the overall dropout rate was about 19 percent in 2007-08, but that for ST children was considerably higher at 44 percent. In 2008, the estimated number of children that dropped out was about 70,000. Clearly it is a problem that has to be tackled sooner rather than later, and it is important to examine the reasons behind these figures both on the demand and supply sides. On the demand side, poverty is obviously a major factor because it impacts demand for education in several ways including taking children off from schools either to help in household work or to supplement family income by doing paid work of some kind.[9] Further, poverty may induce a family to migrate in search of income, which disrupts schooling. The private costs of 'free education', even if small, can be substantial enough for a poor family to deter them from taking advantage. Unfortunately, evidence on this aspect is scanty. On the supply side, quality of education is a major determinant of the extent of dropouts in general; there is even a possibility that the quality of education varies systematically with social identification of pupils. In such situations, the demand and the supply side interact; poor quality of teaching results in poor scores, poor scores result in disillusionment with education system degenerating into

[9] A recent study of dropouts in Maharashtra found these to be the dominant reasons explaining the entire sample of dropouts, although other reasons were cited simultaneously but to a far smaller extent (IIE, 2006 p. 118). Also, the latest NSSO large sample survey (2004-05 data) on nutrition (61st round, report no: 513) shows that per capita calorie intake for the poorer masses is one of the lowest in Maharashtra in the country both in rural and urban areas (page 52). This obviously raises the probability of incidence of child labour, which may lead to higher dropout rates in the elementary education.

disinterest and eventually dropout. Even poor health of children can frustrate efforts to reduce dropout rates. Thus, policies to reduce dropout rates are not necessarily within the domain of the education-related policies, though such policies (like those impacting on quality) play a role, possibly an important one.

Concrete measures to tackle dropouts tend to take the 'supplemental infrastructure' route. For example: "To retain migrating students in the same school when the parents left villages for seasonal employment, the state Government opened seasonal hostels with the help of Village Education Committees/NGOs. Seasonal hostels are functional for the period of almost 4 to 6 months. Those students, who could not be retained in the village/habitation for compelling reasons, informal schooling facility was started at the site of migration such as 'Sakhar Shala' at sugar factory site, 'Bhonga Shala' at brick kiln site and seasonal MPEGS centres at construction sites" (*Economic Survey of Maharashtra 2008-09*, p. 159). While such measures are important in themselves, the problem needs to be attacked from several directions in a concerted manner, as noted above, to yield quick results.

4. Teachers and quality of education

Teachers constitute the most important determinant of the extent and quality of education provided in the schools. While the most important indicator relating to teachers – their commitment – is not amenable to quantitative measurement, there are other indicators relating to this most important input in the provision of education. There seems to be no serious shortage of teachers; the pupil teacher ratio is 27 across all schools on an average, with almost similar ratios in each type of school (in terms of management), and a marginally higher ratio in upper primary schools only. About half of the total number of teachers is in government schools, unaided private schools accounting for the smallest percentage. About 89 percent of the teachers are trained teachers; the percentage of teachers with in-service training during the last academic year is about 25 in government schools, but much less in aided (9) and unaided (3) ones. Most of the teachers are regular teachers and only a very small percentage of teachers are 'para-teachers'. About 43 percent of the teachers are female in the state.[10] The quantitative indicators thus do not indicate any obvious inadequacies. Teacher-related problems, if any, are more qualitative or behavioural. For example, IIE (2006) avers that "….the absence of women teachers in rural schools may be a serious obstacle to improving girls' participation rates. It is difficult to get women teachers in the rural areas especially due to the low literacy and

[10] The figures are from the data reported by DISE for 2007-08.

education of girl and women." Other problems noted by the study with teachers, particularly in rural areas, relate to lack of commitment, real involvement and communication with students/parents and involvement in non-teaching preoccupations including income-generating activities. Teacher absenteeism measured by a World Bank study in 2002, however, ranked Maharashtra as the best among all the states examined with only 14.6 percent absence from duty. Overall, it appears that there are no major teacher-related shortcomings, though there may be pockets (particularly in rural areas) with some problems of teacher motivation.

The unofficial survey data of Pratham (ASER 2007) in rural Maharashtra shows that the quality of elementary education in the state is not really bad (Table 3.2). 90 percent of students of fourth standard actually can read at least first standard text and 60 percent of them can manage to read second standard text reasonably fluently. More than 80 percent students of fifth standard can subtract and 44 percent can solve the problem of division successfully. These figures are considerably better than the national averages.

Table 3.2: Indicators of Learning Outcomes

Reading Level: % Children who can read								Arithmetic level: % children who can Recognise Numbers						
Std.	**Nothing**	**Letter**	**Word**	**Level 1 (Std.1) Text**	**Level 2 (Std.2) Text**	**Total**		**Std.**	**Nothing**	**1-9**	**10-99**	**Subtract**	**Divide**	**Total**
I	12.2	43.1	32.2	7.5	5.1	100		**I**	10.5	52.5	31.2	5.1	0.7	100
II	3.5	15.7	32.5	31.6	16.7	100		**II**	3.4	22.4	50.1	21.4	2.7	100
III	1.9	6.2	17.1	38.0	36.8	100		**III**	1.9	10.0	36.0	42.4	9.8	100
IV	1.0	2.5	8.1	29.0	59.4	100		**IV**	1.1	4.7	23.8	42.7	27.8	100
V	0.6	1.6	5.3	18.5	74.1	100		**V**	0.9	3.1	14.9	36.8	44.3	100
VI	0.6	1.1	3.0	13.3	82.1	100		**VI**	0.7	1.7	11.3	31.1	55.3	100
VII	0.8	0.6	2.1	9.0	87.5	100		**VII**	0.9	1.3	9.8	23.0	65.1	100
VIII	0.6	0.5	1.2	6.8	90.9	100		**VIII**	0.6	0.8	8.0	17.2	73.4	100
Total	2.9	9.9	13.9	20.2	53.2	100		**Total**	2.7	13.3	24.6	27.9	31.6	100

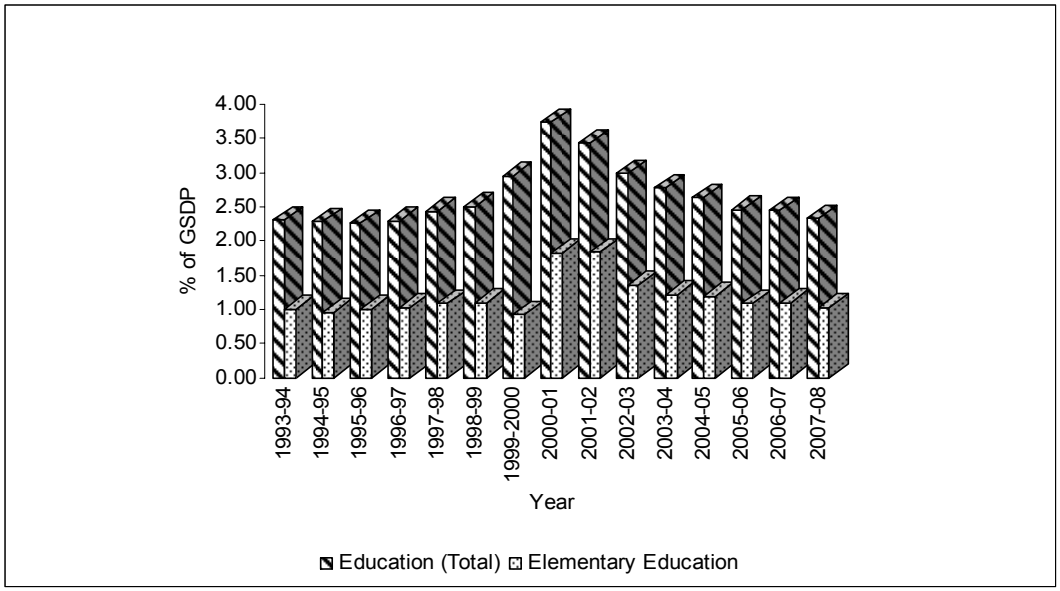
Source: ASER 2007, Pratham.

Given low literacy rates among tribal population and high rate of drop outs, one important phenomenon should be highlighted. The medium of instruction is in Marathi since the very beginning all over the state. Now, if a tribal child with a mother tongue other than Marathi, who is just being exposed to education, does not get even a bridge to overcome the huge linguistic gap between her mother tongue and the language of instruction, then there is a serious problem; it is difficult to say in such a situation whether they are dropping out or being pushed out. Whether this is an issue of quality or access is ambiguous, but this is a problem that clearly begs a solution.

5. Government Expenditure on Education

Experts have opined that public expenditure on education in India should be about 6 percent of GDP in the aggregate and about half of it should be on school education. This has even been adopted by political manifestos (see Common Minimum Programme of the UPA, for example). Within school education, the distribution between elementary and subsequent levels depends on region-specific factors: essentially, low literacy or primary level enrolment demands emphasis on elementary education, else secondary also becomes important. Of course, even with (or perhaps because of) high literacy and enrolment, it is possible to have a high level of public expenditure on elementary education, if the system is dominated by public supply and high levels of running expenditure even as the need for additional infrastructure dwindles. Figure 3.2 depicts the trends in expenditure on education by the state government over a 15-year period. Noticeably, the level of public expenditure on education (overall) never crossed 4 percent of GSDP; the peak was reached in 2000-01 after a steady rise for four years, but subsequent years saw a drop in the ratio until it seems to have stabilised at around 2.5 percent as at the beginning of the period, a far cry from the suggested 6 percent. Trends in public expenditure on elementary education reflect a similar pattern with a peak of around 1.75 percent and stabilising at around 1 percent at both ends of the time period considered. *Prima facie*, the trends indicate serious under-provision for a service as important as school education. However, recalling Figure 1.4, the trends here are rather consistent with the low levels of public expenditure as such in the state.

Figure 3.2 Public Expenditure on Education in Maharashtra



In per capita terms, however, expenditure on education does show increase even in constant prices; while that on total education increased from Rs. 476 to Rs. 904 between 1993-94 and 2007-08, the same on elementary education went up from Rs. 208 to Rs. 399. But the number of pupils increased faster than population in the intervening period (because of the fast-rising enrolment), so that public expenditures per student have in all probability stagnated or even fallen marginally in real terms.

6. Sarva Shiksha Abhiyan (SSA)

Although formally started in 2000-01, work under SSA actually began in Maharashtra in the year after. It now covers more than 87,000 schools and about 1.6 crore children in the state. Another indicator of the scope of the programme is that since its inception in 2002-03, a total of Rs. 2,745 crore has been spent in Maharashtra until 2007-08. The largest part of this expenditure has been on civil works (37.38 percent), with an additional 6.3 percent spent on repair and maintenance grants to schools; this was followed by free text book distribution to target group children (15.61 percent). Only 5.97 percent was spent on out of school children, which happens to be one of the most important problems of elementary education in Maharashtra. Expenditure on teachers (grants and training) accounted for another 8 percent. Table 3.3 provides details of SSA expenditures.

Table 3.3: Expenditures under Sarva Shiksha Abhiyan in Maharashtra (Rs. Lakh)

Expenditure Category	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08*
Free Text Book	3965.77	6178.26	4786.9	6443.91	9145.85	12345.34
Repair and Maintenance	1914.63	2750.42	3252.18	3378.27	3053.21	2946.64
TLE	40	35.03	86.1	7462.94	627.11	73.72
School Grant	895.3	1189.93	1969.53	1930.05	1971.48	1932.16
Teacher Grant	1108.96	1595.1	1749.83	1942.93	2017.54	2063.23
Teacher Salary(Recurring)	0	0	0	106.98	266.57	352.1
Teacher Salary(New)	0	0	0	85.28	0	
Teacher Training	224.51	937.26	1957.47	2565.91	3027.66	2766.95
SIEMAT		0	0	0	0	0
Training of Community leaders	32.63	19.15	72.45	107.96	146.65	138.52
Disabled Children	32.17	2215.13	807.26	1054.67	5010.59	1441.45
Research, Evaluation, Supervision and Monitoring	131.7	94.78	586.32	448.77	922.86	542.99
Management & MIS	104.14	1027.59	1404.09	3229.6	3756.45	2387.71
Innovative Activity	72.59	1664.96	826.43	533.94	2116.91	1025.14
Block Resource Centre	594.13	158.21	263.05	1382.49	4292.94	8367.03
Cluster Resource Centre		352.82	785.2	1069.43	1100.81	350.75
Out of School Children	513.92	1987.52	1764.46	3405.23	4970.20	3751.37
Remedial Teaching						2860.68
Civil Works	40.96	13142.40	17676.46	24333.68	34804.30	12622.56
Major Repairs						844.25
Total SSA	9671.41	33348.56	37987.73	59482.04	77231.13	56812.59

* Figures are upto February 2008 only. **Source**: Government of Maharashtra

The SSA programme is complemented by two other smaller programmes specifically aimed at girl students. The National Programme for Education of Girls at Elementary Level (NPEGEL) is a focused intervention of Government of India to reach the 'hardest to reach' girls, especially those not in school. Launched in July 2003, it is an important component of SSA, which provides support for enhancing girl's education over and above the interventions for girl's education through normal SSA channels. The programme provides for development of a model school in every cluster with more intense community mobilization and supervision of girls' enrolment in schools. Gender sensitization of teachers, development of gender-sensitive learning materials, and provision of need-based incentives like escorts, stationery, workbooks and uniforms are some of the endeavours under the programme. Till February 2008, a cumulative total of Rs. 21.67 crore has been spent in Maharashtra on this scheme. A more recently implemented programme, Kasturba Gandhi Balika Vidyalaya (KGBV) scheme aims to educate and train girls from the Scheduled Caste/Tribe or OBC backgrounds who either dropped out or never went to school. Only Rs. 2 crore has been spent on this scheme in Maharashtra so far. Figures for combined expenditure under these three programmes are provided in Table 3.4.

Table 3.4: Year-wise Expenditure on NPEGEL, KGBV and SSA in Maharashtra

(Rs. Lakh)

Programme	2003-04	2004-05	2005-06	2006-07	2007-08*
NPEGEL	15.35	264.73	633.47	973.82	279.84
KGBV					204.80
Total SSA	33348.56	37987.73	59482.04	77231.13	56812.59
Grand Total	33363.91	38252.46	60115.51	78204.95	57297.23

* Figures are upto February 2008 **Source**: Government of Maharashtra

Strangely enough, Maharashtra has not been making the most of the central funding available through SSA. As it is a Centrally Sponsored Scheme with cost sharing and with annual allocations based on demand the state has to submit fully worked out annual work-plans arrived at through a bottom-up process for approval, and put up the state share through budgetary allocations for SSA. Data reported in Table 3.5 shows that actual expenditures have been generally less than half of the approved expenditure. Thus, because of either administrative (inability to spend as per work-plan) failure or inadequate budgetary allocations, the state has not been able to take full advantage of SSA.

Table 3.5: Financial Position of SSA in Maharashtra - 2001-02 to 2007-08

(Rs. Lakh)

Year	Approved Outlay	Amount Released		Expenditure	% of Expenditure against Approved Outlay
		GoI	State		
2001-02	1044892	0.00	0.00	0.00	0.00
2002-03	43122	15389.94	1989.73	9671.41	22.43
2003-04	76477	20526.67	8963.45	33363.91	43.63
2004-05	86306	36017.43	8349.00	38959.85	45.14
2005-06	87651	50235.31	14519.70	60458.50	68.98
2006-07	101551	52268.25	28639.07	78360.37	77.16
2007-08	89523	45729.96	7450.36	54009.87	60.33
Total	**1529522**	**220167.56**	**69911.31**	**274823.91**	**17.97**

Source: Government of Maharashtra

There is a major mismatch between the annual approved outlays and the actual expenditures under SSA. The highest spending has taken place during 2006-07, which is 77 percent of the approved outlay. During 2005-06 it was 69 percent which came down to 60 percent only during 2007-08. Previous years were much worse; if we take the weighted average expenditure as proportion of the approved outlay for the years 2002-03 to 2007-08, it is only 57 percent. This clearly shows the inefficiency of the concerned departments in spending money in the presence of large expenditure gaps. During 2007-08, possibly because of the low realisation of spending plans, the approved outlay has also come down from Rs. 1016 crore in the previous year to Rs. 895 crore.[11]

Given the fairly even near-full NER across the state, one would expect an even distribution of the SSA expenditures across districts. However, per student expenditure varies widely – Rs. 879 per head only during 2002-03 to 2006-07 in Jalgaon, but Rs. 2868 per student in Sindhudurg (Table 3.6). The bulk of the expenditures under SSA are on infrastructure; the same may explain the variations in the per pupil expenditures as well. All other items of expenditures ought to be in proportion to the number of pupils in schools. But it is difficult to imagine such large variations in infrastructure requirements when most of the children are already in school in all the districts. The variations cannot be explained by drop-out rates either. If there are no strong reasons for such variations, perhaps a mechanism to control it would be in order.

[11] IPAI (2007) notes that "There were not only delays in release of funds but also short release, both by Govt. of India and State Govt., as compared to the approved annual outlay for all the years from 2003-04 to 2005-06 and the sharing ratios." The report also pointed out large shortfalls in teachers' training.

Table 3.6: District-wise total Expenditure under SSA - 2002-03 to 2006-07

Name of the District	Enrolment*	Total Expenditure - SSA (Rs. lakh)	Per Pupil # Expenditure (Rs.)
Ahmadnagar	626,277	8696.35	1389
Akola	258,264	4561.60	1766
Amravati	417,048	7379.32	1769
Aurangabad	516,479	7376.09	1428
Beed	410,796	7720.52	1879
Bhandara	170,764	3258.40	1908
Buldhana	412,805	5266.73	1276
Chandrapur	285,230	5327.75	1868
Dhule	314,857	3556.74	1130
Gadchiroli	165,825	4396.54	2651
Gondia	182,779	3614.76	1978
Hingoli	185,731	3567.40	1921
Jalgaon	628,416	5522.32	879
Jalana	293,108	6721.02	2293
Kolhapur	523,046	6990.47	1336
Latur	422,415	5516.73	1306
Mumbai City	387,910	4024.25	1037
Mumbai Suburb (Dy. Dir)	864,500	2037.26	236
Nagpur	589,169	8538.24	1449
Nanded	542,624	8169.67	1506
Nandurbar	251,007	4307.38	1716
Nashik	879,865	12198.37	1386
Osmanabad	238,636	4094.87	1716
Parbhani	276,223	4956.42	1794
Pune	1,101,326	13635.34	1238
Raigad	348,496	7191.43	2064
Ratnagiri	242,884	5682.42	2340
Sangali	379,934	5505.28	1449
Satara	389,894	6246.94	1602
Sindhudurga	112,822	3235.46	2868
Solapur	655,946	9450.87	1441
Thane	1,308,082	14674.41	1122
Wardha	172865	3260.89	1886
Washim	178921	4556.07	2546
Yavatmal	433149	5698.38	1316

*As on December 30, 2006

Maximum for Sindhudurg Rs. 2868, Minimum for Mumbai Suburban Rs. 236 only; mean is Rs. 1643 & coefficient of variation is 31.84 percent

***Source**:* Government of Maharashtra

Table 3.7: Composition of Budgetary and SSA Expenditure on Elementary Education in Maharashtra during 2006-07 and 2007-08

2006-07	Total Budget + SSA Expd		SSA Expenditure		Budget Expenditure#	
Category	Expenditure (Rs. Lakh)	% of total expenditure	Expenditure (Rs. Lakh)	% of total expenditure	Expenditure (Rs. Lakh)	% of total expenditure
1.Administration, Monitoring and Evaluation	29195	4.03	6651	8.61	22545	3.49
2.Teacher Salaries	526999	72.79	267	0.35	526732	81.43
3.Teaching Quality and Incentives	13575	1.87	7789	10.09	5786	0.89
4. Direct Expenditure on Students	64957	8.97	19127	24.77	45831	7.09
5.Infrastructure	42862	5.92	37858	49.02	5004	0.77
6.Decentralisation	46457	6.42	5540	7.17	40917	6.33
Total	**724046**	**100**	**77231**	**100**	**646815**	**100**

2007-08	Total Budget + SSA Expd		SSA Expenditure @		Budget Expenditure#	
Category	Expenditure (Rs. Lakh)	% of total expenditure	Expenditure (Rs. Lakh)	% of total expenditure	Expenditure (Rs. Lakh)	% of total expenditure
1.Administration, Monitoring and Evaluation	30911	4.01	4863	8.56	26048	3.65
2.Teacher Salaries	571209	74.13	352	0.62	570857	79.98
3.Teaching Quality and Incentives	11662	1.51	5929	10.44	5733	0.80
4. Direct Expenditure on Students	73912	9.59	20399	35.91	53513	7.50
5.Infrastructure	20991	2.72	16413	28.89	4577	0.64
6.Decentralisation	61852	8.03	8856	15.59	52996	7.43
Total	**770537**	**100**	**56813**	**100**	**713724**	**100**

Net of transfers to SSA @ Till February 2008
***Source**:* Government of Maharashtra

Table 3.7 provides the patterns of expenditure on elementary education under the usual budgetary channel and under SSA for two latest years. The first observation that can be made is that though expenditures through the budgetary channel account for the bulk (about 90 percent) of total expenditures on elementary education in the state, SSA expenditures supplement budgetary expenditures in two important areas – infrastructure and direct expenditure on students. In fact, bulk of the expenditure on infrastructure comes from SSA funds, while budgetary expenditures are overwhelmingly on teacher salaries (about four fifths). Another area where SSA expenditures are at least as important as through the budget is teacher quality improvements and incentives to teachers. Taking expenditures under SSA and through the budgetary channel together, about three-fourths of total government expenditure is on teachers' salary, about 9 percent on direct expenditure on students, about 7 percent on decentralization, 6 percent on infrastructure, 4 percent on administration (including monitoring and evaluation) and less than 2 percent for improving teaching quality and incentives.

7. Mid-Day Meal (MDM) Scheme

Mid-day meals were formally introduced in 1995, but its implementation did not pick up until a combination of advocacy (by proponents like Amartya Sen and Jean Dreze), political commitment (Common Minimum Programme of UPA promised to implement it all over India) and judicial activism (order by Supreme Court) prompted a full roll-out of the scheme after 2002; the scheme has now been extended from primary classes to the entire elementary (std.s I-VIII) level. It was expected that the scheme will be worth the cost because of several reasons; it ought to increase enrolment and attendance, reduce dropouts, and help the cause of social cohesion by breaking down caste and community barriers. Moreover, the nutritional levels of 5-9 years and 10-14 years aged children particularly from the poor households, according to NSS data, is also a serious cause of concern. Mid-day-meals are expected to help provide a partial solution to the nutrition problem for the school-going children, helping to reduce the impact of poverty at their family level. Besides, it was expected to generate further demand for foodgrains, helping the cause of agriculture and rural incomes and also generate some additional employment opportunities in the form of cooks (and their helpers) for the scheme. Table 3.8 provides information on the coverage of mid-day meal scheme in the state. It may be noted that coverage of beneficiaries ought to be more or less automatic once a school is covered; hence, it is the coverage of schools that is important.

Table 3.8: Coverage of Mid-Day Meal Scheme in Maharashtra

Year	Eligible Schools	Beneficiary Schools	Coverage of Schools (%)	Enrolment of students	Beneficiary (Per day)	Coverage of Beneficiaries
2004-05	84658	74054	87.47	9665362	7755206	80.24
2005-06	84479	76569	90.64	9440846	7984104	84.57
2006-07	84482	78231	92.64	9179167	8092440	88.16
2007-08	85506	79213	92.65	9012367	8092440	89.79

***Source**:* Government of Maharashtra

The system of mid-day meals is roughly as per the central guidelines, with local bodies in charge. The supply of foodgrains is through the fair price shops. SHGs, Mahila Mandals and occasionally other organisations (ISKCON in Mumbai with a central kitchen system, for example) are roped in for cooking. The foodgrain used is mostly rice, the cooked food being variants made of rice (Khichdi, Pulav, Kheer etc.) and some other ingredients.

Table 3.9: Financial Provision and Expenditure on MDM in Maharashtra

(Rs. lakh)

Year	Government of India			Government of Maharashtra			Total		
	Provision	Expd.	% of Expd.	Provision	Expd.	% of Expd.	Provision	Expd.	% of Expd.
2004-05	13995	5616	40.12	12468	11902	95.46	26463	17517	66.20
2005-06	13167	14021	106.49	12573	8457	67.27	25741	22479	87.33
2006-07	33714	21138	62.70	13210	10829	81.97	46924	31967	68.13

***Source**:* Government of Maharashtra

Table 3.9 provides information on actual sharing of the cost of MDM between the GoI and the state government. Although the scheme is indeed a cost sharing one, given that most of the major costs are supposed to be borne by the GoI, the actual sharing of costs, where the state is seen to be bearing the cost of at least a third of the total expenditures is a little surprising. In terms of utilisation of available funds, 66 percent of the total provisions was utilised during 2004-05, which increased to 87 percent during 2005-06, but came down to 68 percent only during 2006-07. These figures, however, may not be as directly indicative of the actual operation of the programme in the state as the data on lifting of rice from Food Corporation of India (FCI), given in Table 3.10. The percentage of rice lifted from FCI warehouses was 68 percent of the allocation during 2004-05, which went up to 72 percent during 2005-06 and further to 90.5 percent during 2006-07. However, it should be noted that the allocation was substantially curtailed (by 21 percent) during 2006-07 as compared to the previous financial year.

Table 3.10: Allocation of Rice and Rice Lifted from FCI Warehouse

(In Quintals)

Year	Allocation of Rice	Rice lifted from FCI Warehouse	Rice lifted as %age of Allocation
2004-05	2223033.26	1519617	68.36
2005-06	2078097.64	1502514	72.30
2006-07	1641352.15	1484999	90.47

***Source**:* Government of Maharashtra

Quantity lifted of rice would be a rough and ready indicator of the coverage of MDM across districts since this is the foodgrain that is mostly used all over the state. However, some normalisation is required, and hence we examine the figures of rice lifted per student enrolled in the relevant classes. There is surprisingly wide variation in the resultant figure across districts, which is difficult to explain. The quantity lifted per student varies from 2.12 kg in Bhandara to 12.61 kg in Nashik in the first quarter

of 2008-09. As Table 3.11 shows, these are not just outliers, and the variation across districts cuts through all of them (coefficient of variation from the state average of 5.37 kg per student is 37 percent). For cooking assistance Rs. 292.34 crore, for transport subsidy Rs. 16.62 crore and for MME Rs. 9.5 crore were allocated in 2007-08. Extension of the scheme to 8th standard is estimated to have cost an extra Rs. 193.31 crore for cooking assistance, beside the additional foodgrain requirement.

Table 3.11: Rice Lifted (per student) by Districts – I Quarter of 2008-09

Name of the District	Rice Lifted (million tonne)	Enrolment (2006-07)	Allocation Per Student (kg)
Ahmadnagar	2294.07	352712	6.50
Akola	1100.65	152392	7.22
Amaravati	1677.29	246828	6.80
Aurangabad	1030.42	260972	3.95
Beed	1808.14	238535	7.58
Bhandara	218.16	102816	2.12
Buldhana	1750.72	268720	6.52
Chandrapur	1200	185059	6.48
Dhule	962.2	130298	7.38
Gadchiroli	411.06	119728	3.43
Gondia	431.9	136964	3.15
Hingoli	653.84	121431	5.38
Jalgaon	2229.21	313211	7.12
Jalna	1103.02	180413	6.11
Kolhapur	1671.72	293422	5.70
Latur	1430.18	194343	7.36
Mumbai	2182.93	432355	5.05
Nagpur	1509.8	220347	6.85
Nanded	1329.29	275184	4.83
Nandurbar	963.5	142554	6.76
Nashik	6125.88	485803	12.61
Osmanabad	980.79	152044	6.45
Parbhani	1538.26	150936	10.19
Pune	4074.18	427482	9.53
Raigad	1217.12	201450	6.04
Ratnagiri	843.05	191480	4.40
Sangli	1346.92	207104	6.50
Satara	1430.24	231481	6.18
Sindhudurg	401.47	80257	5.00
Solapur	2532.54	338139	7.49
Thane	3367.79	457110	7.37
Wardha	690.83	92408	7.48
Washim	695.53	125922	5.52
Yavatmal	2425.86	304634	7.96
TOTAL	**41995.74**	**7814534**	**5.37**

***Source**:* Government of Maharashtra

8. Estimation of Additional Resource Requirement

To identify the supply-side requirements that need to be attended to on an immediate basis and to make a rough estimate of the cost of covering those gaps, we try to get an idea of the size of these gaps first. Taking infrastructure first, there

are total 950 primary schools and 506 upper primary schools, which do not have own school buildings as on 30th September, 2007. There are total 5362 schools in dilapidated condition, which have to be reconstructed in the near future. A total of 21 thousand classrooms are estimated to need major repairs. We use SSA norms prevalent in 2008-09 to estimate the costs of these. For repairing dilapidated school buildings, we assume Rs. 4 lakh would be needed on an average and for repairs of classrooms, the assumed cost per unit is Rs. 50,000. On the basis of these per unit costs, total cost of new schools works out to around Rs. 98 crore. Reconstruction of dilapidated school buildings would cost another Rs. 214.5 crore. For the classrooms to be repaired, the estimated total cost would be around Rs.104 crore.

There are a total of 16,357 schools without any facilities of drinking water – to provide that the estimated cost would be around Rs. 65.5 crore. An estimated number of 30,987 schools are without girls' toilet facilities – to provide that the cost would be around Rs. 124 crore. The total of the above estimates add up to around Rs. 606.85 crore. Additionally, for the schools run by local bodies, the minimum infrastructural expenditure requirement is Rs. 229 crore as per 2006-07 data (Table 3.12). Including local body schools, estimated cost of closing the infrastructure gap works out to around Rs. 836 crore.

Table 3.12: Resource Requirements for Local Body Schools

Local Body Schools	Without Girls' Toilet	Without Electricity	Without Drinking Water
Total number: 58214	36436	22814	12285
Assumed Unit Cost (Rupees)	40,000	15,000	40,000
Total Cost (Rs. Crore)	145.74	34.22	49.14

***Source**:* Based on assumed norms and basic data supplied by Government of Maharashtra

The state has 8821 habitations without any primary school or EGS within the 1 km distance as per norm and there are 11773 habitations without upper primary schools within 3 km.s distance in end-September, 2007. According to the prevalent norms, the eligible habitations deserving primary and upper primary schools according to the distance as well as the population criteria are 219 and 59 respectively. The total expenditure of building these 278 new school buildings would be Rs. 18.76 crore.

Since the drop-out rates are very high in Maharashtra, for interventions to bring in the out of school children a total of around Rs. 40 crore has been spent during 2007-08 to cover about 70 thousand children. If we include innovative initiatives like MPEGS or RGSS, then the total spending goes up to Rs. 50 crore, if not more. That means the average cost of intervention is roughly Rs. 7000 (7143 to be precise) per child per annum. As per the latest Household Survey (2008), there are still about 70,000 out of school children in the state.[12] The total annual estimated cost that has to be incurred to cover all of them would be Rs. 49 crore.

There is an issue of upgrading EGS centres running for two years or more. Proposed number of EGS centres to be upgraded during 2008-09 is 5038 and those to be converted into AIE centres number 2837. If the average cost of doing so is assumed to be Rs.1 lakh each, then the total estimated cost becomes Rs. 78.75 crore. We assume that this cost is spread over four years equally, the per annum costs thus being Rs. 20 crore. There is also a gap of 4601 (182644-178043) teachers between sanctioned posts and teachers presently working in primary schools to fulfil the norm on pupil-teacher ratio of 1:40. Further, there are total 618 single teacher schools (after rationalization) in the state. If these schools also have to be provided with at least one more teacher, then there is a requirement of 618 more teachers. If 219 new primary schools have to be provided with at least 2 teachers each then total size of the teacher gap would be 5657 and financial requirement would be about Rs. 54 crore per annum, assuming these additional teachers are appointed in 2008-09.

The total number of sanctioned posts of teachers at upper primary schools or sections is 92,254 while the number of currently working teachers is 90,322 with a vacancy of 1932 posts, as on 30th September 2007. There are 361 single teacher schools and 382 double teacher upper primary schools in the state. If the single teacher schools have to be provided with two more teachers and the double teacher schools have to be provided with one more teacher then the requirement would be 1104. If 59 new upper primary schools have to be provided with three teachers each then there would be additional requirement of 177 more teachers. Size of the total additional teacher requirement at upper primary level, then, would be of 3213 and the per annum additional cost would be Rs. 38.56 crore. Therefore, including primary

[12] This figure is rather inconsistent with a 10% dropout rate and enrolled students numbering about 1.5 crore, if dropouts are counted as part of the out-of-school children. All the same, we adopt the much smaller number here as the enrolment figures are often suspected to be inflated to some extent.

and the upper primary levels, the total estimated cost of plugging the teacher gap would be roughly (assuming salary of primary teachers to be Rs. 8000 and that of upper primary to be Rs. 10000 per month) Rs. 93 crore.

Table 3.13: Additional Expenditure Requirements for Elementary Education

(Rs. Lakh)

Head	Sub Head	Number	Unit Cost	Total Cost
Infrastructure I	Primary Schools without Building	950	6.75	6412.5
(for 60,629	Upper Primary Schools without Building	506	6.75	3415.5
Primary & UP	Primary Schools in dilapidated condition	2673	4.00	10692
Govt. schools)	U.P. Schools in dilapidated condition	2689	4.00	10756
	Repairable Classrooms in Primary	9572	0.50	4786
	Repairable Classrooms in UP Schools	11372	0.50	5686
	Primary Schools drinking water facility	11112	0.40	4445
	UP Schools drinking water facility	5245	0.40	2098
	Primary Schools Girls' toilet facility	23457	0.40	9383
	UP Schools Girls' toilet facility	7530	0.40	3012
Infrastructure II	Without Girls' Toilet	36,436	0.40	14574
(for Local Body	Without Drinking Water	12,285	0.40	4914
schools)	Without Electricity	22,814	0.15	3422
Infrastructure III	Primary - New Schools	219	6.75	1478
	Upper Primary - New Schools	59	6.75	398
Infrastructure (Total)				**85472**
Intervention for	Dropped-out Children	70,000	0.07	4900 (per annum)
Upgradation of	EGS Centres	7875	1	7875 (1969 per annum)
Teacher Salary	Primary		0.08	
(New Teachers)		5657	(monthly)	5431 (per annum)
	Upper Primary		0.1	
		3213	(monthly)	3856 (per annum)
CWSN	Resource Teachers		0.03	
		1425	(monthly)	513 (per annum)
Teacher	Primary	10325	0.014	145 (per annum)
Training	Upper Primary	4777	0.014	67 (per annum)
Teachers' Grant	Primary & Upper Primary	8,800	0.005	44 (per annum)
Total Annual Costs				**16925**

398,232 children with special needs (CWSN) have been identified in the state, out of which 357,466 are enrolled in various schools. There is a need of additional 1425 (2266-841) resource teachers for these children, as on 30th September 2007. Even if these teachers are paid Rs. 3000 per month, the cost would be Rs.5.13 crore per annum. It may be noted, however, that each of these resource teachers have to take care of 175 children with special needs, which is unthinkable. Hence, there is a clear need to sanction many more resource teachers to take care of children with special needs.

Finally, 4668 (2.15 percent) among the primary school teachers and 1564 (0.76 percent) among the upper primary school teachers have not received 60 days'

training. Along with them, the newly appointed teachers also have to be trained. Therefore, the total number of teachers to be trained would be 15102. If the unit cost be Rs. 1400 per head, then the total cost comes to 2.11 crore. Further, 5657 new primary and 3213 new upper primary teachers would have to be provided teachers' grant @ Rs. 500 per annum; this would cost a relatively small sum of Rs. 44.35 lakh per annum.

If the government were to distribute the infrastructural expenditure of Rs. 855 crore within last four years of the Eleventh Plan period with an inflation assumption of average 5 percent per annum on infrastructural expenditures (the same inflation being applied to the annual additional expenditure on other items), the total annual extra expenditure requirements of Maharashtra for the last four years (which adds up to less than Rs. 2000 crore) of the Eleventh Plan starting 2008-09 would be as follows.

Table 3.14: Annual Additional Expenditure Requirements during XI Plan Period

(Rs. Crore)

Head\Year	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**Total**
Other Recurring Expenditures	169	177	186	205	737
Intervention for Dropped-outs	49	52	55	58	214
Infrastructure	214	235	259	284	992
Total	432	464	500	547	1943
Projected Budget Expenditures	86488	95137	104650	115115	
Extra Expd. as % of Budget	0.49	0.48	0.48	0.48	

Clearly, the additional expenditure requirements during eleventh Plan period would be small in comparison to the overall size of the budget. Part of this would be possible to finance through the central grants for SSA, and to that extent the requirement would be even smaller. However, as mentioned earlier, the expenditure on drop-outs and out-of-school children may be under-estimated here, as it is based on a figure of out-of-school children which we believe to be grossly underestimated.

To recapitulate, the caste, class and gender nexus in literacy and dropouts that Acharya (2001) pointed out appears to be valid even now, though NERs indicate little regional or gender variation, leading to the prognostication that systematic differentials in broad educational outcomes may disappear sooner rather than later. The major task at hand appears to be a significant reduction in drop-out rate and

Box 1

Ashram Schools

The Tribal Development Department of Government of Maharashtra is running 535 residential Government Ashram schools, out of which 412 have been upgraded as secondary Ashram schools. 186,441 students (102,191 boys and 84,250 girls) were enrolled in these Ashram schools during 2006-07. The students in these Ashram schools are provided free lodging and boarding and other facilities. The department has also established 37 mobile health units for medical examination of these students.

bringing out-of-school children into the fold of elementary education. The government, to its credit, has been trying to do both and have initiated special efforts in this endeavour (see Box 1). One can only hope that these efforts bear fruit. Another area that probably deserves attention (but on which little information is available) is the private costs of 'free schooling'. The government may do well to conduct a proper survey to assess such costs, mainly to ascertain whether such costs are large enough to deter poor families from sending their children to school, or are causing dropouts.

IV. Health Services

1. Introduction

Maharashtra's record in terms of basic health indicators like the infant mortality rate (IMR) and the maternal mortality rate (MMR) is better than a number of states in India. In 2007, IMR in the state stood at 34, which was at par with Tamilnadu and worse only to Kerala among the major states in India (SRS 2008). Similarly, in terms of MMR, the state was worse only in comparison to Kerala and Tamilnadu among the major states in India (SRS 2006). The better health indicators of the state (in comparison to all-India levels) (Table 4.1) is an outcome of the relatively better health services provided in the state in terms of ante-natal care, institutional deliveries and immunization.

Table 4.1: Achievement of Maharashtra with Regard to Various Goals

Indicator	Millenium Development Goals (MDGs)	National Health Policy Target (by 2010)	Eleventh Plan Target (by 2012)	National Population Policy Target (by 2010)	National Rural Health Mission (NRHM)	Status in Maharashtra
Infant mortality rate		30 per 1000 live births	28 per 1000 live births (by 2012)	Below 30 per 1000 live births	30 per 1000 live births	34 per 1000 live births in 2006 (SRS 2008) 38 per 1000 live births in 2005-06 (NFHS III) *Change* Between 2001 and 2007 was 11 (as per SRS) [all-India 11] Between 1998-99 and 2005-06 was 2 (as per NFHS) [all-India: 11]
Maternal Mortality Rate	Reduce by three quarters, between 1990 and 2015, the Maternal Mortality Ratio	1 per 1000 live births	1 per 1000 live births (by 2012)	Below 1 per 1000 live births	1 per 1000 live births	1.49 per 1000 live births
Crude birth rate				21		18.1 in 2007 (SRS 2008) *Change* Between 2001 and 2007 was 2.5 (1.9 all-India level) (as per SRS)
Total Fertility rate			2.1	2.1		2.2 in 2005 (SRS 2006) *Change* Between 1998-99 and 2005-06 was 0.4 (as per NFHS)

As per the National Family Health Survey 2005-06, about three-fourths of the pregnant women in the state received three or more ante-natal checkups and nearly two-thirds of the deliveries in the state were conducted in health facilities in comparison to 52 and 38.7 per cent respectively at the all-India level (Table 4.2). Notwithstanding the higher indicators recorded in 1998-99 as per the previous NFHS round, the state has registered a higher improvement in most of these output indicators (excluding immunization) as compared to all-India levels between the last two rounds of NFHS surveys (1998-99 and 2005-06). Even for immunization, although the NFHS indicates a sharp decline in the period, recent figures provided by the District Level Household Survey 2007-08 indicate an improvement in the period 2002-04 and 2007-08. In general, at the past rate, the state is likely to be able to meet the national goals set for the 11th plan.

Table 4.2: 'Output' Goals Related to Maternal and Child Mortality in Maharashtra

Indicator	*Tenth Plan (by 2007)*	*National Population Policy (by 2010)*	*Current Status*
Percentage Immunized against all vaccine preventable diseases	100	100	*NFHS 2005-06* 58.8 (Maharashtra), 43.5 (all-India) *Change:* -19.6 (Maharashtra), 1.5 (all-India)
Percentage of at least 3 ANC	90	100	*NFHS 2005-06* 75.1 (Maharashtra), 52 (all-India) *Change:* 9.7 (Maharashtra), 8.2 (all-India)
Percentage received at least two doses of TT	100	100	*NFHS 2005-06* 85.1 (Maharashtra), 76.3 (all-India) *Change:* 10.2 (Maharashtra), 9.5 (all-India)
Institutional deliveries (%)	80	80	*NFHS 2005-06* 64.6 (Maharashtra), 38.7 (all-India) *Change:* 12 (Maharashtra), 5.1 (all-India)

In terms of morbidity, the performance of the state is not clear due to unavailability of reliable data on the incidence of various diseases in the state. Reported cases of morbidity indicate a mixed performance with respect to various goals. The reported number of cases of malaria and dengue has not declined steadily and the state has not moved towards achieving a 50 per cent reduction in diseases targeted at the national level. Also, the cases and deaths due to acute diarrhoea are relatively high in the state and a steadily declining trend in the recent

past is not discernible. However, in terms of tuberculosis, the state has already achieved a cure rate of 87 per cent against a target of 85 per cent at the national level. Also in terms of leprosy, the state has recorded a substantial reduction in the prevalence rate from about 2.95 in 2002-03 to about 0.71 in 2007-08, and has achieved the targeted prevalence rate of less than 1 per 10,000 (population). Also, as per NFHS surveys, the state has been able to bring about a substantial reduction in the incidence of acute respiratory infection (ARI) and stands at a level better than the all-India figures.

Table 4.3: Nutritional Status among Children (in the form of Anaemia) in Maharashtra

Indicator	2005-06 (NFHS III)	1998-99 (NFHS II)	Change
Percentage of children with any anaemia (age 6-59 months in NFHS III) (6-35 months in NFHS II)	63.4 (Maharashtra) 69.5 (all-India)	76 (Maharashtra) 74.3 (all-India)	12.6 (Maharashtra) 4.8 (all-India)
Percentage of children malnourished (age 5 years or more) (% below 2 SD) (weight for age)	37 (Maharashtra) 42.5 (all-India)	49.6 (Maharashtra) 47 (all-India)	12.6 (Maharashtra) 4.5 (all-India)
Per cent of children malnourished (age 5 years or more) (weight for height) (% below 2 SD)	16.5 (Maharashtra) 19.8 (all-India)	21.2 (Maharashtra) 15.5 (all-India)	4.7 (Maharashtra) -4.3 (all-India)

The state has also made significant progress in the area of nutrition in terms of the relevant indicators in the recent past. In 1998-99, as per NFHS II, the percentage of children in the state having anaemia and percentage of undernourished children (those below 2 SD) was marginally worse than all-India figures. Between 1998-99 and 2005-06, due to a sharp decline in malnourishment, the state stood marginally better than the all-India figures in 2005-06 (Table 4.3). In this context, a very successful initiative in the state has been argued to be the Rajmata Jijau Mother-Child Health and Nutrition Mission, which was based on the malnourishment removal campaign launched in the Aurangabad division in 2002. This initiative was based on targeting 100 per cent coverage of children in the age group of 0-6 (specifically children in the age group of 0-3 where malnourishment was higher) and improving service delivery and infrastructure of Anganwadis. With the government targeting malnutrition reduction as a state mission and setting up various committees for its implementation, the state may be able to catch up with the targeted goal of reducing malnourishment level by 50 per cent by the end of the 11th plan and improve its ranking in terms of achievement in nutritional indicators.

Overall achievements of the state, however, mask the wide inter-district variations in the basic indicators. As per the estimates of district-wise IMR (from Census 2001), districts like Gadchiroli, Gondiya and Chandrapur in the Vidarbha region have an IMR which is as high as some of the worst states of the country. The inter-district variation can also be seen in the provisioning of ante-natal care services and institutional deliveries. In 2002-04, as per the district level household survey, the percentage of institutional deliveries and immunization rates were as low as 20.5 and 36.9 in Gadchiroli in comparison to 89.1 and 92.2 in the district of Mumbai (suburban). The variation in performance across districts is associated with the variation in the percentage of ST population and accessibility to health facilities across districts. An analysis of the correlation of IMR with the population served per sub-centre and the percentage of ST population across districts indicates that the performance was significantly worse in districts which had a higher percentage of ST population and a larger population served by health centres.

2. Health Infrastructure and Access to Health Facilities

The state is yet to meet the National norms on rural health facilities. In 2006, the state had about three-fourths the number of sub-centres and community health centres and about 80 per cent of the primary health centres required as per the national norms (MoHFW 2007). This situation has been nearly stagnant in the recent past. Between 2001 and 2006, there has been a negligible increase in the number of rural health facilities in the state, particularly SCs and PHCs. Also, in terms of availability of doctors and hospital beds in the public sector, the state does not appear to do as well as its indicators. In 2007, population served per government hospital bed in the state was only around that at the national level (2280 in comparison to 2339, actually marginally lower than national average). Similarly, population served per government hospital bed was about 19765, which was higher than many other states in India. If one includes the private sector, however, the state had a significantly higher number of beds and doctors per population than the country average (Duggal *et al* 2005). The existence of the large private sector in the state is also indicated by the fact that for both inpatient and outpatient care, the percentage of people accessing private facilities (in contrast to public facilities) in the state is more than the percentage at the national level. In 2004, as per the 60th round of survey conducted by the National Sample Survey Organization, about 71 and 72 per cent of the hospitalization cases in the state were treated in private facilities (in rural and urban areas) in comparison to 58 and 62 per cent at the national level. This

obviously has significant cost implications for the citizens[13], particularly the poor unless a sizeable part of the private facilities were run on a charitable basis, which is not the case.

The low increase in primary health facilities has possibly resulted in a negligible increase in preventive health services provided to the poorer sections of the rural population in the state. As per the 52nd and the 60th rounds of NSSO surveys (conducted in 1995-96 and 2004 respectively), while the percentage of pregnancies registered in the state increased by 10 percentage points, the increase has been registered primarily in the higher income groups in the rural areas (Table 4.4). An analysis of the registration of pregnancies across quartiles of monthly per capita expenditure classes in the rural areas indicate that between 1995-96 and 2004, while there was an increase of more than 22 percentage points in the richest quartile, there has been an increase of less than 1 percentage point in the poorest quartile. Assuming no major change in the pattern of pregnancy among income groups, this indicates an increase in inequality of ante-natal registrations across expenditure classes and hence regressivity in the distribution of ante-natal services that are linked to registration of pregnancy. Interestingly, there has also been a fall in the share of government sources in registering antenatal cases. In 1995-96, while private sources accounted for only about 18 per cent of the registered pregnancy cases, in 2004, this was about 41 per cent. This points towards the fact that the increase in registration of ante-natal cases by the richer sections has primarily occurred through private sources and the role of the state in providing increased antenatal services has been minimal, resulting in greater inequality.

Table 4.4: Distribution of ante-natal registrations across MPCE quartiles in rural areas, 52nd and 60th round of NSSO surveys

Quartiles	Share of registered-not registered cases in total pregnancies				Increase in percentage of registrations
	52nd Round		60th Round		
	Not Regd.	Regd.	Not Regd.	Regd.	
0-25	31.0	69.0	30.3	69.7	0.7
25-50	31.2	68.8	27.2	72.8	4.0
50-75	26.9	73.1	13.7	86.3	13.2
75-100	25.7	74.3	3.3	96.7	22.5
State	29.2	70.8	19.1	80.9	10

[13] The same survey shows that average expenditure per hospitalization was Rs. 2243 in rural areas and Rs. 3297 in urban areas in Maharashtra for government hospitals. The comparable costs in other hospitals were Rs. 7064 and Rs. 11,618 (MoHFW, 2007a).

The problem of the poor families not getting the full benefit of maternal health care services, and this in turn adversely affecting neonatal infant nutrition and/or mortality has also been pointed out in the literature earlier (see, for example, Kausar, Griffiths and Matthews, 1999). It appears to be more a problem of ensuring access to specific socio-economic groups (the poor, in particular) rather than a general deficiency in the health services availability because the quantity and quality of primary level health facilities in the state appears better than at the all-India level. As per the facility survey conducted by IIPS in 2003, infrastructure in PHCs was significantly better in the state than in the country as a whole. There however appear to be some shortage of medical and paramedical personnel at the primary level. In 2006, about a third of the positions of doctors in PHCs and a fifth of the positions of ANMs were vacant (MoHFW 2007). At present, as per the Programme Implementation Plan of the NRHM, about 30 per cent of the contractual position of nurses is vacant.

3. Public Expenditure on Health and Related Services

Public expenditure on health and family welfare in Maharashtra is relatively low in comparison to the GSDP of the state. States like Kerala and Tamilnadu, which have lower GSDP than Maharashtra, spend more on health and family welfare both in per capita terms and as a share of GSDP. In 2007-08, Maharashtra spent about Rs. 259 per capita on health and family welfare in comparison to Rs. 383 in Kerala and Rs 276 in Tamilnadu. In terms of the share of GSDP, Maharashtra's public expenditure on health and family welfare in 2007-08 was only 0.56 per cent; in comparison, Kerala spent 0.8 per cent and Tamilnadu spent 0.6 per cent of its GSDP of health and family welfare. As a proportion of total budgetary expenditure, the state spent about 3.65 per cent, which was not only lower than states like Kerala and Tamilnadu, but also significantly lower than the target of 7 to 8 per cent set by the National Health Policy 2002.

Importantly, per capita expenditure on health and family welfare in the state has been almost stagnant in the recent past. Between 2002-03 and 2006-07, there has been a negligible increase in real per capita budgetary expenditure on health and family welfare in the state: between 2002-03 and 2006-07 it increased from about Rs. 158 to about Rs. 165 only. In fact, the growth rate of per capita expenditure on health and family welfare has been significantly lower than the growth rate of GSDP in the state, resulting in a declining ratio of health expenditure to GSDP in the recent past. Expenditure on health and family welfare as percentage of GSDP declined from about 0.58 in 2002-03 to about 0.46 in 2006-07. This is also reflected in the relatively

high share of private health expenditures in the total – 83 percent in the state in 2004-05 as compared to 80 percent for India as whole (MoHFW, 2009). However, in 2007-08, there has been a significant jump in these figures, with the ratio to GSDP rising to 0.56 and per capita expenditure rising to Rs. 218.

There are problems with the distribution of public expenditure across primary, secondary and tertiary health care sectors as well. The national health policy (NHA 2002) suggests that the state should spend about 55 per cent in primary health care services, 35 per cent in secondary health care services and about 10 per cent in tertiary health care services. A classification of the state's budgetary expenditure into primary, secondary and tertiary services based on the classification followed by the National Health Accounts 2001 suggests that in 2005-06, the state spent a substantially higher share than that suggested by NHA 2002 towards tertiary health care services and a relatively lower share towards primary health care services. The state spent only about 35 per cent of its expenditure towards primary health care services (against a suggested share of 55 per cent) and about 26 per cent towards tertiary health care services (against a suggested share of 10 per cent). A significant part of the tertiary health care expenditure was towards the city of Mumbai alone where a large number of tertiary health care facilities were concentrated.

Table 4.5: Distribution of Total Resources available for Health and Family Welfare, 2008-09

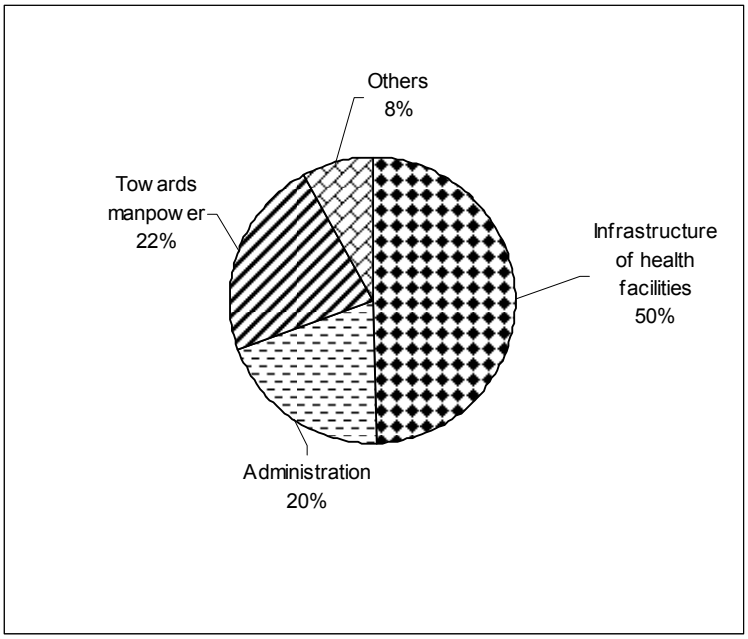
	Rs. Lakh	Share of Total (%)
State's Budgetary Allocation (I)	**302626**	**71.7**
Total NRHM (Approval by GoI) (II)	**119435**	**28.3**
of which :		
RCH and NRHM Flexible pool	86118	20.4
of which :		
GoI Resource Envelope	50432	11.95
Likely Unspent Balance on 1.4.2008	35686	8.45
Infrastructure maintenance	24593	5.83
Disease Control Programmes and Immunization	8724	2.07
Total (I+II)	**422061**	**100**

Source: Budget Papers 2008-09, Government of Maharashtra and Record of Proceedings of the National Programme Coordination Committee 2008-09, National Rural Health Mission, available at http://mohfw.nic.in/NRHM/ROP_08_09/ROP_Maharashtra.pdf

The problems associated with the state's budgetary expenditure is important as the state's budgetary allocation constituted more than 70 per cent of the total resources available for health and family welfare in the state in 2008-09 (Table 4.5). The NRHM contribution (in terms of approval) for the year 2008-09 was relatively small and constituted only about 28 per cent of the total available funds. Although

small, an important component of the NRHM approval was the allocation under the Mission Flexible Pool, which constituted bulk of the new initiatives under NRHM. About 50 per cent of the funds under this pool were towards improving infrastructure of health facilities including medicines, equipments and untied funds (Figure 4.1). This however constituted only about 6 per cent of the total funds available for health and family welfare in 2008-09. Similarly, only about 3 per cent of the total funds available for health and family welfare in 2008-09 were used towards hiring contractual workers and training medical and paramedical personnel. Also, the utilization of the available funds under the RCH and the Mission Flexible Pool needs to be improved as more than 40 per cent of the total funds allocated under these heads remained unutilized in 2007-08.

Figure 4.1: Distribution of funds allocated under the Mission Flexible pool (NRHM), in Maharashtra, 2008-09



Note: Infrastructure includes equipments and medicines.
Administration includes implementation, monitoring and evaluation.

4. Water Supply and Sanitation

In terms of water supply also, the state is not particularly worse off in comparison to all-India levels. As per Census 2001, about 74 per cent of the households in the state (61 per cent in the rural areas) had access to safe drinking water. Even in terms of coverage of habitations, in 2008, about 61 per cent of the habitations of the state were classified as 'fully covered' and only about 2 per cent 'not covered'. However, in terms of sanitation, as per Census 2001, only about 35 per

cent of the households of the state had toilets. This figure was as low as 18 per cent in the rural areas. Since 2001, however, about 22 per cent of the households in the state have been provided with toilets under the total sanitation campaign. At the end of March 2008, the percentage of households having toilets has increased to about 57 per cent. However, achievement under the total Sanitation Campaign has been low. In the period April 1999 to April 2008, only about 44 per cent of the target in terms of the number of households to be provided with toilets has been achieved.

In water supply and sanitation, public expenditure in Maharashtra is one of the highest in the country. In 2005-06, both as percentage of GSDP and in per capita terms, the state spent higher than most of the major states including Kerala and Tamil Nadu in water supply and sanitation.[14] In general, public expenditure on social services in Maharashtra is one of the highest in the country. In 2005-06, the state ranked first in terms of per capita expenditure in social services and this high level of expenditure in social services complement the expenditure on health and family welfare.

Despite large expenditures and officially claimed coverage of water supply schemes, there are in fact serious potable water availability problems in the state. A major issue in this area is the regularity and sustainability of the water supplied. Preoccupation with *piped* water supply, and a lack of co-ordination between the departments responsible for distribution and supply of drinking water on the one hand and for availability from various sources (surface or ground) on the other is a common feature, not only in Maharashtra, but in many other states as well. What makes the problem more serious for Maharashtra is that it has to battle with several types of problems in the area of water supply (see Box 2).

The main problem with respect to sanitation relates to the difficulty of changing rural mindsets. A result of this problem is that a surprisingly large number of latrines, even when constructed and available, is not used for its designated purpose but as bathrooms, storage spaces and so on. This demand side problem was responsible for a change in approach of the state government and build in more of information element, community participation and a campaign mode; Sant Gadge Baba Clean Village Sanitation Campaign with prizes for clean villages exemplifies this change.

[14] Of course, this is at least partly explained by large dry tracts in the state. Availability of adequate drinking water is still a major concern in some parts of the state.

Box 2

Water Supply In Maharashtra: Constraints

Das (2006), in his detailed survey of the water supply situation in Maharashtra mentions the following constraints, among others:

- Disadvantaged hydrology: more than 90 percent of the area of the state is non-porous hard rock (basaltic), which makes recharging difficult; 30 percent of the area is in the rain shadow region, but nevertheless grows water-intensive cash crops; areas with some rainfall have small potential for retention whereas those with aquifers suffer from contamination.
- Sustainability, particularly during the summer months, suffers due to drying up of dug-wells, damage and breakdown of handpumps and pollution of aquifers.
- Designs of water supply schemes are unsustainable, and equipments and construction are sub-standard. Further, there are widespread delays in implementation of schemes.
- Operation and maintenance is poor.

5. Resource Requirement for Health and Related Services

Additional resource requirement for the health sector in Maharashtra arises on a number of accounts. First, the state is still short of the national norms on health facilities like the SCs, PHCs and CHCs. While there may be additional resources required for higher level health facilities also, in this exercise, we focus only on the resources required for meeting the national norms on SCs, PHCs and CHCs and the additional recurring expenditure required for operating the new facilities. Secondly, we estimate the additional resources required, if the state filled up the vacancies and met the norms of staffing as per the Indian Public Health Standards (IPHS) in the existing facilities. Thirdly, we estimate the additional resources required for covering all habitations by safe drinking water and providing all rural households by toilets. This is likely to bring down the high number of reported cases of water borne diseases like diarrhoea. Fourthly, we estimate the cost of providing nutritional supplements to all moderately and severely malnourished children in the age group of 0 to 6 and all anaemic pregnant women. These estimates provide a bare minimum additional requirement of expenditure and need to be treated as underestimates of the actual requirement.

Estimates of resource requirement in meeting the shortfall (in 2007) from national norms for the provision of SCs, PHCs and CHCs in the state suggest that a capital investment of Rs. 114 crore is required for meeting the norms on these facilities. If this investment is spread over a period of 5 years, the state would have to incur an additional investment of Rs. 23 crore annually. These estimates are based

on the unit costs outlined by NRHM (MoHFW 2005). Apart from the capital investment, establishment of these facilities will increase the recurring expenditure of the state by about Rs. 670 crore annually. Additionally, to meet the IPHS standards on staff in SCs, PHCs and CHCs (as of 2007), the state would have to incur an additional recurring expenditure of about Rs. 1181 crore annually. Together, the state requires a minimum additional expenditure (both capital and recurring combined) of about Rs. 1874 crore annually. It must be noted that some of these expenditures are already planned to be covered under the National Rural Health Mission.

For covering all habitations by safe drinking water, we estimate an additional requirement of Rs. 1762 crore. In 2008, nearly 61 per cent of the habitations in the state were 'fully covered', 37 per cent 'partially covered' and 2 per cent 'not covered'. The estimate of additional resource requirement for safe drinking water includes the cost of converting the partially covered and not covered habitations into fully covered habitations. For converting into fully covered habitation, we assume a unit cost of Rs. 5 lakh for partially covered habitation and Rs. 7 lakh for not covered habitation. If the capital investment is spread out over a period of 5 years, an additional investment of Rs. 352 crore would be required annually. Additionally, we assume that about 10 per cent of the capital investment would be required for maintenance every year and we add this as additional recurring cost.

The state of sanitation in the state is relatively poor with only about 57 per cent of the households having toilets. For providing all rural households with toilets, we estimate an additional cost of Rs. 733 crore. This is arrived at by using data on the number of rural households without toilets as per Census 2001 reduced by the number of toilets built under the total sanitation campaign upto 2008 and using a unit cost of construction of Rs. 1500 per toilet. If the capital investment is spread over a period of five years, an annual investment of about Rs. 147 crore would have to be incurred every year.

Resource requirement for providing nutritional supplements to all malnourished children in the age group of 0 to 6 is estimated to be about Rs. 643 crore. This is based on estimates of the percentage of malnourished children reported by the Department of Women and Child Welfare, Government of Maharashtra and the government prescribed rates for providing nutritional supplements to malnourished children. Additionally, an amount of Rs. 144 crore is required for providing nutritional supplements to pregnant mothers. This is based on the number of pregnancies estimated from the crude birth rate, percentage of women

suffering from anaemia in the state and the government prescribed rates for providing nutritional supplements to pregnant women and nursing mothers. After taking into account the state's current level of expenditure, our estimates suggest that an additional expenditure of Rs. 438 crore is required annually for providing nutritional supplements.

Table 4.6: Additional requirement of resources in health and related sectors in Maharashtra, terminal year (Rs. crore)

	Capital cost	**Recurring cost**
Building new health facilities to meet the National norms on SCs, PHCs and CHCs	114/5=23	670
Meeting the IPHS staffing norms in existing SCs, PHCs and CHCs		1181
Water supply	1762/5=352	35
Sanitation	733/5=147	
Nutritional supplements		438
Total	523	2324

Together, the total additional requirement of resources is about Rs. 2847 crore (Table 4.6), which was about 0.6 per cent of the state's GSDP in 2006-07. With the state spending about 0.9 per cent of its GSDP in health, water supply, sanitation and nutrition in 2006-07, the state would need to increase its spending on these heads to about 1.5 per cent of its GSDP.

6. Conclusions

Maharashtra is one of the better-placed states of India in terms of health indicators like the infant mortality rate and the maternal mortality rate. In the recent past, the state has also been able to register a higher improvement than the all-India level in terms of a number of indicators and is likely to be able to meet the goals set for the 11th plan. However, there are marked inter-district variations in health achievements and some of the districts are comparable to the worst-placed states of the country. Also, the state is still short of reaching the national norms on rural health facilities and there has been a widening of the gap in access to preventive health services across income classes in rural areas. In fact, the rural-urban divide in health services is highly significant (Mishra, Duggal, Lingam and Pitre, 2008). Besides, conditions of sanitation remain poor and this could be an important cause of the large number of diarrhoea cases in the state.

The achievement of the state is also not commensurate with its level of GSDP. One of the important reasons for this is the low priority given to health and family welfare by the state. The state spends a lower share of its GSDP and

budgetary expenditure on health and family welfare than states like Kerala and Tamil Nadu (which have relatively lower income) and this results in a relatively lower per capita expenditure on health and family welfare than these states. Moreover, in the recent past, real per capita expenditure has remained nearly stagnant and the growth in public expenditure on health and family welfare has not kept pace with the growth of GSDP in the state. Possibly due to the stagnant public spending, expansion of preventive services like ante-natal registrations has primarily occurred in the private sector and among the richer sections. Besides, the state spends a relatively higher amount on tertiary health care services and a lower amount on primary health care services than the level suggested by National Health Policy 2002.

Apart from expenditure in the health sector, the state needs to attend urgently to the task of improving the sanitary conditions and focus both on the progress of constructing toilets under the Total Sanitation Campaign and on inculcating a culture of their proper use. Also, reducing the incidence of under-age marriages would be important for lowering IMR and MMR and this would call for extensive generation of awareness, particularly in the rural areas. Further, while the initial attempt to reduce malnourishment in the state has been reasonably successful, sustaining the success for the state's nutrition mission would be crucial for meeting the 11th plan goal of reducing malnourishment by 50 per cent. With these efforts in health related services combined with an increased priority towards the health sector particularly towards primary health care services, the state's achievement is likely to improve and become commensurate with its level of GSDP.

V. Public Expenditure and the Poor

1. Introduction

With a large number of poor in the state despite a relatively high per capita income, it would be expected that the state would spend a substantial part of its budget on the poor. It is not only the duty of a welfare state to take care of its poor, but also important to do so for various other reasons including sustainable growth, positive externalities of poverty reduction and political-economy considerations. Also, relatively high per capita incomes imply commensurately higher receipts and hence higher ability to spend on the poor. The last-mentioned ability is enhanced in two ways: directly with greater receipts, and more indirectly with less reliance on public provision of services by the non-poor.

As such, public expenditures in a state like Maharashtra ought to be characterised by (a) a substantive focus on the services and schemes that are designed to benefit the poor and (b) a greater degree of deliberate targeting of the poor even in more generally provided services, that is, ensuring that the benefit of the bulk of public expenditures reach the poor. This is required as an essential and primary part of the strategy for poverty alleviation because the private sector's contribution to poverty alleviation is likely to be limited in comparison to the size of the task; the main reason for this is the lack of private rate of return from private expenditures incurred on poverty alleviation. In this chapter we examine the pattern of public expenditures in the state to get an idea of the extent of expenditure orientation towards the poor and, as a case study, estimate the distribution of the benefits of public expenditure on health to examine effective targeting.

2. Budgetary Expenditure for the Poor: Classification by Intent

To examine the expected orientation of the public expenditures for directly providing benefits to the poor, we first classify them into three somewhat arbitrarily defined categories of (i) administrative expenditures, (ii) growth-oriented expenditures and (iii) poverty-oriented expenditures. While the first is essentially defined as those that are deemed necessary for implementation of various programmes without actually giving rise to any provision of goods or services, the second covers those expenditures that are primarily intended to enhance the

productive capacity of the state, e.g., on infrastructure. The last category includes those expenditures that are intended to alleviate poverty directly, either through transfer payments or through enhancement of capacity of selected poor/ backward groups. Growth oriented expenditures may also contribute to alleviation of poverty in the medium to long run, but such impact would necessarily be indirect through growth and the actual presence of the 'trickle-down' effect. The classification is based on available information in the budget and some prior knowledge about various schemes. Obviously, there are several cases that are not easily amenable to such classification[15], which have been resolved with subjective judgment. Thus, the classification can only be called indicative. However, as far as possible, expenditures that are difficult to classify because of multiple objectives have been generally classified as poverty alleviating to err on the side of caution. Details of the procedure adopted are given in Sen and Chand (2004). The basic purpose of the classification adopted is to form a rough idea about the focus of the government on the route chosen to better the conditions for the poor. Also, the classification is based on intent rather than actual impact, since the latter can be unclear, and, in any case, our limited objective is to look at the orientation rather than actual impact.

The classification of expenditure by intent into pro-poor, developmental and administrative expenditures in Maharashtra reveals that around 36 percent of the total expenditure is administrative expenditure (Table 5.1). This is a fairly large part of the total, but a contributory factor to its large size is the fact that by definition, interest expenditures are included in this category. Of the remaining 64 percent in 2006-07, about 43 percent is development-oriented and the remaining 21 percent is pro-poor expenditure. Of the total expenditure comprising 14 percent of GSDP, about 11.5 percent of GSDP is on the revenue account and the remaining is capital expenditure. In all the three years of reference, net lending had been positive. Within revenue expenditures, around 44 percent is on administration. The results thus presented cannot be easily interpreted to signify a particular policy stance. Though the poverty levels in the state are high, pro poor expenditure constitutes the smallest share in the revenue expenditures that dominate total expenditures. Share of pro-poor expenditure in capital outlay is also abysmally low except in 2006-07. Clearly, poverty alleviation is not the dominant concern. Since capital expenditure is expected to be intrinsically developmental oriented, the dominance of the relevant share is hardly surprising. But a truly growth-oriented strategy would probably allocate a much larger

[15] For example, there may be a scheme that aims at building infrastructure, but in the process uses a labour-intensive technology and employs only poor persons as labour with the express purpose of supplementing schemes of employment generation for the poor.

share of total expenditures to capital expenditures, which is not the case. Thus, the pattern of public expenditures does not reveal a clear strategy, possibly representing an eclectic combination of expenditures to meet budgetary imperatives ranging from contractual obligations like interest payments to allocations for various lobbies. There is also a declining trend observed in total expenditures over the three year period as a ratio of GSDP, but the period is too short to draw any conclusions.

Table 5.2 provides similar classification of subsets of public expenditure in Maharashtra on social and economic services. Typically, expenditure on social services are expected to be inclined towards the poor to a greater extent than economic services, because the former include several schemes for social justice aimed at the lower income groups and the poor are often not in a position to benefit from the expenditure on some of the economic services. However, most of the poverty alleviation schemes are classified under rural development (or urban development in the case of those for the urban poor) included under economic services. Thus, if the expenditures on direct poverty removal schemes are large enough, both social and economic services could conceivably be primarily poverty-oriented. However, the case in Maharashtra conforms to the typical with public expenditures tilting towards pro-poor in social services and more development-oriented in economic services. Social and economic services are roughly similar proportions of GSDP – around 4.5 percent – but in two of three years covered, the former is a little larger than the latter. In social services, nearly 50 percent of the total expenditure is classified as pro-poor, while development oriented expenditure has a share only a little smaller at 47 percent. Administrative expenditures are quite small at 4 percent. Thus, even in social services, the poverty-oriented expenditures are not really dominant and exceed the development-oriented by a narrow margin only. In economic services, however, the dominance of development oriented expenditures is more marked, accounting for more than 80 percent of the total and the share of pro-poor expenditures is at best about 14 percent.

Coupled with a level of public expenditures (in terms of the ratio to GSDP) that is relatively small, the low share of the pro-poor expenditures indicates an absence of a policy of large and widely scoped public intervention for the poor and rely on the paradigm of encouraging economic growth and its beneficial impact on the poor. It still remains to be seen whether expenditures not necessarily targeted towards the poor are actually benefiting the poor to a relatively greater extent; if so, the lower emphasis on the pro-poor expenditures would not matter so much. This is examined next.

Table 5.1: Classification of Government Expenditure in Maharashtra

	Amount (Rs. Lakh)						Shares (%) in					
	Nominal Prices			1999-00 Prices			Respective Totals			In GSDP		
	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07
A: Revenue Expenditure	4764249	4944842	5852240	3909061	3881480	4329042	100.00	100.00	100.00	12.30	11.29	11.49
1. Pro-poor Expenditure	1094940	1061761	1340863	898397	833435	991868	22.98	21.47	22.91	2.83	2.42	2.63
2. Growth-oriented Expenditure	1611367	1641284	1943190	1322125	1288334	1437424	33.82	33.19	33.20	4.16	3.75	3.81
3. Administrative Expenditure	2057942	2241797	2568187	1688539	1759710	1899750	43.20	45.34	43.88	5.31	5.12	5.04
B. Capital Outlay	787325	1007158	994948	645999	790574	735987	100.00	100.00	100.00	2.03	2.30	1.95
1. Pro-poor Expenditure	22276	80294	119542	18277	63027	88428	2.83	7.97	12.01	0.06	0.18	0.23
2. Growth-oriented Expenditure	760620	920477	865413	624087	722533	640167	96.61	91.39	86.98	1.96	2.10	1.70
3. Administrative Expenditure	4430	6388	9993	3634	5014	7392	0.56	0.63	1.00	0.01	0.01	0.02
C. Net lending	70972	371036	227092	58232	291247	167985	100.00	100.00	100.00	0.18	0.85	0.45
1. Pro-poor Expenditure	3528	4300	3060	2894	3375	2263	4.97	1.16	1.35	0.01	0.01	0.01
2. Growth-oriented Expenditure	67444	366737	224032	55338	287872	165722	95.03	98.84	98.65	0.17	0.84	0.44
3. Administrative Expenditure				0	0	0	0.00	0.00	0.00	0.00	0.00	0.00
D. Total Expenditure	5622546	6323036	7074281	4613293	4963301	5233014	100.00	100.00	100.00	14.51	14.43	13.89
1. Pro-poor Expenditure	1120743	1146355	1463465	919569	899837	1082560	19.93	18.13	20.69	2.89	2.62	2.87
2. Growth-oriented Expenditure	2439431	2928497	3032636	2001551	2298739	2243313	43.39	46.31	42.87	6.30	6.69	5.95
3. Administrative Expenditure	2062371	2248184	2578180	1692173	1764724	1907142	36.68	35.56	36.44	5.32	5.13	5.06

Table 5.2: Classification of Government Expenditure in Maharashtra

Expenditure Categories	Amount in Rs. Lakh						Shares (%) in					
	Nominal Prices			1999-00 Prices			Respective Totals			in GSDP		
	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07
Social services (Revenue + Capital + Net Lending)	1811912	2126561	2437163	1486672	1669255	1802828	100.00	100.00	100.00	4.68	4.85	4.78
1. Pro-poor Expenditure	868043	996794	1200301	712229	782439	887891	47.91	46.87	49.25	2.24	2.28	2.36
2. Growth-oriented Expenditure	867503	1051305	1148469	711785	825227	849550	47.88	49.44	47.12	2.24	2.40	2.25
3. Administrative Expenditure	76366	78462	88393	62658	61589	65386	4.21	3.69	3.63	0.20	0.18	0.17
Economic Services (Revenue + Capital + Net Lending)	1840630	2015084	2167437	1510235	1581751	1603305	100.00	100.00	100.00	4.75	4.60	4.26
1. Pro-poor Expenditure	252700	149560	263164	207340	117398	194669	13.73	7.42	12.14	0.65	0.34	0.52
2. Growth-oriented Expenditure	1487361	1742047	1782457	1220378	1367429	1318526	80.81	86.45	82.24	3.84	3.98	3.50
3. Administrative Expenditure	100569	123476	121816	82517	96924	90110	5.46	6.13	5.62	0.26	0.28	0.24

3. Distribution of the Benefits of Public Expenditure

To obtain an idea of the actual beneficiaries of public expenditures, the distribution of the benefits of public spending can be estimated across expenditure classes on the basis of available data on the use of the concerned service(s) by persons in various expenditure classes, obtained from the NSSO surveys. This approach – called 'Benefit Incidence Analysis' (BIA) has been widely used in the literature. BIA combines information on the unit costs of providing public services with information on the use of these services to estimate the benefits derived by different groups of individuals or households. This section uses BIA to analyze the distribution of public spending on health facilities in Maharashtra across expenditure quartiles in rural and urban areas.

Ideally, unit costs of each public service provided in health facilities and their utilization by households across expenditure quartiles need to be measured for the analysis. However, non-availability of data on utilization of each public service provided in health facilities combined with the inability to decompose information on public spending on health facilities for individual services restricts the analysis to a relatively aggregate level. Specifically, the analysis here focuses on six services for which information on utilization was available from the 60th round of NSSO data for the year 2004: inpatient services (excluding childbirth), outpatient services, inpatient services related to childbirth, antenatal care services, postnatal care services and immunization services. A recent benefit incidence analysis of health expenditure in India (NCAER 2002) argued on the basis of facility-level studies that in public hospitals, public expense on a single inpatient was about six times the expenditure on an outpatient. The corresponding expenses in PHCs and dispensaries were about half of those in public hospitals. Also, expenditure on ante-natal care, post-natal care and immunizations was argued to be half of that in PHCs and dispensaries. In our analysis, we have borrowed these norms from the NCAER study. However, as the 60th round of NSSO data does not provide information separately for PHCs and public hospitals, we assume that expenses for inpatient cases are in general six times that of the expense for outpatient visits, that for childbirth about half the expense of that of an inpatient visit for other cases and about one-fourth of that of an outpatient visit for ante-natal care, post-natal care and immunizations. As the 60th round of NSSO data does not provide information separately on immunizations from public and private sources, we assume that immunizations from public sources

across quartiles are in the same proportion as that of ante-natal care from public sources. The assumption is based on the fact that both ante-natal care and immunizations are part of maternal and child care activities provided by similar public sources. The state's budgetary (revenue) expenditure on health culled out from the detailed demand for grants in budget documents is used, along with these norms taken from the NCAER study, to estimate the unit cost of each public service. Care is taken to include only expenditure that is directly incurred in health facilities. Again, following the NCAER study, we assume that half of the expenditure on disease control, and medical education and training, whose benefits accrue partly to people outside health facilities also, is incurred through health facilities. Also, expenditure on direction and administration is excluded as in the NCAER study. Budgetary receipts on payments from patients are then deducted from the total state expenditure on health facilities to arrive at the net public spending.

Table 5.3: Benefits of Public Spending for Healthcare by MPCE Quartiles

Quartiles	In-patients	Out-patients	Ante-natal care	Post-natal care	Childbirth	Immuni-zations	Total
Rural							
lowest 25	32	22	29	26	32	35	24
25 to 50	26	25	24	26	31	30	26
50 to 75	22	23	26	26	27	22	23
highest 25	20	30	21	22	10	13	28
Urban							
lowest 25	34	34	50	44	46	60	35
25 to 50	26	15	21	26	39	20	18
50 to 75	23	22	14	11	9	12	22
highest 25	17	29	14	19	6	8	26

A conceptual problem in the methodology used arises from the fact that, apart from public services in health facilities for which information on utilization is available, there are services like family planning activities, which are provided in health facilities, yet no information on utilization of these services in health facilities across expenditure quartiles is available. While this compels one to exclude these services from the utilization aspect in the analysis, the same cannot be excluded from public spending without necessary details. To the extent that family planning services from public sources are used relatively more by the poorer sections of the population, the benefits of public spending on health facilities accruing to the poorer sections of the population are underestimated in the analysis. However, this distortion should not be large, since recourse to public health facilities overall by the relatively well-off is likely to be relatively low, as in the case of family planning services.

Results of our analysis (Table 5.3) suggest that the distribution of the benefits of public spending is relatively more equal in Maharashtra than in many other states in India. Notably, in both the rural and the urban areas, public spending is more pro-poor in the case of preventive services than curative services. In particular, for preventive services, the benefits of public spending accrue more to the poorer sections in the urban areas than in the rural areas. Even in the case of curative services, for inpatient cases, the benefits of public spending accrue more to the poorer half of the population than the richer half in both the rural and the urban areas. However, in the general outpatient cases which constitute bulk of the cases, the benefits of public spending accrue relatively more to the richer half than the poorer half of the population in both the rural and the urban areas. In the aggregate, the shares of the two bottom quartiles and the two top quartiles are roughly the same, indicating no bias towards the poor or the relatively better-off.

Altogether, it appears that public expenditures could be better adapted to meet the challenge of persistent poverty, especially given the fact that reliance on the policy of economic development automatically taking care of the poverty issue in the past has not resulted in a rapid reduction of poverty levels. This may be done through a few broad policy shifts:

- It is important to step up government expenditure in general, and on human development, specifically poverty alleviation, in particular. It is not enough to motivate the private providers to increase their supply; there are certain areas where age-old systems of community financing are breaking down amidst the modern societal culture, and the public sector must step in to fill the void caused thereby. Substitution by other private organisations may not achieve the objective of making the concerned services available to those who cannot access these because of various socio-economic barriers. Further, there are human development areas that need investment, and such investment is not very likely to come from the private sector in the present scenario. Again, public supply has to be stepped up in such areas.
- To what extent this can be successfully achieved would depend on the fiscal strength of the state government; however, it is important enough to warrant commensurate increases in revenues; such increases, however, should not impose a burden on the poor. As such, raising the additional revenue should be a careful exercise.

VI. Financing Human Development Requirements

1. Introduction

The preceding chapters endeavoured to present a review of the basic human development concerns of the state of Maharashtra, identify areas of weakness or ground to be covered yet and estimate financial resources that would be required to strengthen action on human development. There appears to be a strong need for reinforcing the level of government expenditure particularly those designed to help the poor; since these cannot be balanced by increased revenues from the beneficiaries, other sources of revenues have to be tapped. Of course, simply spending more is never a guarantee of actually enhanced level of the services concerned; the expenditures will also have to be incurred in the appropriate manner. But then, this consideration applies not only to those expenditures estimated by us but to the entire public expenditures. In fact, achieving greater efficiency of public expenditures would be in a sense similar to incurring additional expenditures. All the same, without in any way underestimating the importance of such achievement, our discussion below does not dwell further on this issue simply because (a) we are not in a position to make any substantive suggestions on this aspect without a thorough examination of the various aspects of public expenditures, and (b) there is no reason to expect a sudden increase in the level of efficiency of public expenditures to coincide with our estimated step-ups in these expenditures without any concrete policy suggestions to achieve increased efficiency.

Typically, there are only the following ways of financing the specific expenditure requirements: raising own revenues (tax or non-tax), reallocating expenditures away from other areas to increase expenditures in the focus areas, getting increased transfers from the central government and getting assistance from other sources (usually foreign or multilateral). Two other ways of financing additional expenditures are conceivable: borrowing and private sources. We do not consider the option of borrowing here because much of the expenditures that we are considering are not likely to provide financial returns in the near future, thereby raising the burden of debt-servicing for the budget as a whole – a prospect we do not recommend. Enlisting the help of the private sector, on the other hand, is an option that heavily hinges on availability and suitability for the purposes; while some

comments on this aspect are provided below, the uncertainty involved does not allow us to consider this as a definite financing mechanism. However, before we explore these issues in greater detail, we need to gather together the estimated resource requirements to obtain an idea of the size of the task.

2. Estimated Resource Requirements

Table 6.1 pulls our estimates of additional resource requirements together. Wherever we had alternative estimates, we have taken the highest estimate for our purpose here. All the annual estimates below include a 5 percent cost escalation per annum for inflation to maintain the estimates in current prices. In the cases of estimates for NREGA, Housing and Elementary Education, the relevant annual expenditures for the year 2008-09 are assumed to be incurred already, while the aggregate estimate for Health and related services is equally spread over the current and the next two financial years, so that the targets are achieved by the end of the current Five-year Plan. This is not to say that none of these need to be continued beyond 2011-12; those expenditures that are in the nature of recurrent ones obviously will have to be continued.

Table 6.1: Additional Resource Requirements – 2009-10 to 2011-12

(Rs. crore)

Purpose	2009-10	2010-11	2011-12	Total
NREGA	511	537	564	1612
Housing	204	214	225	642
Education	464	500	547	1511
Health etc.	996	1046	1099	3141
Total	2176	2297	2434	6907

The total estimated additional expenditures for the three years work out to Rs. 6907 crore with the annual totals ranging between Rs. 2176 crore and Rs. 2434 crore. A comparison of the additional resource requirement for 2009-10 with the budgeted total public expenditure in Maharashtra (Rs. 122762 crore as per the latest budget) for the same year shows that the additional expenditure works out to only 1.77 per cent of the latter, certainly not a very large incremental expenditure. To the extent that it is a small increment, the issue of finding the resources becomes a relatively easy one to tackle, since a marginal adjustment in any of the possible sources of funds should be able to garner the necessary resources.

3. State Revenues and Financing Resource Requirements

The revenue structure of Maharashtra for the years 2006-07 and 2007-08 is provided in Table 6.2. The table shows a structure that is largely dependent on own

taxes. This is to be expected in a state like Maharashtra given its large tax base, and low dependence on either shared taxes or grants – its relatively high per capita income limits both types of central transfers. Own non-tax revenues have rarely been a major revenue source in any state of India (in some states, inclusion of gross rather than net receipts of state lotteries sometimes distort the pattern) and Maharashtra has not been an exception. However, this source of revenues exhibits a substantial increase in 2007-08 compared to 2006-07; details show that this increase is mainly attributable to higher interest receipts. The main point to be made here is that the own tax ratio of the state, even after an increase in 2007-08, is lower than many other states in India at about 8 percent. Even half a percentage point increase in this would have garnered in 2007-08 additional resources amounting to almost Rs. 3000 crore; this clearly illustrates the relative ease with which the state can undertake the additional expenditures estimated by us.

Table 6.2: Structure of Revenue Receipts
(Percentage of GSDP)

Category	2006-07	2007-08
Total Revenue Receipts	12.22	13.47
Own Tax Revenue	7.88	8.04
Non-tax Revenue	1.47	2.87
Shared Taxes	1.18	1.29
Grants from Centre	1.68	1.27

4. Expenditure Reallocation

Table 6.3 provides a comparison between actual pattern of expenditures and normatively estimated pattern of expenditures within the same total expenditure envelope, following the methodology detailed in Sen and Karmakar (2007). In general, the methodology uses indicator values for the state corresponding to various budgetary (functional) categories of expenditure in comparison with the best values of the same indicators across states to derive priorities. These priorities are then combined with expenditures incurred in the past per unit increase in the indicators to arrive at the normative allocation. In most of the states, this methodology would be used to indicate possible reallocation of expenditures to bolster expenditures on human development. However, in the case of Maharashtra, we have already seen that public expenditure levels require some increase in general and for human

development in particular.[16] As such, in Maharashtra, the comparison between the estimated pattern and the actual should focus more on the public expenditure costs of achieving improvements, and treat the cases of estimated values lower than the actual as indicating areas that account for public expenditures not commensurate with the achievements in terms of the chosen indicators. As such, such areas would have potential for improving the efficiency of public expenditures. However, the exercise does indicate the requirement of some step-up of public expenditure on health and related services. One area that ought to receive a substantially larger share of public expenditures than it actually does is irrigation and flood control; agriculture also should get a larger share of the expenditures than actually given.

Table 6.3: Actual and Estimated Allocation of Public Expenditures

(Rs. Lakh)

Expenditure Head	Expenditure 2005-06	Expenditure 2006-07 (actual)	Estimated Expenditure 2006-07
Education	1077412.55	1242894.97	1077560.94
Health	164193.34	146563.77	164199.64
Water Supply	43687.65	50920.38	43697.26
Housing	112433.73	162028.39	112449.56
Urban Development	27293.00	31851.10	27411.10
Rural Development	305809.58	413511.34	305905.83
Labour and Employment	248167.58	306646.38	245282.42
Agriculture and Allied	738268.94	683700.60	738314.63
Irrigation and Flood Control	255532.21	340167.51	725988.26
Energy	58764.01	57733.86	58840.63
Industry & Minerals	163923.24	217213.83	163923.25
Transport	221452.35	232978.14	222636.75
Grand Total	3416938.18	3886210.27	3886210.27

5. Transfers

As noted earlier, the possibility of getting any substantial increase in general purpose central transfers is small in Maharashtra because of its small *inter se* share in such transfers, strongly linked as they are to the per capita incomes of recipient states. However, in certain centrally sponsored schemes (specifically NREGA, SSA and NRHM) transfers are linked to actual expenditures, with matching conditions.

[16] The case for reallocation in favour of human development should not be overstated, since the impact of expenditures in areas other than typical direct human development concerns can, in fact, help address such concerns. For example, an oft-quoted empirical study (Fan, Hazel and Thorat, 2000) showed that one of the most effective types of public expenditure to reduce rural poverty was to invest on construction and maintenance of rural roads.

The state should make the most of these transfers and give priority to the provision of the state shares. Foreign/ multilateral assistance, as long as they are in the nature of grants, should be welcome; but the state should be wary of incurring loan-based assistance in human development areas for the reasons mentioned above.

6. Private Sources

Finally, using private investments in human development – by itself or through public-private partnerships (PPP) – should be useful, but care must be taken to ensure that such investments actually make for greater accessibility of the poor. For example, a super-speciality hospital with high charges would certainly constitute private investment in health, but would hardly be of any use to the poor who need free or low-cost basic medical and public health services. For this purpose, it would be useful to conceptually break down various services into their smallest constituent parts and consider the possibility of involving the private sector in these parts. For example, an entire school may not be financed by any private body, but it may be possible to involve them in, say provision and maintenance of computers, or in building up a school library. From this angle, the involvement of ISKCON in the mid-day meal scheme is also a good example that may perhaps be replicated elsewhere with the help of other private bodies.

In conclusion, one may reiterate that the policy lessons that emerge are broadly three: (a) although the resource requirements for the specific human development areas are relatively small and should be easy to meet, there appears to be a need for pushing up the level of aggregate public expenditures (and in specific areas like irrigation and agriculture); (b) the increases at the margin should be directed exclusively to the regions with development deficit; and (c) specific social groups (STs and SCs) are clearly disadvantaged despite several special schemes aimed at their development – this is an issue that requires reflection, examination and remedial action. These should automatically reduce the impact of poverty in the state because of the pattern of its incidence by regions and by social groups.

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