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Dealing with Fiscal Constraints on Public Financing of Human Development in West Bengal

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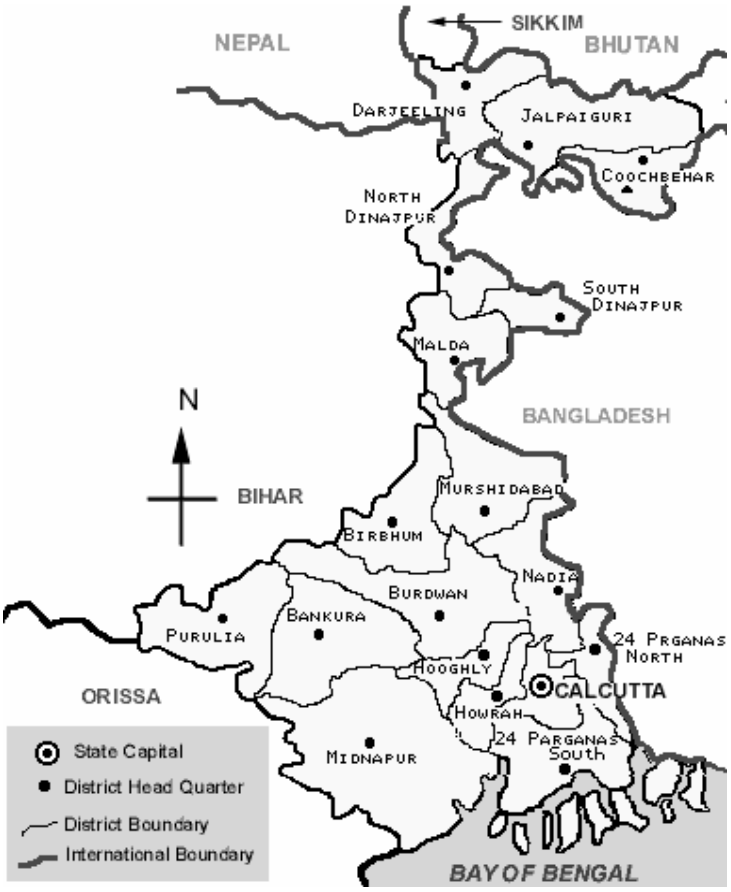

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Preface

This is the fourth study report prepared under the research project ***Financing Human Development in India***, in progress at National Institute of Public Finance and Policy. This project is in turn a part of a larger programme of ***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, and the other members of the team were H.K. Amarnath, Mita Choudhury and Protiva Kundu. Surajit Das helped in the finalization of the draft report. Competent research assistance was provided by Sandip Biswal, Narendra Jena and Krishanu Karmakar.

The Governing Body of the Institute does not take any responsibility for the contents of this monograph; it belongs to the authors only.

M. Govinda Rao
Director

Acknowledgements

This study of financing human development in West Bengal, the fourth in this series of state-specific reports covers more or less the same ground that its predecessors did. Although, as before, it builds on work already done and available publications, because of the need to cover some additional ground as well as to string together specific issues into a coherent whole substantial amount of new information including data had to be collected. It will not be an overstatement to say that this study would have been impossible without the active help, guidance and encouragement of the Government of West Bengal in general and the Planning Department in particular. We wish to express our deep debt of gratitude to Shri Pradip Bhattacharya and Smt. Jaya Dasgupta, Shri B.P. Syam Roy and Smt. Kalyani Sarkar of the Planning Department and their colleagues in the Department.

As the study covered issues within the purview of several other Departments, it goes without saying that we were helped by several other individuals, too numerous to name individually. All the same, we would like to mention, first of all, Smt. Nandita Chatterjee for detailed comments on our draft regarding elementary education. There were many officials in the school education department who went out of their way to help us and to whom we are grateful; Shri Sukumar Sardar deserves special mention. With the help of these officials, we were able to visit several elementary schools in Bishnupur-II Block of 24 Parganas (South) district and see mid-day meals in operation as well. Our thanks to the concerned officials and Shri Pradeep Mitra from the Block office in particular.

Thanks are due to Dr. M. N. Roy and other officials of the Department for significant help and guidance regarding our work relating to rural development and Panchayati Raj. We are particularly thankful to him for facilitating our visits to PRI institutions in Bardhaman and Purulia districts that were greatly educative. Officials of the Zilla Parishads of these two districts, Panchayat Samitis of Memari-I and Puncha, and Gram Panchayats of Kalekhantala-II and Tuntudi-Suissa were very helpful and accommodative: our thanks to all of them.

Similarly, for significant help, guidance and co-operation in obtaining quantitative and qualitative information in the area of health and related services we

wish to record our gratitude to Shri Susanta Kumar Sen, Ms. Sanchita Bakshi and Shri H.K. Dwivedi in particular among many other officials of the concerned Departments and organizations.

Shri R. Sridharan, Shri Rajat Sachar and Ms. Ragini Sahay of the Planning Commission have been as supportive as one could expect in the course of carrying out this study. Our sincere thanks to them for facilitating and guiding our work. Dr. Seeta Prabhu, Shri Suraj Kumar and Ms. Ritu Mathur of UNDP India have not been simply representatives of the funding agency, but have provided substantial methodological and other inputs into this series of studies; we remain grateful to them.

Closer home, Dr. M. Govinda Rao, Director of this Institute, has been a constant source of help, encouragement, academic advice and factual inputs, for which we record our heartfelt thanks. Shri Diwan Chand, Shri Surajit Das and Smt Gita Bhatnagar have contributed to this study in different ways and we thank them for their help. Finally, our thanks to Ms. Rita Wadhwa, Ms. Kavita Issar and the publication team for their labor of love. Any remaining errors of omission and commission are entirely our responsibility.

Authors

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I. Introduction

A relatively small state in terms of area but not population, West Bengal has been an important component of modern Indian history for various reasons. Undivided Bengal was the seat of the East India Company that virtually ruled India on behalf of the British government for some time as also of the chief representative of the British government until the capital was shifted to Delhi. It also saw a split of the province that put the prefix 'West' before Bengal and its eastern boundary eventually became a part of the national boundary. Prompted by other contemporaneous events, significant net in-migration from East Pakistan (now Bangladesh) destabilized various aspects of its society around the time of India's independence. It was one of the more industrialized states of India for some time after independence and was always an agriculturally fertile area (Gangetic plains) in general, though some parts of the state cannot be so characterized. The relatively high levels of industrialization and agricultural productivity resulted in commensurately high levels of per capita income in the state, of a population that was relatively better educated and better provided for in other ways. This drew in a larger number of migrants from less developed parts of the nearby states in search of employment and livelihood.

The relative status of the state subsequently started changing as some other states gradually caught up with, and in many cases left West Bengal behind in terms of economic development. There was industrial stagnation for a long time (best exemplified by the once vibrant jute industry), and agricultural growth was also small until the 'eighties, although it picked up thereafter. By the early 'nineties, West Bengal was being categorized as a middle income state among the non-special category states, with four of them (Gujarat, Haryana, Maharashtra and Punjab) having higher per capita incomes (Net State Domestic Product or NSDP). Its human development index as estimated at that time (EPW Research Foundation, 1994) was ninth among 14 large non-special category states. Its composite infrastructure index stood at 113 as compared to the India average of 100, with five of the 14 large non-special category states ranking higher as per Centre for Monitoring Indian Economy (CMIE).

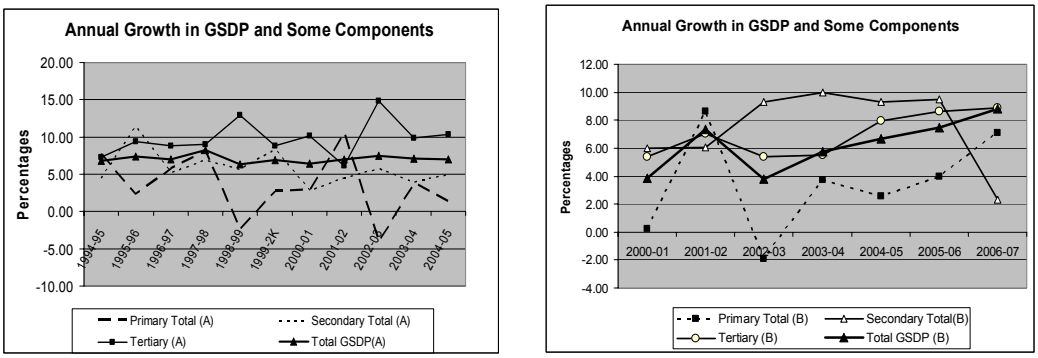
1. Recent Macroeconomic Context

By the turn of the century, West Bengal was the fourth most populous state with a population above 80 million while in terms of area, it ranked 13th, resulting in the highest population density among Indian states (not considering Delhi). Its per

capita income (NSDP) in current prices in 2004-05 was the lowest among the middle income states – Tamil Nadu, Kerala, Karnataka and Andhra Pradesh having overtaken West Bengal. Thus, among the non-special category states excluding Goa and Delhi, It ranked ninth, slipping from the fifth rank in the early nineties. Also, the state per capita income dropped below the average for India. The relative position remains unchanged in the latest available data for 2006-07 with a new base year (1999-2000). However, the assessment of the state's recent performance depends somewhat on the data series being considered, as Figure 1.1 shows.

Figure 1.1: Growth of GSDP in West Bengal: Old and New Series

(A) **(B)**

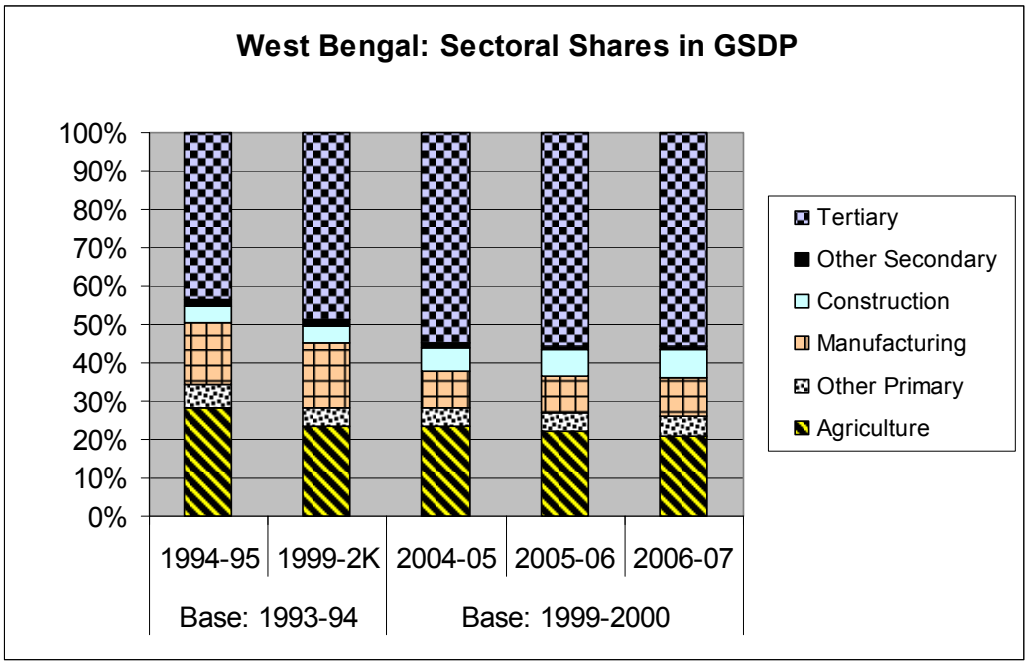


In terms of Panel A representing the old series with base year 1993-94, the overall annual growth of Gross State Domestic Product (GSDP) in constant prices has been fairly consistent over a longish period of 1994-95 to 2004-05, fluctuating a little around 7 per cent. Even during the period 2001-05, this was so. Panel (B), representing the new series, however, shows larger fluctuations with an accelerating growth during 2002-06. The difference is mainly in the growth of the secondary sector, which shows a higher growth since 2001-02 (but a sharp deceleration in 2006-07) in Panel (B).

It was the primary sector that was driving economic growth of West Bengal in the 'eighties and for the early part of the 'nineties (Planning Commission, 2007). Since then, however, its performance has been less buoyant, with negative growth in two years, 1998-99 and 2002-03. However, the tertiary sector, which has been a substantial chunk of the state's economy since long, somewhat made up for the lackluster performance of the primary sector, with the secondary sector also strengthening growth in recent years. As a result, there has been a structural change that is fairly commonly observed: the share of the primary sector (and agriculture

within it) in the state's output has gradually declined while the share of the tertiary sector has increased. Figure 1.2 shows the shares of some of the sectors in GSDP for five years: 1994-95, 1999-2000, 2004-05, 2005-06 and 2006-07. A clear fall in the share of agriculture is evident (even so, West Bengal remains the largest producing state for rice, jute and mesta, and the second largest producer of potatoes); with other primary sub-sectors not making up, the share of the total primary sector also fell. The share of secondary sector also exhibits a fall, primarily because of the falling share of manufacturing that an expanding share of construction could not compensate for. With sustained growth over a number of years, the tertiary sector has been accounting for an ever-growing share of the GSDP, now well over half.

Figure 1.2



2. Population Features and Human Development

Population characteristics of the state, as revealed by the 2001 census, show both strengths and weaknesses. Life expectancy at birth (average of 1999-2003) stands at 64.1 (India 62.7) and infant mortality rate (IMR) for 2005 at 38 (India: 58). The overall literacy rate (2001) was 68.64 (a little above the average for India at 64.84), despite a somewhat slow rise in literacy in the decade 1961-1971. Literacy rate of scheduled castes (SC) was 59.0 per cent (comparable figure for India was 54.7 per cent), and that for scheduled tribes (ST) was 43.4 per cent (India: 47.1 per cent). It may be noted here that the state has the second largest SC population

among the states of India, but they constitute less than a quarter of the total population of the state. The ST population is a much smaller part of the state population (5.5 per cent). Apart from these two disadvantaged groups, the state has a substantial Muslim population of about 28 per cent. Together, these three groups constitute more than half the state's population, and are characterized by a high incidence of poverty. More than 70 per cent of the population of the state lives in rural areas.

Work participation rate (WPR) of the state's population in general was 36.8 per cent in 2001, a little lower than the average for the country (39.1 per cent). WPR of the SC was 38.8 per cent (India: 40.4 per cent) and of the ST higher at 48.8 per cent (India: 49.1 per cent). But an important difference was in the percentage of main workers in the age group of 15-59: for the state this was 44.3 per cent while that for India stood at 78.8 per cent. This implied a much higher rate of unemployment in the state as compared to the country as a whole.

Household amenities are generally better in the state than the Indian averages. For example, 88.5 per cent of the households in the state had access to safe drinking water; this percentage was 77.9 for India as a whole.

Table 1.1 Human Development Index – West Bengal and India

	1981	1991	2001
West Bengal: HDI value	0.305	0.404	0.472
West Bengal: Rank among selected states	8	8	8
India: HDI value	0.302	0.381	0.472

Source: Planning Commission (2002), *National Human Development Report 2001*, New Delhi: Oxford

The ranking of West Bengal among the 15 larger states of India in terms of human development has been very consistent as Table 1.1 shows. However, a comparison of the HDI values of West Bengal and India shows that this value was substantially larger in West Bengal than the value for India in 1991 as compared to both 1981 and 2001. This indicates that relative to the country average, the human development indicators rose faster in the decade 1981-91, but slower in 1991-2001. The much-admired and written about land reform program that allowed a large number of agricultural labors to own land could have contributed to the substantive improvement in HDI during the 'eighties (see Chattopadhyay 2005). It certainly

contributed to a reduction in (official) poverty estimate from 54.85 per cent in 1983-84 to 35.66 per cent in 1993-94, a reduction of more than 19 percentage points. The 1999-2000 poverty estimate of 27.02 per cent is not strictly comparable to the two previous estimates because of methodological changes, but choosing the comparable one from among the two alternative estimates for 2004-05, poverty has further come down to 24.72 per cent, a reduction of more than 10 percentage points from the 1993-94 estimate. Although the reduction is not as spectacular as during the 1983-84 to 1993-94 period, it is still substantial, especially considering that the 1993-94 poverty level in the state was very close to the national average, while the 2004-05 level is well below the national average, implying greater success in the state in reducing poverty than at the national level.

Some of the monitorable targets spelt out in the Approach to the Eleventh Five Year Plan of West Bengal are:

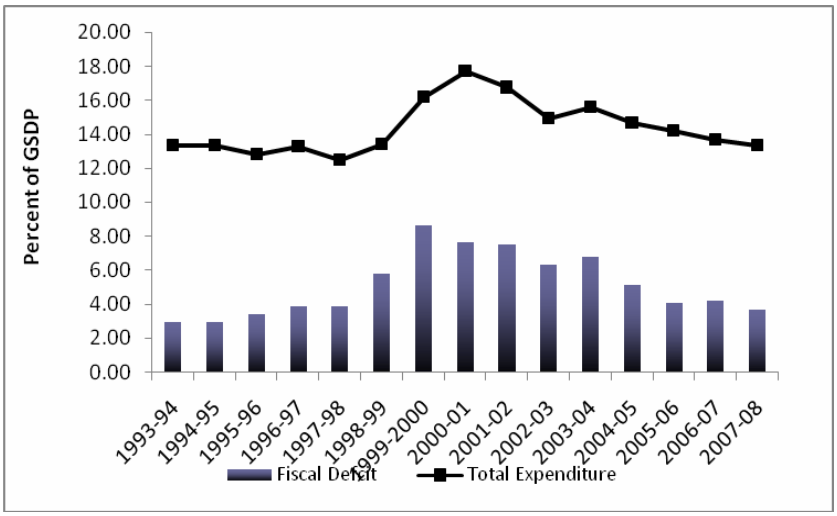
Growth of SDP:	9 per cent in constant prices
Poverty:	<10 per cent rural, 5-6 per cent urban
IMR:	26.5 per cent rural, 20 .0 urban
Primary Enrolment:	100 per cent
Upper primary Enrolment:	100 per cent
Secondary Enrolment:	100 per cent
Water Supply:	100 per cent coverage

Many of these targets, particularly relating to health, water supply and education are, or should be, attainable given the current level of achievements. However, maintaining a growth rate of 9 per cent (in real terms) on an average will require substantive policy support, particularly in view of the fact that there are a number of factors beyond the control of the state that determine growth. Similarly, reduction of poverty at the scale visualized will have to be supported by state policies and effective implementation on a number of fronts.

3. Public Finances of West Bengal

State-level initiatives are often constrained by availability of resources; as such, public finances of the state play a vital role in enabling implementation of development strategies. Unfortunately, in this area, West Bengal's performance has been relatively weak, although the situation has improved somewhat in recent years. Figure 1.3 provides a quick look at the more recent trends in broad parameters of the state finances.

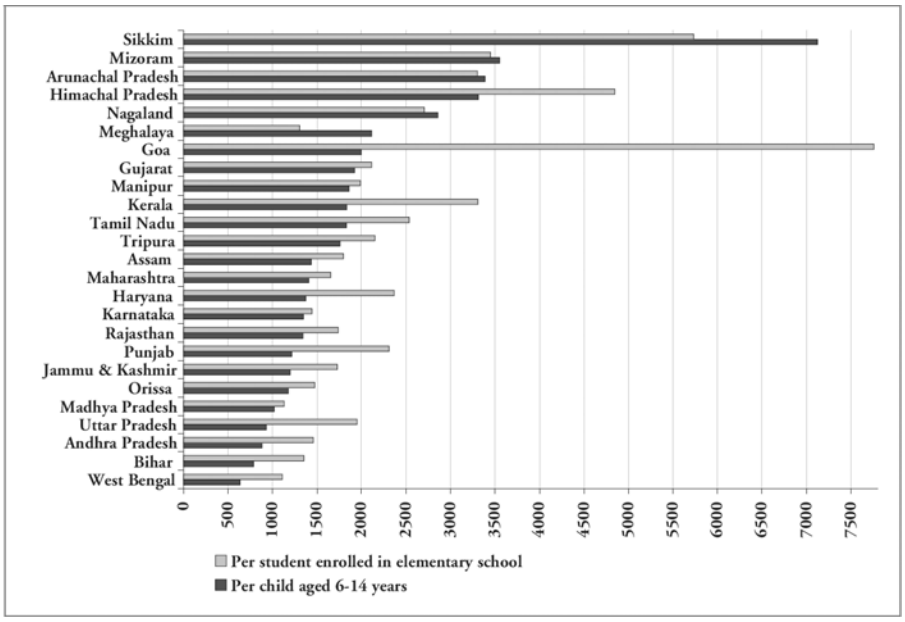
Figure 1.3: Trends in Broad Parameters of West Bengal State Finances



Fiscal deficits reached a recent peak in 1999-2000, after which it has been gradually coming down. The expenditure levels were also lower before that; high deficits have generally coincided with relatively high expenditure levels, though not on a year-to-year basis. But deficits are not really the main issue; rather, it is the low level fiscal equilibrium that the state has been operating on during most of the recent years. West Bengal has the lowest levels of per capita government expenditures among the higher and middle income states; only the low income states have lower per capita expenditure levels. But in terms of expenditure to GDP ratio, even poorer states have higher figures, as would be expected when spending obligations are high but the resource base to be tapped is low.[1] The implication becomes clear when one considers that the Tamilnadu government, with a higher GSDP, spent between 16-18 per cent of it for the entire period of 1993-94 to 2005-06 while West Bengal could cross 16 per cent in only three years, that too at the cost of higher deficits. Thus, in absolute terms, West Bengal is severely resource-constrained as compared to Tamilnadu. This is reflected in Figure 1.4 extracted from World Bank (2005) that is self-explanatory. The expenditures, in turn, are clearly constrained by receipts, particularly revenue receipts as capital receipts would be primarily debts of various kind that would likely create fiscal difficulties in future. It is thus necessary to look into the revenue receipts in some detail to locate the source(s) of the resource constraint.

[1] Only Haryana among the non-special category states had a total expenditure to GSDP ratio lower than West Bengal, taking the average of 2004-05 and 2005-06. Thus, the state's public expenditures neither take into account the population size, nor do they reflect the state income.

Figure 1.4: Public Spending on Primary Education 1998-99



Source: World Bank (2005), p. 70

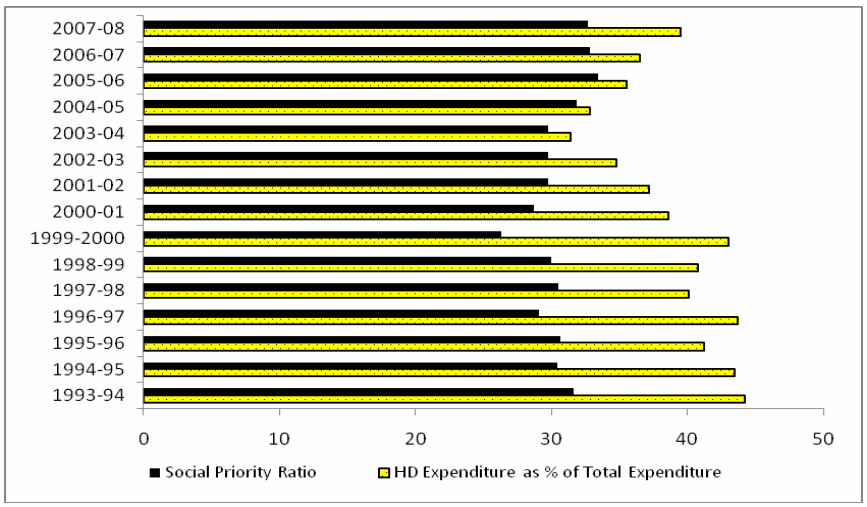
The trends in major components of revenue receipts show that the state's own revenues, the lowest among all non-special category states as a ratio of GSDP, have been responsible for the lowest ratio of revenue receipts to GSDP among the non-special category states. This is true of both tax and non-tax revenues. The other component, central transfers, as a ratio of GSDP was higher than all the nine high and (other) middle income states. The share of transfers in total revenue receipts in West Bengal at around 50 percent was consistently higher than in even Rajasthan, a low-income state. Most assessments point to the low own revenue levels of West Bengal as an area needing attention (see, for example, Banerjee *et al* 2002 and PWC 2005).

In recent years, the substantial reduction (3.73 percentage points as a ratio of GSDP between 2001-02 and 2008-09 [RE]) in fiscal deficits has been achieved with a combination of reduction in revenue deficit (1.86 percentage points as ratio of GSDP), and reduction in net lending (2.34 percentage points), while capital outlay increased by 0.47 percentage points. The reduction in revenue deficit in turn was achieved through increase in shared taxes (1.03 percentage points), own taxes (0.67 percentage points), own non-tax revenues (1.10 percentage points) a small increase in central grants and these increases offset to some extent by increase in revenue expenditures (1.03 percentage points as ratio of GSDP). Much of the adjustments

have taken place after 2004-05. Own tax revenues, however, showed a rising trend as a ratio of GSDP between 2001-02 and 2004-05 (4.16 percent to 4.74 percent), after which they actually dropped for three successive years (4.32 percent in 07-08) until the revised estimates of 2008-09 achieved a reversal of the declining trend. Thus, despite some improvement, the tax-GSDP ratio of West Bengal continues to be relatively low.

The constraint imposed by low revenues also affected the achievement of targeted plan expenditures, with a shortfall of about a third of the originally estimated 10th Five-Year Plan expenditure, when all the figures are reckoned at the same price level. Part of the problem lies in the indebtedness of the state (around 40 percent of GSDP in 2007-08) and the high interest outgo. Debt servicing (gross repayments of liabilities plus interest payments) was more than half of the total expenditure in 2004-05, dropping to 36 percent in 2008-09 (RE). But these figures are much higher than the average for general category states (39 and 18 percent respectively). The effective average interest rate on the state's liabilities is also high (8.6 percent in 2007-08): earlier, this was due to relatively heavy reliance on high-cost debt in the form of small savings loans; with virtual collapse of the small savings schemes following less favorable treatment under income tax, greater recourse to market borrowing was called for, but the low revenue base of the state has caused the market to demand a higher than average rate of interest on the borrowings by West Bengal.

Figure 1.5: Human Development Expenditures in West Bengal



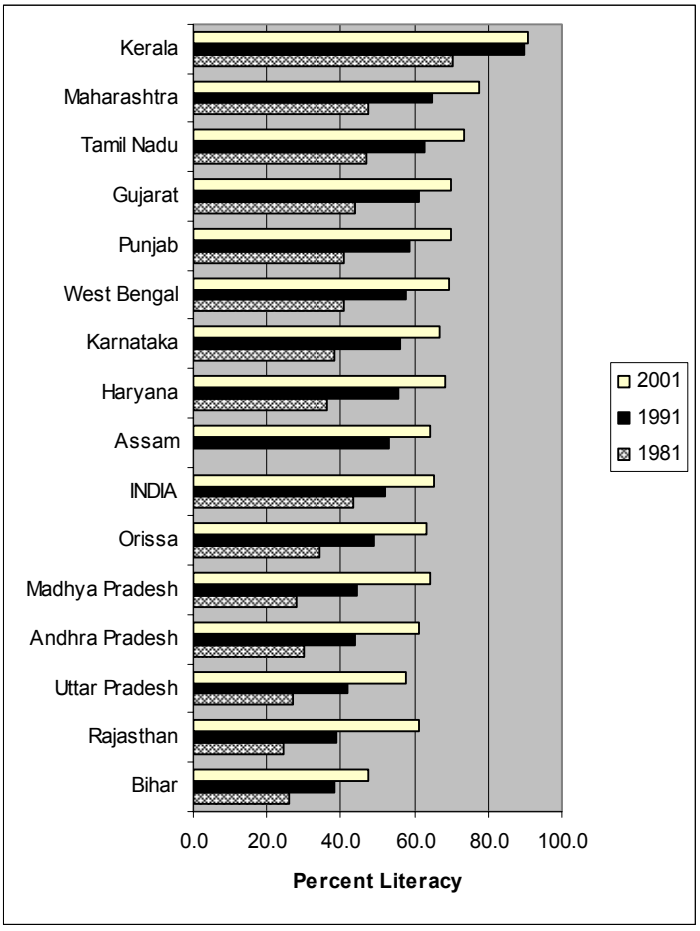
Trends in human development expenditure within the total expenditures is provided in Figure 1.5 along with the social priority ratio, showing the allocations to selected sub-sectors like elementary education and primary health within social services generally considered to be worthy of special attention. It can be seen that the human development expenditures have been gradually squeezed until 2003-04, after which the ratio shows some rise again. Considering the broader trends in public finances of the state, it seems reasonable to presume that a combination of relatively stagnant receipts and rising share (because of relative inflexibility) of 'committed' expenditures (like salaries, pension and other retirement benefits and interest payments) resulted in the progressive 'crowding out' of human development expenditures until 2003-04; with receipts showing some buoyancy and with some compression of the committed expenditures after that, fiscal space was created for higher levels of expenditure on human development. It is pertinent to note here that the noted shortfall in 10th Plan expenditures were not in the social services that include human development concerns like education and health although there was substantial shortfall in rural development that includes direct rural poverty alleviation programs. The social priority ratio, generally 30-35 per cent, may seem a little on the lower side, but this could be because of the need to spend substantial amounts on secondary and higher education in response to the traditionally high demands for the same.

II. Elementary Education

1. Progress of Literacy and Elementary Education in West Bengal

Literacy in West Bengal (69.2 per cent) is still far short of mass literacy. According to Census data, 77.6 per cent of males and 60.2 per cent of females were literate in the state in 2001. The proportion of literates in the population in West Bengal compares favorably against the all-India estimates in that it has been higher than the corresponding figure for India at every post-Independence Census. Compared with other states, West Bengal has maintained its rank (6th among the larger non-special category states) through the last three Census enumerations (Figure 2.1). However, except for Bihar, the gaps between states are narrowing in general, best exemplified by the tremendous progress made by Rajasthan between 1991 and 2001.

Figure 2.1: Progress of Literacy among Selected Indian States



The gender gap in literacy rate is significant, but this can be reduced, albeit gradually, through elimination of a similar gap in enrolment. For a quicker reduction, an adult education program focusing on women has to supplement the elementary education program for younger children. The gender gap in enrolment of children at the primary level is negligible (49 per cent of the total enrolment was girls)[2]. Going by social groups, the proportions of

[2] This is based on figures reported in the SSA Work Plan and Budget 2009-10.

scheduled castes, scheduled tribes and others among the enrolled pupils are roughly in line with their proportions in the total population (28, 9 and 64 per cent respectively), implying a fair spread of elementary education.[3] In fact, from all accounts, the demand side is not a major issue in the state. It is the supply side, consisting of infrastructure, personnel (particularly teachers) and quality aspects that need to be taken care of to achieve the goal of full literacy stated in the approach to the state's Eleventh Plan. The overall access and enrolment in primary education has increased significantly over the years; Table 2.1 shows the current position.

Table 2.1: Status of Enrolment and Out of School Children in 2008

Age Group	Population	Net Enrolment	Out of School Children	Net Enrolment Ratio (NER)
5 to 8+	7933247	7857881	75390	99.05
9 to 13+	8202192	6237767	207136	76.05
5 to 13	16135439	14095648	282526	87.40

Source: SSA Annual Work Plan and Budget (AWP), 2009-10

The state has more than 60,000 primary and upper primary schools run by the government or aided. Besides, there are some privately run unaided schools on which reliable data are not available; however, Mehta (2006) puts their share in total schools (all levels) at only 0.17 per cent in West Bengal in 2005. This is one of the lowest percentages of private unaided schools among the states in India, making supply of education almost wholly a state activity. More schools are needed as per the norms, and several schools still need buildings, additional classrooms, toilets and boundary walls. Pupil-teacher ratio in both primary and upper primary schools was higher than the recommended maximum. In 2006-07, pupil-teacher ratio in primary schools was 44 while that in upper primary schools 54, which were higher than the recommended maximum of 40 and 30 respectively.[4] About 3 per cent of the schools were functioning with only one teacher.[5] Clearly, a larger number of teachers are also required. Of course, simply having teachers is not enough; they have to actually

[3] These figures are based on information gathered by a cohort study (survey) carried out under SSA (PBRPSUS 2004). Children admitted in class I in 1999-2000 have been taken up as the starting cohort.

[4] If enrolment figures are overestimated, as is generally (not only in West Bengal but everywhere) suspected, then the actual ratio may be smaller. It may be noted here that as per the School Education Department, the pupil-teacher ratio was about 38.17 in primary and 50.01 in upper primary in 2007.

[5] Data on pupil-teacher ratio and single teacher schools have been taken from Mehta (2008).

teach and do so well. This links with the issues of physical presence of the teacher, their motivation, their training, teaching-learning materials and other quality related factors.

All these issues together form a wide canvas; covering all of them here is not possible, but we briefly discuss below some of the specific issues, occasionally bringing in regional variations (inter-district) as an added dimension.

2. Administrative Structure

The types of schools & their set-up in the state defined in terms of the highest class taught are as follows: (a) Primary School (up to Class 4), (b) Upper Primary School (up to Class 8), (c) Secondary School (up to Class 10) and (d) Higher Secondary school (up to Class 12).

There are more than 60,000 schools scattered around the state to serve the elementary level educational needs. The central government scheme Sarva Shiksha Abhiyan (SSA) provides support towards ensuring access, enrolment, retention of pupils and quality education through these schools. SSA subsumes under its overall management two special programs for girls – Kasturba Gandhi Balika Vidyalaya (KGBV) and National Program for Education of Girls at Elementary Level (NPEGEL). These programmes are carried out under the rubric of Paschim Banga Sarva Shiksha Mission (PBSSM), guided by the School Education Department in West Bengal. Besides, there are other programs like the Shishu Shiksha Kendras (SSKs) and Madhyamik Shiksha Kendras (MSKs) run by the Panchayati Raj and Rural Development department of the State Government and the alternative and innovative education (AIE) scheme of the central government to cater to the needs of non-formal education.

Within the school education department, Directorate of School Education looks after the general administrative aspects through its district-level inspectors and their staff. West Bengal Board of Primary Education carries out its tasks regarding determination of curricula and syllabi, textbooks, other pedagogical issues and conducting evaluations/tests through District School Councils.[6] The West Bengal Board of Madrasah Education is responsible for madrasah education at all levels.

[6] District here refers to educational districts, the number of which is greater than the number of administrative districts.

State Council of Educational Research and Training (SCERT) is tasked with both research and training. Essential training needs of teachers are taken care of by Primary Teachers' Training Institutes (PTTI – more than half of which are non-government and unaided). District Institutes of Educational Training (DIETs) also share the training responsibilities. Appointment of regular teachers is through School Service Commission at the state level.

3. Enrolment

Net enrolment at the primary level in West Bengal, as given in Table 2.1 is around 99 per cent. The variation between districts is also not large, with the NER in all districts ranging between 96-100 per cent. At upper primary level, the spread is wider – leaving aside Uttar Dinajpur, the NER range is 65-97 per cent. The NER in Uttar Dinajpur lags at 42.3 per cent.[7] As a corollary, the absolute number of out of school children in the age group relevant for these classes is the highest by a large margin in the same district. In the case of this district, it is likely that the more conventional demand and supply explanations of low enrolment would be applicable.

4. Dropout[8]

The dropout rate in primary and upper primary schools is a major issue of concern. It poses a major setback in increasing literacy rate as there is large probability of (a) slide back into illiteracy or (b) functional illiteracy. Unlike what is generally observed, dropout rate is higher for boys compared to that for girls.

School attendance/non attendance and dropouts at the primary level are an outcome of a combination of several factors. These include socio-economic factors at individual and household level, demographic attributes, developmental aspects of the village as well as motivation of the individual and developmental plans at macro level. More specifically, the major reasons appear to be distance from home, poverty, gender, sibling care and different domestic activities. These reasons are hardly peculiar to West Bengal; the same reasons are seen in almost every state and only the relative emphasis may vary according to state-specific circumstances.

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[7] Data on district wise variation in NER is based on information provided by the School Education Department, Government of West Bengal and refers to the year 2007.

[8] A general point regarding estimates of dropout rates is that given the doubts expressed about initial enrolment data, a combination with more reliable data on subsequent participation by students would overestimate dropout rates. See GoWB (2004), pp. 153-54 for details.

Figure 2.2: Dropout Rate by Districts

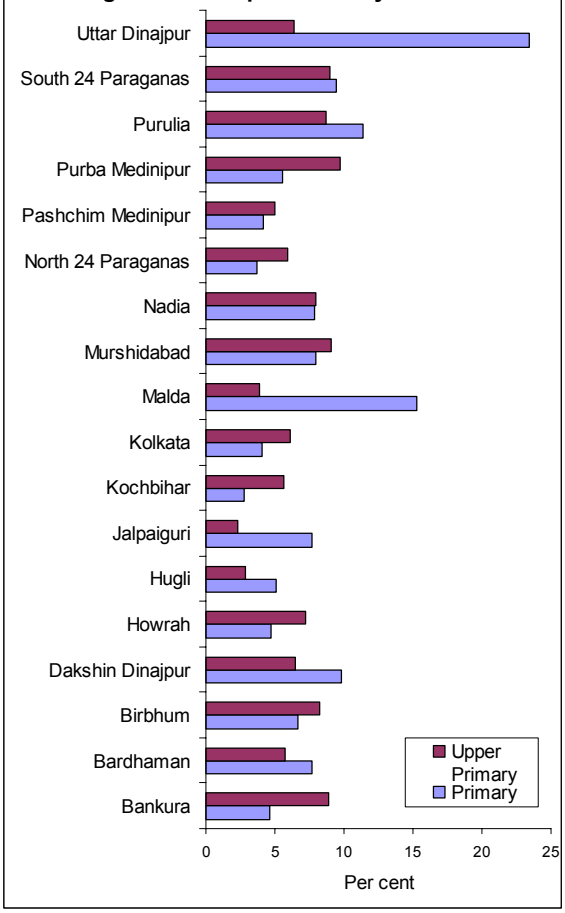


Figure 2.2 shows the percentage of dropped out students across districts of the State (excluding Darjeeling and Siliguri) based on data from DISE 2006-07 and 2007-08. At the primary level, Uttar Dinajpur and Malda had more than 15 per cent dropouts. At the upper primary level, Purba Medinipur and Murshidabad had the highest percentage of dropouts. An analysis of the distribution of dropped out students among boys and girls across districts indicate that the dropout rates were higher among boys than girls (19 per cent among girls and 21 per cent among boys) (PBRPSUS 2004). These figures are based on a study of the cohort of children who were enrolled in Class I in 1999-2000, but did not complete fourth year of study in the school. This feature diverges from the common belief that girls' dropout rate are higher compared to boys. Surprisingly, the dropout rates both for girls and boys were highest in Kolkata; however, this could be at least partly because dropout is reckoned residually, and transfers without information to enrolled school would get counted as dropout. In Bankura and Purulia however, dropout rates for girls were higher compared to boys. In other districts dropout rate for boys and girls were more or less equal. Further analysis of the data on dropouts shows that (a) dropout rate among the STs were the highest without any gender difference, (b) the single and two-teacher schools were most prone to dropouts, (c) most of the dropouts occurred in the first year itself and (d) dropout rate was generally higher in urban areas than in rural areas.

To bring dropouts and out of school children and ensure universal education, alternative schooling constitutes an important complement to the formal system of education. An important initiative in this context has been the Alternative and Innovative Education (AIE) promoted by the central government. Major components

of AIE include bridge courses and learning centres under Rabindra Mukta Vidyalaya (RMV). Besides, the State government promotes alternative schooling through the Sishu Shiksha Kendras (SSK), Sishu Shiksha Prakalpas (SSP) and the Madhyamik Shiksha Kendras (MSK).

SSK is a low-cost, non-formal education system that aims to provide education at the primary level. The major features of this program are:

- School will be opened where no primary school exists within one kilometer of the village or existing primary schools are suffering from infrastructure or teacher problem, unable to cope with dropped out or out of school children.
- The village should have 20 or more children in the age group of 5 to 9 years who cannot access mainstream education facilities.

SSK is a fully recognized elementary system, with children graduating from these schools receiving the same status as children who graduate from government primary schools. Curriculum and texts are similar to those used in government schools. In fact, the main difference between the SSKs and the governmental schools is that the SSKs target marginalized and hard-to-reach children through flexible class times, management by the community, and the engagement of teachers from the community. The flexibility and local ownership of the SSK centres are the two main strengths of the project, encouraging commitment from students, parents and teachers. The growth of SSK since its inception in 1997-98 has been phenomenal, rising in 2006 to 16,000 alternative learning centre that have reached more than 1 million children who previously had no access to schooling, and school completion rates have increased.

Teachers in SSKs are all female and are known as 'Sahayika'. In 1997-98, the scheme was started only with 786 sahayikas. In 2006-07, this number reached 44226.[9] With the inclusion of sahayikas, the teacher student ratio is around 1:30, which is much better than the SSA norm of 1:40. Amartya Sen has complimented the 'sahayikas' for their dedicated and caring attitude; he stated that the "SSK (centres) stand out as great achievers at extremely little cost." The sahayikas get a consolidated salary of Rs 1000 per month. UNICEF provides the funds for SSK teacher's training and purchasing teaching and learning materials.

[9] Source: *Economic Review of the State Government 2007-08*.

Table 2.2: District-wise Status of SSK

District Name	Total no. of SSK running	SSKs within 1 Km of village ** (%)	Total No. of Sahayikas	SSK having own building (%)	SSK having no building (%)	SSK having drinking water source (%)	SSK having Toilet (%)
Bankura	446	0.00	828	79.82	8.74	78.48	58.74
Bardhaman	1061	0.19	3014	67.30	11.12	81.06	47.79
Birbhum	650	0.00	1503	51.54	37.69	53.85	32.00
Dakshin 24 Pgs.	1213	0.00	4028	51.36	0.16	77.41	31.49
Dakshin Dinajpur	529	0.00	1454	62.38	26.65	55.58	27.98
Darjeeling G.H.C.	517	0.00	1068	15.86	29.21	15.47	3.87
Haora	307	0.00	857	37.46	9.77	60.26	45.60
Hugli	279	0.00	776	59.14	4.66	87.81	43.73
Jalpaiguri	1090	0.28	3150	77.98	9.63	71.47	37.16
Kochbehar	696	0.29	1759	86.35	6.18	85.63	77.30
Malda	613	0.16	2109	45.51	30.18	48.61	3.92
Murshidabad	1579	0.32	5651	29.13	48.89	59.85	6.08
Nadia	556	0.54	1435	37.77	34.53	64.93	13.67
Paschim Medinipur	2464	0.53	6360	61.81	14.45	73.86	39.25
Purba Medinipur	1455	0.14	3985	43.02	7.63	81.99	71.27
Purulia	410	0.24	767	27.32	25.61	92.68	3.17
Siliguri MP	278	0.36	813	87.41	4.68	68.35	57.91
Uttar 24 Pgs.	957	0.42	3065	52.46	22.05	65.83	39.39
Uttar Dinajpur	905	0.11	2990	61.22	26.96	86.96	24.31
Total	16005	0.24	45612	54.23	19.22	70.49	35.63

Source: DISE, 2007- 2008, ** DISE 2005-06

Table 2.2 depicts the physical status of SSK in 19 districts of West Bengal. The highest numbers of SSKs are in Paschim Medinipur followed by Murshidabad, Purba Medinipur, Dakshin 24 Parganas, Bardhaman and Jalpaiguri. In all these districts the number of SSKs is more than 1000. What is noticeable is that most of the SSKs are situated beyond 1 km of habitations. It implies that there are primary schools in almost all villages within 1 km as per SSA norms. But again the increasing number of SSK indicates the failure of primary schools to bring all children in school, possibly missing out children from smaller habitations outside full-fledged villages whom SSKs are now covering. In that sense, the success of SSKs could be traced to the high population density of the state, apart from the endogenous factors. This may also explain the apparently surprising fact that the educationally backward districts

have less SSKs compared to other districts – the reason may lie in lower population density of these districts.

The table also shows the poor state of infrastructure of the SSKs, particularly with respect to toilets, which considerably limits the enrolment of girls. Although on an average each SSK has more than 2.5 'sahayikas', it implies that many are running with a single teacher. There is also a serious problem of distribution of teachers across schools. The SSKs do not receive any infrastructure grant. Started with state's own resources, they are now being funded by the central assistance coming through SSA. From 2000-01, the Department of School Education and Department of Panchayats and Rural Development decided to provide the following supports to the SSKs:

i) A grant of Rs 1000 per SSK.

ii) A TLM grant of Rs 250 per Sahayika

iii) A one time grant of Rs 5000 to each SSK

iv) Pedagogical training to all Sahayikas for capacity building in order to ensure quality education for children in SSK.

5. Girls' Education

Education is the single largest item of revenue expenditure of the State of West Bengal. But there are still very significant gaps in the attainments of men and women (Table 2.3).

Table 2.3: Literacy Rates for Males and Females in West Bengal in Previous Four Decades

Year	Total	Female			Male		
		Rural	Urban	Total	Rural	Urban	Total
1971	33.2	15.0 (41.9)	47.8 (77.1)	22.4	35.8	62.0	42.8
1981	40.9	22.1 (50.7)	54.8 (79.3)	30.3	43.6	69.1	50.7
1991	57.7	30.8 (61.0)	59.5 (82.9)	46.6	50.5	71.8	67.8
2001	69.2	45.4 (72.8)	68.5 (87.5)	60.2	62.4	78.3	77.6

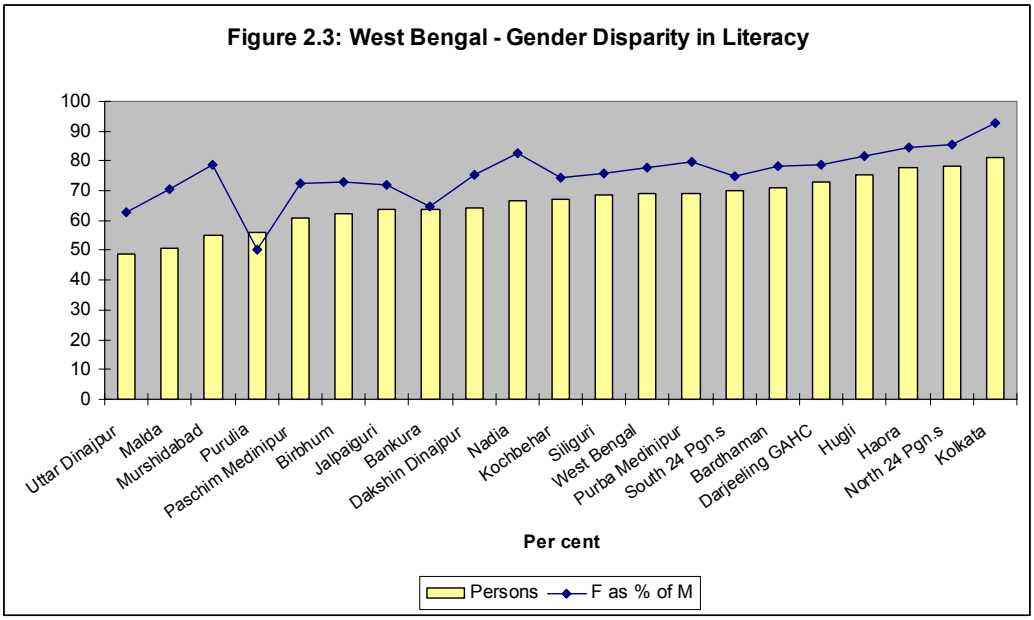
Source: *Census of India, West Bengal: Social and Cultural Tables: Age, Sex and Educational Levels*. Figures in parentheses show the female literacy rates as percentage of comparable male ones.

The gap between male and female literacy rates was being bridged fast during the past two decades because female literacy rates had been going up faster

than among the male. In comparison with the doubling of female literacy rate during 1981-2001, the increase in male literacy rate was a little above 50 per cent.

There are large inter-district variations of gender disparity in literacy. Figure 2.3 shows the overall literacy rate plotted with a simple measure of gender parity – female literacy rate as a percentage of male literacy. It is perhaps not very surprising to note that the chart, with districts arranged in ascending order of literacy rate, shows a clear positive correlation between gender parity and overall literacy. The districts significantly departing from this are Purulia and to a smaller extent Bankura (female literacy too low) and Murshidabad (high female literacy). While the first two cases can perhaps be explained with the relatively high tribal population (who have lower female literacy rates than others), the case of Murshidabad defies any ready explanation. In any case, Bankura and Purulia are clearly two districts where girls' education needs to be specially focused upon.

Figure 2.3: West Bengal - Gender Disparity in Literacy



School based administrative data suggest that West Bengal has made impressive gains in reducing the male-female gap in gross primary enrolment in last fifty years. In 2006-07 the total enrolment in the state comprised of 50.3 and 49.7 per cent of boys' and girls' enrolment respectively. Kolkata, Darjeeling, Maldah, South 24 Parganas, Siliguri and Howrah – in all these districts girls' enrolment is more than boys, implying that these districts have achieved the goal of complete gender parity. Examining the case of Purulia and Bankura, enrolment data also show lower enrolment of girls as also significantly higher dropout rates than boys.

As mentioned earlier, SSA subsumes two special programs for girls' education – KGBV and NPEGEL. While both are important policy instruments for the purpose, the relative importance of KGBV is probably greater in the cases of Purulia and Bankura, given that it provides for residential schools, which should reassure parents regarding the safety of their wards. NPEGEL would probably be more useful to impart vocational skills for girls that already are literate, although it does not preclude basic education. One passing comment on NPEGEL may be in order – as of March 2007, there appears to be a large unspent balance available; it may indicate lack of absorption capacity or some other factor, but the state should certainly make efforts to utilize the available funds profitably for its citizens.

6. School Infrastructure[10]

Average enrolment in the state's primary schools was 137 while that of upper primary schools was 609 in 2007. The latter was the highest among larger states of India, implying overcrowding. Only around 14 per cent of the primary schools had less than 50 students, implying some crowding in primary schools too. This is confirmed by the student-classroom ratio of more than 60 in nearly 27 per cent of the primary schools. Overall, the student classroom ratio was 50 in primary schools, the third highest among Indian states (only Bihar and Uttar Pradesh had higher ratios). This is because more than 12 per cent of the primary schools had only a single classroom. Further, while there were few schools without a building, almost a third of the buildings for primary and upper primary schools not having Secondary/ H. Secondary levels were determined to be in need of major repairs. A further 25 per cent or so were in need of minor repairs. Altogether, the picture that emerges is largely that of overcrowded, dilapidated schools that need substantial investment.

Drinking water facility was available in a reasonable percentage of primary schools (more than 78 per cent). Also, as per the School Education Department, about 89 per cent of primary schools and 98 per cent of the upper primary schools in the state had toilets.

7. Teachers

We have already indicated that going by the official enrolment numbers and that of the teachers in position, there is a need for an increase of teachers particularly

[10] Data for this section are based on Mehta (2006), Mehta (2008), and information provided by the school education department, Government of West Bengal.

at the upper primary level. As per data of the School Education Department, the pupil-teacher ratio at the upper primary level is around 50. But there are some serious doubts about this information since the disaggregated ratios show up some implausibly high numbers – 106 in Kolkata, 100 in Siliguri, 91 in South 24 Parganas and 89 in North 24 Parganas. In all probability, the actual ratios are smaller, and the state's ratio also correspondingly smaller. Teacher absence in West Bengal, as measured by Chaudhury, Hammer, Kremer, Muralidharan & Rogers (2005), is around the country average of about 25 per cent, implying that the actual number of teachers available for teaching at any point of time is less than the teachers in position by about a quarter.

More than 70 per cent of the teachers are trained teachers[11], but less than 30 per cent are female. The ratio of female teachers obviously needs to be raised substantially, given the oft-repeated finding of female teachers being better at teaching younger children. On-the-job training and refresher courses are also provided by the organizations responsible for teachers' training, like DIETs. Under the SSA program, the Block as well as Circle Resource Centres (BRC and CRC) are also available for problem-solving relating to teaching matters.

8. Quality of Education

'Pratham', an educational NGO, carried out a survey on quality of elementary education in rural West Bengal both for government as well as private schools. The survey results indicate that while among the larger states of India, the quality of education in the state is substantially better than the average[12], in many of the districts in West Bengal, the quality of education provided could be better. Table 2.4 shows the results of learning test conducted on the pupils for the state as a whole.

The survey indicates that the primary level learning is the weak link: student performances increase significantly after that, although that would be expected. Also, language skills appear to be better than arithmetical skills overall. A look into the top five and bottom five districts ranked on the basis of student performance (Table 2.5) shows that the four districts of Medinipur, Bardhaman, Howrah and Darjeeling are

[11] There have been some problems relating to the legal validity of the training offered by a large number of PTTIs as they were approved by the state but not by the National Council of Teacher Education.

[12] An all-India survey carried out by NCERT during 2000-2002 of learning achievements of students in Class V also found the performance of West Bengal students at or near the top in three subjects: language, arithmetic and environmental science.

performing well both in language as well as arithmetic. In contrast, Uttar Dinajpur, Birbhum, Murshidabad and Jalpaiguri districts are poor performers in both subjects. This variation in quality of learning needs to be examined and attended to.

Table 2.4: Learning Test – West Bengal Rural

Standard	% Children who cannot read		% Children who cannot	
	Level 1*	Level 2**	Subtract	Divide
I	89.4	95.9	92.3	97.8
II	72.5	91.1	78.9	95.3
III	50.2	81.4	60.1	87.5
IV	31.4	63.1	44	76.3
V	18.5	55.5	32.1	70.6
VI	10.8	37.6	21.4	55
VII	4.7	22.7	12.9	41.7
VIII	2.5	13.9	9.8	31.2
Overall	38.7	61.5	47.5	72.6

*Level-1: Ability to read a small paragraph with short sentences

**Level-2: ability to read a story text with some long sentences

Subtraction: 2-digit subtraction, Division: 3-digit divided by 1-digit

Table 2.5: Performance of Top Five and Bottom Five Districts in West Bengal

(Based on % of all children in standard III to V)

Reading	Cannot read level 1	Arithmetic	Cannot do subtraction
Top-5		Top-5	
Medinipur	17.4	Medinipur	24.9
Bardhaman	19.1	Bardhaman	30.3
Howrah	22.2	darjeeling	35.7
South 24 Parganas	24.1	Dakshin Dinajpur	39.5
Darjeeling	26.7	Howrah	39.9
Bottom-5		**Bottom-5**	
Uttar Dinajpur	48.9	Uttar Dinajpur	66.9
Puruliya	46.4	Birbhum	55.7
Birbhum	41.6	Murshidabad	52.2
Murshidabad	41.5	Nadia	52
Jalpaiguri	40.1	Jalpaiguri	51.4

Source: ASER 2008, Pratham

9. Finances

9.a Analysis of budgetary Expenditure on Elementary Education

Education is one of the areas of concurrent jurisdiction of the central and state governments, but in the case of elementary education state governments undertake most of the tasks of direct provision and administration, although the centre does provide funds for specific programs that it initiates and supervises.

After 1991, both Central and state governments had affirmed their intention not only to protect the level of education expenditure prevailing at the time, but also to raise these expenditure to the level of 6 percent of the GDP during the period of the Ninth Plan (1997-2002). In West Bengal budgetary expenditure on elementary education has dropped from a peak of 1.03 per cent in 2000-01 to 0.9 per cent in 2007-08; in per capita terms however, there has been an increase from Rs 181 to Rs 233 in constant prices.

Expenditure on elementary education in the budget refers to expenses on primary and upper primary schools, as well as non-formal education. Most pupils enrolled at the elementary level, and most teachers employed at the elementary level are in primary and upper primary schools, so that the elementary education budgetary head captures most of the expenditure on the elementary cycle. Educational expenditure in India is classified into disbursement on General Education and Technical Education. General education, which accounts for over 95% of the total expenditure on education in almost all states, includes elementary education. The share of elementary education expenditure in total government expenditure indicates the commitment of the government in financing elementary education.

Figure 2.4 plots the expenditure on education (education, art and culture – revenue and capital) as a percentage of total public expenditure (revenue plus capital, but not loans advanced or debt repayments) from 1987-88 to 2007-08 and Figure 2.5 plots the expenditure on elementary education (revenue and capital) as a percentage of total expenditure on education. Expenditure on education as a percentage of total expenditure exhibits a declining trend except for a spike in 1999-2000. There is a clear trough in the plot of expenditure on elementary education as a percentage of total education expenditure in 1999-2000, implying that the spike in Fig. 2.4 was not on elementary education. Also, since 1999-2000, the state is

allocating progressively larger shares to elementary education. However, because expenditure on education was falling as a percentage of total expenditure, the share of elementary education in total expenditure shows a falling trend until 2003-04, after which it is recovering gradually.

Figure 2.4

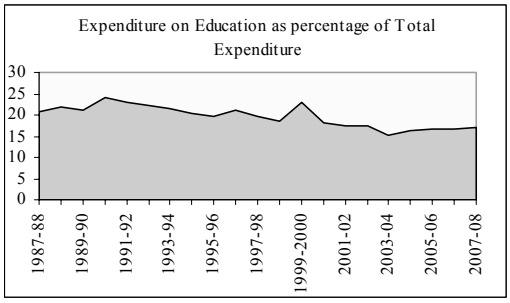
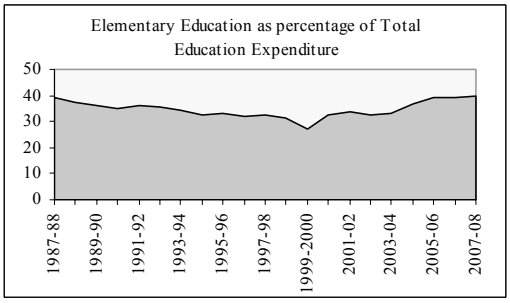


Figure 2.5



To understand better the budgetary trends, we undertake a detailed analysis of data on actual expenditure by the Department of School Education for the years 2004-05 and 2006-07. Since the budgetary data are given by categories and schemes, we separate out the expenditure falling exclusively under elementary education (budget head 2202.01). Thereafter, we categorize the expenditure under six broad heads: i) Administration, Monitoring and Evaluation, ii) Teachers salaries and Other Professional fees, iii) Teaching quality and Incentives, iv) Direct expenditure on students, v) Infrastructure and vi) Grants-in-aid. Table 2.6 shows the distribution of state budgetary expenditure on elementary education.

Table 2.6: Budgetary Analysis for Elementary Education, 2004-05 and 2006-07

Budget head	2004-05		2006-07	
	Total Expenditure (Rs Lakh)	% of total expenditure	Total expenditure (Rs Lakh)	% of Total expenditure
1.Administration, Monitoring and Evaluation	2479.7	1.4	3602.0	1.8
2.Teacher Salaries, Professional Fees	145936.5	83.0	155724.8	78.5
3.Teaching Quality and Incentives	617.2	0.4	1536.0	0.8
4.Direct Expenditure on Students	10940.1	6.2	14762.1	7.4
5.Infrastructure	608.9	0.3	576.3	0.3
6.Grants-in-Aid	15346.2	8.7	22287.6	11.2
Total	**175928.5**	100.0	255156.8	100.0

Source: West Bengal state budgets 2006-07 and 2008-09

The table shows that in 2004-05 about 83 per cent of expenditure was to cover salaries of teachers. Grants-in-aid were a distant second, constituting 8.7 per

cent of the total expenditure. These are spent mostly under the SSA program and Pradhan Mantri Gramodaya Yojana. Direct expenditure on students out of the state budget was only 6.2 per cent; this does not include the expenditure on free textbooks, which is a part of the SSA initiatives. The expenditure on infrastructure is mostly carried out from SSA allocation. Not even one per cent of the budgetary expenditure on elementary education was spent on infrastructure. Interventions to improve quality of teaching, compared to educationally advanced states like Tamil Nadu and Kerala, were very small, with only 0.4 percent of total expenditure allocated for the purpose. The 2006-07 budget shows that the overall structure of expenditure has remained more or less the same as in 2004-05. There is an increase in the share of administrative expenditure (from 1.4 to 1.8 per cent) and a reduction in teacher salaries (83 to 78.5 percent). Direct expenditure on students has increased by 1.2 percent, which is perhaps a welcome trend since it reduces private costs of education, encouraging greater participation of the poor children in the education process. The rise in grants-in-aid mainly reflects higher allocations for SSA.

9.b SSA Expenditure in West Bengal

DPEP, an older primary education program in selected districts (now subsumed under SSA) and SSA are implemented in West Bengal under the rubrics of Paschin Banga Rajya Prarambhik Shiksha Unnayan Sanstha. The aims and objectives of the two programs are broadly the same, with additional emphasis on decentralization under SSA.

SSA is a centrally sponsored scheme with shared funding, with the share of the centre intended to come down gradually. The share of the state in the total SSA budget was 25 per cent in 2006-07; for the next plan period i.e., 2007-2012 the state's share is slated to rise to 35 per cent in the first two years, 40 per cent in the third year, 45 per cent in the fourth year and 50 per cent in the terminal year.

The actual allocation of resources to states under SSA depends on the following:

(i) preparation of District Elementary Education Plans and their appraisal;
(ii) commitment of the State government with regard to the State share;
(iii) performance of the State government regarding resources made available earlier;

(iv) institutional reforms in states to facilitate decentralized management of education;

(v) reports of supervision teams regarding the quality of program implementation;

(vi) availability of financial resources in a particular year.

The releases are based on assessed need as also performance-linked. The allocated resources are provided in two installments in a year: first in April and the next in September. The utilization certificates become due one year after the release of an installment and constitute a condition for further release of funds from the centre. There is a general norm that the state governments will have to maintain their level of investment (expenditures) in elementary education at a minimum defined by the 1999-2000 level, excluding the state's contribution as matching funds for SSA. A registered society for the implementation of SSA is a precondition and releases of successive central shares are conditional upon transfer of previous releases along with the state's share to the society.

Table 2.7: Pattern of SSA expenditure in West Bengal

(Rs. Lakh)

Year	Approved Budget	Funds received			Funds received out of total approved budget (%)	Utilization of funds from actual receipt (%)
		GoI	GoWB	Total		
2001-02	3169	1461	229	1690	53	3.9
2002-03	22147	10868	3651	14519	66	52.3
2003-04	60340	16690	5563	22253	37	64.6
2004-05	82497	45486	13662	59148	72	103.5*
2005-06	104811	33482	12661	46142	44	105.82*
2006-07	144070	61067	20356	81422	57	112.97*
2007-08	141289	89704	48302	138007	98	72.6

Source: Department of School Education

* Utilization is more than 100 per cent as the utilized funds also include that from the opening balance.

In Table 2.7, trends in planned budget for SSA, funds received and actual SSA expenditure are given. Barring the first year, when probably the scale of operations under SSA had not sunk in fully, approved budgets show a rapid rise to progressively more substantial amounts until 2006-07. But there seems to be a clear problem in the release of funds, poor utilization caused possibly by inconvenient release pattern, the poor utilization feeding back into irregular releases. However,

utilization of available funds has improved over the years, but release of funds, particularly from the center continues to be irregular except in 2007-08. This is an aspect that needs to be examined; it is important for the state government to do all it can to get its rightful share, both at its own level and at the level of the concerned central Ministry.

Given that the SSA planning process involves bottom-up planning from district level, it is expected that the district plans would be based on factors like enrolment, number of out of school children, and some other human and physical resources. In Table 2.8, we calculate the share of each district in overall SSA expenditure for 2004-05, and some of the possible determinants of the shares – the net enrolment ratio (NER), percentage of out of school children (5 to 8) and the percentage of school going children of age (5 to 8).

Table 2.8: SSA Shares and District Indicators, 2004-05

(percentages)

District	5+ to 8+ population share	NER	Out of school children	SSA Share
Bankura	4.14	97.09	6.11	5.68
Bardhaman	8.58	99.08	4.02	8.01
Birbhum	3.79	97.81	4.22	5.19
Dakshin Dinajpur	2.24	97.51	2.83	1.73
Darjiling	1.01	98.84	0.59	7.31
Hooghly	6.34	99.61	1.29	6.18
Howrah	3.65	99.61	0.72	8.56
Jalpaiguri	4.23	98.30	3.66	3.58
Kochbehar	2.76	96.88	4.37	11.86
Kolkata	5.64	99.04	2.75	6.88
Malda	4.14	96.86	6.60	3.39
Murshidabad	7.76	97.32	10.56	4.48
Nadia	5.48	99.17	2.32	2.65
North 24 Parganas	11.23	98.85	6.54	8.27
Pashim Medinipur	6.57	98.52	4.93	2.48
Purba Medinipur	5.54	99.37	1.77	2.57
Purulia	3.31	90.51	15.92	0.37
Siliguri	1.39	99.16	0.59	2.29
South 24 Parganas	8.87	97.62	10.70	0.40
Uttar Dinajpur	3.36	94.43	9.49	8.14

To see the extent of the variation explained by the above factors, a regression estimate is carried out with each district as an observation. The explanatory variables are percentage of children in the school going age (CSGA), Net Enrolment Ratio (NER) and percentage of out of school children (OSC). District wise SSA share is taken as the dependant variable. The estimated regression equation is of the form (t-value in parentheses):

SSA share= 134.824 + 0.642 CSGA – 0.909 OSC – 1.314 NER; R^2= 0.151

(1.113) (1.128) (-1.392) (-1.067)

The estimated coefficients, including the scale variable CSGA, are all statistically insignificant and the regression itself has very low explanatory power. This is a most surprising result, since it implies that none of the postulated explanatory variables systematically determine the district shares, although they ought to, except perhaps NER since there is little variation in it. Clearly, the district shares are determined by some other variables or are somewhat random, contrary to the objectives of SSA. Taking the specific case of Purulia, probably the most backward district of the state in terms of educational indicators, the share is only 0.37 per cent which cannot be explained by a small share of the potential beneficiaries also. Districts with smaller shares of potential beneficiaries and much better educational indicators have larger shares. The small share of South 24 Parganas is equally inexplicable. On the other hand, the largest share has been allocated to Kochbehar, which neither has a large share of potential beneficiaries, nor very poor educational indicators. This is an aspect that perhaps would bear some rationalization.

9.c Budgetary and SSA Expenditures

The state budget document reflects only the state's contribution to SSA, not the rest of the funds coming from centre. On the other hand, SSA expenditures do not fully reflect the budgetary expenditures. To get a complete picture of public expenditure on elementary education, we provide in Table 2.9 and 2.10 both budgetary and SSA expenditures together. For our analysis, we have incorporated the total SSA resources, after deducting the state's contribution reflected in the budget as grants-in-aid to avoid double counting. Here, we reclassify the SSA expenditure audit heads in the way the budgetary expenditures are categorized to make the analysis compatible, for the years 2003-04 and 2004-05.

Table 2.9: Budgetary and SSA Expenditure on Elementary Education in 2003-04

(Rs. Lakh)

Categories	Total	Budgeted Expenditure		SSA Expenditure	
	Budget + SSA Expenditure	Budget Expenditure	% of Total	SSA Expenditure	% of Total
Administration, Monitoring and Evaluation	3673	3336	90.8	337	9.2
Teacher Salaries, Professional Fees	135254	135254	100.0	0	0.0
Teaching Quality and Incentives	4543	503	11.1	4040	88.9
Direct Expenditure on Students	7442	7299	98.1	142	1.9
Infrastructure	8679	744	8.6	7935	91.4
Grants-in-Aid	7753	5837	75.3	1916	24.7
Total	**167344**	**152973**	**91.4**	**14370**	**8.6**

Table 2.10: Budgetary and SSA Expenditure on Elementary Education – 2004-05

(Rs. Lakh)

Categories	Total	Budgeted Expenditure		SSA Expenditure	
	Budget + SSA Expenditure	Budget Expenditure	% of Total	SSA Expenditure	% of Total
Administration, Monitoring and Evaluation	3440	2480	72.1	960	27.9
Teacher Salaries, Professional Fees	149778	145937	97.4	3842	2.6
Teaching Quality and Incentives	4728	617	13.1	4111	86.9
Direct Expenditure on Students	14582	10940	75.0	3642	25.0
Infrastructure	37700	609	1.6	37091	98.4
Grants-in-Aid	12982	1505	11.6	11477	88.4
Total	**223210**	**162087**	**72.6**	**61123**	**27.4**

In broad terms, budgetary expenditures account for a much larger share of the total expenditures on elementary education than SSA. This is primarily because teacher salaries constitute the bulk of expenditure, and these come out of the budgetary expenditures almost wholly. However, SSA funds are proving to be useful and increasing supplements to the budgetary expenditures at the margin. Almost all expenditures on school infrastructure, a weak area in West Bengal as we have seen earlier, are being incurred under SSA. Similarly, much of the quality improvement measures including teachers' training are being funded through SSA. The third area where SSA funds are increasingly being used is for providing grants-in-aid to schools. SSA itself has created an additional administrative apparatus, because of

which some expenditures on administration, monitoring and evaluation is now being met through SSA, though the bulk is still flowing through the budget. Finally, a small part of the substantially rising direct expenditures on students is also being met from SSA funds.

10. Assessment

Most of the assessments of the elementary education system[13] in West Bengal have remarkably similar observations to make. The main difficulties identified for West Bengal's primary education are paucity of financial resources, lack of schools (particularly upper primary), poor infrastructure facilities including inadequate availability of teachers, regional imbalance, and problems of inequity.

The paucity of financial resources in a system where the overwhelming bulk of the service is provided by the government obviously originates from budgetary allocations. The problem is not only that the state spends too little on education (aggregate expenditure on education is not very low compared to other states of India), but also that the share of elementary education is low and an overwhelming bulk of the expenditure is on salaries and related items only. There is insignificant capital/ maintenance expenditure for schools which is the main problem.

The problem of lack of schools is not so acute for primary schools in that more than 85 per cent of the habitations reportedly have a primary school (or SSK) within 1 km; the major shortage is of upper primary schools. With a successful thrust on enrolment, the demand for upper primary education has increased manifold, but supply has not increased anywhere near commensurately. There is thus some amount of forced dropout from the system.

Poor physical infrastructure is essentially a result of inadequate budgetary allocations for the purpose. The situation is particularly bad for SSKs. The pupil-teacher ratio, even allowing for over-reporting of enrolment, is clearly high and problems of uneven distribution and unacceptably high levels of teacher absence make matters worse. There is also some agreement that the school inspection system has become dysfunctional because of overload and other factors, exacerbating the problem of teacher accountability in general. JRM (2006) is also

[13] See, for example, GoWB (2004), GoWB (2005), Rana, Rafique and Sengupta (2002), and JRM (2006).

highly critical of the system of training of teachers, particularly in view of large scale induction of untrained para-teachers and contract teachers.

The problem of inequity arises from several sources – social classifications like caste differentials, teacher discrimination between students, and private costs of education. The latter has become particularly severe, owing its origin to the growth of private tuitions (Rana, Rafique and Sengupta, 2002 and Rana *et al*, 2005). The problem with private tuitions is not only that it raises the cost of education for those who actually take them; by weakening the pressure on schools by precisely those parents who actually wield such capabilities, the quality of education delivered at the schools also suffers. When tuitions actually make a difference, as they seem to do, those who cannot afford it are thus doubly hit. Further, despite all the good work done by the SSKs, they are perceived to be adding a new dimension to inequity as unintended fallout of the alternative school system. Efforts to decentralize management and monitoring through elected bodies and local participation has apparently done nothing to provide a voice to the poor and socially backward groups; the established social order gets reflected in all such groupings.

With all these problems, certain positives are undeniable. The supply is gradually catching up with the demand for elementary education; if the current trends are maintained for a few more years, there would be no capacity shortage. The role of SSKs has been particularly noteworthy in this area. The quality of education, despite parental dissatisfaction, is better in the state than in many other states. Gender disparities among literates as well as students are comparatively low and continuously declining; one only wishes the same trend was visible among teachers.

11. Costing the Supply-side Gaps

As we have seen above, attending to the supply side gaps would be important to achieve the goal of universal elementary education in West Bengal. Before judging whether the state must live with these constraints because of the oft-repeated ‘paucity of funds’ or not, we need to have at least a rough idea of the amount of resources that would be needed to fill these gaps. Specifically, we need to cost the infrastructure gaps (including needed teachers), interventions to bring the remaining out-of-school children into the system and additional interventions for improving the quality of education as per SSA norms.

Infrastructure would include physical infrastructure facilities in terms of school buildings, additional classrooms, Block Resource Centers (BRC), Cluster Resource Centers (CRC), and school amenities like girl's toilets and drinking water. Further, it would relate to additional teacher recruitment to fill up the vacant post and teacher training to improve the quality of education. Since the physical infrastructure gaps are being met essentially from SSA resources, their estimates should give us a reasonable idea of the ground to be covered. Accordingly, we utilize information obtained from the state-wise compilation by the Ministry of Human Resource Development (MHRD), Government of India. We complement this information with information sourced from the latest *Annual Work Plan and Budget* (AWP&B) of SSA for West Bengal that was available to us, information from DISE and information provided in *Economic Review, 2006-07*, published by GoWB. The AWP&B in West Bengal did not provide information on unit costs; however, those for Orissa did and we have adopted those unit costs. With these data, our exercise is a fairly simple one of finding the backlog and estimating the total cost of the same using the unit costs.[14] Table 2.11 provides the details with respect to physical infrastructure, while table 2.12 provides the details with respect to teachers. It should be noted that while physical infrastructure costs are one time costs (maintenance costs, of course, have to be provided for), teacher costs are recurring ones. For the latter, we have built in a finite five-year time horizon only, though they may continue for a longer period in fact.

Table 2.11: Gaps in School Infrastructure under SSA, 2006

(Rs. Lakh)

Category	Target	Achievement	Gap	Unit Cost	Total Cost
Opening of schools	10215	0	10215	5	51075
Construction of school buildings	4124	1801	2323	5	11615
Additional Classrooms	75445	70784	4661	2	8623
Setting up of BRC	707	707	0	6	0
Setting up of CRC	4212	1425	2787	2	5574
Drinking Water facility	61695	53585	8110	0.15	1217
Girls' Toilet Facility	61695	21399	40296	0.30	12089
Sub Total					**90192.15**

Paucity of teachers has impeded the capacity of the state to improve the quality of education. The state has now decided to enlist the services of unemployed persons up to the age of 55 as 'Shiksha Bandhu' (para-teacher) to fill up the

[14] The quality of these financial estimates would obviously be improved with more recent and dependable basic data on infrastructure gaps and on unit costs specific to West Bengal.

vacancies. In the 2006-07 AWP&B, a target of filling up all sanctioned posts of para-teachers has been taken up. Table 2.12 shows the total cost for bridging the gap of teacher recruitment, teacher's salary (5 years), teacher training and teacher grant. We assume that all primary and upper primary teachers newly recruited will undergo a 20 days training program at a cost of Rs 70 per day as per norms. The amount estimated as required to meet the teacher gap is 242.32 crore.

Table 2.12: Cost Estimation of Teacher Gap

Category	Target	Achieved	Gap	Unit Cost (Rs lakh)	Total Cost (Rs lakh)
Para teacher (P) salary* (per month)	25781	14792	10989	0.02	13186.8
Para teacher (UP) salary* (per month)	37010	31099	5911	0.03	10639.8
Teacher Grant (annual)			16900	0.01	169.0
Teacher Training**			16900	0.0007	236.6
Sub Total					**24232.2**

* calculated for (5 x 12) 60 months

**Teacher training cost calculated by assuming all new teachers undergo one training program of 20 days @ Rs. 70 per day as per SSA norm.

Source: Gap figures from AWP&B, 2006-07

Next, bringing children currently out of school into the mainstream education through various interventions has to be costed essentially on the basis of those that still remain out of school. The latest *Economic Review* puts the number of out of school children at 6.15 lakh at the end of 2006. Assuming that about 20 per cent of this number would be either already enrolled or are the 'hardest-to-reach' group that will not enter the system despite all efforts, the effective gap as of now would be about 6.03 lakh. Given a unit cost of enrolment into EGS/AIE of Rs 1500 per student, the total cost works out to Rs 9045 lakh. Bringing the three sets of cost estimates together in Table 2.13, the total additional cost of filling up the remaining gaps in physical infrastructure, teachers and bringing in out-of-school children works out to Rs 1234.7 crore over five years.

Table 2.13: Total Additional Requirement to Finance the Gaps

	(Rs crore)
Infrastructure Gap	901.92
Teacher Gap	242.32
Out of school children	90.45
Total	**1234.69**

It will probably not be feasible to judiciously expend the estimated additional resource within a year or two. Since the gap is estimated on the basis of the status in the above mentioned three areas as at the end of 2006-07, the resource requirement is therefore phased out over the entire current plan period in Table 2.14. Since lump sum amounts are required for infrastructure, the burden is equally divided into 5 years. Further, for the resource requirement exercise, it is necessary to estimate the salary of new as well as existing teachers and costs of re-training of existing teachers. We assume that all primary and upper primary (regular as well as para-) teachers numbering 244042 in 2007 will undergo 20 days training at a cost of Rs.70 per day. We also assume that the new teachers numbering 16900 pressed into service during the next five years will undergo the same training as existing teachers. However, our calculations build in new teacher costs as 40 per cent appointed in 2007-08, and the rest 60 per cent appointments spread equally over the next three years.

Table 2.14: Resources Required for Elementary Education, 2007-12

(Rs. Crore)

	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Infrastructure	180.4	180.4	180.4	180.4	180.4	**902.0**
Teacher Salary (only New)	19.1	28.6	38.1	47.7	47.7	**181.1**
Teacher Training (New+ Existing)	35.1	35.6	36.1	36.5	36.5	**179.8**
Teacher Grants (New+ Existing)	5.2	5.2	5.2	5.2	5.2	**26.0**
Out of School	19.0	19.0	19.0	19.0	14.5	**90.5**
Total	**259**	**269**	**279**	**289**	**284**	**1379**

It can be seen that the resources required for infrastructure is the bulk (more than 65 per cent) of total expenditures. It may be noted that the total of all the items over all the five years is somewhat higher than the total additional resource requirement given in table 2.13. This is because in table 2.14, we have now included the costs of teacher training and teacher grants for existing teachers as well. Another difference between the two tables is that in table 2.14, the salaries, training costs and teacher grants of new teachers are estimated using the assumption of progressively rising share of teacher gap being filled instead of all at once in the first (2007-08) year itself. This difference works towards lowering the total estimate a little.

Table 2.15 shows the projected scenario of state's total expenditure on elementary education from 2007-08 to 2011-12. Although two of these are already in the past and the third is also almost over, figures for all the five years are given here on an *as if* basis for the sake of completeness and as indicative figures, to be compared with actual outturn. The computations are based on additional resource requirements as estimated above and projected values of expenditure on education. Since the annual additional requirements are not large and because a part of it can be shared by the GoI under SSA as per the applicable sharing formula, education expenditures including the state's share of additional expenditures only exhibit minor increases over the projected baseline values (ranging between 1.6 per cent and 2.2 per cent). This is primarily because much of the necessary investments are already over, and attention has now to be given to quality aspects. If the required expenditure for 2007-08 and 2008-09 has already been incurred, the State would only need to focus on the required expenditure for the next three years.

Table 2.15: Projected Requirement for Elementary Education, 2007-2012

(Rs crore)

	2007-08	2008-09	2009-10	2010-11	2011-12
Baseline budgetary expenditure on education	5594	5801	6015	6237	6467
Required additional expenditure	259	269	279	289	284
With Sharing of additional Expenditure through SSA					
Budgetary Expenditure of state government	5685	5895	6127	6467	6609
Central support through SSA for additional expenditure	168	175	167	159	142

12. Mid-day Meals

National Programme of Nutritional Support to Primary Education, commonly known as the mid-day meal scheme, is a program that serves two important objectives – that of increasing enrolment, attendance and retention in schools, as also to reduce the degree of widespread malnutrition among children. Until 2001, the scheme was implemented neither in letter nor in spirit and was limited to providing "dry rations" in most states. But the Supreme Court's order in the case of 'Right to Food' directed to all states to provide "cooked meals" to all primary school children introduced urgency in implementation of the scheme.

The Government of West Bengal took some time to overcome the initial hiccups and has finally come up to meet the terms of the Supreme Court directives to implement the program in every primary schooling institution (including the SSKs). The beginning was made with some 1,100 primary schools in five districts (Murshidabad, Birbhum, Bankura, Paschim Midnapore, and Jalpaiguri) and extended to some other districts. A decision has already been taken to bring all the primary schools and SSKs as also all students of class V into the fold of the program. This program is largely centrally funded as we shall see below. As of November 2006, about 91 lakh children are getting the benefit of the scheme in 69658 schools in the state.

The entire mid-day meal program is implemented by the School Education Department while monitoring and supervision is by *Panchayats* in the state. In addition, teachers and parents shoulder the responsibility of school lunch program. The Government of India provides free rice, while the state government provides funds to meet other expenditure like cost of dal, salt, oil, fuel, vegetables, condiments, and utensils. At the district level, the District Collector monitors the program with the assistance of concerned district level officers. The Block Development Officers supervise the implementation of the program for their Blocks with the help of other officials at that level. At the school point, School Education Committees supervise implementation in order to strengthen their functioning, so that they can take over the program eventually. At the village level, the scheme gives scope for the parents, Village Education Committees, and teachers to supervise and contribute to the operation of the scheme.

In the state, the main foodgrain is rice; for this scheme, rice is being lifted from nearest Food Corporation of India (FCI) point allotted by GoI. The required quantity of other foodstuff is procured locally through purchase committees constituted at district level. Arrangements have been made to lift and deliver the stock through the Civil Supplies Corporation functioning in the districts.

Cooked meal is distributed only on working days and the distribution is done on the basis of the enrolment of children in primary school. The food basket consists

of 125 grams of rice and 15 grams of dal and/or other vegetables. Eggs are provided once in a week. Cooked meal at lunch hour is provided to all students enrolled in class I to IV except schools located in the urban areas, where mostly dry ration is given @ 3 kgs of rice per month per student having 80 per cent attendance in the previous month. The dry ration is distributed twice a month.[15] Honorarium paid to cooks is Rs.200 per month and to the helper is Rs.100 per month.

The coverage of the scheme is not yet 100 per cent of the schools, mainly because -

- most of the Kolkata city schools are running in rented premises and have no space for cooking; hence, only dry rations are provided;

- the state's primary schools include only class I to IV, but all class V students, who are in upper primary/ secondary/ higher secondary schools also were eligible for the scheme; it was difficult to provide food to only one class. With extension of the scheme to class VIII this difficulty should have been removed.

Table 2.16: Coverage of Mid-day Meal Scheme in April 2007

District	No. of eligible schools and SSKs	No. of covered institutions	Institutions covered (%)	Covered enrolment (No.)
Bankura	4449	4335	97.4	**341532**
Birbhum	3507	3050	87.0	**333372**
Burdwan	6292	6030	95.8	**637988**
Cooch Behar	2883	2786	96.6	**415165**
D/Dinajpur	1891	1725	91.2	**257181**
U/Dinajpur	2691	2676	99.4	**473485**
DGHC	1357	1357	100.0	**152828**
Hooghly	3320	3320	100.0	**432094**
Howrah	2446	2409	98.5	**339151**
Jalpaiguri	3538	3452	97.6	**503850**
Malda	2863	2863	100.0	**584049**
Murshidabad	5058	4557	90.1	**834778**
E. Medinipur	5491	4748	86.5	**509833**
W. Medinipur	7944	7551	95.1	**623259**
Nadia	3826	3826	100.0	**715956**
North 24 Pgs	5699	5075	89.1	**712952**
South 24 Pgs	4839	4839	100.0	**805608**
Purulia	3829	3708	96.8	**302423**
Siliguri S.D	**774**	**682**	**88.1**	**104057**

[15] "In Kolkata, the street and working children are being provided with cooked food through a network of NGOs in their teaching centres" (*Economic Review 2006-07*, Government of West Bengal).

Available information shows that most of the districts were fairly close to or at full coverage in 2007 (Table 2.16). Only Birbhum, East Medinipur and North 24 Parganas were lagging a little. Our visits to some primary schools in South 24 Parganas revealed the scheme to be working as well as can be hoped for; all the schools did not have kitchens, nor did they have space for storage of foodstuff and firewood in some cases, but the active Mother-Teacher Committees was a positive sign. The quality of food was reasonable, possibly helped by the monitoring by mothers of the children.

Table 2.17: Projections for Mid-day Meal Scheme, West Bengal

	2007-08	2008-09	2009-10	2010-11	2011-12
Primary enrolment 5-9 (in lakh)	87	87	87	78	70
State Cost @ 0.50 per child with 5% inflation (Rs lakh)	45.9	45.9	45.7	41.1	37.0
State's cost per year @200 school days (Rs crore)	91.8	91.8	91.4	82.2	74.0
Total amount to be budgeted (Centre + state share) (Rs crore)	367.2	367.2	365.4	328.9	296.0

Table 2.17 provides estimation of annual costs of mid-day meals in schools in West Bengal, both for the centre as well as the state, for five years starting 2007-08. Only the state's share is considered as additional expenditure requirement for our later estimations. In estimating the above, we have used the baseline figures of 2005-06. Since cost of cooking materials and wage costs generally increase over time, so, we have incorporated 5 percent inflation rate in our calculation. An average of 200 working days for schools has been assumed for calculation. As per the guidelines, the centre bears the food grains and cooking costs @ 1.50 per student and the concerned state bears other costs @50 paisa per student per day. Our estimations show amounts below Rs 100 crore will be required for full coverage of the scheme in West Bengal in each of the years until the end of the current Five-year Plan.

III Healthcare: Interventions, Achievements and Financing

West Bengal performs relatively well among the major Indian states in terms of basic health indicators like infant mortality rate (IMR) and maternal mortality ratio (MMR), because of which the state is considered a low focus state under the National Rural Health Mission (NRHM). However, access to curative services in the state does not match these achievements and appears to be extremely poor. While the state has already taken up various reforms to address the problems in the health sector, a number of issues still require attention. The following sections discuss in detail the achievements of the state in terms of various indicators, the factors affecting them, the interventions by the state government and issues related to financing the health sector.

1. Achievements

The performance of West Bengal in terms of IMR varies depending upon the source of data. As per the Sample Registration System (SRS), the state had an IMR of 37 in 2007, which ranked fourth among the major states, next only to Kerala, Maharashtra and Tamilnadu. As per SRS, the state has also met the Tenth Plan target for infant mortality rate and is likely to reach the national level 11th plan target (Table 1). The state-level targets for IMR, which are more ambitious than the national targets, are also within reach of the state, particularly the target for the rural areas, if one goes by the SRS (Table 3.1). However, the National Family Health Survey 2005-06 (NFHS 2005-06) indicates a higher level (48) and a lower rank (7th) in terms of IMR among the major states. More importantly, as per NFHS 2005-06, IMR in the state has remained almost constant during 1998-99 to 2005-06, and at this rate the state is unlikely to meet any of the national or state-level targets (Table 3.1). Given that the sample size for estimating IMR is larger in SRS than NFHS, the former is likely to be more reliable and one can possibly be optimistic on the level of IMR and the state's possibility of achieving the national and state-level targets.

In terms of MMR also, West Bengal ranks higher than the all-India average and has already met the Tenth Plan target (Table 3.1). In 2004-06, the state had an MMR of 141, which was much better than the MMR of 254 at the national level. However, the slow improvement in output indicators related to maternal mortality in

the state in the recent past raises doubts on the possibility of the state reaching the 11th plan target for MMR. Both the NFHS and the Reproductive and Child Health (RCH) surveys indicate a slow rise in the percentage of institutional deliveries and pregnant women receiving three or more ante-natal checkups (ANC) in the state. NFHS indicates a rise of merely 3 percentage points in institutional deliveries between 1998-99 and 2005-06, while RCH surveys indicate a rise of 2 percentage points between 2002-04 and 2007-08. Also, while the incidence of anemia in the state is higher than most other Indian states, the low provision of IFA in the state (lower than the country as a whole) may act as an impediment to the reduction of MMR in the state (Table 3.1). With anemia and toxemia reported to be the cause of 44 per cent of the maternal deaths in *post partum* units of the state[16], unless provision of adequate amount of IFA to pregnant women is increased and three ante-natal checkups ensured (with specific tests to detect possible cases of toxemia during the pre-natal period), the state may not be able to reach the 11th plan target for MMR at the national level. Also, with bulk of the maternal deaths occurring during labor, the referral system for institutional deliveries needs to be strengthened if the state has to reduce maternal deaths substantially.

While the state is doing relatively well in comparison to other major Indian states in terms of IMR and MMR, it is nor clear as to what factors explain the performance of the state, particularly in terms of IMR. A comparison of the IMR in the state with that in Tamil Nadu, indicates that West Bengal with a higher poverty level and a lower level of female literacy rate has an IMR which is as good as Tamil Nadu. If one considers the fact that bulk of IMR is in the form of neo-natal mortality (whose determinants are closely related to the factors that determine MMR), the difference is even more striking. The percentage of institutional deliveries in Tamil Nadu is more than double of that in West Bengal (43 as compared to 90 by NFHS III).[17] Part of this good performance is likely to arise from the fact that although the per capita availability of health infrastructure in the rural areas is low, infrastructure availability per square kilometer is relatively high in the state as it has the highest density of population in the country. This is evident from the fact that while the per capita availability of nursing personnel in the rural areas of the state is one of the lowest among the major states (better than only Uttar Pradesh), the availability of nurses per

[16] As reported in *Health on the March 2005-06*, State Bureau of Health Intelligence, Directorate of Health services, Government of West Bengal.

[17] As per the District-level Household Survey 2007-08, the figures are 49.2 and 94.1 for West Bengal and Tamil Nadu respectively.

square kilometer in the rural areas is one of the highest in the country (next only to Kerala). This possibly contributes to the performance of the state in terms of preventive care like ante-natal and immunization services where the state stands above the all-India averages. However, it must be noted that although there has been a significant increase in the number of children fully immunized in the state between the last two rounds of NFHS surveys that was higher than at the all-India level, it has not been the case in terms of ante-natal care. In comparison to all-India levels, the increase in ante-natal services was lower (Table 3.2). As both of these require a similar setup of infrastructure, it would be important to explore the causes for the differential performance of the two services.

In terms of the level of morbidity and mortality due to various diseases, it is difficult to judge the status of the state due to lack of any reliable source of data on the incidence of diseases in the country. Incidence of diseases reported by NFHS is associated with problems of perception among individuals and those reported by government sources is based on the number of cases actually reported in government health facilities. Reported cases in government health facilities may not correspond to the actual incidence of diseases in the population and may reflect factors like access to health facilities and the like. Despite the problems in data, there are indications that the state has achieved the targeted cure rate of 85 per cent for tuberculosis and has been able to bring about a substantial reduction in the reported number of cases of malaria (GoWB 2006a, Table 3.3). However, there are no clear signs of reduction in the number of reported cases of kala-azar (Table 3.3). Incidence of acute respiratory infection (ARI) and jaundice also appear to be higher in the state than the all-India level[18], but unavailability of information on the trend of these diseases makes it difficult to judge the possibility of the state reaching the goals. The prevalence rate of leprosy has fallen over the years and the state is close to the national target (Table 3.3). There is however considerable disparity within the state. The prevalence rates of leprosy in at least six districts were double the target at the national level in 2006. The reported cases of measles in the state also constitute about 40 per cent of the cases in the country although the level of immunization for measles in the state is higher than the all-India level (GoWB 2004).

[18] GoWB (2004)

Table 3.1: Achievement of West Bengal with Regard to Various Goals

Indicator	*Millenium Development Goals (MDGs)*	*National Health Policy (by 2010)*	*Eleventh Plan (by 2012)*	*National Population Policy (by 2010)*	*National Rural Health Mission (NRHM)*	*Medium Term Goals for West Bengal*	*Status in West Bengal*
Infant mortality rate		30 per 1000 live births	28 per 1000 live births	Below 30 per 1000 live births	30 per 1000 live births	30 per 1000 live births (by 2012) (DoHFW, GoWB)	37 per 1000 live births (SRS 2007) 48 per 1000 live births (NFHS III 2005-06) Change between 1998 and 2005 was 15 (as per SRS) and 1 (as per NFHS)
Under-five mortality rate	Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate						12 per 1000 live births (SRS 2003)
Maternal Mortality Rate	Reduce by three quarters, between 1990 and 2015, the Maternal Mortality Ratio	1 per 1000 live births	2 per 1000 live births (by 2007) (Tenth Plan) 1 per 1000 live births (by 2012)	Below 1 per 1000 live births	1 per 1000 live births	1.5 per 1000 live births (by 2012) (DoHFW, GoWB)	1.41 per 1000 live births in 2004-06 (SRS)
Crude birth rate			21 (Tenth Plan)	21		19.8 in rural areas, 12.7 in urban areas (by 2012)	18.8 (SRS 2005)
Total Fertility rate			2.1	2.1		2.1 (by 2010)	2.3 (SRS 2003)

Table 3.2: 'Output' Goals Related to Maternal and Child Mortality

Indicator	*Tenth Plan (by 2007)*	*National Population Policy (by 2010)*	*Status in West Bengal*
Percentage Immunized against all vaccine preventable diseases	100	100	75.8 (P)(RCH 2007-08) 54.1 (all-India) 64.3 (NFHS 2005-06) 43.5 (all-India)
% of at least 3 ANC	90	100	67 P (RCH 2007-08)
% received IFA for 3 or 4 months	100	100	(RCH 2007-08) % Consumed 100 IFA tablets: 22.4 (46.8 all-India)
% received at least one dose of TT	100	100	95 (RCH 2007-08)
Institutional deliveries (%)	80	80	49.2 (RCH 2007-08)
Safe delivery (%)		100	51.6 (RCH 2007-08)

Table 3.3: Reported Number of Cases and Deaths due to Malaria and Kala-azar and Prevalence Rate of Leprosy, 2003-2007

Year	Malaria		Kala-azar		Leprosy Prevalence Rate
	Cases	Deaths	Cases	Deaths	(National Target 1/10000)
2003	233802	214	1487	7	3.11
2004	220871	184	2876	24	2.14
2005	185964	175	3015	23	2.11
2006	159646	203	1843	10	0.99
2007	87754	96	1817*	9*	1.04

* provisional figures

Source: *Health Information of India 2005*, *National Health Profile 2005, 2006, 2007* and *2008*,Central Bureau of Health Intelligence, Ministry of Health and Family Welfare, *Health on the March 2005-06*, State Bureau of Heath Intelligence, Govt. of West Bengal

Table 3.4: Health Infrastructure in West Bengal

	Earlier		Present	
	Number	Year	Number	Year
Number of SCs	7873	1990	10356	2007
Number of PHCs	1172	1985	924	2007
Number of CHCs	87	1990	349	2007
Number of hospitals	398	1980	383	2008
Population served per bed	936	1987	1734	2008
Population served per nurse	2613	1981	1737	2001
Population served per doctor (urban)	808	1983	830	2001
Population served per doctor (rural)	5386	1983	4727	2001

Source: *Bulletin on Rural Health Statistics 2008*, Ministry of Health and Family Welfare, *National Health Profile 2008*, Central Bureau of Health Intelligence and *Health strategy 2004: Integrated Financial and Economic Plan for the Health Sector*, Government of West Bengal (2005)

2. Factors Affecting Morbidity and Mortality Rates in the State

One of the major factors affecting the health sector in the state is the poor access to health care facilities in the rural areas of the state. Unlike the three-tiered national structure, the state has a four-tiered structure of rural health facilities, which comprises of sub-centers, primary health centers, block primary health centers and the rural hospitals. For assessing the adequacy of rural health facilities in the state with respect to the national norms, it is assumed that the primary health centers and block primary health centers in the state together are comparable to the category of primary health centers at the National level and the rural hospitals are comparable to the category of community health centers.[19] In 2007, estimates of requirement (based on population) indicate that there is a severe shortfall of rural health infrastructure in the state and the existing number of SCs, PHCs and CHCs does not even meet the requirement based on the population of 1991 Census (GoWB 2005).

Access to secondary and tertiary level care in the form of hospitals and number of beds (per lakh of population) in the rural areas of the state is also less than half of the figures for the rural areas of the country as a whole. The low access to health care facilities in the rural areas is particularly striking in comparison to urban areas. While the number of hospital beds in the urban areas is higher than the all-India level, it is lower than the all-India level in the rural areas, indicating high rural-urban disparity. With studies indicating lack of adequate private sector for

[19] This definition is followed in the *Bulletin of Rural Health Statistics*, Ministry of Health and Family Welfare, Government of India.

hospitalization in the rural areas of the state, there is possibly an inadequate access to hospitalization care in the rural areas (Chakraborty and Mukherjee 2003). This is reflected in the fact that the difference in the rate of hospitalization between the rural and urban areas of the state is one of the highest in the country (NSSO 2006). The low access to public health facilities in the state is also indicated by the fact that the percentage of households citing 'no nearby facility' and 'long waiting times' as reasons for not accessing public health facilities in the state is significantly higher than the corresponding figures for the country as a whole (NFHS 2005-06). In this context, it may be noted that there has been no increase in the number of PHCs in the state in the last fifteen to twenty years (Table 3.4). The state has primarily focused on expanding sub-centers and nursing personnel and to a lesser extent, on per capita availability of doctors in the rural areas (Table 3.4).

Low access to health facilities has also been a major deterrent in increasing institutional deliveries in the state. With only 10 per cent of SCs and 16.7 per cent of PHCs conducting deliveries in the state[20], the load of institutional deliveries primarily lie with higher level health facilities (BPHCs and above). Among the higher level facilities, more than 60 per cent of the deliveries are conducted in district hospitals and sub-divisional/sub-general hospitals alone (GoWB 2006a). This indicates that rural women have to travel large distances to access an institution for delivery. A recent survey conducted in three districts of the state (Malda, Bankura and North 24 Paraganas), indicated that on average, a women delivering at a public health facility had to travel a distance of 14 kms and those who delivered at home would have to travel a distance of 24 kms if they had to deliver in an institution (Kanjilal *et. al.* 2007). A study of the causes for maternal deaths in Purulia district also indicated that 'high transport costs' was a major reason for delay in accessing medical care for deliveries (study supported by UNICEF, cited in GoWB 2006). The high incidence of maternal deaths occurring during labor (at *post partum* centers) is also possibly indicative of large distances and a weak referral system. In general, the weakness of the referral system is also indicated in the fact that only 8 per cent of all the inpatients admitted in district hospitals were referred (IHMR 2002). With a weak referral system and large distances to health facilities, availability of referral transport could be important in reducing the delay in accessing health institutions for deliveries.

[20] Facility Survey, IIPS 2002-2004.

Infrastructure, staff, equipments and supply of medicines in the existing facilities of the state are also extremely poor. In 2003, as per the Facility Survey conducted by the International Institute of Population Sciences (IIPS) (FS 2003) in PHCs, only 12 per cent had adequate infrastructure, 5.7 per cent had adequate staff, 23 per cent had adequate kits and medicines and 8.6 per cent had adequate equipments.[21] These figures are among the worst in the country, better only to the states of Bihar (including Jharkhand), Orissa and Madhya Pradesh (including Chattisgarh) in the country. The situation is worse in block primary health centers (BPHCs). As per FS 2003, less than 2 per cent of the BPHCs in the state had adequate staff, 12 per cent had adequate supplies and 4 per cent had adequate equipments.[22] [23] The severe shortage of medicines in public facilities has been highlighted by other studies as well. A household survey on health expenditure in three districts of the state (Purulia, Kochbehar and Hugli) showed that of the total out-of-pocket expenditure incurred by households in public facilities, more than three-fourths were directed towards medicines (IHMR 2002).

The shortage of health infrastructure both in terms of number as well as the infrastructure therein is likely to have been responsible for the high percentage of households accessing private facilities, (primarily Rural Medical Practitioners or RMPs) for outpatient treatment in the rural areas of the state (Kanjilal *et. al.* 2007). RMPs provide treatment as well as drugs and medicines, which serve as an alternative to far-off public health facilities and unavailability of medicines at the government facilities. For inpatient treatment however, hardly any alternative exists in the private sector. With low access to hospital beds in government facilities in the rural areas, access to hospitalization care seem inadequate. [24] This is probably indicated in the fact that the rural areas have significantly lower hospitalization rates

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[21] For infrastructure, the survey set included tap water, regular supply of water, electricity, telephone, toilet, functional vehicle and labour room availability. For staff, the set included medical officers and paramedical staff. For supply of kits and medicines, the set included IUD kits, delivery kits, EOsC kit, mounted lamp, vaccines for measles, IFA large and ORS. For equipments, the set included deep freezer, B.P. instrument, labour room equipment, autoclave, MTP aspirators and labour room table.

[22] 'Adequate' refer to at least 60 per cent availability in the respective category.

[23] The facility survey undertaken by the Ministry of Health and Family Welfare under NRHM (the state-level results of which are awaited) is likely to indicate a more updated picture of the State of infrastructure in public health facilities of the State.

[24] A significant number of in-patients in fact go as far as Christian Medical College, Vellore for affordable healthcare. So much so that one of the trains to Chennai (en route to Vellore) has been derisively named 'Hospital Express'!

than the urban areas of the state. Moreover, although the RMPs provide an easy alternative for outpatient treatment, they often prolong the spell of ailment and aggravate the out-of pocket expenses in the pre-hospitalization period in inpatient cases and lead to hospitalizations in a more complicated stage (Kanjilal *et. al.* 2007). This could partly be responsible for the high rate of emergency admissions in rural hospitals, SD/SG hospitals and district hospitals of the state. The percentage of emergency admissions (out of total admissions) in these hospitals is as high as 43.3, 52.7 and 63.9 respectively (GoWB 2006a). The high rate of emergency admissions in these hospitals is further aggravated by the ineffectiveness of BPHCs for inpatient cases. Bed occupancy rate at BPHCs is as low as 56 per cent in comparison to more than 90 per cent in district, SD/SG hospitals and rural hospitals (GoWB 2006a).

A major deterrent to the reduction of IMR and MMR in the state is also the high incidence of malnourishment, particularly in the form of anemia among women and children. As per NFHS 2005-06, anemia levels among women and the percentage of women below the normal body mass index (BMI) in the age group of 15 to 49 in the state is higher than the level for the country as a whole. Moreover, there has also been an increasing trend in anemia among women in the state between the last two rounds of NFHS survey, although the rate of increase has been lower than the all-India level. In contrast to the trend among women, there has been a significant decline in anemia among children in the age group of 6 to 35 months between the last two rounds of NFHS surveys. The reason behind the contrasting trends in the incidence of anemia among women and children between the last two rounds of NFHS surveys is however not clear. In 2005-06, although the state stands significantly better than the all-India levels in terms of anemia among children (due to the marked improvement between 1998-99 and 2005-06), malnourishment among children in the form of stunting, wasting and underweight continued to remain around the average level or marginally better than the average level for India as a whole.

Problems related to drinking water quality and conditions of sanitation are partially responsible for the high level of morbidity reported due to diseases like diarrhea, jaundice and malaria in the state. As per Census 2001, nearly three-fourths of the rural households in the state did not have toilets. However, there seems to have been a substantial increase in the number of households having toilets since then. The percentage of households having toilets increased from about 27 to more than 80 per cent between 2001 and March 2008. However, there were marked inter-districts variations. Districts like Purulia and Birbhum, which were among the worst in

2001, continue to be so with only 10.5 and 27.9 per cent of households having toilets respectively in March 2006. [25] In terms of access to drinking water, although nearly three-fourths of the households in the state have access to safe drinking water (tap water, hand pumps and tube well 'within and near premises' of households) as per Census 2001, groundwater in 8 districts of the state are contaminated by arsenic. Also, bacteriological and fluoride contamination adversely affect the quality of drinking water in several parts of the state. In 2006-07, 1200 of the 3900 habitations of the state were affected by problems of water quality.[26]

Apart from problems related to the health system, low age at marriage in the state may have implications for maternal and infant mortality rate in the state. As per NFHS 2005-06, the state has one of the highest percentage of women (in the age group of 20 to 24) who were married by the age of 18 as well as percentage of women (in the age group of 15 to 19) who were already mothers or pregnant at the time of the survey. While crude birth rates and fertility rates in the state are close to national level targets, the low age at marriage is likely to adversely affect the infant and maternal mortality rate in the state. A study of the causes of maternal deaths in Purulia district indicated that the bulk of the maternal deaths were among women below 18 years of age (study supported by UNICEF, cited in GoWB 2006).

3. Expenditure Requirements and Public Financing

Public expenditure on health and family welfare in West Bengal is low in comparison to other middle income states of the country like Andhra Pradesh, Karnataka, Tamilnadu and Kerala. In 2007-08, per capita expenditure on Health and Family Welfare in the state was about Rs. 156 (at 1999-00 prices), which constituted about 0.6 per cent of the state's GSDP and 4.5 per cent of the total budgetary expenditure of the state. This is far from the National target of spending 2 to 3 per cent of GDP (at the country level) and 7 to 8 per cent of total expenditure on health and family welfare at the state-level.

A major constraint on increasing spending in the health sector has been the poor fiscal situation in the state, discussed briefly in Chapter I. The poor fiscal situation has led the state to frame an extremely conservative financial plan (FP) for the health sector for the period 2004-05 to 2008-09. The conservative nature of the FP is indicated by the fact that even under the most optimistic scenario of the plan

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[25] *Annual Administrative Report*, Department of Panchayats and Rural Development 2005-06.

[26] *Physical Progress Report*, Accelerated Rural Water Supply Programme 2006-07.

(scenario B) the state would reach the target of 7 per cent of health spending as a proportion of total state expenditure in about 10 years from the starting of the plan period. In the more realistic scenario (scenario A), this would require about 15 years. Also, despite the fact that the number of PHCs and BPHCs in the state do not meet the normative requirements even as per the 1991 Census, the plan does not provide for building of any new PHCs and BPHCs in the plan period, but only intends to expand the number of sub-centres. Even on construction of sub-centres, the state plans to set up only the number of sub-centres required to meet the tenth plan target (in the realistic scenario) and meet the requirements of sub-centres based on norms as per population of 1991 Census (under a more optimistic scenario). On improving the existing infrastructure, the plan limits itself to upgrading only one-third of the PHCs to BPHCs and all BPHCs to rural hospitals. Although the plan has some allocation towards improving secondary and tertiary level hospitals in the form of improving health information systems and medical education, training and research, the additional resource allocation are primarily planned to improve the allocation towards the primary health sector. The allocation towards primary, secondary and tertiary sector is aimed to reach the ratio of 44:26:15 by the end of the plan period (which is closer to the target of 55:35:10 laid out in the National Health Policy 2002) in comparison to the base year allocation of 35:27:17.

Estimates of resource requirement based on the plan suggest that even in a low spending scenario, a capital expenditure of Rs 1178 crore (Rs. 236 crore per year) is required during the plan period. Additionally, a total revenue expenditure of Rs. 2033 crore per annum would be required to meet the plan objectives. [27] This translates to an additional revenue expenditure of 228 crore over the base year projections of revenue expenditure by the end of the plan period (GoWB 2005).[28] Although these estimates did not take into account the additional resources to be provided to the state under the National Rural Health Mission (NRHM), an analysis of the allocations under the Mission flexible pool of the NRHM (which largely includes the additional funding) to West Bengal suggests that the allocation for heads considered under the plan was small relative to the requirement. In 2006-07, the total allocation to the state under the Mission flexible pool of NRHM was Rs. 109 crore of

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[27] In a more optimistic scenario, the corresponding figures for capital and revenue expenditure are Rs. 1259 crore (Rs. 252 crore per year) and Rs. 2295 crore (translating to an additional revenue expenditure of Rs. 490 crore in 2008-09) respectively.

[28] The requirement of resources was estimated for the year 2008-09. However, given the underestimations and the conservativeness of the financial plan, we assume that this requirement would hold for the year 2011-12 as well.

which less than a third was on areas considered for expansion under the plan. It is important to note that although the state has listed out the essential drugs required in SCs, PHCs and BPHCs in its document on essential services package (ESP), due to lack of any estimate of resource requirement to meet the ESP list on drugs, the state planned to increase the budget on drugs gradually at the rate of 5 per cent per annum during the plan period. This is grossly inadequate, as in 2005 Pearson *et al* had shown that to meet the drug requirement in SCs, PHCs and BPHCs as per the ESP in the state, expenditure on drugs need to increase nearly four-fold.[29] Thus, despite the additional funds provided to the state under NRHM, the additional requirement of resources for the health sector in the state remains substantial.

With the high incidence of malnourishment and anemia in the state, substantial additional resources are also required for providing nutritional supplements. Using the financial norms for providing nutritional supplements under ICDS, estimates of the resources required for providing nutritional supplements to all malnourished children in the age group of 0-6 and to pregnant and lactating mothers who are anemic suggest that the state needs to spend about Rs. 768 crore annually. In 2004-05, the state spent about Rs. 80 crore under various nutritional programs to malnourished children and anemic pregnant/ lactating mothers. This indicates that an additional Rs. 688 crore is required to be spent annually to meet the basic nutritional needs.

For water supply, although the major challenge lies in improving the quality of water supply, it is difficult to estimate the additional expenditure required for improving water quality, without technical details. For providing access to safe drinking water to the entire population, an additional Rs. 782 crore for rural areas and Rs. 744 crore for urban areas is required. To provide all rural households with toilets, an additional Rs. 373 crore is required.

Together, if one spreads out capital investment on water supply and sanitation over a period of five years, the additional investment required in 2009-2010 over and above that incurred on 2004-05 (in addition to the planned expenditure in the health sector under the Health Sector Plan) for health and family welfare, nutrition, water supply and sanitation is about Rs. 1555 crore. This constitutes about 0.75 per cent of the state's GSDP in 2004-05. With the state spending about 0.68 per

[29] For details of the assumptions involved, refer Pearson *et al* (2005)

cent of the state's GSDP in 2004-05, this would mean that the state would need to increase its spending to about 1.43 per cent of the state's GSDP by 2012. It is however important to bear in mind that the above estimate of requirement of resources in the health sector is a severe underestimation as the requirement estimated in the health sector plan is extremely conservative in nature.

Table 3.5: Additional Requirement of Resources in Health, Water Supply, Sanitation and Nutrition, 2011-2012

(Rs. Crore)

Heads	Capital expenditure	Revenue Expenditure	Total
Health and family welfare	259	228	=(259+228) =487
Nutrition		688	688
Water Supply	305		=(782+744)/5=305
Sanitation	75		=373/5 =75
Total	511	916	1555

Meeting the additional requirement of expenditure in the state is however a challenge. With the poor fiscal situation in the state, the state is heavily dependent on donor funding and transfers from the centre to meet its requirement of resources in the health sector. Additional investment under the health sector plan has been primarily targeted towards areas where financial support from external sources is available. A major component of expansion in infrastructure under the health sector plan is towards setting up new sub-centers and providing a second ANM in the sub-centers. With bulk of the recurring cost of running sub-centers being borne by the Government of India (GOI), this would imply a low financial burden on the state government. Similarly, bulk of the capital cost in the form of upgradation of equipments and other infrastructure related expenditure is expected to be met through donor funding. In fact, the state has committed to meet only 10 per cent of the additional capital expenditure planned under the health sector plan. It is expected that the remaining 90 per cent will be met through donor funding. It is expected that donors would also meet 30 percent of non-pay revenue expenditure including drugs. In general, under the health sector plan, the state has committed to spend less than a fifth of the additional investment required as per the health sector plan.

4. Government Programs and Policy Interventions

The state has undertaken a number of steps as part of the health sector reforms to improve the effectiveness of the health system. Some of the key areas of intervention have been in improving various services at the hospital level primarily

through public private partnerships, increased monitoring and supervision through decentralization and improving other services like referral transport and supply of equipments and drugs to improve the access to health care in public health facilities. While these interventions can be further improved upon, there are other areas that require attention.

For providing better diagnostic, laboratory, dietary services and improve cleanliness in secondary and tertiary level hospitals, the state has handed over the responsibility of providing these services to private parties in selected facilities (PPPs). Initial assessment suggests that the experience from these PPPs have been positive and the state is in the process of implementing similar contracts at a larger scale. The unit cost of service provision for laboratory services in selected facilities has also been found to be lower in a PPP than in a public health facility (Pearson *et al* 2005). The effectiveness of these partnerships however need to be treated with caution as most of the existing evaluations do not take into consideration the problems of accessing these services by the BPL population in the state. While the contract with private parties clearly indicate the requirement of providing free services to a specified percentage of BPL population, an independent assessment of diagnostic services provided in six rural hospitals through PPPs indicated that the free service clause was not operational in most cases. The assessment also indicated that in areas with large BPL population, the criterion for providing free services to a fixed percentage of BPL population was facing operational difficulties. Also, there are substantial institutional hurdles in accessing free services by BPL population under the design of the scheme. A patient belonging to BPL family would have to be recommended by the hospital superintendent or medical officer in charge of the hospital to be eligible for free services. These issues need to be addressed adequately particularly in areas with large BPL population to ensure that the partnerships do not have adverse implications for the poorer sections of the population in the state.

The state has also tried to address the problem of poor referral services by initiating a referral transport scheme whereby mobile units and ambulances are operated at the level of RHs and BPHCs in each block of the state.[30] These ambulances are however operated in collaboration with private partners through public-private partnerships and the users of these ambulances have to pay a fixed

[30] Under NRHM, ambulance services for 460 PHCs are also being planned.

user charge per kilometer. While departmental assessments have provided a positive feedback on the initial success of the scheme following which the scheme has been expanded to all districts of the state (it was started in eight districts in March 2005), two issues require attention. First, as has been pointed out in a rapid assessment survey of the scheme for ambulance services, the poorest of the poor is finding it difficult to access these services due to the imposition of user charge. While the present scheme with the user charge is better if the alternative is "no ambulance services", the government would have to think of other alternatives in the long run to protect the poorest of the poor from incurring out of pocket expenses to access these services. Secondly, it is important to link up these services with lower level facilities and functionaries like ANMs, ASHAs and link workers to facilitate the usage of these services in rural areas. Wide circulation of information about these services should not only be extended to field level functionaries and facilities, but also to the rural population through different media to allow for usage in case of emergency. In this context, non-availability of basic services like telephones at the PHC level have to be attended to urgently (only 11 per cent of the PHCs in the state had a telephone connection as per Facility Survey 2002-04). Also, as is being contemplated in a number of other Indian states, providing mobile phones to ANMs would be useful for referral purposes. Further, provisioning of vehicles like mopeds to ANMs, as has been tried out in Tamil Nadu, is likely to increase their mobility and improve referral services.

To improve monitoring and supervision of the health facilities, decentralization of powers and functions are being tried out at various levels. At the *panchayat* level, each sub-center has been brought under the purview of a *gram panchayat*, which will be responsible for its supervision and monitoring. Health supervisors have been posted at the *gram panchayat*s and health workers associated with the sub-centers within the jurisdiction of the *panchayat*s have been made accountable to the *gram panchayat*s. Health workers posted at sub-centers can now draw salaries only if *panchayat*s issue 'working certificates'. Also, one sub-center (called the 'headquarter sub-center') has now been placed in the *gram panchayat* and has been made the nodal agency for monitoring and coordinating public health activities along with other agencies working at the village level. At the district level, district health and family welfare societies and at the block level, block health and family welfare societies have been formed by merging all the individual health committees at the district and block levels and these societies have been made responsible for the monitoring and supervision of all health facilities and implementing government programs at the

district and block level respectively. For looking into the functioning of district hospitals, sub-divisional and sub-general hospitals, separate task forces have been constituted. Also, the state has granted more administrative and financial autonomy to the hospitals to allow for better day-to-day functioning of the facilities, which is expected to simplify the procedures for repair and maintenance of equipments and other related issues, increasing their utilization and reducing unit costs. While these efforts are appreciable, it must be borne in mind that limited 'managerial and oversight capacity' at the district level constrain the effectiveness of these policies (Kanjilal *et. al.* 2007). Specifically, absence of an effective resource tracking mechanism at the district level, and lack of managerial capacity of the district health administration raises questions on the effectiveness of these policies (Kanjilal *et. al.* 2007).

The state is also in the process of expanding the number of sub-centers and improving the equipment and other infrastructure in the rest of the health facilities. Upgradation of equipments and other infrastructure is being carried out primarily through funds from donor agencies like DFID, European Commission, GTZ and KFW. Specifically for reducing IMR (more than two-thirds of which are neonatal in nature) neonatal care units are being set up in a number of hospitals. Increasing the number of sub-centers and ANMs has also been a positive step towards expansion of ante-natal and immunization services. Under the Essential Services Package (ESP), a list of essential drugs and equipments for SCs, PHCs and BPHCs have also been prepared and donor funding is being sought for meeting the drug cost. Apart from the general interventions for improving the functioning of the health system, specific steps are being taken up to increase the number of institutional deliveries in the state. Demand side interventions like monetary benefits (in addition to the benefits under *Janani Suraksha Yojana* or JSY) have been introduced for pregnant women belonging to BPL families for delivering at health institutions. For allowing more deliveries at lower level health facilities, the state has planned to convert all rural hospitals into first referral units (FRU)/CEmONC centers and train medical officers in FRUs on anesthesia and emergency obstetric care. Even in BPHCs, medical officers are being trained to handle emergency obstetric care that does not require surgical intervention. Additionally, schemes for hiring anesthetists from the private sector have also been introduced to meet the shortage of anesthetists in the state. Further, in selected districts, private health facilities have been allowed to conduct institutional deliveries under the 'Ayushmati' scheme on a reimbursement basis from the government. However, it should be noted that although the scheme is

intended to reduce the load of deliveries at higher level government hospitals, it will not cater to the need for health institutions for deliveries in remote rural areas.

While many of these reforms are positive steps towards addressing some of the problems inherent in the health system of the state, there are a number of issues that require attention. First, there are problems in targeting resources towards the poor. Anecdotal evidences suggest that people for richer sections often occupy beds which are subsidized for the poor in government hospitals (Kanjilal *et. al.* 2007). This misuse results in loss of revenue for the state as paying beds introduced in many government hospitals often remain vacant (GoWB 2005). This calls for a careful look on the issue of targeting the poor. Secondly, evidence suggests that there are large unexplained variations in budget allocations across various types of hospitals in the state (Pearson *et al* 2005). Budget allocation per bed in district hospitals appear to be lower than sub-general hospitals and are comparable to much smaller hospitals like the sub-divisional hospitals (Pearson *et al* 2005). The authors believe that although part of this variation is possibly due to difference between the actual and sanctioned number of beds, a substantial part of this variation remains unexplained. Similarly, with respect to drugs, budget allocation per patient day in medical college hospitals is about 5 times that in district hospitals (Pearson *et al* 2005). The reason for this also remains unclear. Additionally, there are significant variations in expenditure on drugs per unit of workload between facilities of the same type.[31] An attempt to understand the basis for such differences in allocation may improve the understanding between expenditure and outputs and may be helpful in improving efficiency (Pearson *et al* 2005). Thirdly, bed utilization rates at BPHCs are lower than higher level hospitals, indicating a high unit cost of service provision. While improving the infrastructure at BPHCs may improve the utilization rates to some extent, the reason for this needs to be explored in details and the problems addressed.

5. Distribution of the Benefits of Public Spending

The performance of public expenditure can be analyzed in terms of the distribution of the benefits of public spending across income classes. In this context, an approach that has been widely used for analysis is that of 'Benefit Incidence Analysis' (BIA). BIA combines information on the unit costs of providing public

[31] In general, drugs supplied in government health facilities are reported to be affordable in terms of pricing; but poor availability in such facilities is a reason for concern (Tripathi, Dey and Hazra, 2006). This also hits the poor most, since drug availability in the market is quite good, but at substantially higher prices. The poor drug availability in government health facilities is probably a result of both inadequate funding and misuse.

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 West Bengal 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 income 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 higher that 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 the net public spending.

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 income 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. 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.

Table 3.6: Distribution of Benefits of Public Spending for Healthcare

Quartiles	Inpatients	Out-patients	Ante-natal care	Post-natal care	Immunizations	Child birth	Total
			Rural				
lowest 25	24.6	20.8	27.8	32.9	31.8	22.5	22
25 to 50	25.0	22.9	22.9	33.6	24.8	28.6	24
50 to 75	25.6	26.6	24.5	20.6	27.9	28.9	26
highest 25	24.7	29.6	24.8	12.9	15.5	20.0	27
			Urban				
lowest 25	30	32	22	25	33	29	31
25 to 50	28	19	50	47	40	44	21
50 to 75	25	21	21	17	20	20	22
highest 25	17	29	7	11	7	6	26

The analysis suggests that while in the rural areas of the state, the benefits of public spending received by the richer half of the population is marginally higher than the poorer half (Table 3.6). In the urban areas, the distribution of benefits is tilted towards the poor. In the urban areas, for almost all services, the poorer half of the population receives a relatively higher share of the benefits of public spending than the richer half. In the rural areas also, for preventive services like, immunization, ante-natal care and post-natal care, the benefits of public spending accrue more to

the poorer half of the population. The overall pattern in the rural areas is driven by the case of outpatient care, where a higher share of the benefits is availed by the richer half. The distribution is however equal for inpatient cases, which points towards the lack of alternative sources for inpatient treatment in the rural areas.

6. Summary

The state of West Bengal has been doing relatively well in terms of basic health indicators like IMR and MMR and is likely to meet most of the national and state-level targets. Keeping this in view, the state has been placed among the low focus states under the National Rural Health Mission. While the state appears to be performing well in terms of basic health indicators, access to curative services in the state remain extremely poor. In the rural areas, bulk of the population access informal sources for outpatient treatment and have limited access for inpatient care (worse than the country as a whole). This primarily results from the fact that access to public health facilities is markedly poor[32] and the infrastructure in existing facilities is comparable to the worst in the country.

The poor fiscal situation in the state has adversely affected the interventions required to improve the functioning of the health system. Per capita budgetary expenditure on medical and public health has dropped from Rs. 162 in 2000-01 to Rs. 137 in 2007-08 in constant prices. The fiscal situation has also forced the state to draw up an extremely conservative plan for additional investment in the health sector and even with the conservative plan, the state has committed to less than a fifth of the total additional investment required as per the plan. The state depends heavily on donor funding for additional investment in the health sector and has resorted to the private sector for improvement of services through public private partnerships in many areas. In many of these public private partnerships, the burden of health expenditure has actually been passed on to the people (in the case of ambulance services, dietary charges, etc.). There are also indications that in certain cases, attempts to improve health services through public private partnerships have actually been unfavorable for the poor due to imposition of user charges and limited access to BPL population. In general, the poor fiscal situation has forced the state to take up interventions that do not impose additional burden on the state exchequer.

[32] Assessments characterizing the public health facilities as poor are to be found from various sources ranging from popular writing to serious research. See, for example, Maiti (2006), Biswas *et al* (2004), and Biswas *et al* (2005).

With the strain on the state's exchequer, the state has brought about a number of institutional changes for improving the performance of the health sector. There has been an increased stress on decentralization to improve the monitoring and supervision of the health facilities. Also, a number of administrative reforms like more financial autonomy to heads of secondary and tertiary level hospitals to reduce bureaucratic hurdles that adversely affect the functioning of health facilities and rational transfer policy to ensure more health personnel in the rural areas have been introduced. Further reforms like health insurance for landless laborers and voucher scheme for safe deliveries are being contemplated. With these institutional changes, the state can hope to bring about some improvement in the effectiveness of public expenditure and improve outcomes, even in a constrained fiscal situation.

IV Poverty and Decentralization

1. Poverty in West Bengal: Trends and Issues

West Bengal has so far been able to tackle poverty successfully: as per official estimates overall poverty (headcount ratio) declined from about 55 to about 36 per cent between 1983-84 and 1993-94 and further declined to about 25 per cent in 2004-05 (on a comparable basis).[33] From a situation of higher than average (for India) level of poverty in 1983-84, it equaled the national average in 1993-94, and is below the same in 2004-05. This is a creditable performance by any criterion, and is particularly remarkable because of the success in bringing down the initially high level of rural poverty.

The Human Development Report of the state identifies two major factors contributing to the significant reduction in poverty – land reforms and decentralization. The impact of land reforms has been analyzed by many other scholars and there is general agreement[34] that the two main aspects of land reforms in West Bengal, namely formal registration and regulation of the rights of sharecroppers or *Bargadars* and distribution of surplus land obtained through the operation of land ceilings have had a strong impact through several channels.[35] They improved land productivity through additional capital investment by the tenant-cultivators who were assured of cultivation rights and had access to finance that was not available to them earlier. This, along with partly induced and partly coincident technological improvements increased agricultural productivity in general, increasing rural incomes, particularly those of the poor tenant-cultivators. The increase in incomes, combined with better social status also induced changes in acquisition of human capital by the poor. However, the potential benefits of this course of action seem to be gradually falling of late, as it must by its very nature. On decentralization, similarly, several tributes have been paid to the initiatives taken by the government. More on this aspect later in this chapter.

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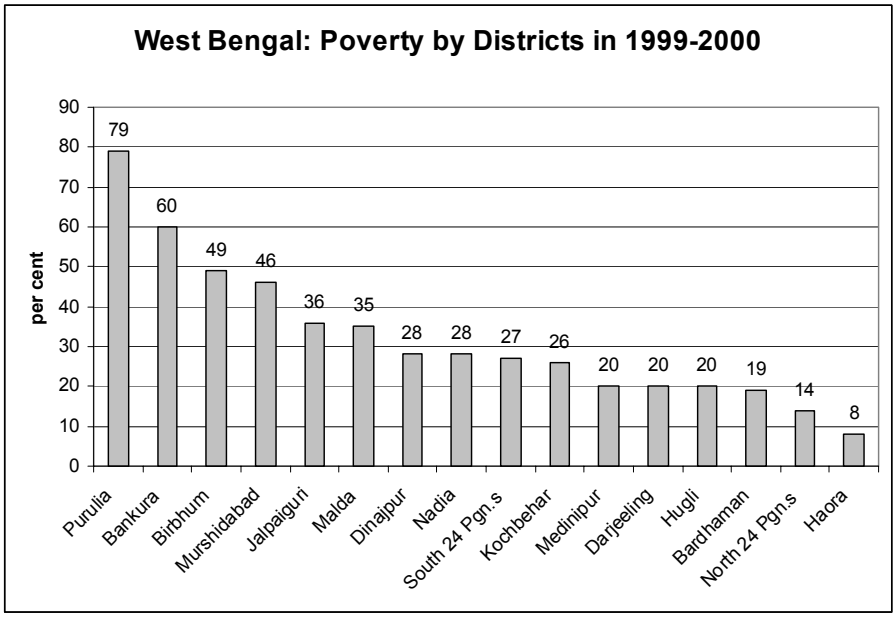
[33] We are ignoring the 1999-2000 estimates here because of the well-known comparability problems. For 2004-05, from among the alternative estimates, we cite the one comparable to earlier estimates. For the record, on a comparable basis, the reduction in poverty between 1999-2000 and 2004-05 is from 27 to below 21 per cent, i.e., a reduction of more than 6 percentage points.

[34] See, for example, Hanstad and Brown (2002), Raychaudhury (2004) and Rogaly *et al* (1999).

[35] One negative aspect of this process, a gender bias, has also been noted by analysts.

Notwithstanding the successes, the challenges that remain are still substantial. There are still pockets of rural poverty that are high by any standard. Poverty levels vary substantially across the state and between different social groups. Rural poverty rates, for example are higher than 40 per cent in four districts – Purulia, Murshidabad, Birbhum and Bankura (see Figure 4.1), while there are still pockets of high poverty in Uttar Dinajpur and West Medinipur. There is a substantial rural-urban divide in poverty; rural poverty is double that of urban poverty. Agricultural labor as a group has not had as much benefit of poverty reduction as the *bargadars*, as the land reforms have more or less bypassed them. Their benefits have been mostly through better job availability and limited increase in real wages, but these sources are also drying up now. Land alienation of the beneficiaries of the land reform process, coupled with increase in the number of agricultural labor is another related reason for concern. In fact, in a macroeconomic sense employment generation, particularly in rural areas, has become a major challenge for the policymakers (Chandrasekhar and Ghosh, 2003). Poverty among scheduled tribes is still much higher than in any other social group (half of them were below the poverty line in 2000) and this is reflected in the spatial distribution of poverty, suggesting limitations imposed by natural resource endowments interacting with social and institutional factors. Breaking this nexus is another major challenge for the policymakers in West Bengal.

Figure 4.1



Source: GoWB (2004)

2. Poverty Alleviation Schemes in West Bengal

Poverty alleviation schemes in the state are of two types, those that are centrally sponsored and those that are state's own schemes. The centrally sponsored schemes are much larger in terms of moneys spent as also presumed beneficiaries. These are cost-shared programs with the GoI share usually much larger than the state's share. The schemes can be broadly categorized into employment generation schemes, rural community asset creation schemes and self-employment schemes. Examples of the first type are Sampoorna Grameen Rozgar Yojana (SGRY) and now National Rural Employment Guarantee Scheme under the special Act (NREGA) promoting the scheme. The second type of schemes is exemplified by Bharat Nirman, Pradhan Mantri Gram Sadak Yojana (PMGSY) and some other schemes of wasteland and watershed development. The major scheme of the third type is Swarnajayanti Gram Swarozgar Yojana (SGSY). Most of these are by design implemented through the three-tier *panchayati raj* institutions. This is administratively facilitated in the state by combining rural development and *panchayati raj* within one department. We outline below some of the major schemes for rural development or rural poverty alleviation.

2.1 Swarna Jayanti Gram Swarojgar Yojana (SGSY)

Swarna Jayanti Gram Swarojgar Yojana (SGSY) has been in operation since 1999. This program emphasizes self-employment through organization of the poor into Self Help Groups (SHG) and providing them training, credit, technology, infrastructure and marketing opportunities. GoI and the concerned state government share the costs in the ratio 75:25. The *modus operandi* of the scheme is to help the poor to discover a sustainable income stream collectively (individual participation is not precluded) and help them to acquire income generating assets through a mix of bank credit and government subsidy. Administration of this scheme is primarily through the District Rural Development Cells (DRDCs) of the Zilla Parishad and its equivalents. A total of 16678 SHGs have been formed by programs of different departments of this Government during 2005-06. The total number of groups formed since inception has been 166574. Table 4.1 provides the physical and financial achievements of the program for the latest four years for which data are available. It may be noticed that the number of beneficiaries shows a substantial drop in 2005-06, although expenditures have remained the same as in the previous year.

Table 4.1: Physical and Financial performance Under SGSY in West Bengal

Financial (Rs. crore)					No. of *Swarozgari*s Assisted				
Year	Total Allocation	Total Expenditure	No. of Groups formed	No. of Groups assisted	No. of members of SHG	Individual *Swarozgari*s	Total *Swarozgari*s assisted	No. of SHGs having Cash Credit A/c	Amount withdrawn from CC A/c (Rs. crore)
2002-03	52.00	53.55	21,528	462	4,546	24,202	28,748	13,785	28.28
2003-04	71.84	53.11	20.233	1177	12,423	14,775	27,198	21,490	45.00
2004-05	89.93	73.18	34,958	1861	20,150	8,130	28,280	32,001	62.12
2005-06	90.00	75.25	35,953	1514	16,407	2.422	18,829	72,038	139.70

Source: Department of Rural Development, Government of West Bengal

The major problem with the functioning of the scheme has been found to be low absorption capacity of the SHGs stemming from an inability to identify economically viable activities within their competence, despite training provided by the government and other organizational help provided by the *panchayat*s. This is clearly seen from just one pair of statistics: out of a cumulative number of more than 77,000 SHGs having access to cash-credit accounts as at the end of 2005-06, only about 5,600 had actually taken up economic activities with scheme-based lending. The constraint could be on the supply side (banks) too, but one suspects the main problem to be on the demand side. Clearly, this needs further examination.

2.2 Sampoorna Gramin Rojgar Yojana (SGRY)

SGRY was launched in the state in 2001 as the largest wage based employment generation program, succeeding previous employment generation programs sponsored by the GoI, and funded to the extent of 75 per cent of the total expenditure. This program was implemented through the *panchayati raj* system, with all three tiers getting a share. The largest share (half) was for the *gram panchayat*s. In financial terms, this is often the biggest activity of the *Gram Panchayat*s of the state. It combined wage payments with payment in kind (foodgrains), so that there is some nutritional impact also. Table 4.2 provides some data on the physical and financial progress of the scheme in the state until 2007-08. Out of the 308.74 lakh man-days of work created during 2006-07, 132.74 lakh man-days (43 per cent) were created for persons in the SC category, 64.82 lakh man-days (21 per cent) for those in the ST category, and 67.9 lakh man-days (22 per cent) were created for women. These three constitute focus groups under the provisions of the program. Notably, with the onset of NREGA, there has been a decline in allocation and man-days generated as is reflected in the figures of 2007-08.

Table 4.2: Physical and Financial Performance under SGRY

Year	Financial (Rs. crore)		Physical Achievement (Lakh man-days)	Foodgrains (M.T.)		
	Total Allocation	Total Expenditure		Allocation	Lifting	Utilization
1	2	3	4	5	6	7
2002-03	316.33	302.22	416.02	2,74,046	2,45,102	2,33,123
2003-04	367.02	317.29	446.17	2,96,9570	2,98,285	2,66,687
2004-05	393.66	379.55	484.61	3,28,394	2,53,270	2,65,443
2005-06	471.63	377.79	539.74	3,28,432	3,41,128	3,30,452
2006-07	408.29	320.59	308.74	1,14,771	1,02,025	1,55,142
2007-08	105.73	68.17	73.80	62,892	10,179	44,917

Source: Department of Rural Development, Government of West Bengal

Another scheme of similar nature (National Food for Work Program) was also being implemented in six poorer districts the state. After the introduction and then subsequent extension of NREGA, both SGRY and the food-for-work program are now subsumed under it.

2.3 National Rural Employment Guarantee Act (NREGA)

NREGA provides a job guarantee of at least 100 days in a year to anyone in the rural areas that demands work; government failure to provide work entitles one to an unemployment allowance. Thus, it is a demand driven program rather than a target-oriented one where employment opportunities are created for rural laborers for at least 100 days a year. The physical and financial performance Under NREGA in West Bengal is given in Tables 4.3 and 4.4.

Nearly 4.4 crore man-days were generated in ten districts[36] spending Rs. 396.18 crore in 2006-07, utilization level being around 63 per cent. Nearly 10 percent of the funds released in 2006-07 were contributed by the state. The state has to bear 25 per cent of the expenditure on semi-skilled and skilled wages, material and contingency, apart from any unemployment allowance payable. Of the 4.4 crore man-days of employment generated, 36 per cent were from the SC category, and 19 per cent from ST. Except in Purulia, the share of SC beneficiaries was larger than that of the ST in all other districts. In keeping with the population groupings in Purulia, the share of STs (34 per cent) was a little higher than that of the SCs (32 per cent).

[36] Initially, NREGA was introduced in selected districts across the country, identified as relatively backward ones with higher levels of poverty. Since then, it has been decided to scale up the program to the entire country.

Table 4.3: Physical Performance under NREGA in West Bengal

(in lakh)

District	Man-days Generated in 2007-08			Days Worked by Women in Total	Man-days Generated in 2008-09			Days Worked by Women in Total
	SC	ST	Total		SC	ST	Total	
24 PARGANAS (SOUTH)	17.73	1.40	47.06	8.94	10.60	0.77	24.29	2.37
BANKURA	44.03	13.34	96.83	18.36	32.12	11.47	57.99	20.63
BIRBHUM	45.37	15.00	115.38	11.10	31.07	7.94	70.14	17.33
DINAJPUR DAKSHIN	6.39	4.88	18.52	3.06	4.69	3.24	17.31	4.58
DINAJPUR UTTAR	8.03	1.27	25.06	4.97	6.21	1.23	13.71	5.03
JALPAIGURI	34.83	23.28	80.38	22.81	24.23	17.50	56.28	22.62
MALDAH	5.71	2.89	23.74	4.77	4.89	1.93	16.04	3.28
MURSHIDABAD	7.56	1.69	51.70	1.78	5.64	1.84	38.39	4.07
PASCHIM MEDINIPUR	21.27	18.66	76.10	13.47	25.90	20.57	86.69	22.12
PURULIA	14.24	14.69	49.64	14.84	10.36	11.68	37.79	14.00
24 PARGANAS (NORTH)	11.53	3.09	35.91	1.55	16.82	4.05	68.99	3.95
BARDHAMAN	52.09	13.81	99.09	16.76	66.08	24.20	138.13	48.13
KOCHBEHAR	29.59	6.25	60.33	14.09	16.88	1.16	34.84	7.23
DARJEELING	3.08	5.03	14.79	5.91	4.46	4.16	15.87	6.64
HOOGHLY	27.48	5.70	51.85	8.74	15.33	3.13	29.57	7.81
NADIA	14.18	2.37	76.76	3.65	9.55	1.30	35.04	4.90
PURBA MEDINIPUR	8.32	0.35	45.65	9.83	8.47	0.38	42.39	13.71
DGHC*	0.00	0.00	0.00	0.00	NR	NR	NR	NR
HOWRAH	0.00	0.00	0.00	0.00	1.25	0.00	3.16	0.27
Total	351.44	133.71	968.80	164.63	294.55	116.53	786.61	208.66

* Darjeeling Gorkha Hill Council NR: Not reported

2007-08 was the first year of operation of NREGA in all the districts of the state. In 2007-08, the utilisation of funds was relatively higher in the ten districts (24 Parganas South, Bankura, Birbhum, North and South Dinajpur, Jalpaiguri, Maldah, Murshidabad, Paschim Medinipur and Purulia) where the scheme was also operational in 2006-07 (83.83 percent), but relatively lower in the districts where the scheme was introduced in 2007-08 (64.57 per cent). The share of state government releases was nearly the same in 2007-08 as in 2006-07. In 2007-08 total expenditure on the scheme was around Rs. 1004.34 crore and total employment generated around 9.69 crore man-days. The composition of employment among SCs and STs was the same as that in 2006-07. In 2008-09 however, there has been a decline in the total expenditure, total employment generation and utilisation of funds under the scheme (Table 4.3 and Table 4.4). A notable feature of the reported data relate to Bardhaman (Burdwan) district, which spent the largest (or close) amounts, had fairly high utilization and generated the highest number of man-days; it also happens to be one of the better-off districts. Of course, size of population could partly explain this.

Table 4.4: Financial Performance under NREGA in West Bengal

(Rs. lakh)

	Releases during the year		Total Available Funds	Cumulative Expenditure				% of Utilization
	Centre	State		Unskilled wages	Semi Skilled Wages	Contin-gency and material	Total	
2007-08								
24 PARGANAS SOUTH	5752.46	639.16	6810.64	3241.52	150.61	778.38	4170.51	61.24
BANKURA	5587.00	620.78	11884.28	6822.56	381.08	2805.78	10009.42	84.22
BIRBHUM	8826.29	1980.70	13626.73	7966.66	221.04	2888.19	11075.89	81.28
DINAJPUR DAKSHIN	0	222.22	2328.94	1342.15	32.03	319.37	1693.55	72.72
DINAJPUR UTTAR	1816.00	90.67	4077.97	1845.14	26.05	652.41	2523.60	61.88
JALPAIGURI	5112.00	1218.00	8415.23	6066.83	234.32	1991.30	8292.45	98.54
MALDAH	2000.46	111.16	3283.06	5823.72	102.01	368.69	6294.42	191.72
MURSHIDABAD	5194.99	1149.26	8143.98	3608.96	105.29	1751.28	5465.53	67.11
PASCHIM MEDINIPUR	4639.00	1015.44	9759.84	5763.82	154.14	2556.19	8474.15	86.83
PURULIA	1000.00	111.11	6720.26	3728.94	137.73	1052.22	4918.89	73.19
Total Phase I	**39928.20**	**7158.50**	**75050.93**	**46210.30**	**1544.30**	**15163.81**	**62918.41**	**83.83**
24 PARGANAS (NORTH)	6770.64	796.74	8317.92	2835.33	84.75	677.26	3597.34	43.25
BURDWAN	9339.96	860.00	10601.33	7916.42	239.87	1855.69	10011.98	94.44
COOCHBEHAR	4752.97	1917.00	7138.41	4575.00	270.57	905.15	5750.72	80.56
DARJEELING	1537.27	215.25	2618.36	1099.54	141.95	263.79	1505.28	57.49
HOOGHLY	5595.97	666.22	6771.68	4335.76	131.04	742.27	5209.07	76.92
NADIA	6196.83	732.98	7416.07	5823.72	102.01	368.69	6294.42	84.88
PURBA MEDINIPUR	14014.04	801.56	15233.85	3753.59	89.30	1304.51	5147.40	33.79
Total Phase II	**48207.68**	**5989.75**	**58097.62**	**30339.36**	**1059.49**	**6117.36**	**37516.21**	**64.57**
Grand Total	***88135.88***	***13148.25***	***133148.55***	***76549.66***	***2603.79***	***21281.17***	***100434.62***	***75.43***
2008-09								
24 PARGANAS SOUTH	1240.92	0	3979.55	2020.12	64.46	861.00	2945.58	74.02
BANKURA	6674.25	778.80	9438.55	4863.50	298.99	2902.91	8065.40	85.45
BIRBHUM	9777.93	253.10	13189.10	5414.32	164.92	2965.96	8545.19	64.79
DINAJPUR DAKSHIN	707.96	0	1769.57	1395.14	66.43	186.43	1648.00	93.13
DINAJPUR UTTAR	500.70	0	3110.44	1069.21	40.51	547.09	1656.81	53.27
JALPAIGURI	10955.60	161.74	12672.90	4585.49	200.14	2391.78	7177.40	56.64
MALDAH	5729.39	636.60	7174.46	1589.15	34.35	722.21	2345.71	32.70
MURSHIDABAD	6459.50	328.82	9367.66	2924.43	82.37	2153.58	5160.38	55.09
PASCHIM MEDINIPUR	10123.00	569.21	12384.40	6962.36	271.99	3366.35	10600.70	85.60
PURULIA	3754.59	194.95	5927.47	3138.04	114.26	1035.18	4287.48	72.33
Total Phase I	**55923.84**	**2923.22**	**79014.10**	**33961.76**	**1338.41**	**17132.47**	**52432.65**	**66.36**
24 PARGANAS (NORTH)	2291.00	2511.11	8622.96	4651.44	146.45	1518.33	6316.22	73.25
BURDWAN	10779.50	919.94	14790.40	10521.30	363.37	3927.63	14812.30	100.15
COOCHBEHAR	4407.44	100.83	5921.35	2819.46	121.61	3078.62	6019.69	101.66
DARJEELING	900.00	100.00	3019.84	1199.93	185.22	577.24	1962.39	64.98
HOOGHLY	3383.42	375.93	5211.93	2249.80	100.53	1006.95	3357.28	64.42
NADIA	3000.00	3.33	4215.57	2471.39	134.81	892.80	3499.00	83.00
PURBA MEDINIPUR	4895.05	0	5910.84	3388.15	101.78	1598.03	5087.96	86.08
Total Phase II	**29656.41**	**4011.14**	**47692.89**	**27301.47**	**1153.77**	**12599.60**	**41054.84**	**86.08**
DGHC *	N. R.	N. R.	N. R.	N. R.	N. R.	N. R.	N. R.	N. R.
HOWRAH	959.13	28.90	1212.13	259.23	11.17	280.53	550.94	45.45
Total Phase III	**959.13**	**28.90**	**1212.13**	**259.23**	**11.17**	**280.53**	**550.94**	**45.45**
Grand Total	***86539.38***	***6963.26***	***127919.12***	***61522.461***	***2503.36***	***30012.60***	***94038.43***	***73.51***

* Darjeeling Gorkha Hill Council N. R.: Not reported

It should be noted here that the demand-driven nature of the program creates new challenges for the state governments implementing it. First, for an administration that has become used to predetermined targets and corresponding allocations, it introduces some amount of uncertainty. Judging performance becomes a tricky problem, since it becomes necessary to be able to distinguish between lack of demand for jobs and lack of proper implementation. In fact, for the program to be

successful and properly implemented it will be necessary to do so in order that low levels of utilization are correctly responded to; for low demand areas, allocations have to be adjusted while poor implementation should obviously be responded to with improvements. There are clear dangers of not being able to do this correctly – if implementing agencies are pushed hard to raise utilization levels in low demand areas, in all likelihood it would result in leakages. The figures for 2008-09 make these general observations relevant; the poorer districts included in the program in 2006-07 show a significant fall in performance during 2008-09; in comparison, the phase II districts have significantly higher utilization. The paradox of relatively better-off districts exhibiting better performance than the 'original ten' in the case of a poverty alleviation program like NREGA needs to be resolved and attended to. Also, the focus areas of asset creation should be carefully considered to avoid duplication (with other programs running concurrently), creating a durable and useful community asset at the same time.

3. Pro-poor Public Expenditures

Unless government action is oriented broadly towards the poor, isolated poverty alleviation schemes can never be a sustainable solution to the problem of poverty. One broad indicator of the broad strategic choice to deal with poverty is the extent of budget allocation to direct pro-poor programs and to programs designed to promote growth, which is expected to benefit everyone including the poor. It is recognized that no government can afford to rely on one strategy exclusively, but it is expected that the relative emphasis will vary according to the incidence and nature of poverty in a state. Given the relatively low level of poverty in West Bengal, the *a priori* expectation would be that of a strategy more oriented towards growth than direct pro-poor expenditures; in recent years, this has been the official policy also. To empirically examine this preference, it is first necessary to classify government expenditure between (i) purely administrative expenditures (including identifiable administrative expenditures in all major heads) and (ii) other expenditures (presumed to confer some benefit on the citizens), and within the second category, between (a) those intended to benefit the poor more directly (pro-poor) and those intended to promote growth of the economy and benefit the poor more indirectly (growth oriented). In this section, we classify all government expenditure into one of these categories at the minor (sub-minor in some cases) head level. The classification is purely on the basis of informed judgment and not any objective criteria or a full-fledged incidence analysis, which implies that it is based on intent and not actual outcome. Essentially, classification by intent is fairly non-controversial in some cases

like NREGA (obviously pro-poor) or capital expenditures for industrial infrastructure (clearly growth-oriented). But there is a large array of public expenditures that do not fall so obviously into one or the other category. These are the cases where subjective judgment, and *a priori* information in the case of particular schemes, is used for the classification by intent.[37]

Table 4.5: Classification of Government Expenditure in West Bengal

Description	Amount (Rs. Lakh)			Shares in Respective Totals		
	2003-04	2004-05	2005-06	2003-04	2004-05	2005-06
A. Revenue Expenditure	2525987	2745412	3054620	100.00	100.00	100.00
1. Pro-poor Programs	401840	473269	575869	15.91	17.24	18.85
2. Growth Oriented Programs	603221	622287	761012	23.88	22.67	24.91
3. Administrative Services	1520927	1649856	1717740	60.21	60.10	56.23
B. Capital Outlay	78621	194825	165272	100.00	100.00	100.00
1. Pro-poor Programs	11363	15886	24456	14.45	8.15	14.80
2. Growth Oriented Programs	65703	176490	138030	83.57	90.59	83.52
3. Administrative Services	1556	2449	2785	1.98	1.26	1.69
C. Loans and Advances	296530	59076	55726	100.00	100.00	100.00
1. Pro-poor Programs	1343	1284	1291	0.45	2.17	2.32
2. Growth Oriented Programs	295187	57792	54435	99.55	97.83	97.68
3. Administrative Services	0	0	0	0.00	0.00	0.00
D. Total Expenditure	2901138	2999313	3275619	100.00	100.00	100.00
1. Pro-poor Programs	414545	490439	601617	14.29	16.35	18.37
2. Growth Oriented Programs	964110	856569	953477	33.23	28.56	29.11
3. Administrative Services	1522482	1652305	1720525	52.48	55.09	52.53

Table 4.5 provides the summary of the classification exercise. The table shows that overall public expenditure on the poor in West Bengal has increased from 14.29 to 18.37 between 2003-04 and 2005-06. This increase is essentially attributable to the four percentage point increase in pro-poor spending under revenue expenditures. Although the percentage increase in lending particularly in tribal sub-plan and special component plan is substantially higher, the amounts are small and hence do not impact on trends in total expenditure very much. Capital expenditures are, as is generally observed, highly tilted in favor of the growth oriented category. However, what is noticeable is that more than half of the government expenditures are neither pro-poor nor growth-oriented; administrative costs, including interest

[37] For a more detailed study on which the methodology for this section is based, see Sen and Chand (2004).

payments, account for this large part. The high interest payments – almost a third of the total expenditures – are clearly crowding out both pro-poor and growth-oriented expenditures. Among the last mentioned two, budget allocations are relatively higher for growth-oriented programs, which bears out our expectations regarding the spending pattern. But in the three-year period examined, the share of pro-poor expenditures increased mainly at the cost of growth oriented ones.

In real terms, there has been an increase of about 16 per cent in the pro-poor expenditures during the three years examined, but that is not entirely ascribable to the increase in total expenditures. As percentage of GSDP, total state expenditure has declined from 15.34 to 13.88 between 2003-04 and 2005-06, whereas pro-poor expenditures have increased from 2.19 to 2.55 per cent. Growth-oriented expenditures have declined from 5.10 to 4.03 per cent and administrative services (including interest payments) managed to hold their share.

Table 4.6: Government Expenditure on Social Services in West Bengal

Description	Amount (Rs. Lakh)			Shares in Respective Totals		
	2003-04	2004-05	2005-06	2003-04	2004-05	2005-06
A. Revenue Expenditure	796866	855175	968026	100.00	100.00	100.00
1. Pro-poor Programs	297895	351988	408341	37.38	41.16	42.18
2. Growth Oriented Programs	468480	472519	521624	58.79	55.25	53.89
3. Administrative Services	30491	30669	33513	3.83	3.59	3.46
B. Capital Outlay	13999	14971	31594	100.00	100.00	100.00
1. Pro-poor Programs	3218	6183	7925	22.99	41.30	25.08
2. Growth Oriented Programs	10774	8784	23669	76.96	58.67	74.92
3. Administrative Services	6	5	0	0.04	0.03	0.00
C. Loans and Advances	624	1957	2693	100.00	100.00	100.00
1. Pro-poor Programs	2	180	0	0.34	9.20	0.00
2 Growth Oriented Programs	622	1777	2693	99.66	90.80	100.00
3. Administrative Services	0	0	0	0.00	0.00	0.00
D. Total Expenditure	811488	872103	1002312	100.00	100.00	100.00
1. Pro-poor Programs	301115	358351	416266	37.11	41.09	41.53
2. Growth Oriented Programs	479875	483080	547985	59.14	55.39	54.67
3. Administrative Services	30497	30673	33513	3.76	3.52	3.34

Since much of the pro-poor programs are in the area of social services, it would be of interest to see the extent of such expenditures within public expenditures on social services. Table 4.6 provides the classification for the state's budgetary

expenditures on the social services. Surprisingly, even in this type of public expenditures, growth oriented programs account for a larger (but declining) share than pro-poor programs. An important fact to be noticed in this table is the low share of administrative expenditures.

Considering broad functional groups of services, it is expected that social services would have more of the pro-poor expenditures, given that it includes some of the categories of expenditures that are explicitly targeted towards the poor (like social welfare and welfare of the backward classes). But the exercise does not reveal any marked domination of the pro-poor expenditures in this broad group, although the increase in its share in 2004-05 and 2005-06 indicates a strong commitment to pro-poor programs even when overall expenditures are declining. One major possible reason for the pro-poor expenditures not dominating this functional group could be the fact that rural development, under which most of the rural poverty alleviation programs are accounted, is a part of the economic services, not social services.

Table 4.7: Government Expenditure on Economic Services in West Bengal

Description	Amount (Rs. Lakh)			Shares in Respective Totals		
	2003-04	2004-05	2005-06	2003-04	2004-05	2005-06
A. Revenue Expenditure	287159	319209	456369	100.00	100.00	100.00
1. Pro-poor Programs	103945	121281	167528	36.20	37.99	36.71
2. Growth Oriented Programs	134741	149769	239388	46.92	46.92	52.46
3. Administrative Services	48473	48160	49452	16.88	15.09	10.84
B. Capital Outlay	63073	177409	130893	100.00	100.00	100.00
1. Pro-poor Programs	8144	9704	16531	12.91	5.47	12.63
2. Growth Oriented Programs	54929	167706	114362	87.09	94.53	87.37
3. Administrative Services	0	0	0	0.00	0.00	0.00
C. Loans and Advances	295906	57119	53034	100.00	100.00	100.00
1. Pro-poor Programs	1341	1104	1291	0.45	1.93	2.44
2. Growth Oriented Programs	294565	56016	51742	99.55	98.07	97.56
3. Administrative Services	0	0	0	0.00	0.00	0.00
D. Total Expenditure	646138	553738	640295	100.00	100.00	100.00
1. Pro-poor Programs	113430	132088	185351	17.56	23.85	28.95
2. Growth Oriented Programs	484235	373490	405492	74.94	67.45	63.33
3. Administrative Services	48473	48160	49452	7.50	8.70	7.72

In economic services, where most of the expenditures barring those on rural development and food subsidies are more growth oriented, the share of pro-poor

expenditures is comparatively smaller than that of growth oriented expenditures as expected, at a little over a quarter of the total (Table 4.7) on an average. This is perhaps larger than expected in this broad group of public spending; also, the share in total expenditures shows a striking rise in the three years analyzed. It may be of interest to note that the dominance of the growth oriented expenditures is seen in all the components (revenue, capital and loans), but is much less in the revenue expenditures. This is not unexpected since the capital expenditures and loans are primarily for investment in physical infrastructure, which are not overtly pro-poor.

In sum, the balance of strategies appears to be still favoring growth a little as compared to more direct pro-poor expenditures, but the balance seems to be changing in favor of pro-poor expenditures during the three year reference period. No profound observations can be made on the long-term shift in strategy on the basis of the above exercise because of (a) the non-rigorous methodology adopted for this analysis and (b) the short reference period of three years only. Changes noted for a three-year period cannot reveal a long-term trend; the current phase could easily be reflecting exogenous factors. It should also be noted that this analysis is only a descriptive one with little normative content, mainly because of complementarities between the two types of expenditures. Research often indicates a greater pro-poor impact of growth-oriented public spending than direct expenditure for the poor in developing countries, not through the 'trickle-down' mechanism but in a more direct manner (see Fan, Hazell and Thorat, 2000).

4. Food: the Most Basic Necessity of the Poor

In this section, we briefly deal with the issue of food availability, a primary concern of the poor. Indeed, the official measurement of poverty itself is based on this aspect. In West Bengal, this aspect has gained some significance first because of reported isolated instances of starvation deaths in places like Amlasole[38] as also because of the recent public unrest about the public distribution system. Even in a situation of overall success in reducing poverty, there can be instances of uneven performance depending on the complementarities between several factors, as Bardhan and Mookherjee (2007) argue.

The main policy intervention of the government to make available food to the large mass of the poor is through the public distribution system (PDS). A recent

[38] See for example, reports in The Telegraph, September 13, 2006, The Telegraph, August 25, 2006, IANS, August 23, 2006, AHRC (2006) and Bandyopadhyay (2007).

report of the NSS[39] points out serious problems with the functioning of PDS in the state. It reported that an average rural BPL or Antyodaya card-holding household in West Bengal consumed about 58 kg. of rice per month, out of which only 3.4 kg. were obtained from PDS. Even in the lowest expenditure classes, the PDS availability of rice does not change much; only the total consumption falls. Only about 19 per cent of all the rural households in the lowest expenditure category reported consumption of rice obtained through PDS. In urban areas, the availability was lower and so was the total consumption; the percentage of the lowest expenditure class getting rice from PDS was only about 15 per cent. The consumption of wheat/atta was irrelevant in rural areas because of the small consumption reported, clearly indicating the overwhelming preference for rice. In urban areas, the amount of wheat consumed by the lower expenditure classes was also very small. The picture that emerges is of very low coverage of PDS.

By itself, this low coverage would not matter at least in the rural areas if the poor were getting their foodgrains from alternative sources like wages in kind, or self-consumption. However, another report of the NSS based on data collected for the same 61st Round (Perceived Adequacy of Food Consumption in Indian Households, 2004-05) showed that in terms of regular inadequacy of food, West Bengal was third behind Assam and Orissa, with 1.3 per cent of the rural households reporting such regular inadequacy. Similar inadequacy during some months of the year was reported by the highest percentage (10.6 per cent) of rural households in West Bengal among all the states. Together, this would imply that about 12 per cent of the rural households in West Bengal had to bear regular or seasonal hunger. Perhaps as a reaction to this situation, coupled with the poor availability of foodgrains through the PDS, West Bengal saw widespread public unrest directed against the PDS dealers, mostly private in the state, in 2007. Ironically, this was preceded by a Planning Commission report on targeted PDS classifying West Bengal as a state with 'very low' leakages, although with substantially higher than average exclusion errors. [40] The problem of hunger suffered by the poor, however, is the main issue here that should not be lost sight of. The causes need to be investigated and solutions found; one of them would be to reform the PDS system in a way that would cater better to the poor.

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[39] NSS Report No. 510, *Public Distribution System and Other Sources of Household Consumption, 2004-05*.

[40] Planning Commission (2005), *Performance Evaluation of the Targeted Public Distribution Syatem (TPDS)*, New Delhi.

5. Decentralization

Much has been written about the successful decentralization in West Bengal.[41] Historically, West Bengal has had several phases of decentralization, with the phase beginning in the late 'seventies being the most significant because of the truly democratic nature of the local bodies. Also, decentralization in the earlier phases was really confined to the district level. Thus, decentralization as generally discussed in the recent literature refers to the same with respect to the next two tiers. Rightly so, because much of the advantages of decentralization, particularly in rural areas, can be reaped only with village level decentralization. This process is considered to have been given a thrust in government policy in the late 'seventies and the early 'eighties. Along with land reforms, this is believed to have resulted in empowerment of the poor among other things, which has helped along the process of development as well in the 'eighties. The constitutional amendment that provided a firm legal status to the three-tier *panchayati raj* system gave further fillip to local governance.

Here, we concentrate on one aspect of the decentralization process to indicate that the financial devolution has probably not kept pace with the decentralization of responsibilities in the state. Administratively, the *panchayati raj* system in West Bengal does not suffer from the infirmities of some other states – for example, a paralyzing lack of personnel – with nearly six persons appointed by the state at the village level to assist the elected representatives. These six include two administrative staff, one technical staff and the other assisting staff. The salaries of these staff are borne by the state government enabling the local bodies to effectively use the resources for productive asset building and service delivery. The *panchayat*s have been given several tasks in various fields including poverty alleviation, education, health, social welfare and agriculture. Their role encompasses a wide range from provision of inputs for design of interventions to identification of beneficiaries to ensuring accountability, from managing SSKs to monitoring health institutions. However, overlapping of functional domain in most cases with government departments has caused some ambiguities. Despite the decentralization that has taken place, *panchayat*s can seldom initiate any major intervention; they can only help in administration of the schemes designed at higher levels. A positive way of looking at the coexistence of the two levels of governance would be to interpret it as a synergy; *de facto* it boils down to lack of scope for local initiatives. The presence

[41] See as a sample of the literature GoWB (2004), Bardhan and Mookherjee (2004), Crook and Sverrisson (2000), Ghatak and Ghatak (2002).

of parallel governance in the form the line departments that also control the purse undermines the effectiveness of decentralization to some extent. We should hasten to add that this is the case in practically the entire rural local governance in the country with few exceptions, but that does not reduce its significance.

Given enough free resources, the PRIs could probably ignore the ambiguities in activity mapping and strike out on their own. Unfortunately, free resources do not appear to be abundant for them. Table 4.8 provides an idea of the scale of transfers to the local PRIs, which constitute their main source of income in the absence of much of own revenue. A look at the table, particularly row numbers 3 and 5 show the scale of resources available to the PRIs; no elaboration should be needed.

Table 4.8: Scale of Transfers to PRIs in West Bengal

	2002-03	2003-04	2004-05	2005-06
1. TEXP (state) (Rs crore)	25095	29479	30571	33327
2. TR(State) to PRIs (Rs crore)	464	560	681	1066
3. TR(State)/TEXP(State) (%)	1.8	1.9	2.2	3.2
4. TR (State + Central) (Rs crore)	831	963	1211	2015
5. [TR (State + Central)/ TEXP(State)] (%)	3.3	3.3	4.0	6.0

TEXP (State): Total expenditure of the state government; TR(State): Transfers from the state government to PRIs; TR (State + Central): Transfers from the state government and directly from the central government.

Source: *Finance Accounts*, relevant issues and *Economic Review 2006-07*, GoWB.

Actually, the entire amount of grants that the PRIs receive is also not for spending as they deem fit; what to spend them on is pre-decided for a large part of it. Table 4.9 gives some breakup of the grants received by the PRIs that gives some idea of this aspect. Salary grants and grants from centrally sponsored schemes routed through the state budget as well as coming to them directly are clearly for predetermined purposes. These account for more than 50 per cent of all the grants received and more than 35 per cent of the grants received through the state budget. Even in the rest, there are substantial tied or specific purpose grants.

Table 4.9: Breakup of Transfers to PRIs

(Rs. crore)

Year	Salary Grants by the State	Other Grants by the State including 2nd SFC Grant	State share of Centrally Sponsored Schemes	ACA & Central Finance Commission Grants	Total fund released through state budget	GOI share of Centrally Sponsored Schemes released direct to the PRIs	Grand Total
2002-03	147.84	94.38	144.59	77.32	464.13	367.08	831.21
2003-04	183.93	161.75	142.03	72.07	559.78	403.07	962.85
2004-05	193.39	200.61	161.62	124.97	680.59	530.79	1211.38
2005-06	192.43	425.23	273.77	174.79	1066.22	948.99	2015.21

Source: *Economic Review 2006-07*, GoWB.

Decentralization in the real sense of the term implies not just delegating responsibilities, however well-meaning, but also decentralized decision making. For the latter to be effective, it has always been recognized, it is important that it is backed up with adequate finances to be spent to implement decisions made at the decentralized level. This aspect of decentralization appears to be missing in West Bengal. A possible way of bringing this about at least in a limited way would be to boost own revenue collection by the PRIs. The state government appears to be working in that direction.

It should be noted that in recent years, the pattern of transfers in terms of their distribution between the three tiers of PRIs appears to be changing in favor of the lower tiers as Table 4.10 shows. This is probably a positive development in that it signifies the decentralization process getting further oriented towards the grassroot level.

Table 4.10: Devolution to Rural Local Bodies in West Bengal

Year	Share of District Panchayat	Share of Block Panchayat	Share of Village Panchayat
2000-01	61.36	15.41	23.23
2001-02	43.55	25.95	30.50
2002-03	29.98	39.60	30.42
2003-04	31.01	14.54	54.45
2004-05	29.25	14.38	56.38

Source: GoWB

Often, questions are raised about the administrative capacity of local bodies, particularly the capacity of the rural ones to absorb and properly spend the funds that they receive from higher level governments. Some official data are available on the absorption of funds by the *Zilla Parishad*s in the state (Table 4.11). The table defines utilization in terms of available funds that are taken to be the sum of receipts during the year and the opening balance. In these terms, utilization is not lower than 60 per cent in any of the *Zilla Parishad*s, except in Malda where the utilization rate is a whisker less. In Hugli, the utilization rate is above 80 per cent. If utilization is defined in terms of funds received during the year, then none of the *Zilla Parishad*s have a utilization rate below 90 per cent, and quite a few above 100 per cent (meaning a draw-down of the opening balance). If utilization by these bodies is representative of the same by the other two tiers in the district, then lack of absorption capacity may not be a serious issue.

Table 4.11

Flow of Fund and its Utilisation by the Zilla Parishads During 2006-07

(Rs Crore)

Name of ZP	OB as on 1.4.2006	Receipt	Total	Payment	Utilization (%)	CB as on 31.3.2007
N 24 Parganas	38.24	85.46	123.70	83.88	67.81	39.82
S 24 Parganas	53.05	81.01	134.06	97.43	72.68	36.62
Haora	16.89	42.23	59.12	46.90	79.33	12.22
Nadia	24.52	71.20	95.71	68.87	71.95	26.84
Murshidabad	58.96	50.86	109.82	65.84	59.96	43.98
Hugli	16.72	82.53	99.25	83.16	83.79	16.09
E. Medinipur	45.34	81.14	126.48	94.09	74.39	32.39
W. Medinipur	49.97	71.20	121.17	93.98	77.56	27.19
Purulia	32.14	35.17	67.32	42.45	63.06	24.87
Bardhaman	60.52	120.01	180.53	116.39	64.47	64.15
Birbhum	23.19	26.60	49.79	34.70	69.70	15.09
Bankura	24.54	63.30	87.85	59.69	67.95	28.16
Malda	40.75	57.19	97.94	61.11	62.39	36.83
Kochbehar	20.34	55.89	76.23	57.12	74.93	19.11
N. Dinajpur	20.06	36.01	56.07	35.62	63.53	20.45
S. Dinajpur	19.67	39.59	59.26	44.08	74.38	15.18
Jalpaiguri	44.65	44.57	89.22	60.66	67.99	28.56
Siliguri MP	6.28	28.33	34.62	25.59	73.92	9.03
Total	595.81	1,072.32	1,668.13	1,171.55	70.54	496.58

Source: *Annual Report 2006-07* of the Department of Panchayats and Rural Development, GoWB.

The research team undertook an examination of the accounts of a *Panchayat Samiti* and a *Gram Panchayat* each from two districts of the state, Bardhaman and Purulia, to get an idea of their absorption capacity. Our examination revealed more than 80 per cent utilization in all cases, taking the year's receipts only. While it is not possible to generalize from these limited case studies (we did hear about one *Gram Panchayat* with low utilization), there may not be any serious reason to worry about the absorption capacity of rural local bodies in general in the state. Whether the funds are being well-spent or not is a different issue on which we cannot offer any comment.

The newly introduced system of transfer of funds through the State Bank of India has certainly helped, although some hitches are yet to be smoothed out. The communication between various state government departments and the PRIs also need to be speeded up commensurately, since there are cases of confusion with funds coming through without any communication regarding its use.

6. Estimates of Additional Resource Requirements

6.1 Wage employment

Wage employment has been provided by the government under various schemes like SGRY, Food for Work and NREGA in West Bengal. The estimate of resource requirement in this section is based on NREGA norms and assumptions. NREGA offers to provide 100 days of wage employment to each of the household that has registered and demanding employment and does not differentiate between poor and non-poor households. Two types of wage employment – skilled and unskilled – are provided under NREGA. We assume that only unskilled wage employment is demanded by poor households and the total expenditure requirements are estimated accordingly. Taking a cue from the previous year's total expenditures and the size of state allocations in the total expenditures under NREGA, it is assumed that the state contributes 10 percent of total expenditures under NREGA. This simplifying approximation allows us to estimate the state contributions required, if an estimate of the expected total expenditures can be arrived at. Table 4.12 details the estimation of total expenditures and resultant state contribution step by step.

With the above assumptions, the total expenditure requirement towards wages for unskilled labor per annum is around Rs. 2417.02 crore to cover all the

estimated poor households in the state. Scaling up this expenditure to arrive at total expenditure under NREGA (including wages for skilled labor, material and contingency) by a factor derived from the data for 2008-09 yields an estimate of around Rs. 3694.48 crore per annum. State's own contribution towards NREGA expenditure in 2007-08 and 2008-09, as seen from financial information on the program, is around 10 per cent of total funds available. Using this figure as the assumed share of the state government in total expenditures, the additional fund required from the state's own resources works out to Rs. 299.82 crore in addition to given allocation of Rs. 69.63 crore by the state in 2008-09.

Table 4.12: Estimation of Additional Resources Required for Wage Employment

1. Population Below Poverty Line in Rural Areas (lakh)	173.22
2. Total number of households below poverty line (4.3 average Household size) (lakh)	40.28
3. Man-days required to be generated [(2) X 100] (lakh)	4028
4. Total funds required for wages @ Rs. 100 per day [(3) X 100] (Rs. lakh)	402800
5. Total expenditure under NREGA in 2007-08 up to November (Rs. lakh)	94038
6. Employment generated for unskilled labor (man-days) in 2007-08 up to November	786
7. Wage expenditure under wages for unskilled labor in 2007-08 up to November (Rs. lakh)	61522
8. Share of unskilled wages to total expenditure [(7)/(5) in %]	65.42
9. Total funds required for unskilled wages [= (4)] (Rs. lakh)	241702
10. To meet the estimate at 9, total expenditure needed under NREGA* [(9)/(8) X100] (Rs. lakh)	369448
11. States' contribution towards NREGA (10% of the Total Expenditure) ** [10% of (10)] (Rs. lakh)	36945
12. Present level of state's expenditure (part year) (Rs. lakh)	6963
13. Estimated Resource Requirement from the State [(11) – (12)] (Rs. lakh)	29982

Notes: * Estimation included Skilled wages, Material and Contingency expenditure
** Based on previous year's allocation, state contributes 10% of total expenditure under NREGA towards material and skilled wages and entire contingency.

6.2 Old Age and Social Security

With rising life expectations, increasing migration of the income earners and breaking up of the joint family system, the problem of the destitute elderly is gradually rising. These trends are not likely to reverse and consequently, the problem of the destitute elderly is also likely to become more severe in future. At some point, with rising incomes and better expected future financial status, individuals are likely to

adjust to this by distributing their lifetime income in a way that would better match their lifetime consumption pattern, but the state must intervene in the meantime and ensure a minimum degree of dignity of the aged who are not able to earn their keep any more, have no or insufficient assets to derive at least a subsistence income from and are not supported by anyone of the family. The program of National Old Age Pension Scheme (NOAPS) and the state level supplements of the same type are in recognition of this need.

Under NOAPS pension is paid to both males and females over 65 years of age belonging to families below the poverty line. Certain conditions are to be met for being eligible to be a beneficiary; these conditions are imposed essentially to filter out those of the elderly that are not destitute. In the state, since poverty is much higher among the rural population, the need for such assistance is also the highest in rural areas. *Gram Panchayat*s are involved in the process as identification of the beneficiaries in the rural areas is their responsibility: they are selected in the *Gram Sansad* meetings. A list of local beneficiaries is displayed in the *gram panchayat* office.

"In 2005-06, 4.52 lakh persons were provided pension; out of this, 143.48 thousand belonged to scheduled castes and 33.87 thousand were scheduled tribes. The total number of women beneficiaries was 21.12 lakh. In 2006-07, up to November, 2006, 4.68 lakh persons were provided pension under the scheme. The number of scheduled caste persons receiving pension was 149.69 thousand and the number of scheduled tribe beneficiaries was 32.67 thousand. Total number of women beneficiaries was 2.19 lakh." (GoWB, *Economic Review 2006-07).* Apart from NOAPS administered by the rural development and *panchayati raj* department, the departments dealing with welfare of specific groups also provide pensions. Altogether, the number of persons receiving one or another of the pensions is 5.01 lakh.

As per NSS data (52 round), elderly persons without any property were 35.6 per cent of the total elderly population. Applying this ratio to an estimated number of above 65 population in the state of 39.7 lakh in 2006, the number of above 65 persons without property can be taken to be around 14.13 lakh. Out of these, there would be some who are not poor, and some others that may have financial assets though not property. Assuming about half of the estimated 14.13 lakh to be otherwise not qualified for pensions, we arrive at an estimated number of potential beneficiaries

of pension schemes of around 7.07 lakh. In that case, there are about 2 lakh persons in the state that are eligible, but do not get any pension. To cover all of them with a pension of Rs. 400 p.m., the annual additional expenditure would about Rs. 96 crore, of which the GoI would be expected to chip in with Rs 48 crore. Thus, the net additional resource requirement of the state to cover all eligible persons under the pension schemes would be about Rs. 48 crore per year.

V Financing the Resource Requirements

Putting together our estimates of additional resource requirements for the identified expenditures now, we have Table 5.1. The table is constructed by collecting the additional resource requirements from the three preceding chapters. In the case of education, the figures are adjusted for 5 per cent inflation per annum. The estimates for mid-day meals already build in the inflation, so no further adjustment is needed. In the case of health, the one-off capital expenditure requirements are divided into five equal installments; we add to them the additional recurring expenditures for each year and adjust the total for inflation. For all the estimates other than for wage employment, the additional requirements were estimated for a five-year period starting 2007-08 and were phased out over the five years (see respective chapters). We maintain the same phasing out, but report the estimates for the years 2009-10 onwards only, since the first two years are in the past now. However, the reported figures thus assume that the additional expenditures for the previous two years were actually incurred. The annual additional requirements for wage employment and pensions are as estimated in Chapter IV, with only inflation adjustment carried out. The total requirements for the three years starting 2009-10 work out to Rs. 2033, 2121 and 2217 crore respectively. These are not very large sums by themselves. Compared to the total expenditure (revenue + capital) in 2007-08 of more than Rs. 41,000 crore they range from only 5 to 5.5 per cent of it.

Table 5.1: Additional Resource Requirements

(Rs crore)

	2009-10	2010-11	2011-12
Education	315	331	347
MDM	91	82	74
Health	1269	1332	1399
Wage Emplmt.	300	315	333
Pensions	58	61	64
Total	2033	2121	2217

Note: All the figures build in 5 per cent inflation per annum from the first year of estimate.

Nevertheless, we now look at the available options for funding these additional expenditures. The usually available options can be listed as:

- Reprioritization of extant pattern of expenditures to generate resources for the desired areas
- Additional resource mobilization (tax and/or non-tax)

- Additional central assistance
- External assistance
- Private sector resource mobilization

We briefly discuss each of these to provide an idea of the possibilities, because in the final analysis, the state has to decide itself the option (or combination of options) it would like to pursue.

There are two other options we have not listed above. One is borrowing, which we think is not suitable for social sector expenditure financing because of the financial problems it creates in future; borrowings are more suitable for financing investments that yield direct financial returns to the government which can be then used for servicing the debt. Further, the indebtedness of the state is already high and it would not be desirable to add to the indebtedness with little hope of direct financial return on the expenditures that the debt would finance. The second option not listed is increasing expenditure efficiency, which can be loosely taken to mean achieving better results with the same amount of spending. The reason we do not consider it as an option is simply that the government should be striving for efficiency regardless; at any point of time, it should be achieving the maximum possible with the given resources in any case. If that were so, there should be no scope for generating resources through improved efficiency. Apart from this normative consideration, a more practical reason is that without a very careful detailed examination of the government expenditures, which we have not undertaken, it is not possible to venture an opinion on the *modus operandi* of enhancing efficiency of public spending.

Reprioritization of public spending is essentially a matter of choice; more often than not, recommendations are based on rules of thumb or even subjective judgments regarding the importance or otherwise of particular types of expenditures. It is not easy to find an objective manner of carrying out budget allocations among different functions of the government. One possible way is to examine the relative progress the state has made in different sectors *vis-a-vis* other states, particularly the high achievers. The areas where the state is much behind others should, by this logic, get the highest weightages in budget allocations. This logic, and a method of allocating increments in public expenditure, is developed further in Sen and Karmakar (2007) to yield an alternative budget allocation pattern that can be compared with the actual. The comparison can show up the areas where lower or higher than optimal allocations are made. Using this methodology we provide the

estimated pattern and the actual pattern of public expenditure in West Bengal for 2005-06. Table 5.2 gives the results of this exercise.

Table 5.2: West Bengal - Actual and Reprioritized Public Expenditure

(Rs. lakh)

Sectors	Actuals 2005-06	Estimated 2005-06
Education	498389.31	451900.14
Water Supply	31188.61	35298.01
Housing	7125.96	5925.17
Urban Development	67852.79	72167.01
Labor and Employment	5318.65	12473.21
Agriculture and Allied	76586.56	74634.54
Rural Development	85442.99	73531.61
Irrigation and Flood Control	64137.57	170814.09
Energy	40861.40	13667.33
Industry & Minerals	104383.89	18124.28
Transport	103272.96	157316.74
Health	141594.13	140302.69
Total of the above	**1226154.82**	**1226154.82**

The table shows that as a whole, the allocations for human development sectors are not very much off the desired pattern; education, health and rural development – all three sectors actually have a higher allocation than indicated by the exercise. The broad message of the exercise is that the likelihood of expenditure reallocation in favor of the human development sectors is rather small. However, if one is looking for an area where expenditures can possibly be curtailed to deploy the savings elsewhere, it would clearly be the industry and minerals sector where the actual expenditures are far higher than the levels indicated by our exercise. However, one would need to work on further details of the sector to identify more precisely the areas where expenditure compression may be desirable. However, drawing on the analysis in the preceding chapter on classifying public expenditures, there seems to be scope for reducing administrative expenditures that appear far too large compared to other states and relative to non-administrative expenditures.

The next option to consider is that of additional resource mobilization. We first consider tax revenues in view of their major share in the state's own revenues. We employ a simple method of estimating potential tax revenues to compare with actual

collections and thus form a judgment on the possibility of using this option. We take the major taxes levied by the state and using time series data beginning 1994-95 till 2005-06 for these taxes and GSDP, we compute the ratio of each tax to GSDP. We then identify the highest ratio for each tax over this period. Applying this ratio to the GSDP for any year gives us the potential revenue from that tax. The logic employed in this method is that the state's own best performance in terms of revenue collection in the reference period defines the potential collection for each year. Using this method, we arrive at the estimates reported in Table 5.3.

Table 5.3: Actual and Potential Tax Revenue, 2005-06

(Rs. lakh)

	Actual Revenue	Potential Revenue	Difference
Stamps and Registration Fees	117759	117759	0
State Excise Duties	74346	90574	16228
Sales Tax	610878	751662	140785
Transport Tax	53819	117715	63895
Total of the above	856802	1077710	220908

This simple exercise shows that there is a large untapped potential of tax revenue in the state, which can be realistically tapped to easily cover the additional resource requirements that we have identified. The 2005-06 estimate of the potential additional tax revenue is Rs. 2210 crore as compared to the 2009-10 requirement of about Rs. 2033 crore; unless tax effort has jumped in the last few years since 2005-06 in the state, the current gap between potential and actual revenues may have scaled up further, making it even more clear that a possible increase in tax effort would in itself be sufficient to scale up human development expenditures by the required amounts. Although there has been substantial increase in recent years, there should be further scope for resource mobilization in non-tax revenues also in some of the sectors (not necessarily the same ones where resources have to be expended).

In our estimations of additional resource requirements, we have already taken into account the central contributions that can be expected; hence there is not much to add on this aspect here. However, we may add here that the continued high growth of central taxes automatically implies higher tax devolutions for the state given its constant share. This should prove helpful in financing not only the additional expenditures identified here but also other developmental expenditures. On external assistance, some of it is already built into the estimates in the sense that the state is already receiving some assistance that is a part of our projected expenditures.

Unless there is a definite agreement on further external assistance, it would not be advisable to count on it. In particular, the state will be well-advised to stay off loan assistance for these purposes as have been discussed here. On tapping private resources, two observations may be in order. First, as a general principle, possibilities of private funding (at least partial) have to be examined only for unbundled services, or after breaking down various services into the constituent tasks. This is because the possibility of private funding may not be uniform across tasks even within a service. Second, given that the state is making a reasonably determined effort for industrialization, it may be possible to reinforce the idea of corporate social responsibility by insisting on some conditions regarding provision of some of the necessary social infrastructure by the industrial units, both for their own staff and for the local people, at reasonable rates. It also should be ensured that industrialization does not add to loss of income opportunities or assets of concerned citizens. In addition to the above considerations for private funding, local communities may be asked to pitch in for strongly felt needs, somewhat along the lines of financing SSKs.

Overall, the issue of financing the additional resource requirements does not seem insurmountable if the government decides to incur those expenditures. As a last word, one might add that expenditures alone may not bring the desired results; mechanisms have to be put in place to ensure delivery of services of appropriate quality.

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