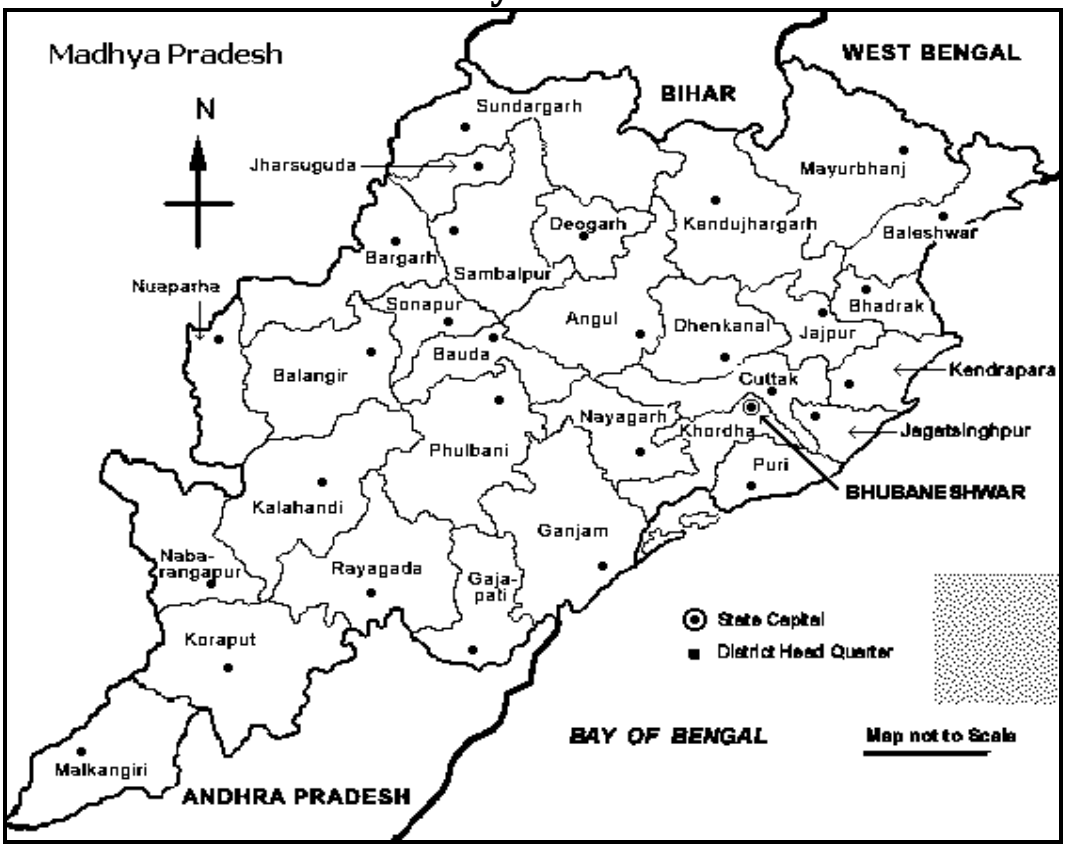
Fiscal Reforms, Persistent Poverty, and Human Development: The Case of Orissa

July 2008



Tapas K. Sen
H.K. Amar Nath
Mita Choudhury
Protiva Kundu

NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY
NEW DELHI - 110067

Email: nipfp@nipfp.org.in

ISBN 978-81-88035-04-5
Price Rs. 150/-
US $ 10/-

Published by
Secretary
National Institute of Public Finance and Policy
18/2, Satsang Vihar Marg
Special Institutional Area, (Near JNU),
New Delhi – 110 067
Email: jmpandit@nipfp.org.in

Printed by:
VAP Enterprises
H-24, Green Park Extn.
New Delhi – 110 016
Email: info@vaponline.com;vap_enterprises@yahoo.co.in

Preface

This is the third monograph being published under the research programme on 'Financing Human Development in India'. This programme has been undertaken by the National Institute of Public Finance and Policy as a part of the umbrella project on Strengthening State Plans for Human Development executed by the Planning Commission and sponsored by UNDP, India. The umbrella project involves several state governments and other institutions as well.

The research for this study was led by Tapas K. Sen; other members of the team being H.K. Amar Nath, Mita Choudhury, and Protiva Kundu. While Sona Mitra also contributed, excellent 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

It is our pleasure to acknowledge several debts of gratitude that we have incurred in carrying out the work for this study of human development and its financing in Orissa.

The study team would like to begin with its sincere thanks to Seeta Prabhu and Suraj Kumar of UNDP, who conceived this entire project covering eight states, provided substantive guidance at different stages of the project and gave several comments for the improvement of the study reports. From the Planning Commission, R Sridharan, Rajat Sachar, and Ragini Sahay provided support for the work. To all of them, our sincere thanks.

A study with as wide a scope as the present one cannot be completed without the co-operation of the concerned state government. The nodal agency for facilitating our work in the state was the Planning Department; the study team acknowledges its deep gratitude to the personnel of this department, and R. V. Singh in particular. Apart from the Planning Department, the Finance Department officials, particularly K.C. Badu have been extremely helpful, for which we thank them.

We have also liberally imposed ourselves on the time and good nature of the officials of several other departments and organisations during the necessary process of understanding various issues of concern in each area and obtaining detailed data on various aspects of human development. In the area of education, our greatest debt is to the officials of OPEPA, particularly Madhusudan Padhi and J.M. Sardar, who have readily provided a large amount of data and other qualitative information. To Suresh Chandra Patnaik and Radha Mohan Panda we offer a 'Thank you'.

As with officials in the education department, we have also received tremendous co-operation from officials from other departments like health, water supply, women and child development, rural development, panchayati raj, and urban development. It may be difficult to name all of them individually, but particular mention must be made of Sarvashri Chinmay Basu, Gagan Dhal, Tara Dutt, C. Vasudevan, Kandarpa Munda, Ms. Monalisa Mahapatra, Mamata Das and Mona Sharma, Usha Patnaik, Prativa Mishra and L. Pradhan. Further, at the time of presenting the draft of this study to the Government of Orissa, several officials provided important suggestions and comments for improvement. We thank them from the core of our hearts for their co-operation.

Amaresh Dubey of Jawaharlal Nehru University selflessly contributed to this study with his analysis of NSS data for the latest round (2004-05) so that we could use it for comparison with his earlier work. At the Institute, M. Govinda Rao, Director provided all possible support to the team. Diwan Chand and Geeta

Bhatnagar provided help with the data culled out from the Institute's data bank on state finances. Sona Mitra contributed with her analysis of aspects of poverty while Sandip Biswal, Narendra Jena, and Krishanu Karmakar provided competent research assistance. To all of them, and to all those whom we have failed to name, our heartfelt thanks.

Finally, thanks are due to Rita Wadhwa, Kavita Issar and the publication team of the Institute for their labour of love in bringing this publication out. It only remains to assert that while so many persons have contributed to this study, any remaining errors of omission or commission are solely the responsibility of the authors.

Contents

List of Tables

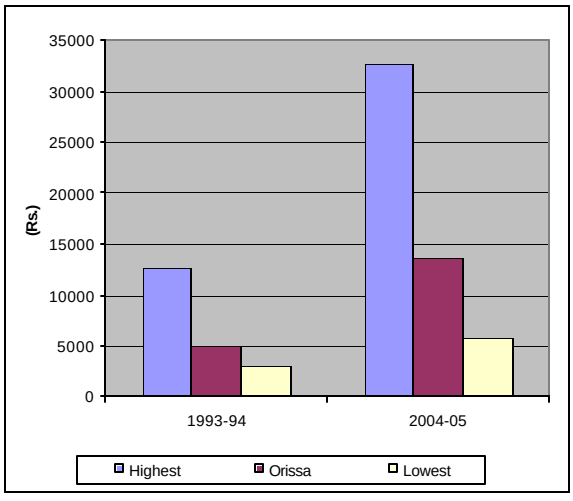
I. Poverty, Human Development, and Public Finances

1.1. Introduction

It has been repeatedly pointed out in the recent literature on Orissa that it presents us with a paradox: a land well-endowed by nature with widespread poverty among the people. The poverty in Orissa is both a cause and result of underdevelopment in economic and social spheres compared to the national averages. It therefore needs to be noted at the outset that the relatively low level of human development in the state is part of a much larger picture of underdevelopment that needs to be examined as such, and that any policy formulation has to take this fact into account. Having said that, the present study deals with some of the human development aspects only, however, excludes any discussion regarding other (though important) areas like physical infrastructure, primarily to maintain a sharp focus. Such a partial analysis may also perhaps be justified on the basis of the rights approach to human development and by asserting that raising the level of human development must be a necessary component of and perhaps a catalyst for the process of all round development of the state.

The state is a coastal one with variable topography that ranges from coastal planes in the east to rocky, less fertile areas in the west and widespread forest cover in the south. While some parts thus have potential for high agricultural productivity, other areas are mineral-rich (iron ore, coal, bauxite, and several other major and minor ones). Although there are pockets in the state that are known to be water deficient and drought-prone, the state overall is well-supplied with river and ground water potential. With all this, the state's per capita Net State Domestic Product (NSDP) or per capita income in current prices is still (in 2004-05) above only three states (Bihar, Uttar Pradesh and Jharkhand) among the larger, non-special category states at Rs. 13,601. The relative position has however improved

Figure 1.1: Relative Per Capita NSDP in Orissa at Current Prices



(*see*, *Figure 1.1*) as compared to a decade ago (1993-94) when its per capita income was higher than only one state, Bihar. The spurt in per capita income started in fact, quite recently in 2003-04, and appears to be continuing.

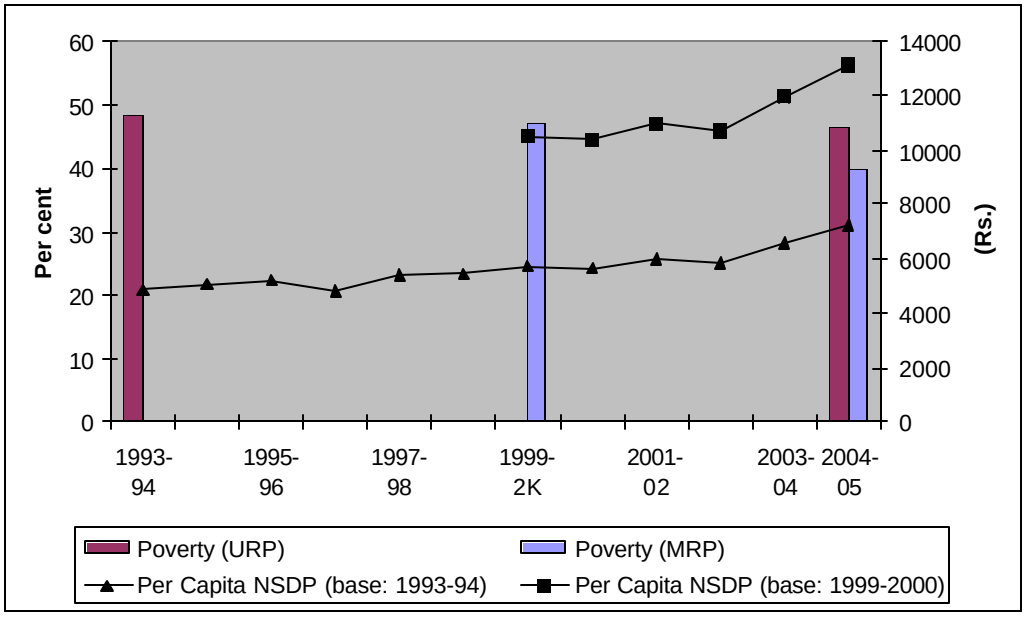
1.2. Level of Poverty

But the state has by all indications failed in reducing the level of poverty to any significant extent over the last ten years or more, although alternative estimates present a rather confusing picture. Between the previous two rounds of National Sample Survey on consumer expenditures based on large samples in 1993-94 and 1999-2000, there appeared to be only a marginal drop in the level of poverty; the controversy over the methodological shift (from uniform recall period or URP to mixed recall period or MRP) does not allow us to take the comparison of these two estimates seriously. However, the latest estimates for 2004-05 present estimates based on both the URP and MRP method, and if we compare like with like, we come to different conclusions for the two sets. Comparing the 1993-94 URP-based poverty estimate of 48.56 percent with similarly estimated 2004-05 figure of 46.37 percent, there is clearly very little reduction in poverty over the 11 year period. But, comparing MRP-based 1999-2000 estimate of 47.15 percent with the similarly estimated 39.90 percent in 2004-05, there appears to be a more significant reduction in poverty level within a much shorter period. What is more, if we take into account the fact that going by the alternative estimates of 2004-05 the MRP-based estimates are invariably lower than the URP-based estimates by varying degrees ranging between roughly 10-20 percent, a minimum notional URP-based estimate of poverty in Orissa in 1999-2000 would be around 52 percent. If so, comparing it with the URP-based estimates for 1993-94 and 2004-05 would lead us to the surmise that *poverty actually increased between 1993-94 and 1999-2000 and subsequently declined to some extent*. How reasonable would this surmise be? We have no way of verifying it, but in any case, there appears to be reason to believe that *poverty over the longer period (1993-94 to 2004-05) has not declined noticeably*; whether that is because poverty actually increased between 1993-94 and 1999-2000 or not, can only be speculated upon.

A possible way of shedding further light on this issue is provided by the examination of the trends in State Domestic Product (SDP) in constant terms, assuming that the average NSDP in real terms has an impact on the level of poverty, given the distribution of incomes. *Figure 1.2* depicts the growth in per capita NSDP and the estimated poverty levels (head count ratios). The series of per capita income (base 1993-94) has been extended beyond 1999-2000 using the figures from the newer series, scaled down on the basis of the ratio of the figures from the two series for the year 1999-2000. It is clear that the annual growth in per capita income was lower between 1993-94 and 1999-2000 (2.86 percent on an average) as compared to the subsequent period (4.81 percent on a similar basis). It would thus be reasonable to deduce that the reduction in

poverty could be greater in the latter period as compared to the former. Whether the growth during the earlier period was so low as to actually result in an increase in poverty or not is a question that cannot be answered on the basis of this simple analysis and must be left here as an unresolved issue.

Figure 1.2: Poverty and Per Capita Income in Orissa



In terms of occupational patterns, the state is predominantly agricultural, since roughly 85 percent of the population is rural and 57.7 percent of the main workers are either cultivators or agricultural labour. However, in terms of the sectoral share in GSDP, agriculture is not so predominant; the share of agriculture and animal husbandry was a little less than 22 percent in total GSDP, which continued to be the largest single sub-sector. However, the share of the primary sector less mining and quarrying (25.21 percent in 2005-06) is actually marginally smaller than the finance and services sector (25.98 percent in the same year). Clearly, a part of the poverty problem can be traced to the above facts that point to an unsustainably large percentage of the population trying to draw their livelihood from just about a quarter of the total output.

1.3 Other Indicators of Human Development

Other indicators of socio-economic development roughly indicate the same level of relative development as per capita income, although there are differences between relative values of various indicators. While the level of poverty and infant mortality rates (87 in 2002) are the highest (second highest after Madhya Pradesh as per 2005 figures) in Orissa among all the states, literacy rate (63.61 in 2001) is not too far below the average of the country

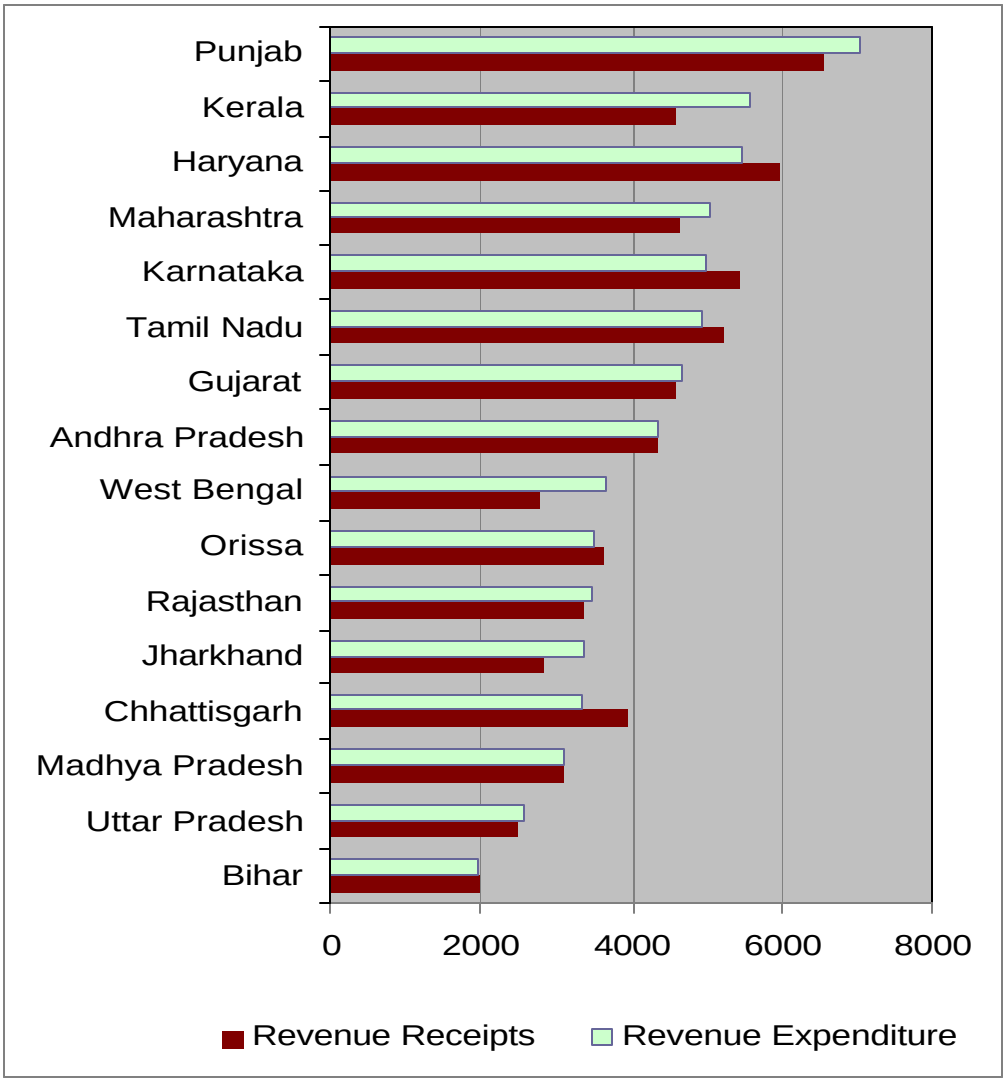
(65.38). In terms of physical infrastructure too, the indicator values for Orissa are usually below the average for India. The population characteristics indicate an above average percentage of scheduled tribes (22 percent as against 8 percent), although the share of scheduled castes (16.2 percent) – the other disadvantaged social group – in the total population is marginally below the national average (16.5 percent). The sex ratio is well above the average for the country, but an indication of gender discrimination is provided by the large gap between the male and female literacy rates; this gap is however not significant in the state in the enrolment rate among children of school-going age. As per the National Family Health Survey (NFHS) II of 1998-99, the state had one of the highest levels of malnutrition among both children and married women in the country; NFHS III puts child malnutrition in the state below national average, but that among married women continues to be higher than the average. On balance, the major task before the state, in the macroeconomic sense, appears to be to maintain consistently high levels of growth, and ensure the dispersal of the resultant income increases among the poor, preferably by creating jobs outside the traditional agricultural sector so that the pressure on agriculture is relieved, allowing the sector to better reach its potential through necessary investments and improvements in farming techniques.

1.4 Public Finances: Broad Considerations

The poverty of the state gets reflected in its public finances too. *Figure 1.3* below shows that compared to average levels of the revenue receipts and expenditure for the states in India, the levels in Orissa were low. In a state that is acknowledged to be one of the poorer ones, the level of public expenditure is in fact expected to be higher to compensate for the lack of private purchasing power; in that sense, the expenditure levels in the state are even lower than what seems apparent.

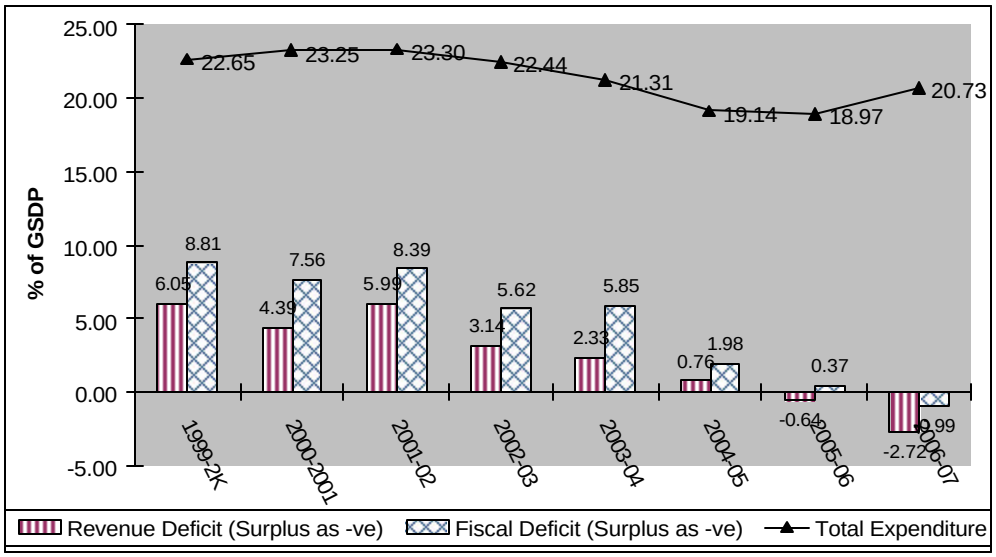
Despite a long history of substantive fiscal imbalances, high levels of deficits, and consequent high and growing indebtedness, the state has been striving hard to bring about fiscal reforms for reducing its deficits in recent times, and has succeeded to a considerable extent, as shown at *Figure 1.4*. As apparent from the chart, much of the drop in deficits has occurred since 2002-03 onwards, coinciding with a drop in the expenditure levels. The timing could have something to do with the super-cyclone that hit Orissa in 1999, necessitating substantial additional expenditures in the next two years.

Figure 1.3: Per Capita Revenue Expenditure and Receipts – 2005-06



Source: State Finances: A Study of Budgets of 2007-08, Reserve Bank of India, Mumbai.

Figure 1.4: Orissa - Recent Trends in Deficits and Expenditure as Percentages of GSDP



Deficits by definition are a result of low revenue receipts compared to expenditures. The relative deficiency of receipts can be ascribed to high expenditure levels, low levels of receipts or both. Given the low levels of expenditure, the low revenues would be to blame for the deficits that characterised Orissa state finances for several years in the past.[1] As such, a rise in the receipts would be expected to correct the imbalances in the revenue account in the short run, and this is what seems to have happened in Orissa in very recent years. Starting 2004-05, the state has turned out a fairly strong revenue performance, and 2006-07 has actually seen an unprecedented fiscal surplus, even with expenditures reversing their downward trend. The recent trends in major fiscal indicators are given below in *Table 1.1*.

Table 1.1: Fiscal Aggregates in Orissa

(Rs. crore)

Budgetary Variable	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Revenue Receipts	7047.98	8438.77	9440.24	11850.19	14084.72	18032.62
Revenue Expenditures	9881.73	10014.68	10861.16	12372.49	13603.52	15772.02
Revenue Deficit(-)/ Surplus (+)	-2833.75	-1575.91	-1420.92	-522.30	481.20	2260.60
as % of GSDP	-5.99	-3.14	-2.33	-0.76	0.64	2.72
Fiscal Deficit (-)	-3968.01	-2816.04	-3572.81	-1365.99	-276.46	823.19
as % of GSDP	-8.39	-5.62	-5.85	-1.98	-0.37	0.99

[1] For the same reason that expenditure levels need to be relative high – low private income – tax revenues also are likely to be low in *absolute or per capita terms*, but whether the same applies to tax-GSDP *ratios* or not is debatable.

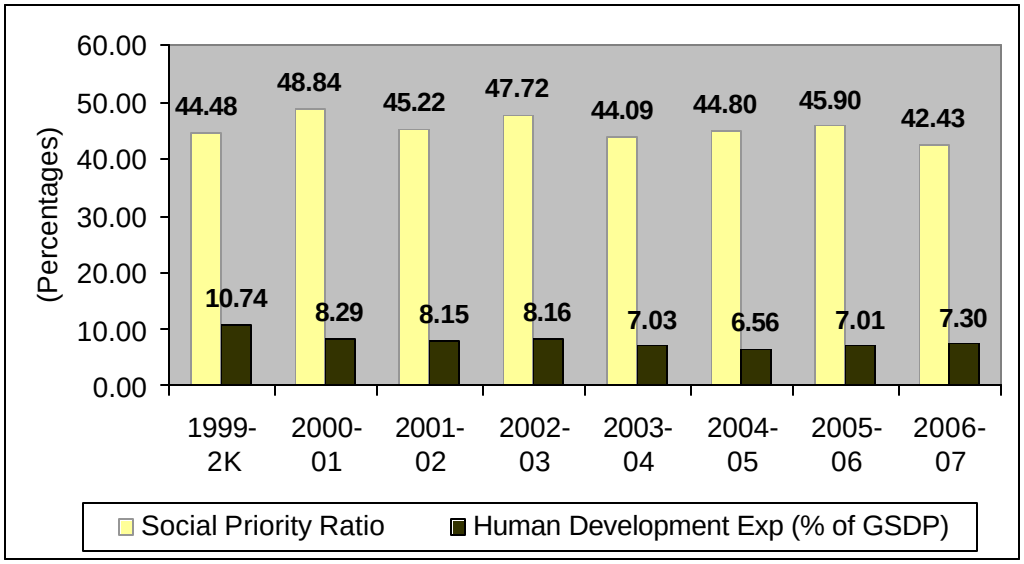
A permanent rise in receipts of this kind should impact on the level of indebtedness and consequently on the fiscal deficits through lower interest outgo in the medium-to-long-run. This would, in turn, create the much needed space for developmental expenditures. Thus, it is important to understand whether the improved fiscal performance in recent years is only a result of a combination of fortuitous circumstances or represents a structural break signifying a permanent shift. Detailed examination of the revenue receipts and linking them with underlying real variables (not reported here) shows that the revenue growth is being driven primarily by sales tax/state VAT and a couple of other taxes, largely arising from the expanding tax base. The latter is essentially a result of recent industrial growth, particularly the mining-and-mineral-based sectors. As such, even if there is no further growth in these sectors, revenue receipts should resume their normal growth after an upward shift and result in a higher tax-GSDP ratio than that obtained in the past prior to 2003-04. However, given the low levels of public expenditure even in the face of low levels of socio-economic development and high levels of poverty, there is a pressing need to step up developmental expenditures in a way consistent with broad fiscal constraints (e.g., those posed by the Fiscal Responsibility legislation). The strategy should be to ensure that additional expenditures do get translated into higher levels of development and not simply leak into the hands of the vested interest groups.

1.5 Fiscal Aspects of Human Development

Ensuring continuous human development is an important government responsibility, whether one considers human development in a rights-based approach or a more neo-classical approach of the large externalities related to it and consequent market failures. It is an irony indeed that the more backward states in terms of human development need to undertake large scale (and expensive) interventions to improve matters, but are fiscally constrained to a substantial extent. The constraints are relieved somewhat by intergovernmental transfers that augment the available resources of such states, while the need to maintain fiscal balance reinforces the constraint. In Orissa, both these aspects are evident even from a cursory analysis of the fiscal trends. Central transfers (shared taxes plus grants) accounted for about 45 percent of revenue expenditures of the state during the period 2000-04 (except in 2001-02), and this percentage has gone beyond 50 percent (55 percent in 2005-06) subsequently. At the same time, as *Figure 1.4* clearly showed, there has been a clear noticeable association between the reduction in deficits and the same in expenditures, except for 2006-07. This has had an impact on the human development expenditures as a percentage of GSDP; *Figure 1.5* below clearly shows a continuous decline in recent years, reversing the trend again in 2006-07. In per capita terms and in constant (1999-2000) prices, such expenditures increased only marginally from Rs. 970 to Rs. 1087 between 2001-02 and 2005-06 and then increased substantially in 2006-07 to Rs. 1186. However, there has been a marginal decline over this period in such expenditures as a share of total expenditures of the state government. This decline followed a longer-term

decline in earlier years (CYSD, 2005). A redeeming feature of the recent trends, however, is the relative stability of the social priority ratio during this period at above 40 percent.

Figure 1.5: Orissa – Trends in Human Development Expenditures



1.6 Goals and Prospects

The state's Tenth Five Year Plan laid out a few monitorable goals to be reached by the end of the Plan period (2007). Among these were:

- reduction of poverty ratio by 7 percentage points;
- full enrolment by 2003, all children to complete 5 years of schooling by 2007;
- increase of literacy rate by 75 percent;
- reduction in gender gap in literacy by at least 50 percent;
- reduction in infant mortality rate (IMR) to 45/1000 by 2007 and to 28/1000 by 2012;
- reduction in maternal mortality rate (MMR) to 2/1000 by 2007 and to 1/1000 by 2012; and
- full coverage of all villages with potable water supply.

Of these, the goal regarding poverty has been apparently met as judged from a comparison of 1999-2000 and 2004-05 MRP estimates as discussed above, although this gives little cause for satisfaction given the comparison of figures relating to 1993-94 and 2004-05. As for educational goals, most of these goals have been missed, although it is difficult to say anything definite about

literacy rate until the next census in 2011. From available evidence, the positive sign that emerges is that the net enrolment ratios are improving and the gender gap among the children enrolled is not significant in general. As for health goals, even going by the lower of the more recent estimates (between SRS and National Family Health Survey sources), infant mortality rate was 65/1000 in 2005-06, far higher than the 45/1000 aimed at by 2007. Similarly, recent data on status of rural water supply are also not available on a comparable basis. In any case, it is clear that meeting even the modest of goals is not easy in the state. The task before the government at the present juncture is to translate the economic growth of recent times into substantive gains in the area of human development, particularly that of the poor. Even with the large central assistance that can be expected, the state has to not only generate resources for this task, but ensure maximum benefit out of every rupee spent for its citizens. The rest of the report deals with these issues, with each chapter focusing on one broad subject under the overall umbrella of human development.

II. Poverty: Connotations and Causes

2.1 Introduction

While the relatively low level of economic development of the state can partially explain the high levels of poverty along with the observed phenomenon of an unsustainably large share of the population deriving their sustenance from only a quarter of the GSDP, it still does not fully explain the fact of high levels of poverty. It may be pertinent to note that Rajasthan has a similar situation – its share of agriculture and fishing in GSDP is slightly less than Orissa, while agricultural output per person dependent on agriculture (cultivator and/or agricultural labour) in the two states are similar with some fluctuations. Yet, Rajasthan has a far lower level of poverty than Orissa.

Clearly, low agricultural income as an explanation of high level of poverty[2] is at best a partial one, and needs to be supplemented with others. For example, it does not explain why a large part of the population does not adjust to reality and continues to rely on agriculture instead of shifting out to other sectors even when they are unable to derive their family livelihood from agriculture. Are the opportunities for such shift extremely limited? Are there factors that prevent such moves? Are there factors that constrain the ability of the poor to augment their capacity to climb out of poverty? After all, poverty alleviation policy has to treat this problem at two levels simultaneously; such policy has to combine short-term measures of pure palliatives like income transfers and other assistance to the poor with longer-term measures of improving the earning capacity of the poor to create a sustainable policy framework. The latter type of measures, however, cannot be successfully designed without understanding the constraints and finding out ways to remove these constraints. In what follows in this chapter, we attempt to understand various facets of the problem of poverty in Orissa in order to find answers to the questions posed above and suggest a suitable policy design in broad terms.

2.2 Broad Contours

The issue of poverty in Orissa has been a subject of significant research, particularly after the reported starvation deaths. Various researchers have delved into different aspects of the problem, and their approaches have covered a wide spectrum from macroeconomic explanations to case studies with primary data as also participatory research. "Among macro factors, economists cite the lack of

[2] This is a fairly common theme among researchers looking for macroeconomic explanations of poverty (*see* for example, Mackinnon, 2002, and Glinskaya and van Dillen, 2003), often citing empirical backing of cross-country or cross-state studies. The transition from the general to the specific case of Orissa, however, poses some problems.

sustained growth in the primary sector, particularly in agriculture, instability of the food grain market in terms of access and price, and lack of basic infrastructure as responsible for underdevelopment and high level of poverty in rural areas. Among micro factors, economists assert a lack of access to and control over resources, including private resources such as land and common property resources like water, forest, and public lands. They also cite the degeneration and degradation of land and forest resources, lack of capacity development and structural support for entrepreneurship" (Vasundhara, 2005). While this sum up the factors responsible reasonably well, frequent visitations of natural calamities along with less severe but more regular natural causes (which may actually have a human contribution) have also been added as a factor by some. While the issue of aggregate income and poverty has been briefly dealt with above, we summarise the other issues below. However, to aid the discussion, some important aspects of poverty in Orissa are outlined first.

2.3 Aspects of Poverty

Poverty in Orissa has a regional character to it. The state is divided into three regions by the NSS: northern, southern, and coastal. De Haan and Dubey (2003, 2005) provide breakup of poverty in Orissa by regions, based on the 1999-2000 NSS dataset. As per their computations, the southern region is the worst affected, with the coastal region having the least incidence of poverty.[3] Within such divisions, rural parts exhibit greater poverty than the urban areas in the northern and southern regions, but this reverses for the coastal region. The same authors provide levels of poverty in Orissa disaggregated by districts as well. These, when juxtaposed against the per capita district domestic products, show little correlation, as noted by the GoO (2004), further underlining the inadequacy of a purely macroeconomic explanation of poverty in Orissa.

However, as noted earlier, inter-temporal comparisons between 1993-94 and 1999-2000 can be misleading. With the data for the latest round (2004-05) becoming available, it is now possible to examine the change in regional distribution of poverty within the state also. *Table 2.1* below includes regional estimates of poverty for the latest round which are not comparable with the estimates for 1999-2000, but are with respect to 1993-94 estimates.[4] The comparison between these two sets of estimates shows that while poverty in the coastal area (particularly rural) has fallen substantially, it has increased in both rural and urban areas of the southern and northern districts, together constituting

[3] It should be noted that the high figures for the urban areas drop sharply when some plausible adjustments to the official estimates are made, but other figures do not change very much, at least in the relative sense (Deaton, 2003).

[4] Our sincere thanks to Amaresh Dubey for supplying us with all the disaggregated estimates of poverty based on the 2004-05 National Sample Survey data.

nine of the thirteen pre-reorganisation districts. The regional aspect is thus very marked and requires serious policy attention.

Table 2.1: Regional Incidence of Poverty in Orissa (1993-94, 1999-00 and 2004-05)

Years	Coastal	Southern	Northern	Orissa
Rural				
1993-94 (URP)	45.33	68.84	45.82	49.80
1999-00 (MRP)	29.30	86.16	50.98	48.13
1994-95 (URP)	27.39	72.66	59.07	46.91
Urban				
1993-94 (URP)	47.24	41.94	32.54	40.68
1999-00 (MRP)	41.65	43.97	45.81	43.51
1994-95 (URP)	44.11	55.02	42.90	44.72
Total				
1993-94 (URP)	45.57	66.07	43.92	48.64
1999-00 (MRP)	31.51	81.28	50.10	47.37
1994-95 (URP)	29.82	71.27	56.59	46.61

Note: Composition of the regions by pre-reorganisation districts is as follows:
Coastal: Balasore, Cuttack, Puri, Ganjam
Southern: Kandhmahal, Koraput, Kalahandi
Northern: Balangir, Sambalpur, Dhenkanal, Sundargarh, Keonjhar, Mayurbhanj
Source: de Haan and Dubey (2005) and unpublished estimates by Dubey.

Apart from the regional aspect, there is a social aspect of poverty in Orissa as well. *Table 2.2* brings this out clearly. For the state as a whole, more than three quarters of the rural scheduled tribe (ST) population are poor; so are half of the rural scheduled castes (SCs). What is more, poverty among the STs and SCs – both rural and urban – has increased from 1993-94 to 2004-05. The increase in poverty among the SC in urban areas is particularly marked, while rural poverty among them has remained unchanged, indicating significant migration of the poor among the rural SC to urban areas during the intervening 11 years.

Table 2.2*:* NSS Social Group-wise HCR - Rural and Urban Orissa, 1993-94 and 2004-05

Region	Social Groups							
	ST		SC		Others		All	
	1993-94	2004-05	1993-94	2004-05	1993-94	2004-05	1993-94	2004-05
Rural	71.3	75.8	49.8	49.9	40.2	32.9	49.8	46.9
Urban	62.8	64.6	45.5	74.5	36.3	37.1	40.6	44.7
Total	70.8	75.2	49.4	52.6	39.5	33.7	48.6	46.6

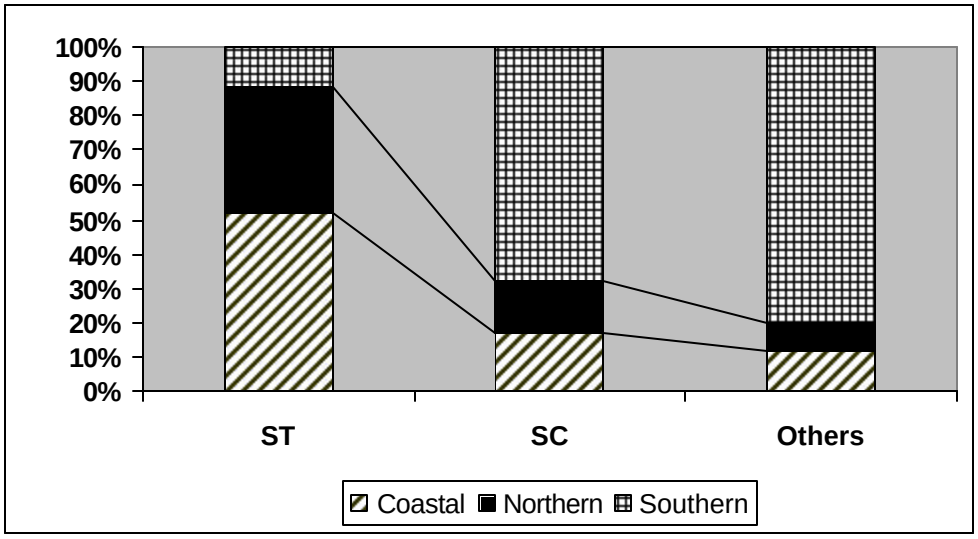
Source: Unpublished estimates by Amaresh Dubey.

Similar analysis of the NSS data for 1999-2000 (de Haan and Dubey, 2003) yields some further insights. Given the high level of poverty in the southern region, and the high incidence of poverty among the STs, it is no wonder that more than 90 percent of the STs in the southern region are poor. The paper also shows that the locational disadvantage is stronger than the social disadvantage – STs in the northern or the coastal region do not have as high an incidence of poverty as in the southern region, while every social group in the southern region has a higher incidence than any social group in the other regions.[5] Rural SCs have an incidence of poverty significantly above that for the region as a whole only in the coastal region, implying that the social disadvantages are more significant in that region.

Looking at the same information in a somewhat different manner, however, shows a picture that is qualitatively different from the picture conveyed by *Table 2.1* above. The high levels of poverty in the southern region portrayed (correctly) by the table mask the fact that the largest number of poor among the STs are in the coastal region, as depicted in *Figure 2.1*, basic figures for which are derived by applying the percentages reported in de Haan and Dubey (2003) to the population figures as per the 2001 census. Eliminating poverty totally among the STs in the coastal region would reduce poverty among STs by half; doing so in the southern region would reduce poverty among the STs by only 10 percent. In fact, eliminating poverty in the southern region would have a stronger impact on overall poverty through the SCs and, to an even greater extent, through other poor. This perspective is, of course, the result of the distribution of the absolute numbers of the poor in different regions, subdivided by social groups. This is not to advocate a policy of concentrating on any particular region or social group within a region, with the objective of maximising reduction of the HCR of poverty for the state as a whole. But it needs pointing out that while the southern region does require special measures simply because of the intolerably high levels of poverty in the region, the large number of STs in the coastal region that live in poverty despite the region having relatively low levels of poverty, implies serious problems of distribution of income and wealth in the region. This situation calls for investigation and appropriate intervention on the part of the government. Clearly, the development that has taken place in the coastal region has bypassed the STs, and even government policies for poverty alleviation have not helped much.

[5] A similar view has been expressed by Padhi, Panigrahi and Mishra (2005).

Figure 2.1: Orissa - Distribution of the Poor by Regions and Social Groups (1999-2000)



Given the high incidence of poverty in the state, calorie deficiency provides a direct picture of food security. Ideally, to abstract from the role played by prices that may not fully reflect local realities, independent estimates of nutrition levels are needed to cross check the income/consumption based estimates of poverty. The estimates given by the NSS (1999-2000)[6] on the level of nutritional intakes provide an alternative meaning to the idea of poverty in the state. Although the per capita per diem calorie intake has increased since 1970s, rural Orissa suffers from striking calorie deficiencies even in 1999-2000. While the 'norm' is 2700 Kcal per consumer unit per diem, the figure stands at 2635 Kcal in 1999-00 for rural Orissa. *Table 2.3* shows that the per capita per diem intake of calorie for rural Orissa has declined from 2199 Kcal in 1993-94 to 2119 Kcal in 1999-00, providing support to our hypothesis that poverty might have actually increased in this period. While the all India average shows the figure at 2149 Kcal in 1999-00, that for Orissa is well below it. Another notable point in the calorie intake estimates is the rural-urban differences. The calorie intake level is higher in the urban parts of Orissa as compared to the rural parts, which implies greater food insecurity and nutritional stress in those areas. This has also been pointed out in NCDS (no date).

[6] Similar data for the latest round of NSS (2004-05) are not readily available, nor are the data regarding wages discussed in sub-section 4.2.

Table 2.3: Changes in Per Capita Per Diem Intake of Calorie Over NSS Rounds: Orissa and India

	Calorie Intake(Kcal)			
	Rural		Urban	
	1993-94	1999-00	1993-94	1999-00
Orissa	2199	2119	2261	2298
India	2153	2149	2071	2156

Source: *Level of Nutritional Intake in India, report 471, 1999-00, NSSO, GOI*

2.4 Contributory Factors

In Orissa, persistent poverty appears to be driven by the factors of (a) inadequate employment opportunities along with disguised unemployment in agriculture; (b) low wages; (c) dwindling options for a large part of the poor to earn their livelihood; (d) policy induced impoverishment; and (e) inadequate capacity of the poor to share in whatever little development is taking place. State policies have failed to make a decisive impact on these factors and, in some cases, have actually worsened the existing situation.

2.4.1 Employment pattern

Employment patterns and the unemployment rates in Orissa provide some insight into the manifold problems related to poverty. *Table 2.4* lays out the summary in terms of two parameters: work participation rate (WPR); and the proportion unemployed (PU). The WPR are higher in Orissa than the all-India figures. This may apparently imply a better situation in the state, but such conclusion would be unwarranted because it may also mean greater participation due to inadequate family income. This is borne out by the fact that within Orissa, the WPRs are higher for the STs than the other social groups. But we already know that the STs have the highest incidence of poverty; these two facts together point to the stronger probability that the higher WPR reflects the tendencies of being engaged in any kind of economic activity to earn a living.

Table 2.4: Usual Status Employment Patterns for Rural Workers, 2004-05

Social Groups	Orissa				All-India			
	WPR		PU		WPR		PU	
	Male	Female	Male	Female	Male	Female	Male	Female
ST	60.1	50.3	5	4	56.2	46.4	6	2
SC	57.9	33.2	22	27	54.5	33.3	9	5
OBC	58.8	27.5	20	34	53.7	33.0	8	6
Others	56.7	15.7	31	57	55.7	26.2	11	8
Total	58.6	32.2	18	29	54.6	32.7	9	6

Source: Report No. 516, *Employment and unemployment situation among social groups in India, 2004-05*, NSSO, GOI

Such a conclusion is further supported by the figures for PU, defined as the number of unemployed per 100 persons both inside and outside the labour force. This is significantly higher in Orissa when compared to the all India figures. In fact, it is almost double for rural males in Orissa and more than double for the females. Such a large extent of unemployed population may be cited as an important factor behind the extant poverty scenario in Orissa. However, the PU figures for the ST also need to be carefully interpreted, as in the case of the WPRs, taking into account the widespread poverty among them. Lack of adequate employment opportunities for the workforce in the state calls for implementation of wage-employment programmes, specifically targeting the vulnerable social groups as well as in the backward regions, like the southern part of Orissa.

Table 2.5: Average Daily Wages for Rural Casual Labourers, 1999-00

	Orissa		All India	
	Male	Female	Male	Female
Workers engaged in public works	33.87	28.76	48.14	38.06
Workers engaged in other than public works	31.14	23.34	44.84	29.01

Source: *Sarvekshana*, Vol XXV (2001), No. 2 & 3, 87th issue, NSSO, GOI

2.4.2 Low wages

Wages of rural workers in Orissa are significantly lower as compared to the rest of India. *Table 2.5* gives the differences in the rural wages of the casual labourers for Orissa and whole of India. While the gender wage differences are smaller compared to the all-India differences, the wage rates are lower for males by approximately 30 percent and for females by 24 percent from the all India wage rates for the workers engaged in public works. For the workers engaged in other than public works, the wages are approximately lower by 31 percent for the males and 20 percent for the females. If minimum wages are provided to the workers in the wage-employment programmes, it can create an upward wage

pull factor for the non-public works as well. This will go a long way in reducing the impact of poverty at the margin.

The wage structure in Orissa by regions and social groups once again reveals that the southern region of Orissa is the worst affected among the regions with the lowest wages in agriculture, and the STs get the lowest wages among the social groups (*Table 2.6*). The average agricultural wage rate in the southern region is significantly lower by approximately 21 percent from the average agricultural wages of rural Orissa. Simultaneously, the average wage of STs is lower from the state average by around 17 percent. This structure of wages clearly reflects the higher level of poverty in the southern region and among the STs, as noted earlier. There is obviously two-way causation between low wages and poverty; however, for policy purposes, wages must be one of the target variables for the reason that it is not possible to control poverty directly, while wages can be influenced through appropriate policy measures.

Table 2.6: Average Daily Wages of Agricultural Labourers in Regions of Orissa and by Social Group (1999/00)

NSS Region	Average	ST	SC	OBC	Others
Coastal	23.25	19.78	23.34	23.84	23.52
Southern	14.97	14.87	14.74	14.78	17.92
Northern	18.58	19.19	17.20	17.95	20.59
Total	18.93	17.95	18.43	18.86	20.68

Source: de Haan and Dubey (2003)

2.4.3 Shrinking livelihood options

This is probably the factor that has occupied the attention of the non-economists concerned about poverty in Orissa the most; in fact, it is this factor, coupled with adverse policy factors that best explains the nature and persistence of poverty in the state. This essentially has to do with the trajectory of the social and economic development in Orissa conflicting with, and progressively obliterating a different culture and way of living, leaving in its wake humans that are forced to adjust to a reality that they are ill-equipped to face. This, in a nutshell, is the problem of the STs and many other backward groups of Orissa; the high level of poverty among them is but a manifestation of the same issue. A large literature exists on various issues that are being clubbed under a single heading here[7]; we content ourselves with describing the process in brief.

The main issue is best understood in the context of forests, which have traditionally been the home to not just the STs, but many others, and has provided them all with their modest livelihood. For various reasons, the major

[7] As a sample, the reader may be directed to GoO (2004), Kumar (2004), Kumar and Chaudhary (no date), Nayak (2007), Nayak and Cader (2007), Shah, Nayak, and Das (2005) and for a somewhat different treatment, Singh (2005).

one being the culture of community ownership of assets, these and also some other land being used by them was not under the ownership of any individual. With state takeover of forests and enforcement of formal land rights, inevitably, the traditional system of earning their livelihood started to disappear. This loss of livelihood was a process that was gradual because they were allowed to continue in their own ways until the state – or the individuals better versed with the formal system that took over their traditional assets – claimed the 'pound of flesh' that was considered theirs by both sides. The state and the individual had the law on their side, and hence prevailed. Sometimes, even having legal land rights did not help. This usually happened with some external pressure – a central Act, or a Supreme Court decision, a hydroelectricity project or a mining venture. The internal pressures were mainly from revenue considerations of the government, and greed of concerned officials for personal enrichment (e.g., excessive felling of trees for timber). Thus, while the disadvantaged groups progressively lost their main sources of livelihood, they became poorer and poorer; it is no coincidence that poverty is concentrated in certain parts of the state.[8] Further, being from a different set of traditions and culture, they could not quickly adapt themselves to take advantage of the small opportunities that came their way – through government schemes or otherwise – to enhance their earning capacity; these were also cornered by others. It may be surmised that their 'voice' is also not strong.

2.4.4 Public policy and poverty

Public policy in Orissa has been an odd mixture of pro-poor and poverty inducing elements, possibly reflecting various compulsions that drive such policy in the Indian system. At the macroeconomic level, demands of equity and several centrally sponsored schemes have prompted the state to devote a part of its scarce resources for poverty alleviation for long. At the same time, the same scarcity of funds has almost forced the state to exploit its natural resources as much as possible, even when the social costs of such exploitation were large in the absence of adequate safeguards to mitigate these costs. There is a certain compulsion for the state to perform in terms of economic development, and exploitation of available natural resources to promote industrialisation is the easiest (and most obvious) way of generating resources for the government and simultaneously claim 'performance'. Unfortunately, some of these measures like promoting exploitation of major minerals do not even generate adequate resources for the state to balance the concomitant social costs as a result of the relevant policy framework being outside the control of the state (*see* Baral, 2006). Weak governance has also contributed to impoverishment of large numbers

[8] Deforestation was the norm for a long period; this trend is reported to have reversed recently. The social costs of the earlier process of deforestation had indirect fallouts too; for example, it resulted in upward shifts in normal temperature that sucked away residual moisture after the first crop in agricultural fields in nearby areas and made the traditional second crop impossible.

resulting from the implementation of 'development projects' with ill-conceived and tardily implemented resettlement of the displaced.

At the micro level, the best example of poor unfriendly policy is provided by that relating to non-timber forest products (NTFP).[9] These policies have been particularly harsh on tribals in tandem with the forest policies (mentioned in the previous subsection) in the past, coexisting with schemes for their welfare. Those who actually undertook the task of collecting the forest products were treated as wage labourers and the bulk of the producers' surplus was extracted either by the state or (usually locally monopolistic) private traders.

The government policy changed for the better in 2000, with many of the levies applicable to these products withdrawn. In fact, now those forest products formally classified as NTFP are either directly under state control (called specified forest products or SFP; these include three nationalised products – kendu leaf, bamboo and sal seed) or are not allowed to be traded (called lease-barred forest products or LFP). Other minor forest products (MFP) can be collected and traded by all (this does not apply to reserved forests, sanctuaries and national parks); however, *Gram Panchayats* have been empowered to control trading through a system of registration of buyers while *Panchayat Samities* are empowered to determine prices for the MFP. With people's collectives coming up for trading as well, the income of the MFP collectors have increased. The major restriction that still applies is that of excise act on *Mohua* flowers, treating them as intoxicants that may not be justifiable. Part of the government revenue from kendu leaf trade is passed on to *Gram Panchayats* as grants, but there are complaints that the pattern of spending of these grants does not benefit the poor collectors in any way. Other complaints regarding kendu leaf trade include excess collections of leaves for the same payment and non-procurement from some viable areas, leaving the field open for exploitative traders.

2.4.5 Inadequate capacity of the poor

The poor can develop capacity to climb out of poverty by developing human capital or through acquisition of physical capital. By the very process of impoverishment discussed above, acquiring physical capital on their own is beyond the poor. The only real possibility for such acquisition is through community and/or public action. This is discussed below in the context of specific schemes for poverty alleviation. A more realistic strategy to enhance earning capacity is to acquire marketable skills, through a formal education process or otherwise.

While many skills do not necessarily require education, it certainly helps in the process of acquisition and marketing of such skills. At a more basic level,

[9] The following discussion is based largely on Vasundhara (1998), Vasundhara (2005) and Vasundhara (2006).

health is the most fundamental human capital, along with related factors like nutrition and water supply. In these matters, while public and private supply coexists in Orissa as in other parts of India, lack of purchasing capacity makes the poor necessarily dependent on the public supply. These are important aspects of the right to a decent life for any citizen of a country apart from being ingredients of a longer-term strategy to eliminate poverty. This is what we turn to and discuss in some detail in the next two chapters.

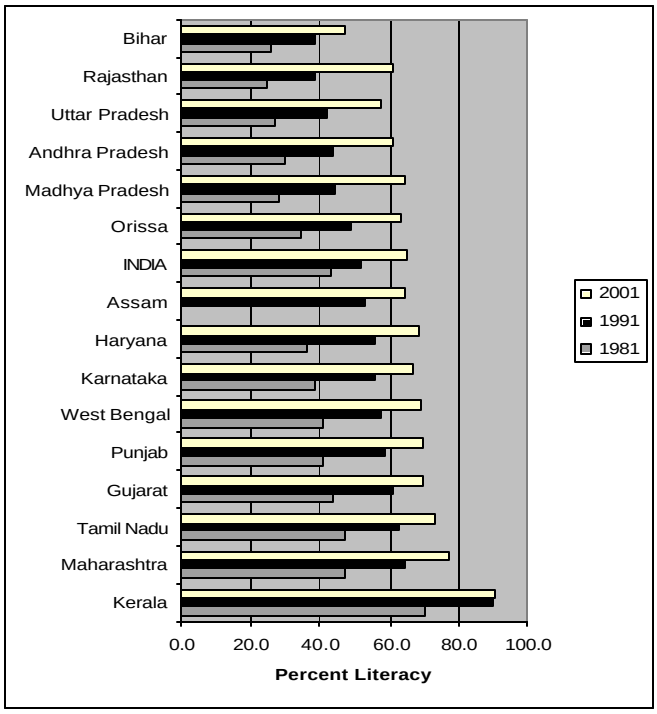
III. Status of Elementary Education

Education is the key to social and economic development of any society. It encompasses every sphere of human life. Elementary education is recognised as a fundamental right of all citizens in India. The Constitution of India casts an obligation on the state to provide free and compulsory education to all children up to the age of 14. For these reasons, in a situation of high levels of illiteracy, suitable policy intervention to universalise elementary education is a major concern and a priority for the state.

3.1 Achievements in Elementary Education

The avowed objective of the education policy in India is to ensure elementary education to all children in the relevant age group and minimise dropouts. In particular, it is considered important to ensure a minimum level of education for the children of the poor and those belonging to the socially disadvantaged groups. Further, it is also considered important to eliminate gender gaps in this area. Apart from meeting to some extent what can be taken as basic human rights of the citizens, all these are considered to confer substantial externalities, making the overall system more efficient and productive. For the individuals, education is considered to be a tool for upgrading their human capital, thus improving their productive capacity. Thus, both private and social benefits are expected to accrue from a better educated populace. Elementary education is expected to provide these benefits – particularly social ones – to a comparatively greater extent and is thus most important for public policy. The progress of elementary education can be observed in many ways, the most common indicator being literacy rate. *Figure 3.1* shows the literacy figures as per the last three census information for some selected states and the country average. The states are ranked by the 1991 figures. Compared to 1991, three states that have improved their ranking in 2001 are Haryana, Madhya Pradesh, and Rajasthan. Orissa has fallen behind Madhya Pradesh and Rajasthan is also not far behind. However, the trends in Orissa show it to be just keeping pace with the country average. Thus, the state's performance by the yardstick of literacy rate is neither relatively better nor worse. But one actually needs to examine the issues – and the difficulties faced in the area of elementary education in some more detail.

Figure 3.1: Progress of Literacy in India and Some Selected States



India is one of the countries facing difficulty in universalising basic education and it has already missed the MDG targets in this area. Despite persistent efforts by governments, there exist numerous problems in achieving cent percent elementary education, particularly in a state like Orissa. Within the overall coverage, disparity in the levels of attendance in primary schools across the various social and economic groups is a major point of concern. Government of India's flagship programme *Sarva Shiksha Abhiyan* or SSA was launched on nation-wide scale to universalise elementary education by providing for community ownership and monitoring of the school system. The objectives of the programme are compulsory education to all the children of 6-14 years age group by 2007. Even before this, District Primary Education Programme (DPEP) has been in operation in selected districts.

What have DPEP and SSA done to enhance access to quality education up to the elementary level and raise enrolment? Have these programmes done enough? To answer these questions, first, we need to examine the performance of some basic educational indicators like net enrolment ratio in primary and upper primary level and percentage of out-of-school children in the districts of Orissa. We have divided the 30 districts of Orissa into three parts following the division used in National Sample Survey: coastal, northern and southern. Each part

comprises of 10 districts. In coastal part, most of the districts are better off in terms of per capita income. In southern part, the percentages of SC and ST population are much higher than other two parts and the districts are also not financially well-off. Basic educational indicators for the three sets of districts are given in *Tables 3.1* to *3.3*.

Table 3.1: Performance of Some Basic Educational Indicators in Coastal Districts of Orissa, 2005

Districts	Literacy Rate (2001)	NER (Primary)	NER (Upper Primary)	Out of school children (%)
Baleshwar	70.56	83.2	30.4	11.12
Bhadrak	73.86	94.4	28.7	6.12
Cuttack	76.66	72.2	26.5	3.71
Ganjam	60.77	87.3	23.7	14.52
Jagatsinghpur	79.08	83.4	31.8	3.04
Jajapur	71.44	93.3	31.1	5.39
Kendrapara	76.81	89.9	30.3	3.58
Khordha	79.59	67.0	24.2	5.48
Nayagarh	70.52	78.8	28.5	7.45
Puri	77.96	78.8	28.3	3.37

Table 3.2: Performance of Some Basic Educational Indicators in Northern Districts of Orissa, 2005

Districts	Literacy Rate (2001)	NER (Primary)	NER (Upper Primary)	Out of school children (%)
Anugul	68.79	85.2	26.6	6.36
Bargarh	63.99	71.4	24.1	5.80
Deogarh	60.36	85.7	27.5	5.52
Dhenkanal	69.42	79.1	28.8	8.75
Jharsuguda	70.65	75.0	32.8	4.24
Kendujhar	59.24	83.2	27.6	10.28
Mayurbhanj	51.91	80.0	22.9	15.70
Sambalpur	67.25	66.2	27.0	8.58
Sonepur	62.84	81.9	29.4	5.06
Sundargarh	64.86	67.5	27.2	5.72

Table 3.3: Performance of Some Basic Educational Indicators in Southern Districts of Orissa, 2005

Districts	Literacy Rate (2001)	NER (Primary)	NER (Upper Primary)	Out of school children (%)
Balangir	55.70	91.9	26.4	10.79
Boudh	57.73	89.6	36.4	21.22
Gajapati	41.26	93.4	23.0	14.50
Kalahandi	45.94	72.9	20.3	13.72
Kandhamal	52.68	95.8	25.7	13.80
Koraput	35.72	89.1	17.2	16.26
Malkangiri	30.53	102.0	19.7	21.14
Nabarangpur	33.93	84.3	17.5	21.24
Nuapada	42.00	94.3	25.4	17.99
Rayagada	36.15	84.6	20.0	15.75

Source: Census 2001 and District Report Cards, NUEPA

The tables reveal that there is a large gap in net enrolment ratio (NER) between primary and upper primary levels in general. It implies that children who are enrolled in primary school are not completing a given level of education.[10] Between the three regions, the gap is the least in coastal districts as compared to northern and southern parts of Orissa, southern region having the largest gap. But there is little to choose between the regions with respect to NER at the primary level. Except in Ganjam and Baleshwar, the percentage of out-of-school children is also substantially lower in the coastal districts, while these rates are the highest in the southern districts. It should be obvious by now that there is complete correspondence between the poverty levels and the educational indicators in the three regions, which does not augur well for balanced regional development even in future. It may also be noted that performance of all the indicators in KBK districts in general (comprising eight districts: Koraput, Malkangiri, Bolangir, Kalahandi, Nabrangpur, Nuapada, Rayagada and Sonepur) are very poor compared to the other two parts. Whatever be the reasons for these obvious differences, it is clear that public interventions have so far not succeeded in augmenting the human capital in the poorer regions noticeably.

[10] Unless enrolments at the primary level are overestimated, as is sometimes alleged.

Figure 3.2: Out-of School Children and Tribal Areas in 2005

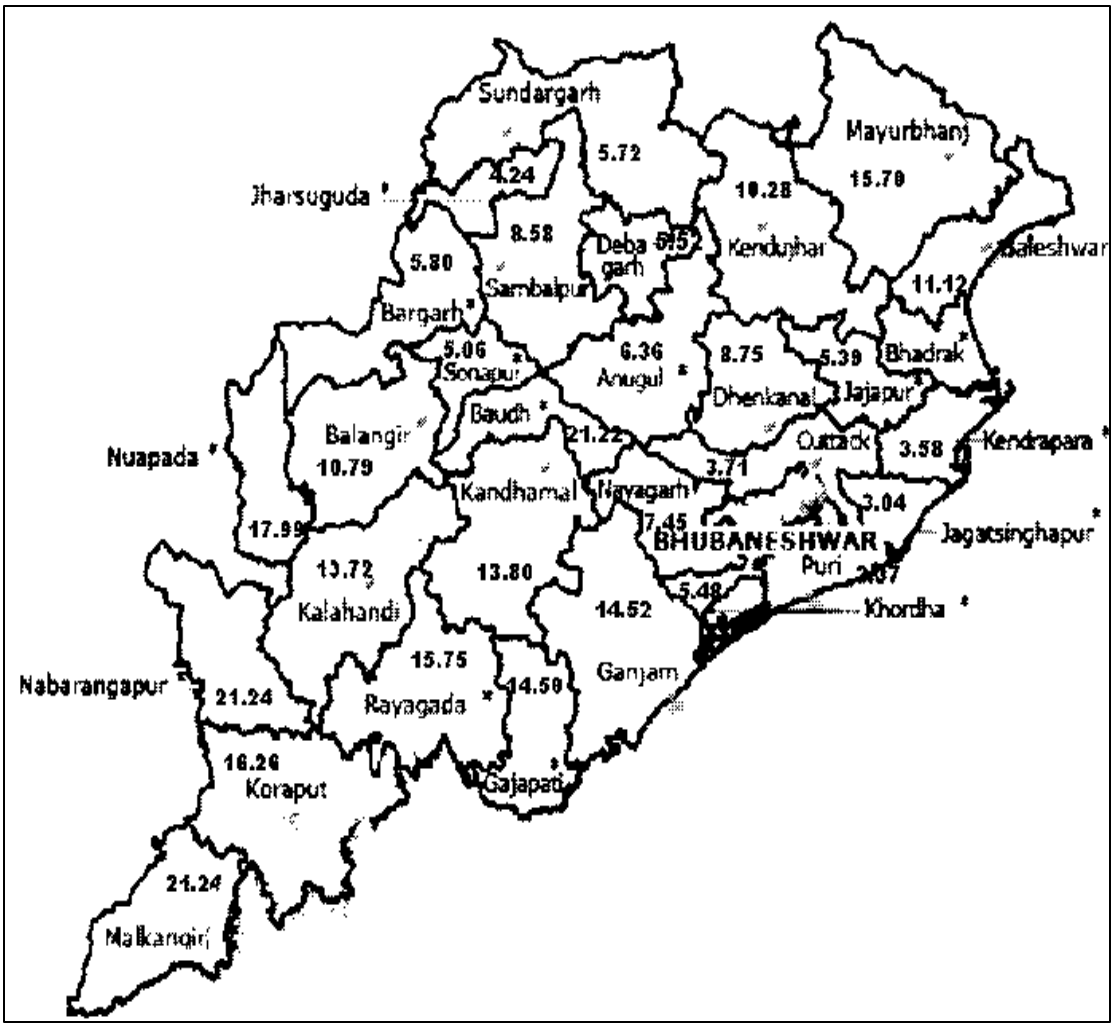


Figure 3.2, with districts having higher than 25 percent ST population shaded in grey and the percentage of out-of school children of each district on the map, is quite suggestive. It can be easily seen that all the southern districts and two northern districts having substantial tribal population also have high percentages of out-of-school children. Only three tribal districts out of 13 have relatively low percentage. In contrast, only four non-tribal districts out of 17 have relatively high percentage of out-of-school children. Even out of the four, one (Balangir) has ST population of around 20 percent. In any case, the figure very strongly suggests that the single indicator chosen (percentage of out-of-school children) is rather adverse for the disadvantaged social group of STs in the state.

From the information given above, the main point of concern appears to be the high dropout rate that seems to be responsible for the low enrolment at the upper primary level as compared to the primary. Obviously, this is something that needs a closer look at the causes and possible remedies.

3.2 Dropout Rate

School attendance/non-attendance and dropout at the primary level is an outcome of a mix of several factors: a combination of socio-economic ones at individual and household level like demographic attributes, developmental aspects of the community as well as motivation of the individual and developmental plans at the macro level. The major reasons appear to be distance from home, poverty, gender, sibling care and lower priority to education as compared to other domestic activities.

According to *Table 3.4* listing out the relative importance of various reasons for dropping out, the most prominent specific reason for dropout is poverty. Children of poor families are less likely to enroll in and complete schooling due to the associated costs of attending school even when it is provided "free". The cost of proper clothing, supplies, and transportation may well be beyond the means of a poor family, especially when the family has several children in the school age group. This necessitates choices, and the choice is often to drop out of school or, worse yet, to deny schooling to girls while enrolling the boys thereby contributing directly to perpetuation of the inferior status of women. Dropping out of school because of poverty virtually guarantees continuation of the poverty cycle since the income-earning potential of the child is reduced not to mention overall productivity, receptivity to change, and capacity to improve quality of life.

Table 3.4: Reasons for Dropout, 2005-06

(Percentage of dropout among total dropout in respective districts)

District	Distance from home	Earn money for poverty & different works	Sibling care & domestic activities	Due to gender	Dislike of parents	Lack of aware-ness	School not attractive	Failure in class	Out of country	Other
Angul	5.6	25.0	12.6	1.7	7.0	8.0	3.8	1.6	2.0	32.7
Balasore	3.3	16.2	7.9	1.3	6.1	9.3	5.9	1.5	1.8	46.7
Baragarh	3.6	30.5	14.7	2.0	6.7	6.6	3.9	3.7	4.9	23.4
Bhadrak	3.2	25.6	8.7	2.7	7.3	8.8	4.8	1.7	1.1	36.1
Bolangir	2.6	32.2	25.7	1.7	6.9	6.6	2.6	1.1	3.6	17.0
Boudh	5.7	11.3	6.5	0.9	6.2	15.4	13.0	3.3	5.5	32.1
Cuttack	2.8	28.2	6.9	2.9	5.3	6.3	4.0	4.3	4.5	34.9
Deogarh	4.6	33.6	13.0	1.7	7.8	6.5	2.5	1.7	1.8	26.8
Dhenkanal	8.1	18.4	10.5	1.4	5.8	9.6	6.4	2.4	4.4	33.0
Gajapati	8.9	30.6	26.4	1.4	5.3	4.6	1.3	0.6	3.0	17.9
Ganjam	3.2	20.8	12.4	1.2	7.1	9.0	5.4	1.6	2.6	36.7
Jagatsinghpur	2.3	27.5	6.6	3.1	8.1	8.9	4.3	2.1	2.1	35.0
Jajpur	9.8	27.3	16.8	1.6	6.2	7.0	3.3	1.0	1.0	25.9
Jharsuguda	4.0	23.7	11.2	1.7	7.0	5.7	2.6	3.6	4.2	36.4
Kalahandi	6.3	35.8	33.0	1.0	7.4	7.3	1.9	0.3	1.0	6.0
Kandhamal	10.7	15.9	14.1	0.6	3.1	7.0	5.5	1.0	1.8	40.3
Kendrapara	1.2	24.0	6.2	3.1	8.2	7.7	3.8	2.3	2.4	41.1
Keonjhar	13.2	30.4	26.5	0.8	7.5	7.8	2.3	0.6	0.6	10.4
Khurdha	3.8	28.8	7.6	1.6	5.3	5.9	3.6	2.4	2.5	38.4
Koraput	12.7	29.4	28.7	0.7	6.4	5.8	1.5	0.4	0.4	14.0
Malkangiri	14.8	33.0	31.8	0.6	6.8	6.1	1.0	0.2	0.2	5.6
Mayurbhanj	5.8	33.9	27.4	1.1	7.7	8.0	2.4	0.8	0.7	12.1
Nawarangpur	7.6	31.2	29.9	0.6	8.7	8.2	1.9	0.6	0.5	10.7
Nayagarh	4.2	18.8	6.1	2.1	3.2	5.3	4.3	2.7	8.4	44.9
Nuapada	3.1	20.7	18.1	1.9	7.8	11.2	7.1	1.3	2.5	26.3
Puri	2.5	27.7	8.1	1.8	9.2	9.8	4.9	3.1	2.2	30.8
Rayagada	12.3	31.4	29.6	1.3	7.7	6.5	1.3	0.3	0.4	9.1
Sambalpur	5.2	21.3	11.1	2.6	6.5	8.3	5.1	2.8	3.0	34.0
Sonepur	5.0	28.7	16.9	1.8	5.5	6.1	3.7	1.7	2.5	28.2
Sundergarh	4.2	28.4	17.8	1.7	9.7	9.0	2.8	1.7	1.6	23.0

The second important reason is sibling care and domestic work, which is in some sense another aspect of the poverty problem. Distance from school and lack of awareness follow as further specific reasons for dropout, although one suspects that rather than distance, the more important factor is proper connectivity.[11]

Table 3.5: Division of Districts on the Basis of Reasons for Dropout Rate (2005-06)

Districts* explaining more than 50%		Districts explaining less than 50%	
Districts	**%age of explanation**	**Districts**	**%age of explanation**
Malkangiri	79.5	Baragarh	48.8
Kalahandi	75.1	Angul	43.2
Rayagada	73.3	Nuapada	41.9
Koraput	70.8	Kandhamal	40.7
Keonjhar	70.1	Khurdha	40.3
Nawarangpur	68.8	Jharsuguda	38.8
Mayurbhanj	67.2	Puri	38.2
Gajapati	65.9	Cuttack	37.9
Bolangir	60.5	Sambalpur	37.7
Jajpur	53.9	Bhadrak	37.5
Deogarh	51.1	Dhenkanal	36.9
Sonepur	50.6	Jagatsinghpur	36.4
Sundergarh	50.4	Ganjam	36.3
		Kendrapara	31.5
		Nayagarh	29.2
		Balasore	27.4
		Boudh	23.5

Source: Calculated on the basis of data collected from OPEPA.
*Districts are ranked in descending order of explanation

Taking the first three reasons – distance of school from home, child labour, and domestic activities – as three main constraints for children dropping out of school, it is of interest to see how much of the dropout rate is explained by them together. Dividing all the districts in two parts on the basis of at least 50 percent of the dropout beng explained by the three factors, we get *Table 3.5*.

For most of the poorer districts, more than 50 percent of dropout is explained by these three reasons. Thus, poverty and lack of access can be taken to be the main reasons for high dropout rates in poorer districts including all the KBK districts. The significance of the other reason – distance from school –

[11] A nearby school is difficult to attend regularly if there is a stream without a bridge in between; one can possibly traverse even 2/3 kms. if there is a good road.

probably indicates that the state agenda of providing access to primary schools within one kilometre and upper primary schools within three kilometres from habitations having 300 or more and 500 or more persons respectively as per guidelines adopted at the national level have not been fully implemented.

3.3 School Infrastructure

One aspect that is very much within the control of the state, and SSA provides funds for this, is improvements in school infrastructure. Given a high degree of access to schools indicated by the high levels of NER, safe school buildings with adequate classrooms and separate toilets for boys and girls can provide some additional incentive for the students to enroll and continue schooling; by obviating multi-grade classrooms, it can also improve the quality of teaching to some extent. The quality of teaching further improves with one teacher not having to teach students from different grades simultaneously. *Table 3.6* provides information on school infrastructure by districts.

The availability of infrastructure facilities in schools can probably be called reasonable in terms of classrooms and teachers, except in districts like Gajapati where 25.5 percent of schools have single classroom and 46.9 percent have a single teacher. However, with regard to provision of toilets, substantial work needs to be done. The table shows that in almost all districts less than 15 percent of schools have proper girls' toilets. Worse, only Baleshwar, Khordha, Puri, Ganjam and Sundargarh appear to have at least 50 percent of the schools with some toilet facility; the rest of the districts have more than half the schools without toilet facility. The picture with respect to drinking water facilities is much better; in most of the districts at least only 80 percent of schools have drinking water facilities. Only Bhadrak, Baleshwar, Ganjam, Jajapur and Puri, located mainly in coastal districts, have a lower percentage of schools with this facility, possibly because potable drinking water is available near the school from other sources like public standposts. Overall, it is obvious that much work remains to be done.

Table 3.6: Infrastructure Related Indicators in Elementary Education in Orissa, 2005

(percent)

Districts	Single classroom schools	Single teacher schools	Schools with common toilets	Schools with girls toilets	Schools with drinking water facility
Anugul	5.6	16.9	29.7	10.3	87.8
Balangir	12.6	15.2	34.4	11.7	85.4
Bargarh	3.6	11.4	32.1	15.0	92.3
Bhadrak	5.6	13.0	38.7	4.8	64.1
Baleshwar	3.5	5.1	62.7	19.0	77.9
Boudh	12.0	8.2	10.1	1.8	82.0
Cuttack	6.6	11.2	30.3	9.9	84.6
Deogarh	4.5	25.4	14.6	4.7	95.3
Dhenkanal	3.5	13.0	27.3	18.7	90.5
Gajapati	25.5	46.9	11.8	5.7	88.5
Ganjam	7.3	13.6	47.7	21.5	67.9
Jagatsinghapur	4.7	12.9	26.0	7.0	83.1
Jajapur	7.2	9.9	24.4	6.8	69.0
Jharsuguda	4.8	14.9	20.2	9.3	93.5
Kalahandi	3.7	10.4	30.0	8.9	89.7
Kandhamal	8.7	19.8	31.5	12.3	93.3
Kendrapara	11.0	13.7	20.9	6.5	70.6
Kendujhar	3.6	12.7	21.5	5.9	89.1
Khordha	4.1	9.9	40.4	20.2	77.0
Koraput	11.8	19.7	12.1	7.3	86.1
Malkangiri	7.4	15.9	19.5	6.8	89.0
Mayurbhanj	4.2	15.2	21.5	5.6	92.6
Nabarangpur	5.2	28.1	16.5	5.8	83.0
Nayagarh	4.9	13.1	27.3	11.5	87.4
Nuapada	6.0	8.2	24.1	4.0	87.7
Puri	10.2	11.3	34.4	16.1	72.2
Rayagada	18.2	17.7	22.0	11.9	88.0
Sambalpur	3.8	17.6	28.5	10.7	92.7
Sonepur	19.1	28.1	12.4	5.7	84.4
Sundargarh	2.9	16.6	53.8	14.2	86.8

Source: District Report Card, NIEPA

3.4 Quality of Education

Enrolment, and to a greater extent, continuation of education depend heavily on the quality of education that is imparted to the pupils. Quality is generally understood to be a multifaceted term that includes tangible factors like the size of class a teacher has to teach, and the qualification of the teachers, to intangibles like the method of teaching, use of teaching aids, and the rapport between teachers and their pupils. Some measurable indicators of teaching

quality on which information is available for Orissa are presented in *Table 3.7* as pointers to the quality of education in the state.

The table shows that the pupil teacher ratios in almost all districts are below the normative number of 40; exceptions are Bhadrak, Ganjam and Jajapur districts where the ratio is only marginally above 40. The breaches of the norm are probably due to temporary fluctuations in enrolment and retention/drop out rates than anything else. Thus, apart from new schools being started or new classes being added to an existing school, teacher appointments need to be occasioned by replacements only. The table also shows that almost all schools are being taught in the local language medium; the only question here is whether the same is suitable for all the tribal children or not. All the tribal children are not necessarily comfortable in Oriya, and local variations in teaching language, at least in the first two or three years of schooling may perhaps help in retaining the pupils in tribal areas. This has already been initiated.

If we judge the teachers' qualification by their level of education then it is found that except Nuapada (31.8 percent), all other districts have more than 40 percent teachers with higher secondary degree. In some districts (Puri, Khordha, Deogarh, Cuttack and Baleshwar) this percentage is more than 60. Thus, a reasonable formal education requirement is met in most cases; but then this is hardly news since the appointments probably have a minimum education requirement.

Table 3.7: Quality of Education

Districts	Pupil teacher ratio	Teachers having H.S. degree	Enrolment by medium of instruction Oriya	Trained Teachers in Primary Schools
Anugul	37.9	55.5	97.4	65.3
Balangir	35.6	46.5	98.5	33.9
Bargarh	36.9	54.8	97.6	36.1
Bhadrak	52.1	50.6	98.3	58.4
Baleshwar	43.9	61.4	99.0	35.9
Boudh	30.2	46.9	99.6	17.2
Cuttack	35.8	62.3	95.9	40.0
Deogarh	34.5	62.0	99.9	63.4
Dhenkanal	37.4	50.5	98.8	17.0
Gajapati	29.1	50.8	91.9	9.1
Ganjam	43.7	51.4	97.1	48.1
Jagatsinghapur	37.3	56.5	100.0	44.6
Jajapur	41.1	56.1	99.3	62.9
Jharsuguda	31.5	49.5	84.5	67.6
Kalahandi	33.6	40.9	99.4	72.1
Kandhamal	27.0	42.6	99.5	66.1
Kendrapara	39.4	54.6	98.9	44.4
Kendujhar	32.8	49.1	100.0	44.5
Khordha	36.0	65.1	93.1	38.8
Koraput	31.7	42.4	97.3	58.3
Malkangiri	35.4	43.3	98.6	62.6
Mayurbhanj	34.3	45.7	96.5	29.5
Nabarangpur	44.6	44.6	99.0	50.5
Nayagarh	37.1	52.6	99.4	44.1
Nuapada	32.8	31.8	98.9	79.6
Puri	39.9	72.4	99.1	54.3
Rayagada	28.0	49.8	97.0	11.6
Sambalpur	29.6	50.7	93.9	17.2
Sonepur	34.2	44.1	99.7	44.8
Sundargarh	32.5	42.5	97.3	65.9

Source: District Report Card 2005, NIEPA

A more important issue is teachers training: how many of the teachers are appropriately trained and how often. There is significant variation among districts in this area, but there does not seem to be any strong relation between the

indicator of teachers' training and dropout rates. A priori one would expect a negative relationship; it is possible that the indicator reported in the table does not pick up the qualitative aspects of training well.

There is some direct evidence that is available on quality of learning. 'Pratham', an educational NGO, carries out surveys on quality of elementary education in various parts of India including rural Orissa. While earlier assessments placed the quality of education in the state well below the average for India, the latest study by *Pratham* (ASER 2006) for rural India places Orissa above the average level of learning quality for the country as a whole. However, there are 12 states that score higher than Orissa in all the summary indicators of learning achievements, while Tamil Nadu, Karnataka, Gujarat, Uttar Pradesh and Rajasthan score lower in all the indicators. The latest one records substantial gains from the previous year's survey; to what extent the improvements are caused by real changes or by changed sample size for the survey is difficult to assess, but the fact remains that the more recent results are probably more stable because of larger sample size. Still, the survey results for rural Orissa indicate that in most of the districts in Orissa, the quality of education provided is not of a satisfactory level. Some results are described in the tables below.

Table 3.8: Learning Test: Orissa Rural

	Children who cannot read… (%)		Children who cannot solve numerical problems… (%)	
	Level 1*	**Level 2****	**Subtraction**	**Division**
Age: 7-14 all	36.8	51.8	47.2	72.6
Govt: Std II-V	46.6	65.3	57.2	85.1
Pvt: Std II-V	28.9	49.2	30.6	69.8
Govt: Std VI-VIII	8.5	19.3	20.2	47.9
Pvt: Std VI-VIII	7.8	19.7	21.1	42.7

***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
Source: ASER (2005)

The survey showed that about 37 percent of students of classes II-VIII of ages 7-14 in Orissa cannot read a small paragraph with small sentences. This percentage increases to 52 percent, when the reading ability is tested for level-2. The picture is more serious in government schools compared to private schools. The situation is worse for mathematics, where more than 85 percent cannot solve the division problem in Std. II-V. It is of interest to note that these abilities, as can be expected, improve in higher classes, and the gap between the government and private schools narrow down eventually.

A look into the top five and bottom five districts ranked on the basis of student performance shows that mostly the coastal districts are performing well. The bottom five districts are mainly the KBK districts. The students of Baudh district have scored high in the case of language but poorly in mathematics.

Table 3.9: Performance of Top Five and Bottom Five Districts in Orissa
(Based on % of all children standard V)

Reading	Cannot read	Arithmetic	Cannot solve
Top-5	**level 2**	**Top-5**	**division**
Khordha	21.8	Khorda	44.2
Puri	22.9	Baleshwar	48.0
Baudh	26.1	Kandhamal	54.9
Mayurbhanj	27.9	Jagatsinghpur	57.1
Jagatsinghpur	28.1	Mayurbhanj	58.1
Bottom-5		**Bottom-5**	
Nabarangapur	71.6	Rayagada	93.8
Rayagada	65.2	Balangir	90.6
Anugul	62.9	Nuapada	89.8
Sonepur	57.0	Sonepur	86.0
Sundargarh	53.6	Baudh	82.8

Source: ASER 2005, Pratham

3.5 Gender and Social Groups in Elementary Education

Gender disparity is fairly high in Orissa (75.95% for males and 50.97% for females in 2001) despite a reduction in the 1990s in terms of literacy rate. The disparity is less in terms of enrollment at the elementary level (94.07% for boys and 93.36% for girls), but it has not been eliminated, implying that the future reduction in gender disparity in literacy is likely to be slow. Gender disparity is also higher among the socially disadvantaged groups (SC and ST), which have lower literacy rate as a whole as well.

There are large inter-district variations of gender disparity at the elementary level of education in Orissa (*Table 3.10*). The indicator used for calculating gender disparity in education is “Gender Parity Index” (GPI) calculated as ratio of girls to boys’ enrollment at elementary level. Districts with higher disparity (prominent in Rayagada, Mayurbhanj, Malkangiri and Koraput districts) are also those with higher tribal population, reflecting the higher gender disparities among them.

Table 3.10: Some Indicators Related to Gender and Social Groups by Districts

Districts	GPI	SC enrolment in primary school (%)	Girls in SC enrolled in primary school (%)	ST enrolment in primary school (%)	Girls in ST enrolled in primary school %)	Gender of Teachers (%) (regular + para-teachers)		SC teacher in Total (%)		ST teacher in Total (%)	
						Male	Female	Male	Female	Male	Female
Anugul	0.92	21.4	48.8	17.0	46.9	69.8	30.2	7.6	3.4	8.7	2.6
Balangir	0.95	20.1	48.8	24.7	48.2	73.2	26.8	10.4	2.6	11.2	2.4
Bargarh	0.96	23.1	48.5	23.1	48.7	79.6	20.4	11.2	3.1	13.4	3.3
Bhadrak	0.94	26.8	48.3	2.2	39.5	70.5	29.5	8.3	2.6	1.4	0.4
Baleshwar	0.91	25.7	48.3	11.4	42.5	68.4	31.6	6.4	2.8	3.9	1.1
Boudh	0.96	27.4	48.7	11.5	49.0	79.6	20.4	9.3	3.1	7.0	1.9
Cuttack	0.93	23.6	48.6	5.0	43.8	56.6	43.4	5.6	2.8	2.5	0.5
Deogarh	0.95	19.1	48.8	38.7	48.7	76.7	23.3	6.4	2.1	8.5	3.3
Dhenkanal	0.92	22.5	48.7	16.8	46.9	66.1	33.9	6.5	2.1	3.7	2.1
Gajapati	0.90	11.8	48.9	57.3	45.3	73.9	26.1	9.8	3.0	22.7	5.9
Ganjam	0.93	21.7	46.9	3.3	44.2	74.7	25.3	10.3	2.0	4.7	1.6
Jagatsinghapur	0.94	25.9	49.0	1.3	47.5	54.5	45.5	4.0	3.1	0.5	0.4
Jajapur	0.92	29.6	48.7	8.2	42.0	70.9	29.1	5.8	2.5	3.0	0.9
Jharsuguda	0.95	20.5	49.1	36.9	49.3	65.4	34.6	7.4	4.1	10.0	4.7
Kalahandi	0.92	21.7	48.4	27.5	47.0	79.9	20.1	9.8	2.5	8.2	1.2
Kandhamal	0.90	24.7	48.0	55.3	46.7	71.0	29.0	9.8	3.6	12.3	5.6
Kendrapara	0.94	25.2	48.6	1.0	37.6	71.5	28.5	4.5	2.0	1.1	0.3
Kendujhar	0.90	12.2	49.9	52.5	45.7	76.2	23.8	7.4	1.5	10.3	1.9
Khordha	0.92	17.7	48.2	6.3	45.8	49.2	50.8	4.7	2.6	1.7	0.9
Koraput	0.89	18.0	48.2	55.2	46.2	68.2	31.8	7.3	3.3	10.2	2.8
Malkangiri	0.85	25.4	48.4	60.2	44.5	75.4	24.6	18.4	5.8	12.0	3.5
Mayurbhanj	0.87	8.2	47.4	62.3	45.2	67.1	32.9	6.1	2.3	11.4	4.2
Nabarangpur	0.90	18.2	48.9	56.3	46.6	71.8	28.2	11.6	4.6	15.8	3.4
Nayagarh	0.91	16.7	47.3	5.9	46.5	75.9	24.1	5.9	1.1	3.0	0.5
Nuapada	0.96	15.5	48.2	36.3	49.4	79.1	20.9	7.3	1.5	14.6	1.2
Puri	0.95	23.1	49.1	0.5	42.4	58.8	41.2	8.1	3.5	0.8	0.4
Rayagada	0.88	18.5	47.4	59.0	46.5	74.9	25.1	8.9	1.9	13.3	3.1
Sambalpur	0.95	20.4	49.0	42.8	48.6	60.1	39.9	6.4	3.0	9.8	3.6
Sonepur	0.97	28.1	48.8	10.5	49.2	81.8	18.2	9.8	1.7	6.5	1.4
Sundargarh	0.93	10.2	48.8	63.1	47.9	56.7	43.3	5.7	3.1	13.0	11.2

Source: District Report Card 2005, NIEPA

On the positive side, the GPI in Sonepur, Nuapada, Baragarh, Puri, Sambalpur, Jharsuguda, Baudh and Balangir is 0.95 and above, exhibiting near parity. Besides gender disparity among students, it is also evident in teacher appointment. Although there ought to be a preference for female teachers at the elementary level in principle, there may be a supply constraint for various reasons including lower literacy among females. The table shows that the disparity in appointed teacher (both regular and para-teacher) is highest in Sonepur, followed by Kalahandi, Baudh, Bhadrak and Nuapada. Disparity is low in Jagatsinghpur, Sundargarh, Puri and Sambalpur. Only in Khordha district, teacher appointment goes in favour of women.

The extent and nature of disparity – including gender disparity – among students as well as teachers varies along socio economic groups too. This can be easily inferred when we consider the performance of the indicators given in *Table 3.10.*

3.6 Government Expenditure on Elementary Education

Public expenditure on education is one of the most important supply-side determinants of education. It is expected that there would be a positive association between gross enrolment and government expenditure at every level of education especially at elementary level.

3.6.1. Budgetary expenditures

Public expenditure on education in India is classified into disbursement on general education and technical education. Within general education, which accounts for over 95 percent of the total expenditure on education in all states, allocations are made towards elementary, secondary, university and higher education, adult education etc.

Figure 3.3: Share of Education in Total Expenditure

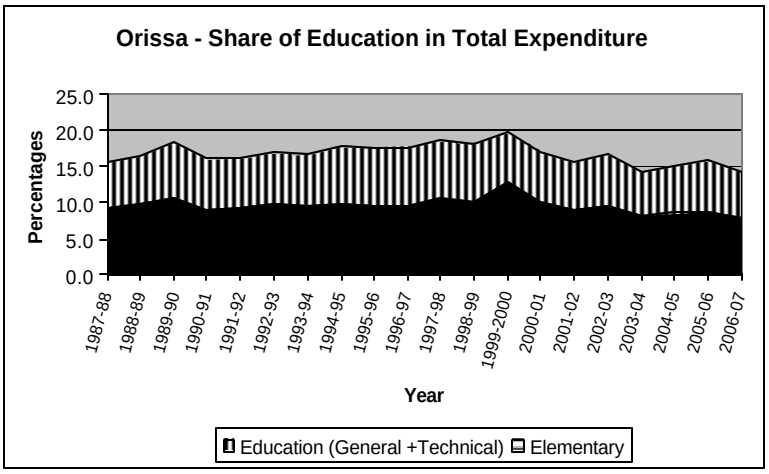


Figure 3.3 plots the budgetary expendi-ture on education as a percentage of total govenrment expen-diture from 1987-88 to 2006-07; it also plots the share of expenditure on elementary educa-tion for the same time period. Though

the nominal government spending on education has been steadily rising over time, education expenditure as a percentage of total expenditure exhibits a clear peak in 1999-2000. Subsequently, the share of education in total expenditure drops to levels below those observed in the entire period before the year 1999-2000, and a declining trend is clearly visible despite fluctuations. A similar picture is obtained for elementary education, as evidenced by the almost exactly similar time pattern of the two shares. However, there has been some attempt to protect the share of elementary education even after the year 1999-2000; this is seen in the diagram as a narrowing down of the gap between the two shares after the turn of the century. The chart also makes it clear that a major part of the educational expenditure (consistently over 50 percent) is tuned towards elementary education to accomplish the goal of universal elementary education.

We undertake below a detailed analysis of budgetary data on expenditure by the department of school and mass education for two selected years – 2003-04 and 2004-05. The methodology for the analysis for budget data is as follows. First, we mine the budget documents and list out the expenditure by each scheme from the department of school and mass education. We then separate out the expenditure falling exclusively under elementary education (budget head 2202.01). Thereafter, we categorise the expenditure under six broad heads as shown in *Table 3.11*.

Table 3.11: Budgetary Analysis for Elementary Education, 2003-04 and 2004-05

Budget head	2003-04		2004-05	
	Expenditure (Rs. Lakh)	% of total expenditure	Expenditure (Rs. Lakh)	% of total expenditure
Administration, Monitoring and Evaluation	1277.6	1.1	893.39	0.7
Teacher Salaries, Professional Fees	106425.7	89.2	107508.7	88.0
Teaching Quality and Incentives	1261.5	1.1	1445.9	1.2
Direct Expenditure on Students	6758.2	5.7	5979.7	4.9
Infrastructure	429.0	0.4	285.2	0.2
Grants-in-Aid	3126.6	2.6	6020.0	4.9
Total	**119278.7**	**100.0**	**122132.8**	**100.0**

Source: Orissa state budget documents

The table shows that in 2003-04 nearly 90 percent of the expenditure went to cover salaries of teachers, dropping marginally in 2004-05. While in social services, salaries do dominate because of large human input, the extent of its dominance in the expenditure signifies little attention to other aspects of education. It could partly be a result of inadequate resources, since salaries get priority in resource allocation as contractual payments. Direct expenditure on students (e.g., scholarships) is the next largest category, with 5.8 percent of the total expenditure. Grants-in-aid were small (2.6 percent of the expenditure) in

2003-04 but have almost doubled to 4.9 percent in 2004-05. These are spent mostly on the *Sarva Shiksha Abhiyan* (SSA) and *Pradhan Mantri Gramodaya Yojana*. Compared to educationally advanced states like Tamil Nadu and Kerala, allocations to improve the quality of education was small at about 1.1 percent of total expenditure in 2003-04, dropping further in the next year. It may be noted that direct expenditure on students, (which is mainly on textbooks, uniform and scholarship) has an indirect effect on household income. NSSO consumer expenditure data for various years show that stationery constitutes a major share of household expenditure on education. The incidence of direct expenditure on students being higher on poor households, helps reduce their cost of education and hence improves the prospect of schooling for their children.

3.6.2 SSA expenditures in Orissa

Table 3.12: Planned and Realised Expenditures under SSA

Year	AWP&B	Audited expenditure	Actual expenditure. as % of budgeted
2001-02	7474.6	0	0
2002-03	16307.8	2531.5	15.5
2003-04	45285.5	15792.8	34.9
2004-05	57598.8	25190.2	43.7
2005-06	58891.0	34326.0	58.3
2006-07(up to 31.01.07)	87785.4	31852.6	36.3

The SSA programme formally took off in 2001-02 in the country. In Orissa, as given in *Table 3.12*, despite some planned expenditure during that year, the programme formally started in the state in 2002-03. The table describes the pattern of planned and actual expenditures under SSA from its inception to January, 2007. In 2002-03, effectively the first year of implementation in the state, the realisation rate was only 15 percent, but this rose gradually with time. By 2005-06, the state was able to spend more than 50 percent of the total allotment, although even this figure indicates lack of absorption capacity, inferring lack of administrative capacity and the ability of the state to put up the matching amounts. In 2006-07, though only 36 percent of the allocation has been spent by end-January, it is expected that at the end of the financial year the percentage will increase. It hardly needs emphasising that when state funds are leveraged to the extent allowed under SSA (*see, Box 3.1* for some institutional details) to be spent in a priority area like basic education, utmost importance should be given to implementation of the planned tasks; the realisation rate needs to be improved further to avoid budgeting and implementation bottlenecks due to spillovers from the previous years as well.

3.6.3 Total expenditure on elementary education

The state budget document reflects only the state's own expenditures and contribution to SSA, but not the rest of the funds coming from the centre. For our analysis below, we have incorporated the total SSA resources, after avoiding double counting the state's contribution reflected in the budget as grants-in-aid. We reclassify the SSA expenditure audit heads for the years 2003-04 and 2004-05 in the way the budgetary expenditures are categorised to make the analysis compatible.

Box 3.1

Institutional Structure of Transfers from Government of India to States Under SSA

Under SSA, the actual allocation of resources from the Ministry of Human Resource Development, Government of India (MHRD) to individual states depends on certain factors summarised as:

- preparation of District Elementary Education Plans and their appraisal;
- commitment of the state government with regard to the state share;
- performance of the state government regarding resources made available earlier;
- institutional reforms in states to facilitate decentralised management of education;
- reports of supervision teams regarding the quality of programme implementation;
- availability of financial resources in a particular year.

The states prepare *Annual Work Plan* and *Budgets* and submit it to the MHRD which scrutinises the same on the basis of the factors mentioned above and decides on allocation for each state. The realisation of this allocation may depend on the states' release of their share. The assistance under the programme of *Sarva Shiksha Abhiyan* initially was on a 85:15 sharing arrangement during the IX Plan. In the current year, the ratio of states' share to central assistance has increased from 25:75 to 35:65, with the state share increasing every year by an increment of 5 till it reaches 50:50. The resources are allocated in two instalments in a year: first in April and then in September. The objective is to allow states to fully utilise the allocation for elementary education. The utilisation certificates, however, will only become due one year after the release of an instalment. Further release will be affected if utilisation certificates are not submitted as per schedule. There is a norm that the state governments will have to maintain their level of investment in elementary education at least at the level of 1999-2000. The state share as contribution for SSA will be over and above this investment. The Government of India would release funds to the state governments/union territories only and instalments (except first) would only be released after the previous instalments of central government and state share have been transferred to the State Implementation Society.

The aggregate expenditures from the state budget and SSA are provided in *Tables 3.13 and 3.14* for the two years. In 2003-04, the SSA expenditure (including state's contribution) accounted for 11.87 percent of the total expenditure on elementary education. Across categories, if we compare the budgetary expenditure and SSA expenditure, we observe that `infrastructure' is the only category that is almost wholly financed through SSA expenditure. The state spends the highest proportion of its allocation for teacher salaries and professional fees. Almost 97 percent of grants-in-aid at sub-district levels under decentralisation – deemed important for spreading education to all – are coming from state budget expenditure. Although most expenditures under SSA are incurred in a decentralised manner, they are not classified as grants-in-aid (except a small part) since the transfers under SSA are as per approved annual plans. For the three categories – `Administration, Monitoring, and Evaluation', `Teaching Quality and Incentives', and `Direct Expenditure on Students' the major part of the resources comes from the state share.

By 2004-05, although the pattern remains more or less unchanged for teacher salaries and infrastructure, the same for all the other categories shows substantial increase in the share of SSA in the total. The relative roles of the budget expenditures and SSA expenditures are reversed in the case of expenditures on teaching quality improvements. The administrative expenditures are split almost equally, and the direct expenditures on students are covered to the extent of more than 40 percent from SSA funds. The basic reason for the changed pattern, of course, is the substantial increase in SSA funds with a marginal reduction in budgetary resources in nominal terms. Clearly, progressively greater responsibility for elementary education now rests with SSA.

Table 3.13: Budgetary and SSA Expenditure on Elementary Education – 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	1612.36	1277.6	79.24	334.8	20.76
Teacher Salaries, Professional Fees	109219.3	106425.7	97.44	2793.6	2.56
Teaching Quality and Incentives	2090.67	1261.5	60.34	829.2	39.66
Direct Expenditure on Students	9898.42	6758.2	68.28	3140.2	31.72
Infrastructure	9157.25	429	4.68	8728.3	95.32
Grants-in-Aid	1874.20	1808.9	96.52	65.3	3.48
Total	**133852.4**	**117961.1**	**88.13**	**15891.3**	**11.87**

Table 3.14: 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	1766.61	893.39	50.57	873.22	49.43
Teacher Salaries, Professional Fees	112567.60	107508.7	95.51	5058.91	4.49
Teaching Quality and Incentives	3704.49	1445.9	39.03	2258.60	60.97
Direct Expenditure on Students	10523.07	5979.7	56.83	4543.33	43.17
Infrastructure	12677.87	285.2	2.25	12392.71	97.75
Grants-in-Aid	270.96	207.5	76.60	63.42	23.40
Total	**141510.60**	**116320.4**	**82.20**	**25190.19**	**17.80**

3.6.4 Intra-state allocation of SSA funds

In *Table 3.15*, we derive the share of each district in overall SSA expenditure for 2004-05, and the stated determinants of the expenditure at the district level – the net enrolment ratio (NER), dropout rate (DR) and the percentage of school going children of age (6-14). The SSA planning process

involves bottom-up planning from district level. The district plans are based on enrolment, number of out of school children, dropout rate, and some other human and physical resources. It is therefore expected that all these indicators have some effect on expenditure share. To see the extent of the role played by the major *a priori* determinants, a regression estimate is carried out with each district as an observation. The explanatory variables are: share of children in the school-going age (CSGA), Net Enrolment Ratio (NER) and Dropout rate (DR). District wise SSA share is taken as the dependant variable.

The final regression equation is of the form (t- value in parentheses):

SSA share = 1.664 + 0.678 CSGA - 0.021 DR - 0.005 NER; R^2= 0.645
(1.059) (6.742) (-0.684) (-0.279)

The only significant explanatory variable turns out to be CSGA. Estimated beta coefficients show that the SSA shares are determined to a large extent by the district shares in the number of potential students. The most surprising result is that the estimated coefficient of dropout rate is negative though not statistically significant. While the same is true for NER also, the sign of its expected coefficient is uncertain; while need to increase NER may require more funds, it can also be argued that *ceteris paribus*, higher NER implies more students in school and greater expenditure on that count. From the regression results it can be inferred that in Orissa the district-wise distribution of SSA fund depends largely on the school-going population of that district. DR does not play a significant role in fund allotment, though it should be taken into account to universalise elementary education. If this factor were to significantly determine fund allocations, then the beneficiary districts would be Balangir, Baleshwar, Gajapati, Ganjam, Kalahandi, Kandhamal, Keonjhar, Koraput, Malkangiri, Mayurbhanj, Nawrangpur, Nuapada, and Rayagada. All these except Baleshwar are relatively poor districts, and thus greater emphasis on dropout rate would automatically orient the expenditures more towards the poor.

3.7 Access and Alternative Schooling

In spite of the huge expansion of schooling in the formal and non-formal system, a good number of children in the age group of 6-14 years are out of school. To provide access to these children pledged through the Education Guarantee Scheme (EGS), opening of primary schools is unavoidable. The access gap is sorted out through opening of alternative schools, new primary/elementary schools and EGS centres. Orissa Primary Education Programme Authority (OPEPA) supervises the operation of the EGS along with SSA in the state.

Table 3.15: SSA Shares and District Indicators, 2004-05

Districts	NER	DR	Share of school-going children of age 6-14 (%)	SSA Share 2004-05 (%)
Angul	81.30	6.35	2.96	2.58
Balangir	70.76	10.79	3.51	4.00
Baleshwar	75.94	11.12	6.28	4.61
Bargarh	120.67	5.79	2.89	3.46
Bhadrak	67.11	6.11	4.36	2.94
Boudh	77.43	21.2	1.03	0.94
Cuttack	83.10	3.70	5.45	3.82
Deogarh	82.51	5.52	0.78	1.32
Dhenkanal	84.85	8.75	2.75	3.32
Gajapati	75.63	14.50	1.59	2.69
Ganjam	82.58	14.52	8.24	7.09
Jagatsinghpur	79.87	3.03	2.51	2.95
Jajpur	84.48	5.39	4.82	3.43
Jharsuguda	78.96	4.23	1.34	2.83
Kalahandi	73.81	13.72	4.22	4.51
Kandhamal	85.42	13.80	2.10	3.32
Kendrapara	85.36	3.57	3.48	3.37
Keonjhar	79.29	10.28	4.22	3.75
Khordha	69.65	5.47	4.62	3.82
Koraput	71.01	16.26	2.99	2.78
Malkangiri	77.38	21.14	1.57	1.44
Mayurbhanj	89.28	15.70	5.67	4.35
Nawarangpur	72.55	21.24	3.20	1.81
Nuapada	82.29	17.99	2.28	3.06
Nayagarh	74.48	7.45	1.71	1.48
Puri	81.09	3.37	4.12	4.33
Rayagada	66.47	15.75	2.63	3.81
Sambalpur	69.11	8.58	2.47	3.46
Sonepur	88.24	5.05	1.38	0.97
Sundargarh	73.21	5.72	4.83	7.32

Table 3.16: Status of Alternative Schooling in 2005-06

Name of the Scheme	New Primary school	New Upper primary school	Enrolment	Enrolment as % of out of school children
EGS (govt.)	11621	1249	367734	61.0
AIE Centres	234	-	9182	1.5
8 DPEP districts	734	-	27472	4.6
8DFID districts	830	-	23225	3.8

Source: OPEPA

Table 3.16 shows the status of alternate schooling in Orissa. Clearly, emphasis is on primary education, which is probably correct if the greatest requirement is to cater to those who never attended school or those who dropped out at the primary stage itself. That probably explains the fact that in 2005-06, except EGS, under all the other schemes only new primary schools have started. The last column of the table shows the enrolment in elementary education as a percentage of total out-of-school children, under alternative schooling. Only EGS was able to bring more than 60 percent out-of-school children in mainstream schooling in 2005-06. The rest of the schemes of alternative schooling are not as successful.

Beside these schemes of the government, some NGOs take active part in alternative schooling through non-formal education. Some NGOs like *Asha*, *Ruchika* are coming forward to give education to the out-of-school children. The objective of their project is to universalise access to schooling facilities based on community demand to reach out of the deprived sections in an innovative and cost effective manner acknowledging the right of all children to learn. Currently, 63 alternative schools are running under the *Ruchika* programme. Out of such 63 schools, 42 are supported by the government under SSA. *Asha* is associated with 11 such schools. The programme works in the slum area situated on the outskirts of Bhubaneswar. The focus of the project is to attract school children towards the education process at the very early stage through innovative and strong teacher-student interaction. Imparting education through non-formal enjoyable methods like community programmes, singing, dancing, use of flash cards or toys along with the formal education is the hallmark of the programme. Formal education is covered till class V. But, in general, the idea is to get the children into the mainstream education process as early as possible, so that they start pushing themselves for further education.

3.8 Girls' Education

Under the SSA programme, girls' education has been given special importance and therefore, two schemes that operate within SSA have been designed only for them. These are *Kasturba Gandhi Balika Vidyalaya Scheme* (KGBV) and *National Programme for Education of Girls at Elementary Leve*l (NPEGEL).

The aim of the KGBV scheme is to accelerate girls' education through residential school programmes for upper primary level out-of-school girls. KGBV is applicable only in educationally backward blocks, where rural female literacy is less than the national average and gender gap in literacy is more than the national average. New residential schools are stated only for those blocks that do not have any residential schools under any scheme of Ministry of Social Justice and Empowerment and Ministry of Tribal Affair. All KGBVs are run by the district SSA committee through school level committees. The target beneficiaries are mainly those out-of-school girls who are unable to complete upper primary

education, primarily in the 'difficult' areas. The priorities are designed to include 75 percent enrolment from SC/ST/OBC and minority communities and 25 percent from BPL families. Up to 2006-07, KGBV in Orissa has covered only 49 blocks in 20 districts, with one residential school in each block covered. Total number of enrolment in these 49 schools is 2254 (SC: 633, ST: 1105, OBC: 460, BPL: 24, minority: 25 and other: 7). In 2006-07, as per available information, state release for this scheme was *nil* but utilisation of the available funds of Rs. 23.61 crore (GoI release of Rs. 21.14 crore and the rest from opening balance) was almost 79 percent.

NPEGEL is also an integral part of SSA designed specially for girls to reduce gender gap in education, universalise enrollment and retention, and impart quality education. The unique feature of NPEGEL is establishment of model cluster school (MCS), providing vocational education and life skill education. The scheme is applicable in a) educationally backward blocks, where rural female literacy is less than national average and gender gap in literacy is more than national average and b) blocks having at least 10 percent SC/ST population and SC/ST female literacy below 20 percent. The target population includes out-of-school girls, dropout girls, overaged girls who have not completed elementary education and working girls.

In 2006-07 this scheme was operating in 21 districts of the state, with estimated girl beneficiaries being little more than 11 lakh. The expenditure during the year 2006-07 was about Rs. 44 crore, exhibiting a utilisation (of available funds) rate at 84 percent. The GoO releases for this scheme were relatively large at about Rs. 11.5 crore.

IV. Health and Related Issues

4.1 Health Sector in Orissa: Present Status

Orissa has one of the worst set of health indicators in the country. In 2005, infant mortality rate in the state was 65 as per the National Family Health Survey (NFHS III) and 75 as per the Sample Registration System (SRS), which were far away from the national level targets (*Table 4.1*). However, IMR in the state declined by 23 between 1998 and 2005 as per SRS and by 15 between the last two rounds of NFHS survey (1998-99 and 2005-06). This is not particularly low in comparison to the decline in IMR in other low income states of the country. At this rate, the state may be able to achieve an IMR of 50 by 2010, as targeted under the Orissa Health Sector Plan, but would still be far away from the national target of IMR 28 by 2012. However, unlike other low income states, much of the decline in IMR in the state between the last two rounds of NFHS surveys (1998-99 and 2005-06) has been in the urban areas, while there has been a negligible decline in IMR in the rural areas of the state. Besides, there are vast inter-district variations in IMR in the state. As per the indirect estimates of IMR across districts based on *Census 2001* provided by International Institute of Population Sciences (IIPS), the difference between the district with the highest and the lowest IMR in Orissa was about 54. The situation is particularly worse off in the tribal dominated districts (which includes the KBK districts) of the state. In 2001, five out of the eight KBK districts had an IMR of more than 100 (IIPS estimates based on *Census 2001*). The poor achievements of IMR in the tribal dominated districts are also reflected in the fact that there is a significant positive association (correlation coefficient 0.4) between IMR and the proportion of ST population across districts of the state.

In terms of MMR and the associated output indicators, although the relative ranking of the state within the country appears better in comparison to IMR, it is far from achieving the national and state-level targets. In 1997, the state had an MMR of 367, which was lower than the MMR for the country as a whole (408). Also, in 2002-04, output indicators closely associated with maternal mortality indicate that the state is close to the national average in terms of institutional deliveries (39 as compared to 40.5) but below the national average in terms of three or more ante-natal checkups (47.3 as compared to 50.1). The state is in fact better than the national levels in terms of the percentage of pregnant women receiving two or more tetanus injections and consuming two or more IFA tablets regularly (*Table 4.2*). However, the indicators are worse in districts with relatively high ST population. There is a significant negative correlation between the percentage of ST population and the percentage of institutional deliveries and pregnant women receiving three or more ante-natal checkups (correlation coefficients -0.7 and -0.6 respectively). Specifically, there are pockets of very low achievements within the state like that of Malkangiri, where only 25 percent of the pregnant women have three or more ante-natal checkups and about 10 percent institutional deliveries. Moreover, districts like Malkangiri have not shown any significant

improvement in the recent years. Between 1998-99 and 2002-04, Malkangiri recorded a mere 4 percent increase in institutional deliveries [Reproductive and Child Health (RCH) Survey, IIPS, 1998-99 and 2002-04].

In general, the rates of morbidity and mortality are high in the state. In 2003, the state accounted for more than a fifth of the malaria cases and a third of the malaria deaths reported in the country. The state also had the highest prevalence rate of leprosy among the major states in India, and an incidence of tuberculosis that is about 60 percent above the national average (GoO, 2005). Besides, the rate of reduction of most of these diseases has been very low in the past few years and at this rate, the state is unlikely to meet any of the goals related to reduction of morbidity and mortality due to these diseases. In terms of leprosy however, although the prevalence rate is high, there has been a significant reduction in the prevalence of the disease in the recent past.

4.2. Contributory Factors

The high levels of IMR and MMR in the state are caused by two important factors: low access to effective health care facilities and high levels of malnourishment (GoO 2004). As per the 58th round of NSSO survey on village-level facilities, about 63 percent of the villages in the state are more than 5 kms away from a sub-centre/dispensary (as compared to 36 percent at the national level). Despite this problem of access, there has been no addition to health facilities (allopathic) in the last ten years; the additions were in homeopathic and ayurvedic facilities only, although the demand for the former appears to be static and for the latter falling, going by the number of patients treated. Apart from long distances to the health facilities that limit access, the status of infrastructure, staff, equipment and supply of drugs therein is one of the worst in the country.

Table 4.1: Achievement of Orissa with regard to Various Goals

Indicator	Millennium Development Goals (MDGs)	National Health Policy (by 2010)	Tenth Plan (by 2007)	National Population Policy (by 2010)	National Rural Health Mission (NRHM)	Medium Term Goals for Orissa	Status in Orissa
Infant mortality rate		30 per 1000 live births	45 per 1000 live births 28 per 1000 live births (by 2012)	Below 30 per 1000 live births	30 per 1000 live births	50 per 1000 live births (by 2010)	75 per 1000 live births (SRS 2005) 65 per 1000 live births (NFHS III 2005-06) Change between 1998 and 2005 was 23 (as per SRS) and 15 (as per NFHS)
Under-five mortality rate	Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate						23 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 1 per 1000 live births (by 2012)	Below 1 per 1000 live births	1 per 1000 live births	2.5 per 1000 live births (by 2010)	3.67 per 1000 live births in 1997 (SRS)
Crude birth rate			21	21			22.3 (SRS 2005)
Total fertility rate			2.3	2.1		2.1 (by 2011)	2.6 (SRS 2003)

Table 4.2: 'Output' Goals Related to Maternal Mortality in Orissa

Indicator	Tenth Plan (by 2007)	National Population Policy (by 2010)	Status in Orissa
Percentage Immunised against all vaccine preventable diseases	100	100	55.1 (RCH 2002-04)
% of at least 3 ANC	90	100	47.3 (RCH 2002-04)
% received IFA for 3 or 4 months	100	100	(RCH 2002-04) Consumed 1 IFA tablet regularly 46.5 % Consumed 2 or more IFA tablets regularly 23.2 % Received adequate IFA tablets/syrup 24.3 %
% received two doses of TT	100	100	76.6 (RCH 2002-04)
Institutional deliveries (%)	80	80	34.4 (RCH 2002-04)
Deliveries by trained persons (%)		100	43.5 (RCH 2002-04)

In 2003, only 3.2 percent of the PHCs in the state had 60 percent of a set of basic infrastructure[12], 0.2 percent had 60 percent of the required staff[13], 3.5 percent had 60 percent of the required supply of drugs and kits[14] and 15.1 percent had 60 percent of the equipments[15] required in PHCs (Facility Survey, IIPS, 2002-04).

With respect to the national norms for rural health facilities, although the state appears to be doing well in general, if one adjusts for the lower density of population in the state and takes into account the tribal population in the state, Orissa has less than two-thirds of the requirement of sub-centers and about 60 percent of the requirement of CHCs (Bulletin on Rural Health Statistics, 2005). The access is particularly poor in the inland districts where the density of population is low as compared to the coastal districts of the state (GoO 2004). Also, per capita availability of health facilities is particularly low in districts that are backward in several other aspects. The district backwardness index (indicated in GoO, 2005) has a significant negative association with the per capita availability of health facilities across districts (correlation coefficient -0.51). In general, the backward districts have a

[12] The set includes tap water, regular supply of water, electricity, telephone, toilet, functional vehicle, and labour room availability.

[13] The set includes medical officers and paramedical staff.

[14] The set includes IUD kits, delivery kits, EOsC kit, mounted lamp, vaccines for measles, IFA large and ORS.

[15] Deep freezer, BP instrument, labour room equipment, autoclave, MTP aspirators and labour room table.

relatively high ST population (the correlation coefficient between the composite development index and the percentage of ST population across districts is significantly negative at -0.5). Also, districts with relatively high ST population have low availability of medical services. The composite medical services index (indicated in GoO, 2005) has a significant negative association with the percentage of ST population across districts.

Per capita availability of doctors is also positively associated with the number of health institutions in the urban areas (correlation coefficient 0.5) indicating low access to doctors in the rural areas. The poor access to health facilities in the state is further reflected in the fact that the state has one of the highest rates of untreated morbidity in the country. The low access partially results from a severe shortage of allopathic doctors in the state. The doctor population ratio in the state is as low as 1:7440 relative to the national average of 1:1923. Additionally, the low access to health facilities is coupled with high levels of malnourishment in the state. The state has one of the highest percentages of malnourished children in the country. In 2005-06, more than two-thirds of the pregnant women in the age group of 15 to 49 and nearly four-fifths of the children aged 6-35 months were anaemic (NFHS III). More importantly, these shares have not declined since 1998-99, the previous round of NFHS survey. Notably, the percentage of women with anaemia is much higher among scheduled tribes than others (GoO 2004).

Despite the high infant mortality rate, the coverage of the immunisation programme of the government also appears to be falling, if one compares the figures for 2000-01 and for 2004-05. For example, in 2000-01, 9.16 lakh doses of polio vaccine were used; this fell down to 8.20 lakh doses in 2004-05. Given the increasing absolute number of newborn babies and the fact that repeat doses are recommended for previously vaccinated children, the figures can mean one or both of these: that the coverage is falling, and that there is greater recourse to private sources. NFHS III (2005-06), in contrast, reports a rise in the coverage of immunisation since the last survey. This rise, coupled with lower public supply, points to greater use of private facilities in the state. In either case, the government is seen to be failing in the supply of a typical and crucial public good like immunisation.

The high rates of mortality and morbidity are also affected by poor water supply and sanitation in the state. As per *Census 2001*, only 46 percent of the households had access to safe drinking water within and near premises and a much lower 15 percent had latrines in houses. The poor access to water supply and sanitation is reflected in the fact that about 14 percent of the child deaths in the age group of 1 to 4 are due to diarrhea and gastroenteritis and more than a fifth of all deaths in the state are due to intestinal, infectious and parasitic diseases (GoO 2004).

In general, the low health achievements in the state can be attributed largely to poor access to health facilities and the high levels of malnourishment in the state. The situation is further worsened by the poor state of water supply and sanitation. It must be noted that the fertility and crude birth rates in the state are relatively low and the state is likely to

achieve the national targets on fertility rate and crude birth rate. The latter two factors are closely related to educational achievements and social attitude in general, while the others are mainly results of government failure. Thus, the health hardware is missing to a greater extent than the software consisting of knowledge of broad health issues and practices. The only exception to this is possibly the attitude in some traditional rural Orissa households that do not prefer to have a latrine in their houses even when they can afford it.

4.3. Government Programmes

Apart from implementing the large number of central government programmes that are similarly implemented in other states, Orissa has a few schemes of its own in the sector. The central programmes include Reproductive and Child Health Programme (RCH), National Maternity Benefit Scheme, National Pulse Polio Programme, Revised National Tuberculosis Control Programme (RNTCP), National Filaria Control Programme (NFCP), National Programme for Control of Blindness (NPCB), National Iodine Deficiency Disorder Control Programme (NIDDCP), National Leprosy Elimination Programme (NLEP), National AIDS Control Programme (NACP) and National Vector Borne Disease Control Programme (in conjunction with Enhanced Malaria Control Project or EMCP). These programmes are partially or fully funded by the centre. While the first two aim at maternal and infant health, the others are relatively narrowly focused on specific diseases/disorders.

The main state programme is called *Pancha Byadhi Chikitsa* or treatment of five diseases. It offers free treatment and medicine for five most common disorders that constitute about 70 percent of the patient load in primary health institutions. These are: malaria, leprosy, diarrhoea, acute respiratory infections and scabies. Recently, tuberculosis has also been added to the list. This programme obviously incorporates within itself some of the central programmes aimed at specific diseases. There was a programme of upgrading health facilities under World Bank funded programme called Orissa Health Services Development Project (OHSDP); this was a broad-based one targeting policy, institutional framework and efficiency in service delivery. United Nations Fund for Population Activities (UNFPA) is funding another programme for four backward southern districts that is broad-based in terms of activities and aims at mother and child health for population stabilisation, among other things. The state has also instituted an Infant Mortality Reduction Mission.

4.4. Public Expenditure on Health

With the myriad of programmes and schemes, a question that immediately strikes is on the reasons for poor health indicators of Orissa. The answer lies in the actual expenditure on the programmes. While the number of national programmes is large, the financing is not; neither does the state spend anywhere close to the required amounts for its health services. That many of the promises of the programmes are hollow can be easily appreciated by anyone who carries out a rough calculation of the estimated

number of potential beneficiaries times the average cost of treatment (excluding doctors' fees) and compares their sum over various programmes with actual health expenditures net of personnel costs.

Table 4.3: Government Expenditure on Health, Family Welfare, Water Supply and Sanitation in Orissa

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
As percentage of GSDP	1.67	1.64	1.34	1.47	1.43	1.49	1.58
As percentage of total expenditure	7.17	7.31	6.30	7.70	7.53	7.20	6.78
Per capita In constant (1999-2000) prices (Rs. crore)	195.24	193.33	196.80	181.95	218.34	221.45	242.63

Table 4.3 gives the state expenditures on health, family welfare, water supply, and sanitation put together in 1999-2000 prices (per capita) and as ratios of GSDP and total expenditure. As a percentage of GSDP, it is seen to be well below 2 percent; there is also a declining trend that keeps the level in 2006-07 below that in 2000-01 despite a reversal of the trend. As percentage of total expenditure also, it shows a declining trend from 2001-02, with a spurt in 2003-04, and lowest share in 2006-07. But the per capita state expenditure on health and related services in constant prices show a clear rising trend despite fluctuations. Even if one adds the central assistance outside the state budget, the picture does not change materially since we estimate such transfers to be much less than 10 percent of the budgetary expenditure figures considered.

With such low levels of expenditure, having a number of programmes does not help; it does not even guarantee a well-functioning primary health service for the entire state. Rather, the overheads of a large number of programmes can actually chip away at the small amount of available resources. In fact, economic-cum-purpose classification of the state budget shows that personnel costs normally accounted for above 85 percent of total government expenditure on health. While such high shares for employee costs is not unusual, it shows how little this leaves for other health related expenditure, compared to the need. It is thus fairly obvious that supply of adequate health services is hamstrung by lack of funds. If there are inefficiency costs as is likely, then even this small amount will not be available in full to the potential beneficiaries.

4.5 Policy Reforms

Recent phase of health sector reforms were initiated in the middle of 1990s comprising cost recovery through user charges in hospitals (for APL users), autonomy to district and tertiary hospitals, and abolition of private practice by government appointed doctors. Subsequently, DFID and other external agencies providing assistance in this sector also recommended some reforms on the basis of their own evaluations, some of which were implemented after consideration by the government. A major institutional

reform involved setting up *Zilla Swasthya Samiti*s (ZSS) or district health committees, first in five districts in the year 1993 and subsequently in all districts. They are tasked with "collection and distribution of user charges, maintenance of equipment, waste management, training of technical staff, quality assurance and surveillance of major communicable diseases". (GoI, 2004) Separate district level societies for specific programmes have been merged into the ZSS to form a single nodal agency for all health and family welfare activities. These are societies that also have the responsibility to foster further decentralisation of health service planning, monitoring, and development of infrastructure. There are a few hospitals having similar societies at their level.

The initial experiment of handing over PHCs to NGOs in two tribal districts did not work out because of various reasons including inadequate resources of the NGOs concerned. Some private agencies are involved in providing safe abortion services and disposable delivery kits. In several hospitals, cleaning work is outsourced. This practice, despite some controversies, is becoming more widespread in larger hospitals.

Reforms with respect to staff were mainly driven by two factors, shortages and lack of training. Various in-service training programmes were instituted to update medical skills of staff and also develop multiple skills among existing staff. Medical interns are now given training in community health under joint supervision of their teaching staff and CDMOs in real life situation and not training centres. To tackle shortages of doctors in specific areas, one year compulsory rural service in these areas has been introduced as a qualifying service for post-graduation along with additional allowances. Medical officers and other staff are also being appointed on contract basis against vacant posts at the district level with the concurrence of the Director of Health Services. Paramedics have been reorganised as district cadre.

Centralised procurement of drugs has been introduced following the system used in Tamil Nadu with a specified lists of generic drugs prepared at the state level in consultation with the serving doctors for different types of health institutions. Quality testing is undertaken through private testing laboratories. District level drug stores have been set up that are computerised for procurement, inventory control, and supply. A certain amount of discretionary drug fund is available with the Chief District Medical Officer (CDMO). (S)He also has a small fund for minor upkeep of the buildings of health institutions under her/his charge.

Finally, the state is developing a comprehensive health management information system (HMIS) that is already functional. The objective is to obtain complete information on health service requirement in the government sector on a real time basis that can make major contribution in the formulation of health policies and short-term management of health services.

4.6 Utilisation of Health Infrastructure

An assumption that is taken for granted is that the health infrastructure provided by the government in an hierarchical structure will be used by the potential beneficiaries in the same way. Studies that examine this aspect in Orissa show that the assumption does not hold.[16] Ager and Pepper (2005) quite unequivocally show that there is a strong tendency among the users to bypass health sub-centres and primary health centres and obtain necessary service from government hospitals or private providers *even when lower level health facilities are relatively easily accessible*. Paul and Ramani (2000) report that deliveries are hardly conducted at the lower level facilities. The main reason for this behaviour pattern can be summarised by one factor – reputation. Health-seeking behaviour is shown to be strongly influenced by the expectation of quality of service received, and such expectation from the sub-centres and PHCs appear to be low. It is reasonable to assume that the low expectations are based on actual experiences of some users (the Ager and Pepper paper actually quotes some of the unflattering comments), with the policy implication that for the hierarchical system to work properly, the quality of service provided by the lower level institutions must be adequate to meet the expectations of the users. How to achieve this improvement in service quality is a challenge that has to be taken up by the policymakers.

4.7 Public Health Services: Summing Up

With relatively low birth rate and fertility rate, improving IMR and MMR would call for improving access to health facilities and targeting malnourishment both through long-term anti-poverty measures and providing nutritional supplements in the short-run. An important issue in this context is the fact that there has been a negligible improvement both in terms of access to health facilities and eliminating malnourishment in the recent past, particularly since 1998-99. Also importantly, access to health care is low and malnourishment is high in districts with relatively high ST population.[17] This calls for targeted intervention. However, as we have indicated above, mere supply of the infrastructure is not enough; maintaining the quality of service in all its aspects is equally important for the improvement in health infrastructure to get translated into better health outcomes.

---

[16] "Studies have shown that PHCs in particular tend to be under-utilised while hospitals tend to be overburdened. This is because inadequate staff, shortages of medicines and supplies, equipment and transport means the centres are inadequately provided for. Moreover the staffs of the PHCsare primarily engaged in meeting the family planning targets which lead to neglect of the provision of basic health care. Inadequacies of the centres coupled with the preoccupation of the existing health personnel with various vertical and national progammes creates situations where facilities exist but medical care remains inaccessible. In these circumstances , people tend to crowd the essentially referral centres – tertiary and secondary level hospitals which are run by the government. It is not uncommon to find that OPDs of these hospitals are crowded with patients from surrounding rural areas who are seeking basic medical care which should have been made available at the village PHCs. Or the people end up using the services of private facilities that are not always and necessarily affordable." (CDSA, 2000).

[17] A graphic account of the wretched health conditions in a predominantly tribal village of Nawarangpur district, one of the southern districts, is available in Das (2004).

4.8 Ensuring Food Security and Nutrition

In a state where poverty is widespread, nutrition levels are low in general and health indicators are poor, ensuring food security assumes special significance. There are government schemes for food security of almost all ages of poor persons, most of them central schemes, also funded to a significant extent by the central government. For the pre-schoolers, there is a scheme for child nutrition through the *anganwadi*s and *balwadi*s, although the latter scheme (for children aged 37-60 months) has been discontinued in Orissa leaving a void in ensuring nutrition for children at an age which has a strong bearing on their entire future life. For those in school, there is the mid-day meal scheme, which has now been extended to cover the entire elementary stage by the GoI. Public distribution scheme (PDS) should take over by that stage and for the poor senior citizens (in receipt of old age pension under the national or state scheme there is *Annapurna* programme. Besides, for the very poor *Antyodaya Anna Yojana* (AAY) is expected to supplement food availability. Also, pregnant women and lactating mothers are part of the supplementary nutrition scheme that primarily caters to young children.

The child nutrition scheme is, in the physiological sense, the most important because malnutrition at early ages cause damages that are almost impossible to repair subsequently. However, of these schemes, we pick two others – mid-day meal scheme and PDS – for a brief examination to get an idea of the efficacy of the several schemes in operation to ensure food security. These two are also the largest in terms of expenditure and coverage.

4.8.1 Mid-day meals scheme

Although officially the mid-day meal programme is viewed as a device to improve enrolment, retention, and dropout rates in elementary schools, its contribution to nutritional improvement among children of the relevant age group is equally important. In Orissa, the mid-day meal programme is generally looked after by government employees, although there are pockets where the responsibility has been given to NGOs. The Government of India provides free rice through the Food Corporation of India (FCI), while the state govemment provides funds (through Women and Child Welfare department) to meet other expenditure like cost of *dal*, salt, oil, fuel, vegetable, and condiments (these are procured locally through purchase committees at the district level), and utensils. The honoraria paid to cooks and helpers are borne by the *Gram Panchayats* out of the funds of *Jawahar Gram Samriddhi Yojana* (JGSY). The Civil Supplies Corporation lifts the stock from FCI and delivers it.

At the district level, the District Collector monitors the programme with the assistance of District Social Welfare Officer and Civil Supplies Officer. The Block Development Officers, with the assistance of Extension Officers, Sub Inspectors of schools and Supply Inspectors, implement the programme for their blocks. The Child Development Project Officers and Lady Supervisors have also been made responsible for the success of the programme. At the school point, School Education Committees have been

formed to supervise implementation at the village level. The objective is to eventually make the School Education Committees take over the programme. The scheme has provided a scope for the parents and teachers to supervise and contribute in the operation of the scheme.

The meal consists of 125 gms of rice and 15 gms *dal/dalma* (*dal* with vegetables). No egg is supposed to be provided to children in Orissa, unlike some other states like West Bengal or Tamil Nadu. However, in practice, several schools do provide eggs (NCDS, 2006) as a relatively cheap and easily available source of protein. In the state, schools located in urban areas do not supply cooked meals, but only dry ration @ 3 kgs of rice per student per month, given every fortnight since 2001. Where cooked meals are being given, there is usually sufficient variation in the food to keep the students happy. The honorarium to the cook is Rs. 200 per month and to her helper it is Rs.100 per month. The programme was originally meant for only primary school students (standards I to V), but GoI has now extended it upto standard VIII.

Table 4.4: Number of Schools and Children Covered Under MDM Scheme

Year	2002-03	2003-04	2004-05	2005-06	2006-07
Schools	42655	51931	55170	69700	67598
Students	4621934	4631826	5151346	5200000	5002269

***Source*:** Ministry of Human Resource Development, Government of India

The benefits of the mid-day meal scheme have been undeniable. Misra and Behera (2001) show that the benefits have also been progressive; the positive effect on enrolment of primary students have been higher for a backward district like Rayagada than for a relatively better-off district like Puri. While dropout rates fell in both districts in the period after the scheme was introduced, the reduction was a little larger in Puri. The scheme would probably do even better, once the major problems associated with it are sorted out. Most of the schools in Orissa have no separate kitchen room (NCDS, 2006). This obviously implies use of some part of the school building itself for cooking purposes and possibly storing necessary material and for actual distribution of food. This, in turn, creates problems for teachers in carrying out their normal teaching work. Apart from this, the teachers are also the effective managers of the scheme on the spot, and it does impact adversely on the time devoted to teaching duties. Other than this, there is the strong possibility of the misuse of the system of dry rations; in a poor household, dry rations taken home may not be made available to the student fully, and may even be sold off to meet expenditures deemed to be more urgent. In such cases, the basic purpose of the programme is defeated.

There is no easy solution to the problems. The problem of diversion of teachers' time cannot be solved without additional hands devoted solely to the management of the programme, but that would raise costs. The problem of dry rations can be solved only by serving cooked meals in school, but that brings in problems associated with serving cooked meals. One possible solution would be to implement the programme in partnership with a reputed NGO, as is being done in some states like Karnataka and Rajasthan.

However, this solution is contingent upon suitable NGOs coming forward to take up this responsibility.

There are some complaints of diversion of foodgrains, inadequate quantities, and also poor quality (NCDS, 2006). Like all such programmes, this programme also requires regular monitoring to ensure smooth functioning; in this case, the best monitors would be the mothers of children provided food under the programme. Given the still prevalent social stratifications based on caste, wealth, and such other factors it will not be very surprising to find less than hundred percent of the students actually consuming the mid-day meal. Hence, special efforts have to be made to involve mothers of children actually consuming the mid-day meal in monitoring; further, once involved, their evaluation must be given due importance. In the rural areas, the concerned *Gram Panchayats* may be instructed to explore the possibility of building a kitchen shed and storage room for the schools under any of the schemes implemented by them to facilitate operation of the programme.

4.8.2 Public distribution system

The public distribution system in Orissa largely follows the usual pattern of Targeted Public Distribution System (TPDS) initiated by the Government of India in 1997, but with added complexities. The state is divided into three parts: the KBK region, 143 blocks included in the Integrated Tribal Development Programme (ITDP) and/or Drought Prone Area Programme (DPAP), and others. The issue price determined by the state (SIP) varies among these parts as also among the APL and BPL households as per the original (GoI) TPDS. The details are as given below (as in 2004-05):[18]

ITDP-DPAP blocks: BPL families get 16 kg. of common rice @ Rs. 4.75 per kg. (with state subsidy) and an additional 9 kg. @ Rs. 6.30 per kg.; APL families do not get any state subsidy and are entitled to 25 kg. of rice @ Rs. 9.30 per kg.

KBK districts: Both BPL and APL families get 25 kg. of common rice at Rs. 6.30 per kg., implying some state subsidy for APL families but none for BPL.

Other areas: BPL families get 25 kg. of common rice @ Rs. 6.30 per kg. while APL families get the same quota @ Rs. 9.30 per kg. (no state subsidy).

The state had 22,322 fair price shops (FPS) at the end of the year 2004 for 47,529 inhabited villages and 3895 FPS for 138 cities and towns (FPS numbers as per *Economic Survey 2006* of GoO and number of villages and cities/towns as per *2001 Census*).[19] Thus, the coverage in urban areas appears to be much better than the rural areas although in practice it would

[18] Both prices and entitlements have been raised since then.

[19] Apart from this, there are 92 mobile vans extending PDS facilities in difficult to reach areas of 14 districts.

depend on the number of PDS consumers per outlet. Access to PDS could thus be an important issue. The main demand relates to rice and to some extent sugar and kerosene. In a macro sense, Orissa is not a foodgrain deficit state; however, at the micro level, lack of purchasing power in the hands of a large number of poor causes the lack of food security for them (Kumbhar, 2001). Even in the district of Kalahandi that hit the headlines for reported starvation deaths, this is the actual situation (Nayak, 2002). Thus, there are possibilities that the market price may be lower than some of the PDS prices, particularly those applicable to APL families in the non-KBK region. In such a situation, offtake can be less than the supply available – in particular regions of the state or for the state as a whole. Further, there seem to be large scale exclusions (Bedamatta, 2006). Despite this, there also seem to be problems of inadequate supply (CDSA, 2000). The latest National Sample Survey (NSS) data for 2004-05 show that 67 percent of the households hold some kind of ration card in the state. All the same, in rural Orissa, although 98 percent of the households were consumers of rice, only 21.5 percent were able to get some of it from PDS (93 and 6 percent in urban areas) (wheat consumption is negligible). Compare this with Tamil Nadu, where 97 percent of the rural households consumed rice and 79 percent could get at least a part of it from PDS. Further, even in the poorest MPCE class, only 8.79 kg. of rice consumption out of an average monthly household consumption of 45.59 kg (i.e., less than 20 percent) could be met through PDS in Orissa. With respect to sugar, the PDS coverage was negligible in Orissa; only with respect to kerosene, PDS supply could be availed of by 76 percent of the rural households out of 98 percent that used it. Clearly, the coverage is quite limited for foodgrains, and hence contribution of PDS towards elimination of malnutrition and hunger in the state.

The low coverage of PDS even among the poorest (it falls as we move up the MPCE scale) given the total amount of offtake officially recorded probably indicates corruption and diversion of foodgrains;[20] but conflicting assessments/evidence do not allow a categorical evaluation. The government adopted a policy of replacing all private FPS with *Gram Panchayats*, LAMPs, Rural Consumers' Co-operative Stores, Service Co-operative Societies, Model Fair Price Shops run by Orissa Civil Supply Corporation Ltd. and registered *Mahila Mandals* in all ITDP and DPAP blocks to prevent malpractices, but this is yet to be fully implemented. Very recently, further administrative measures like holding *Panchayat Samitis* and *Gram Panchayats* responsible for appropriate ration card distribution, computerised management, information campaign and streamlining timely supply have been adopted.

[20] There are several press reports alleging such malpractices. *See*, for example, "PDS commodities being diverted to black market", *New Indian Express (online)*, March 9, 2007. On the other hand, it should be added that the government efforts in the KBK districts have been appreciated by the National Human Rights Commission in one of its recent reports ("Tackling Hunger Deaths: NHRC pat for Orissa", *Indian Express (online)*, September 1, 2006). Further, a study by the Planning Commission (2005) found leakage and diversion of foodgrains from TPDS to be low (below 25 percent) in Orissa.

4.8.3 Conclusions

Among the two programmes examined above, one (mid-day meal) seems to be working reasonably well and the benefits are also noticeable. It could do with better day-to-day and on the spot monitoring, which can only be possible with the help of parents of the beneficiaries. Also, a policy issue involves the trade-off of teachers' time between managing mid-day meals and their primary duty of teaching. A possible way of resolving this would be to involve suitable NGOs in this activity.

The second programme of PDS falls short of expectations on several counts. Its coverage needs to be substantially increased, both in the nominal sense and in the sense of effectiveness. Given the market prices in the state, the state could in fact raise the effective coverage of APL households though its own market purchase operations and transferring the surplus to the needy through the PDS network. This would not really involve much subsidy except for the transportation and would also help the farmers that have to indulge in distress sales at harvest time. Erring on the side of inclusion would be preferable to exclusion errors in dealing with a basic necessity like food. Irregular supply to FPS and lack of information on availability (*see* Roy, 2003) also need to be attended to.

V. Public Expenditure and the Poor

5.1 Direct Poverty Alleviation Programmes

The brief analysis of employment and wage patterns in the context of poverty in Orissa as also the constraints that poverty creates for the poor in the process of raising their earning capacity through better education and health suggests a need to find mechanisms to alleviate their poverty in the short run. This, in turn, can create more favourable conditions for building their human capital and eventually, their earning capacity. Also, poverty concentrated in regions and among specific groups ideally lends itself to intensive employment generation programmes for its alleviation. The sections that follow briefly describe and evaluate the major employment generation programmes taken up by the state under centrally sponsored schemes. We then look at the macro picture of public expenditure for the poor on the basis of budgetary data analysis to gauge the extent of public intervention for the poor and complement it with some discussion of two related issues – the benefit incidence of government expenditure and results of a public expenditure tracking exercise. Together, these discussions give a fair understanding of the quantum and effectiveness of public expenditures for the poor.

Possibly because of resource constraints, the major poverty alleviation schemes are those under centrally sponsored schemes in Orissa. Prominent among them in terms of scale of operations are *Sampoorna Grameen Rozgar Yojana* (SGRY), *National Rural Employment Guarantee Act* (NREGA), *Swarnajayanti Gram Swarozgar Yojana* (SGSY) and *Indira Awas Yojana* (IAY). The performance and impact under each of these schemes is summarised below along with a brief assessment.

5.2 Schemes for Employment Generation: SGRY

SGRY (integration of *Jawahar Gram Samriddhi Yojana* and Employment Assurance Scheme) is a wage-employment programme launched by the central government in 2002 for the rural sector. Its primary objective is to provide wage employment to all rural poor who are in need of it and desire to do manual and unskilled work in and around their village/habitat. The programme is self-targeting in nature with preferences given to the agricultural wage earners, non-agricultural unskilled wage earners, marginal farmers, women, members of scheduled castes/scheduled tribes, parents of child labour withdrawn from hasardous occupations, parents of handicapped children and adult children of handicapped parents who are desirous of working for wage employment.

Table 5.1: Physical and Financial Progress, and Utilisation of Foodgrains under SGRY

Financial position (Rs in lakh)	**2003-04**	**2004-05**	**2005-06**
Opening balance as on 1st April	3889.4	1778.7	213.9
Total receipts under SGRY	36456.1	36090.1	13225.8
Central receipts	24744.0	26102.0	3478.3
State receipts	1712.2	9988.1	9747.5
Other receipts	41.9	103.2	118.6
Total funds available	40387.4	37972.0	13558.3
Total expenditure	38608.7	36291.4	13314.7
% of expenditure to availability	95.6	95.6	98.2
Physical performance (in lakh person-days)	**2003-04**	**2004-05**	**2005-06**
SC	164.0	157.3	65.2
ST	238.0	207.6	24.5
Others	216.6	189.1	102.1
Total	618.6	553.9	191.9
Landless	90.3	207.0	54.7
Women	206.7	181.7	62.2
Disabled	2.1	1.3	0.1
% of landless	14.6	37.4	28.5
% of women	33.4	32.8	32.4
% of disabled	0.3	0.2	0.0
Foodgrain utilisation (in mn tonnes)	**2003-04**	**2004-05**	**2005-06**
Opening balance as on 1st April	247672.1	12029.0	2097.6
To be lifted out of previous year release	51424.2	26122.5	10654.2
Actually lifted	51279.7	26115.6	10654.2
Balance	144.6	6.8	0.0
Current year allocation	267211.0	295504.0	64742.0
Current year release	276981.0	294600.0	64742.0
Lifted out of current year	250858.6	267578.7	64742.0
Balance to be lifted	26122.5	27021.3	0.0
Total availability	326810.3	305723.3	77493.8
Utilisation	314781.4	296486.1	76466.2
% Utilisation to availability	96.3	97.0	98.7

The wage payment has both cash and kind (foodgrains) components. The programme is implemented as a centrally sponsored scheme on cost sharing basis between the centre and the states in the ratio of 75:25 with respect to the cash component of the programme. Foodgrains are provided to the states free of cost. The performance of this programme in Orissa can be initially assessed from the available information regarding its physical and financial performance.

It is obvious that with the onset of the NREGA, the funds that were being channeled through SGRY have shrunk since 2005-06. The total receipts of the state as well as total availability of funds have decreased substantially since the inception of the scheme. However, a notable point about fund utilisation remains and on that score the state's performance has improved. The percentage utilisation of funds to total availability has increased from 95.6 percent in 2003-04 to 98.2 percent in 2005-06. In terms of generation of man-days, the physical performance data shows that the percentage of decline is extremely large i.e. 68.9 percent. The decline is visible for all the groups, *viz.* SC/ST, women and landless people. Details are given in *Table 5.1*.

In terms of foodgrain utilisation for the scheme, it is clear from the data that although total availability of foodgrains has declined, utilisation has improved. But the extent of increase in utilisation is only 2 percent while the extent of decline in availability is around 76 percent. This is significant as the decline in foodgrains as well as funds for the scheme, possibly attributable to the commencement of NREGA, has been extremely high affecting the performance of the scheme in the state. While the policy worked well in the first two years with women, the landless and SC/ST accounting for 32.8 percent, 37.4 percent and 65.8 percent respectively of the beneficiaries in 2004-05, their shares have declined to 32.4 percent, 28.5 percent and 46.7 percent respectively in 2005-06. It is also seen from the data that the allocation of foodgrains in 2005-06 has been fully exhausted.

Given such a scenario, it becomes important to analyse the performance of NREGA in the state and see whether the loss in person-days of employment under SGRY has been taken care of by the NREGA. The concern remains that whether or not the districts suffering due to retraction of funds available for SGRY are being taken care of by NREGA. This aspect of implementation needs careful examination.

5.3 NREGA

In Orissa, 19 districts out of 30 were identified for the implementation of the NREGA at the initial stage. All the districts have now been included. The original 19 included Koraput, Malkangiri, Nawarangpur, Rayagada, Mayurbhanj, Sundergarh, Keonjhar, Kandhamal, Boudh, Nuapada, Kalahandi, Sambalpur, Ganjam, Deogarh, Jharsuguda, Sonepur, Balangir, Dhenkanal and Gajapati. The backward districts of the KBK region as well as the districts in the southern region of Orissa are being covered by the scheme. The officially reported performance of Orissa in the last year of implementation of the scheme can be obtained from the details given by the NREGA website (www.nrega.nic.in).

Table 5.2: Detailed Progress of NREGA in Districts of Orissa – 2006-07

District	Employment Generated in lakh Person-days								
	Scheduled Castes		Scheduled Tribes		Others		Total	Share of women in col. 9	Share of women in col. 9 (%)
	Person-days	Person-days (%)	Person-days	Person-days (%)	Person-days	Person-days (%)	Person-days		
1	2	3	4	5	6	7	8	9	10
Bolangir	19.75	40.18	16.49	33.55	12.91	26.27	49.15	15.62	31.78
Boudh	2.47	21.48	3.39	29.48	5.64	49.04	11.50	3.95	34.35
Deogarh	6.43	30.10	7.28	34.08	7.65	35.81	21.36	6.52	30.52
Dhenkanal	7.24	27.52	7.80	29.65	11.27	42.84	26.31	5.56	21.13
Gajapati	2.35	8.62	18.82	69.06	6.08	22.31	27.25	10.63	39.01
Ganjam	21.14	44.00	5.99	12.47	20.91	43.53	48.04	5.09	10.60
Jharsuguda	5.49	22.49	11.94	48.91	6.98	28.59	24.41	8.00	32.77
Kalahandi	17.21	27.87	25.24	40.87	19.31	31.27	61.76	20.24	32.77
Kandhamal	9.89	22.00	23.38	52.00	11.69	26.00	44.96	8.79	19.55
Kendujhar	4.65	15.67	16.39	55.22	8.64	29.11	29.68	13.36	45.01
Koraput	7.81	28.58	15.71	57.48	3.81	13.94	27.33	6.95	25.43
Malkangiri	15.73	36.36	21.40	49.47	6.13	14.17	43.26	12.08	27.92
Mayurbhanj	10.36	30.37	18.65	54.68	5.10	14.95	34.11	8.52	24.98
Nabarangapur	9.22	18.50	27.18	54.52	13.45	26.98	49.85	15.18	30.45
Nuapada	7.70	24.41	11.90	37.72	11.95	37.88	31.55	11.84	37.53
Rayagada	7.90	18.99	28.03	67.40	5.66	13.61	41.59	19.19	46.14
Sambalpur	11.30	29.45	17.13	44.64	9.94	25.91	38.37	11.20	29.19
Sonepur	8.42	31.88	8.06	30.52	9.93	37.60	26.41	6.32	23.93
Sundargarh	8.79	25.01	22.11	62.90	4.25	12.09	35.15	11.72	33.34
Total	183.85	27.36	306.89	45.67	181.30	26.98	672.04	200.76	29.87

***Source**: www.nrega.nic.in*

As per official statistics, about 50 percent of the households that demanded employment have been issued job cards; 66 percent out of these are rural BPL families. Employment has been provided to about 99 percent of those who received the job cards. About 43.5 percent of the funds have been utilised by the state to this effect. In terms of generation of employment, Orissa stands fourth among all the states next to MP, Rajasthan, and UP. Out of the total person-days of employment generated by the state under NREGA, 27.36 percent is for SCs, 45.67 percent is for the STs and 26.98 percent for women. The data also show that about 35.5 percent of the total works in the state stand completed. A detailed district-wise table is provided here (*Table 5.2*) regarding the progress of NREGA within the state. It appears that the maximum number of jobs were created in Kalahandi district, where the primary beneficiaries were the tribals. Other districts with large shares in job creation were Bolangir (49.15), Ganjam (48.04), Nabarangpur (49.85), Kandhamal (44.96) and Malkangiri (43.26). In all these districts except in Balangir and Ganjam, STs were major beneficiaries; in Balangir and Ganjam, SCs dominated the beneficiaries in number. Thus, it would appear that the programme is very successful in the state, with appropriate targeting of beneficiaries. Unfortunately, there are accounts of the ground level implementation of the scheme that mar the comfortable scenario painted by the statistics.

An unofficial report on such implementation in Bhawanipatna block of Kalahandi in 2006 (source: www.righttofoodindia.org/data/Final_Report_NREGA.doc) lists all possible problems/ irregularities at the grassroots level. These can be briefly listed as:

- widespread lack of awareness about the programme and of interest among the local bodies in general, compounded by block level interference;
- gaps in registration and after registration, non-issue of job cards;
- collection of money from potential beneficiaries for photographs, photocopying charges and incidental expenses;
- wage payments well below minimum prescribed, that too substantially delayed;
- discouragement to women workers, who are supposed to be one of the focus groups;
- lack of prescribed worksite facilities;
- large scale irregularities with respect to muster rolls;
- use of machines;
- grease money being paid by Village Labour Leaders (VLL), who are then incentivised to recover it from workers' dues;
- charges by computer operators claiming heavy workload and hence paid data entry; and
- incorrect selection of works (predominantly rural road construction to the exclusion of works like restoring or creating water bodies, drought proofing).

Some other assessments even go to the extreme of claiming that more than two-thirds of the expenditures are not reaching the intended beneficiaries (Rai, 2007). While it may be accepted that there can be various problems of implementation in the initial years, if even a fraction of the stated irregularities is true, it becomes clear that there is wilful defrauding of government resources by well-organised vested interests. Official statistics and these assessments present two sides of the picture that are so much in contrast that there seems to be a case for impartial monitoring to clear the air and take remedial action, if necessary.

5.4 SGSY

The IRDP, TRYSEM, DWCRA and other schemes were restructured and launched with the name *Swarnajayanti Gram Swarozgar Yojana* (SGSY) in 1999. The scheme is implemented by the financial institutions, *Panchayati Raj Institutions*, District Rural Development Agencies (DRDA), non-government organisations (NGOs), and technical institutions in the district. These institutions are also involved in the process of planning, implementation and monitoring of the scheme. The scheme incorporates help from the NGOs in certain areas where there is active participation by them in the form of self help groups (SHGs) as well as in the monitoring of the progress of the *Swarozgaris*, the beneficiary households.

The scheme targets the poorest of poor and is a policy designed for establishing a large number of micro enterprises in the rural areas. The list of BPL households identified through BPL census duly approved by *Gram Sabha* forms the basis for identification of families for assistance under SGSY. The objective of SGSY is to bring assisted families above the poverty line within three years by providing them income-generating assets through a mix of bank credit and government subsidy. The rural poor such as those with land, landless labour, educated unemployed, rural artisans, and disabled population are covered under the scheme. Thus, the basic idea here is to develop sustainable income generating self-employment by the beneficiaries instead of providing them with jobs.

SGSY specifically focuses on the vulnerable section of the rural poor. Accordingly, the scheme provides for reservation for the SC/ST (of at least 50 percent), for women (40 percent) and the disabled (3 percent) of those assisted.

Table 5.3: Physical and Financial Progress under SGSY in Orissa

(Rs. lakh)

Items	1999-2000	2000-2001	2001-2002	2002-2003 (Feb., 03)	2003-04	2004-05
A. Financial Progress						
Central releases	7222.7	4354.0	2744.1	4182.0	4553.1	5829.1
State releases	3377.1	1564.8	1169.7	1018.8	1390.0	2167.8
Total release	10599.7	5918.8	3913.8	5200.8	5943.1	7996.9
Opening balance as on 1st April	2779.8	4466.7	1499.4	-363.9	-77.6	-636.3
Misc. receipt	155.8	240.4	361.5	99.5	197.5	127.3
Total funds available	13535.3	10625.9	5774.6	4936.3	6062.9	7488.0
Total funds utilised	7457.7	9780.8	6138.6	3343.1	6699.2	8281.8
%age of utilisation to funds available	55.1	92.1	106.3	67.7	110.5	110.6
%age utilisation on subsidy	53.1	82.0	100.4	12.1	73.4	71.7
Total credit target	20700.0	20700.0	20700.0	11121.6	7140.2	8640.0
Total credit mobilised	9417.6	12333.9	8263.7	4067.6	7789.7	9750.1
%age of credit mobilied	45.5	59.6	39.9	36.6	109.1	112.8
Credit disbursed to individual *sarozgaris* (in Rs)	8556.6	10678.8	6737.8	3063.9	13138.0	14838.0
Total subsidy disbursed	5038.6	6627.4	4699.7	2456.2	4920.2	5940.6
Subsidy disbursed to individual *swarozgaris* (in Rs)	4538.6	5549.0	3660.7	1711.9	8299.0	9040.0
Total investment	14456.2	18961.3	12963.4	6523.8	11650.6	13903.9
Per capita investment (In Rupees)	19370.0	22004.0	21885.0	19722.0	21437.0	23878.0
Credit subsidy ratio	1.9	1.9	1.8	1.7	1.6	1.6
B. Physical Progress (Nos.)						
Self-help groups (SHGs) formed since 1.4.99	10334.0	29040.0	60772.0	83909.0	125298.0	143444.0
SHGs *swarozgaris* assisted	9913.0	13449.0	13602.0	11856.0	41389.0	59535.0
Individual *swarozgaris* assisted	64720.0	72722.0	45631.0	21222.0	17900.0	6177.0
Total *swarozgaris* assisted	74633.0	86171.0	59233.0	33078.0	59289.0	65712.0
%age of SHGs *swarogaris* Assisted	13.3	15.6	23.0	35.8	69.8	90.6
SC *swarogaris* assisted	15017.0	18850.0	13773.0	6771.0	13527.0	16243.0
ST *swarozgaris* assisted	18402.0	20499.0	16158.0	10851.0	17777.0	18217.0
Total SC/ST *swarogaris* assisted	33419.0	39349.0	29931.0	17622.0	31304.0	34460.0
Women *swarozgaris* assisted	21713.0	21347.0	19842.0	13615.0	38667.0	55952.0
Disabled *swarozgaris* assisted	194.0	293.0	102.0	93.0	774.0	1021.0
%age of SC/STs assisted	44.8	45.7	50.5	53.3	52.8	52.4
%age of women assisted	29.1	24.8	33.5	41.2	65.2	85.1
%age of disabled assisted	0.3	0.3	0.2	0.3	1.3	1.6

An analysis of the financial progress of SGSY in Orissa shows that over the years the total release towards the scheme dropped significantly until 2001-02, after which it started rising again. Clearly, the falling phase was because of non-utilisation reflected in the opening balances; as soon as utilisation improved, releases also did so. The poor utilisation in the initial years can be partly ascribed to the fiscal situation of the GoO and its inability to put up the matching amounts, strongly underlining (i) the problems of designing poverty alleviation programmes with a matching grant system; and (ii) the distorted priorities of a cash-constrained GoO in the early 2000s.

There has been an increase in fund disbursement to individual *swarozgaris* and the credit subsidy ratio has remained somewhat stagnant over this period. While the scheme has been able to successfully increase the number of SHGs that have been provided assistance, the number of individual *swarozgaris* has declined. It is also significant to note that the number of total *swarozgaris* assisted has declined. But the percentage of *swarozgaris* from SC/STs has increased from 44.8 percent to 55.8 percent, which is significant as the guidelines to SGSY suggest at least 50 percent of coverage from among SC/ST. As far as women *swarozgaris* are concerned, the number has increased significantly and the percentage stands at 89.7 percent. There is also a provision for assisting physically disabled persons to the extent of at least 3 percent but the state figures are at 1.8 percent (details in *Table 5.3*).

While in terms of physical performance, the number of SHGs assisted has increased and there has been an improvement in extending funds to the targeted vulnerable groups, i.e. SC/STs and women, financial outturn for the scheme has declined over the period, which needs attention. Since the idea behind SGSY is to create assets by directly giving funds to the poorest groups and thereby help them to set up their livelihoods on a sustainable basis, a reduction of funds to the scheme is of concern. A more serious problem, however relates to the realisation of the objective of the programme, *viz.*, creation of a sustainable income generating asset. There is inadequate assessment of viability of the proposed activities, resulting in too many failures. Often, in the case of individual beneficiaries, there are defaults primarily arising from dissolution of the asset to meet consumption needs. There are also reports of nominal beneficiaries being used by ineligible real beneficiaries. This programme does not build in sufficient post-assistance monitoring that could provide clues to its working on the ground.

5.5 Housing: Indira Awas Yojana (IAY)

The widespread poverty in Orissa is characterised by lack of basic amenities like housing, potable water supply, and social security benefits, apart from lack of employment. While the various self-employment and wage employment policies (currently NREGA, SGSY and SGRY) try to tackle the problem of lack of adequate employment and income generation, schemes like

IAY, PMGSY and old age pension have been introduced to tackle the manifold problems of housing, infrastructure, and social security net for the elderly population.

The focus here would be on the housing conditions and the performance of the centrally sponsored scheme of IAY to provide housing to the rural poor. Before assessing the performance of the IAY, it is important to examine the housing conditions of the population in rural Orissa. The Census of India provides detailed estimates of the number of houses according to the condition of houses. The census houses are divided into good, liveable, and dilapidated houses based on the perception and response given by the respondent. The 1991 census classification of houses into *kutcha*, *semi-pucca* and *pucca* has been transformed into these three categories. Obviously, the housing scheme needs to cater to the dilapidated and the liveable category of houses in terms of construction of new houses and upgradation of existing structures.

Given the state's geographical position that makes certain parts of it vulnerable to floods and cyclones as an annual event, housing for the poor and vulnerable groups becomes very important. Housing conditions in Orissa are a reflection of the severe poverty that is being experienced by the state. Persons without any shelter in Orissa constitute 2.2 percent of the total houseless population as per the Census 2001. While the share of dilapidated houses to total houses in rural India is approximately 6.2 percent, that in Orissa is 10.3 percent among which the share of SCs stand at 16.3 percent and STs at 7.9 percent (Census 2001). 78 percent of the houses in the state were estimated to be either dilapidated or barely liveable.

The regional disparities in poverty are evident in the housing component as well. In our discussion of poverty it was clearly seen that the southern part of Orissa falls among one of the poorest regions in our country, specifically the KBK region constituting the 8 districts of the state, out of which 6 lie in the southern region. Although the estimates for the southern region do not reflect the abject poverty in the region in terms of houses, yet a considerable part of its population resides in dilapidated and liveable structures, which needs immediate relief. Apart from this, the coastal region exhibits poor housing conditions because of its proximity to the sea and low-lying habitations, and the resultant annual visitation of floods and cyclones. In this region, 77.4 percent of rural houses were either dilapidated or merely liveable as per the *Census 2001*, out of which the share of SCs and STs were 84 percent and 88 percent respectively (*Table 5.4*).

Table 5.4: Details of Housing Among the Rural Households

	Share of livable houses to total houses			Share of dilapidated houses to total houses			Share of (dil + liv) houses to total houses		
Name of the District	**Total**	**SC**	**ST**	**Total**	**SC**	**ST**	**Total**	**SC**	**ST**
Coastal	63.04	62.90	67.70	14.31	21.15	20.60	77.35	84.05	88.31
Northern	71.05	70.58	75.55	7.94	11.83	9.68	78.99	82.42	85.23
Southern	73.19	70.94	76.76	5.47	7.99	5.07	78.66	78.93	81.83
Grand Total	**67.45**	**66.07**	**75.42**	**10.29**	**16.31**	**7.93**	**77.74**	**82.38**	**83.35**

***Source**: Census 2001*

The information on the physical and financial performance of IAY (*Table 5.5*) shows the number of houses constructed (there were few upgradation assistances) and the expenditure incurred on implementation of the scheme. The available data essentially reflect the distribution of population in the three regions, somewhat adjusted by poverty levels. There is not much to find fault with in the pattern disclosed by the data. However, in most of such schemes, the devil lies in the ground level implementation. For this scheme, however, such problems appear to be minimal at present, as an evaluation of this scheme in Orissa during the Ninth Plan period sponsored by the Planning Commission (CESR, no date) indicates. Praxis (2001) also reports positive response to the scheme (in fact, a demand for widening its scope) in its participatory research among the poor of Balangir district. One issue that has been flagged, however, relates to the selection of beneficiaries: sometimes the selection process is opaque and favoritism by the *panchayat* officials cannot be ruled out.

Table 5.5: IAY – Houses Constructed during 2001-2006 and Expenditure in 2005-06

Region/ State	Houses constructed (No.) (2001-02 to 2005-06)			Expenditure in 2005-06 (Rs. lakh)		
	Total	**SC**	**ST**	**Total**	**SC**	**ST**
Coastal	74387	37911	15043	5096.6	3722.78	1373.85
Southern	45228	17911	18899	3096.1	1585.06	1511.00
Northern	56088	17232	26570	4158.2	1790.50	2367.68
Orissa	**175703**	**73054**	**60512**	**9254.8**	**5513.28**	**3741.53**

Source: MIS-1 (S & M Cell), *Panchayat Department*, Government of Orissa

5.6 Budgetary Expenditure for the Poor: Classification by Intent

In this section, we examine government expenditure in two selected years,[21] classifying it into three somewhat arbitrarily defined categories of (i)

[21] The two years represent a turnaround in the overall resource availability.

administrative expenditures; (ii) growth-oriented expenditures; and (iii) poverty-oriented expenditures. While the first is defined as commonly understood, the second covers those expenditures that are intended to enhance the productive capacity of the state, e.g., on infrastructure. The impact of this type of public expenditure on the poor is expected to be indirect through economic development of the state, akin to the 'trickle-down' theory. The last category includes expenditures that are intended to alleviate poverty directly, through transfer payments enhancement of capacity of the poor. The classification is based on available budgetary information and prior knowledge of various schemes. Obviously, there are several marginal cases, which have been resolved with subjective judgement, and therefore the classification can only be called indicative. Details of the procedure adopted are given in Sen and Chand (2004). The basic purpose of this classification is to form a rough idea about the focus of the government on the route chosen to better the conditions for the poor.

Table 5.6: Classification of Government Expenditure in Orissa

Expenditure Categories	Amount in Rs.lakh				Shares (%) in			
	Nominal Prices		1993-94 Prices		Respective Totals		in GSDP	
	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05
A: Revenue Expenditure	1091440	1232700	918746	1014165	100.00	100.00	17.87	17.86
1. Pro-poor expenditure	301390	308936	253702	254168	27.61	25.06	4.94	4.47
2. Growth-oriented expenditure	213707	210260	179893	172985	19.58	17.06	3.50	3.05
3. Administrative expenditure	576343	713504	485151	587013	52.81	57.88	9.44	10.34
B. Capital Outlay	85652	105926	72099	87147	100.00	100.00	1.40	1.53
1. Pro-poor expenditure	13613	17602	11459	14482	15.89	16.62	0.22	0.25
2. Growth-oriented expenditure	55513	77675	46729	63905	64.81	73.33	0.91	1.13
3. Administrative expenditure	3866	3042	3254	2502	4.51	2.87	0.06	0.04
C. Net lending	129894	-21186	109342	-17430	100.00	100.00	2.13	-0.31
1. Pro-poor expenditure	--	--	--	--	0.00	0.00	0.00	0.00
2. Growth-oriented expenditure	--	--	--	--	0.00	0.00	0.00	0.00
3. Administrative expenditure	148940	1915	125374	1576	114.66	--	2.44	0.03
D. Total Expenditure	1306986	1317440	1100187	1083882	100.00	100.00	21.40	19.08
1. Pro-poor expenditure	315003	326539	265162	268649	24.10	24.79	5.16	4.73
2. Growth-oriented expenditure	269220	287935	226622	236889	20.60	21.86	4.41	4.17
3. Administrative expenditure	729149	718461	613779	591091	55.79	54.53	11.94	10.41

Source: Own computations based on budgetary data from *Finance Accounts* for the two years and *Estimates of State Domestic Product, Orissa, from 1999-2000 to 2005-06 (Q)*, Directorate of Economics and Statistics, Government of Orissa.

Table 5.6 presents the results of our classification exercise for the years 2003-04 and 2004-05. Despite some increase in constant prices, total government expenditures are shown to have fallen from 21.4 percent to 19.08 percent of the GSDP between 2003-04 and 2004-05. The drop is clearly in the net lending, which is negative because of (probably one time) large repayments of loans. While revenue expenditures more or less remain constant in the two years at about 17.9 percent of the GSDP, capital expenditures recorded a small rise in 2004-05 from the level of 2003-04. Our focus is, however, on the three sub-categories of total, revenue, and capital expenditures.

Taking the total expenditures first, it is distressing to note that more than half of the government expenditure is accounted for by administrative expenditures (including interest payments). Even though such expenditures dropped a little in 2004-05 as against 2003-04, the drop was similar (in percentage terms) for the other two categories, leaving the relative share of administrative expenditures only marginally lower in 2004-05 as compared to 2003-04. Among the two other sub-categories, (direct) pro-poor expenditures were slightly higher than growth-oriented expenditures in 2002-03, though the gap narrowed in 2004-05.

Pro-poor expenditures, by their very nature, are mostly revenue expenditures. If we examine only revenue expenditures, both pro-poor expenditures and growth-oriented expenditures have dropped between 2003-04 and 2004-05, both in terms of ratios of GSDP and shares in revenue expenditure, the share of administrative expenditures have risen irrespective of the way one looks at it. While it is not advisable to jump to conclusions on the basis of just two years' data, the specific circumstances of these two years prompt some apprehension about the future. It may be remembered that the finances of the state saw a sharp drop in the fiscal deficit in 2004-05 after a long period of such deficit, above 5 percent of the GSDP. During the entire period of serious fiscal problems, one of the recurrent themes in the discussions of state finances was that of high levels of 'establishment' or administrative expenditures, cutting out those that would benefit the citizens at large. Beginning 2000-01, there were conscious attempts at containing the former type of expenditures through various means that did help in reducing the deficits over the next few years. In this background, the prompt rise in administrative expenditures in response to a somewhat easier fiscal position in 2004-05 does lead to a fear of all the benefits of fiscal improvements being devoured by such expenditures, with no improvement for the expenditures on important services for the citizens.

Reverting to our primary objective of classification, the data reveal that the government has more or less maintained a balance between the two types of expenditure that could be said to result in some amount of public services for the citizens. Of the two, the balance is slightly tilted in favour of pro-poor expenditures as compared to growth-oriented expenditures. This is perhaps understandable in a state with the highest levels of poverty in the country; the

urgency relating to poverty alleviation expenditures cannot be emphasised too much; the matching requirements of centrally sponsored schemes (even if the central grants themselves may be outside the state budget) would also contribute to this outcome.

Table 5.7: Classification of Public Expenditure on Social/Economic Services in Orissa

Expenditure Categories	Amount in Rs. lakh				Shares (%) in			
	Nominal Prices		1993-94 Prices		Respective Totals		in GSDP	
	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05	2003-04	2004-05
Social services (Revenue + Capital + Net Lending)	392883	414814	330719	341275	100.00	100.00	6.43	6.01
1. Pro-poor expenditure	248538	251687	209213	207068	63.26	60.67	4.07	3.65
2. Growth-oriented expenditure	116775	127285	98298	104720	29.72	30.68	1.91	1.84
3. Administrative expenditure	14972	28386	12603	23354	3.81	6.84	0.25	0.41
Economic Services (Revenue + Capital + Net Lending)	398389	266671	335353	219395	100.00	100.00	6.52	3.86
1. Pro-poor expenditure	66326	74808	55832	61546	16.65	28.05	1.09	1.08
2. Growth-oriented expenditure	152445	160649	128324	132169	38.27	60.24	2.50	2.33
3. Administrative expenditure	198602	54163	167178	44561	49.85	20.31	3.25	0.78

Source: As in *Table 5.6*

Table 5.7 provides the results of our exercise for expenditures on social and economic services separately. One would expect much of the expenditures on social services to be targeted towards the poor, and the table confirms the *a priori* expectation. More than half of the expenditures on social services are oriented directly towards the poor at least by intent. This share is considerably lower in the case of economic services, and that of growth-oriented expenditures is considerably larger. This is again to be expected, since most of the expenditures under economic services are on physical infrastructure and have no direct benefit for the poor unless specially targeted. One notable feature of the table is the substantial drop in administrative expenditures under economic services in 2004-05 (from almost 50 percent of the expenditures to about 20 percent), again possibly a result of the large repayment of loans and the resultant saving in interest expenditures. Thus, overall, the classification exercise does not bring out anything unexpected with respect to the strategic choice of the route of public interventions for development. However, it does present a warning about the possibility of establishment costs crowding out the more substantive expenditures on the actual provision of services to the citizens of the state. It is important not to let this go out of hand as was perhaps the case earlier.

5.7 Public Expenditure and the Poor: A Benefit Incidence Analysis

Even when government expenditures are intended for the poor, this may not be realised in practice for various reasons including leakages and hijacking of the services by non-target groups. The effectiveness of public expenditure is often analysed on the basis of the benefits of public spending derived by the poor. To examine this, one approach that has been widely used is that of benefit incidence analysis (BIA). BIA combines information on the unit costs of providing public services with information on the use of these services to estimate the benefits derived from public spending across income classes or socio-economic groups. This section uses BIA to analyse the relative distribution of the benefits of public spending on certain categories of health-related services across income classes and between SC/ST and non-SC/ST population in the state as an indicator of the overall incidence pattern of aggregate public expenditures.

Ideally, unit costs of each public service provided in health facilities and their utilisation by households across income quartiles need to be measured for the analysis. However, non-availability of data on utilisation 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 utilisation was available from the 60th round of NSSO data 2004: inpatient services (excluding childbirth), out-patient services, in-patient services related to childbirth, ante-natal care services, post-natal care services, and immunisation services. A recent benefit incidence analysis of health expenditure in India (Mahal *et. al.*, 2002) argued on the basis of facility-level studies that public expenses on a single inpatient was about six times the expenditure on an outpatient in public hospitals. The corresponding expenses in PHCs and dispensaries were about half of that in public hospitals. Also, expenditure on one case of ante-natal care, post-natal care or immunisation was argued to be half of the expenditure on an in-patient in PHCs and dispensaries. In our analysis, we modify the norms used by this NCAER study to account for changes in the format of the data collection in the 60th round of the NSSO survey. Specifically, 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 the expense for outpatient visits, that for childbirth about half the expense of an inpatient visit for other cases, and for ante-natal care, post-natal care and immunisations, about one-fourth. As the 60th round of NSSO data does not provide information separately on immunisations from public and private sources, we assume that immunisations 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 immunisations are part of maternal and child care activities provided by similar public sources. The state's budgetary (revenue) expenditure on health culled out from the detailed demand for grants in budget

documents is used, along with these norms taken from the NCAER study, to estimate the unit cost of each public service. Care is taken to include only expenditure that is directly incurred in health facilities. Again, following the NCAER study, we assume that half of the expenditure on disease control, and medical education and training, whose benefits accrue partly to people outside health facilities also, is incurred through health facilities. Also, expenditure on direction and administration is excluded as in the NCAER study. Budgetary receipts on payments from patients are then deducted from the total state expenditure on health facilities to arrive at the net public spending.

A conceptual problem in the methodology used arises from the fact that, apart from public services in health facilities for which information on utilisation is available, there are services like family planning activities, which are provided in health facilities, yet no information on utilisation of these services in health facilities across income quartiles is available. While this compels one to exclude these services from the utilisation 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. Also, apart from spending on health facilities, the state spends a substantial amount on other preventive health care benefits of which at the margin are higher for the poorer sections of the population than the richer sections. This again underestimates the benefits of public spending accruing to the poorer sections of the population.

Analysis suggests that the benefits of public spending in the state accrue more to the richer sections of the population than the poorer sections, particularly in the rural areas. This is more so for in-patient and out-patient treatment of morbidity, than for preventive services like ante-natal care, post-natal care and immunisations. In fact, for preventive services, the poorer sections predominantly use public sources and hence the benefits of public spending accrue more to the poorer sections than the richer sections. However, as bulk of the population access public sources primarily for in-patient and out-patient treatment of morbidity, the benefits of public spending on the whole, accrue relatively more to the richer sections of the population. In terms of the benefits accruing to SC/ST population, their share is roughly similar to their population share in the rural areas. However, in urban areas, the share of benefits accruing to the SC/ST population is higher than their share in total urban population. This possibly arises from the fact that the SC/ST population in the urban areas is generally poorer than the non-SC/ST population and therefore use public sources relatively more than the non-SC/ST population.

Table 5.8: Distribution of Benefits of Public Spending for Different Public Services Across Income Quartiles and SC/ST and Non-SC/ST Population in Rural and Urban Areas

Quartiles	In-patients	Out-patients	Ante-natal care	Post-natal care	Immuni-sations	Child birth	Total
Rural							
lowest 25	18	24	32	40	37	22	24
25 to 50	22	22	25	27	23	20	22
50 to 75	28	25	15	12	21	13	25
highest 25	32	30	28	21	20	45	30
Urban							
lowest 25	23	23	33	23	35	20	23
25 to 50	16	17	21	27	23	22	17
50 to 75	33	49	35	44	26	49	45
highest 25	27	11	11	7	16	9	14
Rural							
SC/ST	42	45	64	64	58	41	45
Non-SC/ST	58	55	36	36	42	59	55
Urban							
SCST	39	35	52	44	15	44	34
Non-SC/ST	61	65	48	56	85	56	66

5.8 Effectiveness of Public Expenditures: A Tracking Exercise

Another way of looking at the effectiveness of public expenditures is to 'track' them, or trace their movement from the stage of budgetary sanctions to the last point of intended beneficiaries and estimate the actual expenditures that have been received by the intended beneficiaries in the form of given services. We have not been able to carry out such a study ourselves. However, tentative results of a World Bank study suggest that, on this score, public expenditure management system of Orissa is substantially wanting. The above study, carried out for the supplementary nutrition programme for young children, pregnant women, and lactating mothers through the *anganwadi* system puts 'leakage' at various sources at above 50 percent. Given that there may be justifiable reasons for the 'leakage' as defined (gap between what was allocated and what was actually received by the final beneficiaries), even if half of this figure is discounted, it still implies a very large 'slip between the cup and the lip', particularly when one is looking at physical quantities. One suspects that when a particular programme is cash-based, the slippage may be even larger. This does indicate the need for greater vigilance and better management on the part of the government, and third party monitoring.

VI. Financial Needs for Human Development: Estimates of Additional Expenditure

6.1 Introduction

In this chapter, we make some estimates of financial resources required to scale up selected public services/ programmes to reach state/national goals within a given time frame, with a view to raise the level of human development in the state. Before presenting the estimates, a few caveats ought to be mentioned. The estimates do not cover all such services but only a few major ones relating to human development. All physical infrastructure expenditures are excluded here recognising that in practice, such compartmentalisation is not always possible in view of the complementarities between various services. It is also recognised that for policymakers in a backward state like Orissa, several kinds of developmental expenditures compete with each other for funds and the final allocation is dictated by several considerations, including political ones. Thus, our estimates ought to be viewed as indicative of resource requirements should the government (hypothetically) decide to give highest priority to the selected areas of human development. Further, it needs to be clarified here that these estimates are based on norms derived from varying sources including actual costs in certain cases. Some of these norms may not be the most efficient, implying possible reduction in resource requirements with higher efficiency. On the other hand, some other norms, particularly those prescribed by executive fiat, could be inadequate for the professed purpose, implying possible underestimation of resource requirements. Finally, it is worth re-emphasising that expending resources by itself does not guarantee results; more often than not, *how well* the resources are spent matters more than *how much* is spent.

6.2 Costing gaps in Elementary Education

To achieve the goal of universal enrolment and low dropout in elementary education, the two important supply side factors are infrastructure and quality of education. These can be sub-divided into specific infrastructure requirements like new schools and additional teachers required, and upgradation of deficient school buildings (additional classrooms, toilets, boundary walls, etc.) as well as quality improvement measures like teachers' training and TLM material.

In this part, an attempt has been made to find out the areas of major gaps and computation of the resource cost to the government if it were to provide for these over a given period. The infrastructure and personnel gap remains mainly in three areas: (a) shortage of infrastructure facilities in terms of school buildings, additional classrooms, Block Resource Centres (BRCs), Cluster Resource Centres (CRCs), school amenities like girls' toilets and drinking water; (b) additional teacher recruitment to fill up the vacant posts and teacher training to

improve quality of education; and (c) bringing children currently out of school into the mainstream education through various interventions.

Table 6.1: Additional Resources Required to Remove School Infrastructure Gap (as in 2006)

Category	Target	Achievement	Gap	Unit Cost (Rs. Lakh)	Total Cost (Rs. Lakh)
Opening of schools	12494	8207	4287	4.8	20577.6
Construction of school buildings	9298	3757	5541	4.8	26596.8
Additional Classrooms	15121	6504	8617	2.4	20680.8
Free textbooks	3402376	3402376	0	0.008	0
Setting up of BRC	314	314	0	6	0
Setting up of CRC	5257	4397	860	2	1720.0
Drinking water	47702	35522	12180	0.45	5481.0
Girls' toilets	47702	5042	42660	0.2	8532.0
Sub Total					**83588.2**

Source: Figures for gaps from Annual Work Plan and Budget (AWP&B), SSA (Orissa), 2006-07.

The estimated school infrastructure gaps are provided in *Table 6.1* along with the additional resource requirements. Unit cost for infrastructure is taken as per SSA norms in Orissa. *Table 6.2* provides similar estimates for new teacher requirements.

Table 6.2: Teacher Gap - Cost Estimation

Category	Target	In Place	Gap	Unit Cost	Total Cost (Rs. Lakh)	Total recurring cost (Rs. Lakh)
Appointment of new teachers (salary)	64734	55770	8964	0.025	224.1	2689.2*
Teacher grant			8964	0.005	44.82	44.82
Teacher training			8964	0.0007	6.2748	125.49**
Sub Total						**2859.52**

* calculated for 12 months

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

Intervention for out-of-school children takes the form of enrolment in EGS or AIE. As in the case of infrastructure and teacher gaps, if we adopt the figures from the AWP&B of SSA 2006, the target was 5,94,954 children and the achievement stood at 3,32,075, leaving 2,62,879 still to be enrolled. If this figure

is taken as the one currently in use, then a unit cost of Rs. 1,200 leads to a resource requirement figure of Rs. 3,154.54 lakh.

Table 6.3: Total Requirements to Finance Gaps as on 2006

	(Rs. crore)
Infrastructure gap	835.9
Teacher cost	28.6
Out of school children	31.5
Total	**896.0**

Table 6.3 shows the total cost for bridging the infrastructure gap to nearly Rs. 836 crore. Teacher recruitment, teacher training, and teacher grant altogether incur a cost of Rs. 28.6 crore per annum. We assume that all primary and upper primary teachers newly recruited would undergo a 20 day training programme at a cost of Rs. 70 per day as per norms. The intervention for out-of-school children costs almost Rs. 32 crore. Therefore, the total additional expenditure on infrastructure, teacher, and out-of-school children will be Rs. 896 crore at the current level of costs. This amount of additional expenditure from the government should allow it to cover the gaps in different areas and help to meet the target of elementary education for all by 2011-12.

Though the gaps are estimated on the basis of targets and achievements for the year 2006-07, it can be safely assumed that the state government will not be able to expend the estimated additional fund requirements in one year. Hence, the additional requirement is phased out until the end of the current five year plan period (*Table 6.4*). Since a lump sum amount is required for infrastructure, the burden is equally divided into 5 years. For the resource requirement exercise, it is necessary to estimate the salary of new teachers as they are appointed; we phase in the total number over five years equally. Training costs of newly appointed teachers phased in during the five years has to be estimated along with costs of re-training of existing teachers. We assume that all primary and upper primary teachers (currently numbering 1,58,443) will undergo 20 days training every year at a cost of Rs.70 per day.

Table 6.4: Additional Resources Required for Elementary Education, 2007-12
(Rs. crore)

	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Infrastructure	168	168	168	168	164	**836**
Teacher salary	5.4	10.8	16.1	21.5	26.9	**80.7**
Teacher training (new+ existing)	22.4	22.7	22.9	23.2	23.4	**114.7**
Teacher grants (new+ existing)	1.7	1.7	1.7	1.7	1.7	**8.4**
Out of school	6.3	12.6	18.9	25.2	31.5	**94.5**
Total	**203.8**	**215.7**	**227.6**	**239.6**	**247.4**	**1062.8**

The total additional resources over the five year period works out to Rs. 1063 crore, the bulk of it (more than 80 percent) accounted for by infrastructure requirements. The next largest requirements are for training of existing and new teachers and interventions to bring in out-of-school children, followed by the salaries of the new teachers. This would require almost a doubling of the budgetary expenditure on elementary education in 2004-05 if it were to be undertaken all at once. However, phasing it out should make it easier; further, the state need not bear the entire burden of the additional requirements since part of it ought to be financed by the central government through SSA grants. *Table 6.5* provides a broader picture taking this into account.

Table 6.5: Projected Requirement for Elementary Education, 2005-2012

	2007-08	2008-09	2009-10	2010-11	2011-12
Baseline budgetary expenditure	1267	1282	1298	1313	1329
Required additional expenditure	203.8	215.7	227.6	239.6	247.4
With State SSA Share of 50%					
Budgetary expenditure	1369	1390	1411	1433	1453
Central support through SSA for additional expenditure	102	108	114	120	124

Table 6.5 shows the projected scenario of state's total expenditure on elementary education from 2007-08 to 2011-12. The baseline budgetary expenditure (including state's share of SSA funds and expenditures by departments other than those directly responsible for elementary education) is projected on the basis of the annual growth from 2003-04 to 2004-05, applied to the latter figure. The additional expenditure figures are taken from the preceding table. We assume that all the additional expenditures will be incurred under SSA,

so that the central support for the same will finance 50 percent of these. The budgetary expenditures are derived as the difference between the total projected expenditure (projected baseline expenditure plus additional requirements) and the estimated central support for the additional expenditures. Thus, the projected budgetary expenditures of Rs. 1369 crore rising to Rs. 1453 crore depict the resource requirements of the state to be provided by itself for normal as well as additional expenditures.

6.3 Mid-day Meal Scheme

An approximate estimation of annual cost of mid-day meal, both for the centre as well as state is carried out for the years 2007-08 to 2011-12. In estimating the same, we have used the baseline figures of 2005-06. Since cost of cooking materials and wage costs generally increase over time, we have incorporated 5 percent inflation rate in our calculations. An average of 200 working days for schools have been assumed for calculation. As per the guidelines, the centre bears the foodgrain and cooking costs @Rs. 1.50 per student and the state bears the cost @0.50p per student per day. The projected data shows that distribution of mid-day meal to all school going age children will cost about Rs. 770 crore for the time period 2007-08 to 2011-12.

Table 6.6: Projections for Mid-day Meal Scheme, Orissa

	2007-08	2008-09	2009-10	2010-11	2011-12	Total
Primary enrolment: children 5-9 (in lakh)	38.06	37.35	36.65	35.96	35.29	--
State cost @ 0.50 per child with 5% inflation	20.0	19.6	19.2	18.9	18.5	96.2
State's cost per year @ 200 school days (Rs. Crore)	40.0	39.2	38.5	37.8	37.1	192.5
Total amount to be budgeted (Centre + State share)	159.9	156.9	153.9	151.0	148.2	769.9

It may be noted that the state was already spending around Rs. 31.5 crore on mid-day meals in 2004-05. Hence, raising it to Rs. 40 crore in 2007-08 would not really call for any additional resources; normal increase would cover much of the requirement. After 2007-08, it ought to become even easier as the requirement drops with declining numbers in the concerned age group.

6.4 Additional Resource Requirements of the Health Sector

Improving the health indicators in the state require substantial investment in improving access to health facilities and improving the infrastructure in regard to equipments, drugs and other supplies. Apart from supply side interventions, given the significant negative association of IMR with literacy rates and ST population (the negative correlation coefficient of the percentage of ST population with literacy rates across districts is as high as -0.8), it is also important to target literacy rates in general, and in particular among STs. Additionally, sizeable investments are required through provisioning of supplementary nutrition to target the issue of malnourishment in the short-run. In the long-run however, targeting malnourishment would require investments in anti-poverty programmes and improving the public distribution system. Also, ample investment in water supply and sanitation is required to provide all households with safe drinking water and toilets.

The additional investment required in the health sector in the period 2005-06 to 2009-2010 has been indicated in the Orissa Health Sector Plan (GoO, 2005). The requirement has been estimated to be about Rs. 3,808 crore, of which the state plans to meet about 50 percent between 2005-06 and 2009-2010 (Rs. 1921 crore). Importantly, the gap between the required and the proposed expenditure is highest in the case of infrastructure and upgradation, and consists only 10 percent of the planned additional investment in the state.[22] Our estimate of the additional resources required for constructing SCs, PHCs, and CHCs as per the national norms (adjusting for the low density and tribal population in the state) suggests that the estimated required expenditure on infrastructure and upgradation indicated in the Orissa Health Sector Plan is relatively low. While the former estimate is about Rs. 1,314 crore, the Orissa Health Sector Plan estimates it to be only about Rs. 373 crore. Besides, it is important to remember that building additional health facilities would require increase in the supply of doctors and other paramedical staff, of which there is an acute shortage in the state. Although the state plans to spend about 7 percent of the additional allocation in the health sector towards human resources, much of it is directed towards training of medical and paramedical personnel. Additional expenditures are required to address the long-term issue of shortage of doctors and other paramedical staff in the state. Besides, although the state plans to increase the expenditure on drugs and supplies from a current level of Rs. 6 per capita to Rs. 13 per capita by 2009-2010, this would meet only 40 percent of the required resources for drugs and supplies (OHSP). It must also be noted that until the

[22] Even if estimated expenditure on mobile health units is included, the gap between the required and the proposed expenditure is significant. However, in a resource-constrained environment it makes sense to ensure proper functioning of existing facilities before opening new facilities, which would most likely be located in more remote areas and hence more difficult to staff and provision fully.

proposed revision under the OHSP, the financial norm for medicines in the state was abysmally low: Rs. 0.50 per out-patient and Rs. 9.50 per in-patient. Also, only 3 percent of the additional allocation in the OHSP has been allocated to equipments and this meets only 27 percent of the required resources. With only 15 percent of the PHCs in the state having at least 60 percent of the equipments required, substantial increase in investment for equipments is required.

Substantial expenditure is also required for addressing the issue of malnourishment in the state. Using the current 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 pregnant and lactating mothers who are anaemic suggest that the state needs to spend about Rs. 422 crore annually. In 2004, the state spent about Rs. 76 crore under various nutritional programmes, nearly 50 percent of which was targeted towards the KBK districts. This calls for an additional expenditure of Rs. 346 crore annually. It must be remembered that there has been no significant change in the malnourishment levels in the state in the recent past. Given that the Orissa Health Sector plan aims to reduce 60 percent of severe malnutrition by 2010, this needs particular attention.

Expenditure on water supply and sanitation also requires substantial investment if the goal of reducing mortality by 50 percent on account of malaria and other water and vector borne diseases has to be met by 2010. Based on census figures of households not having access to safe drinking water, the cost of connecting all rural households to safe drinking water is about Rs. 2162 crore (at the rate of Rs. 1200 per capita) and Rs. 393 crore (at the rate of Rs. 1780 per capita based on Planning Commission norms) for urban areas. Similarly, for providing all households with toilets, the state needs to make an additional investment of about Rs. 670 crore. It must be borne in mind that there has been a negligible decline in the incidence of a number of diseases like malaria and tuberculosis in the recent past.

Together, if one distributes the capital investment over a period of five years, the minimum additional annual investment required over and above that incurred on 2004-05 (in addition to the planned expenditure in the health sector under the Orissa Health Sector Plan) for health and family welfare, nutrition, water supply and sanitation is about Rs. 2028 crore. This constituted about 3.4 percent of the state's GSDP in 2004-05. With the state spending a mere 1.1 percent of GSDP on Health and Family Welfare in 2004-05, this would mean that the state would need to increase its spending to about 4.0 percent of its GSDP in future, given the real annual growth of GDP at around 7 percent.

Table 6.7: Annual Additional Requirement of Resources (over and above that Incurred in 2004-05) in Health, Nutrition, Water Supply and Nutrition

(Rs. crore)

Heads	Capital expenditure	Revenue Expenditure	Total
Health and family welfare	760	885	=(760/5) + 885 =1037
Nutrition		346	346
Water supply	2555		=(2555)/5=511
Sanitation	670		=670/5 =134
Total			**2028**

Apart from the additional resource requirement, it must be noted that the per capita expenditure across districts (as indicated in the OHSP) does not have any significant association with the output and outcome indicators at the district level. It is possible that the per capita expenditure on health and family welfare in the state is too low to be associated with any output or outcome indicator. Besides, the low level of non-salary expenditure in the health sector (about 85 percent of the expenditure was directed towards salaries and wages), reduces the effectiveness of public expenditure. The OHSP however plans to increase the non-salary component of expenditure to 30 percent by 2010.

6.5 Additional Fund Requirement for Wage Employment

The Government of Orissa could generate 5.54 crore person-days with a cash expenditure of Rs. 363 crore in 2004 -05 under SGRY and another 4.53 crore person-days with an expenditure of Rs. 378 crore under NREGA. With a poverty ratio of 46.8 in 2004-05, nearly 151.75 lakh rural persons were below the poverty line in Orissa. With a simple calculation based on the NREGA norms of 100 person-days with Rs. 100 as the wage rate, the Government of Orissa required an additional Rs. 944.59 crore in 2004-05 towards cash component of wage expenditure to provide jobs for one person from each household (*Table 6.8*). An equivalent amount in kind would be required as 50 percent of wages are given in kind. The wages in kind is usually borne by the central government. Even the wage component under NREGA is partly financed by the central government. Assuming that additional employment is generated with a 50:50 sharing pattern between the centre and state governments the state needs to generate Rs. 470 crore additionally in 2004-05 to cover one person from all poor families of the state.

Table 6.8: Resources Required for Wage Employment in Orissa

(Figures in crores)

1	Expenditure under SGRY 2004-05 (Rs.)	363.00
2	Person-days generated under SGRY 2004-05	5.54
3	Expenditure under NREGA 2004-05 (Rs.)	378.52
4	Person-days Generated under NREGA 2004-05	4.53
5	Total rural population below poverty line 2004-05	1.52
6	BPL population converted into households with household size of 4.5	0.34
7	With assumption 100 days employment needed in person-days	33.72
8	With Rs. 100 as wage, total funds required (Rs.)	3372.22

We assume the number of poor families to be roughly the same at present as in 2004-05, and that full coverage of all poor families is attempted from 2007-08. The annual requirement of total resources would thus be Rs. 3372 crore, adjusted for inflation (which would actually be required only with change in wage rate) in each of the next five years. We need to note that since the entire state will now be covered under NREGA, there will be a substantial change in the funding pattern as compared to SGRY. Under NREGA, the own cost of the state is considerably lower; it works out to about 12 percent on the basis of recent four months' data on total costs, its breakup and NREGA provisions regarding cost sharing. Applying the same percentage to the total fund requirement estimated by us in *Table 6.8* (Rs. 3372 crore), the state will need to put up about Rs. 405 crore per annum.

6.6 Additional Resources Required for Housing

The procedure for estimating resource requirement for housing (under IAY) consists of estimating the housing gap by deducting the house constructions assisted under IAY during the years 2001-02 to 2005-06 from the number of dilapidated and liveable houses in 2001. Assuming all potential beneficiary families are in one of these two types of houses, this gives us the number of houses that require construction or improvement at the end of 2005-06. Allowing for an average assistance of Rs. 25,000 for each house that needs to be constructed or improved, we estimate the total financial requirement to cover the entire backlog as at the end of 2005-06 (*Table 6.9A*). *Table 6.9B* proceeds to divide the entire requirement into five equal parts assuming that the entire backlog is to be covered in five years. This annual estimate less the expenditure in 2005-06 shows the additional resource requirement.

Table 6.9A: Details of the Physical and Financial Performance and Additional Resource Requirement for IAY: Orissa

	Houses constructed 2001-02 to 2005-06			Gap (dilapidated + liveable) – constructed			Required investment (Rs. lakh) gap *.25		
	Total	SC	ST	Total	SC	ST	Total	SC	ST
Coastal	74387	37911	15043	2125129	540283	161212	531282.25	135070.75	40303.00
Southern	45228	17911	18899	1013278	166140	511980	253319.50	41535.00	127995.00
Northern	56088	17232	26570	1733934	288563	735170	433483.50	72140.75	183792.50
Orissa	175703	73054	60512	4872341	994986	1408362	1218085.25	248746.50	352090.50

Table 6.9B: Details of Annual Additional Fund Requirement for IAY: Orissa

	Per year requirement over five years (Rs. lakh)			Expenditure in 2005-06 (Rs. lakh)			Additional fund requirement - Total (Rs. lakh)		
	Total	SC	ST	Total	SC	ST	Total	SC	ST
Coastal	106256.45	27014.15	8060.60	5096.6	3722.78	1373.85	101159.8	23291.4	6686.8
Southern	50663.90	8307.00	25599.00	3096.1	1585.06	1511	47567.8	6721.9	24088.0
Northern	86696.70	14428.15	36758.50	4158.2	1790.5	2367.68	82538.5	12637.7	34390.8
Orissa	243617.05	49749.30	70418.10	9254.8	5513.28	3741.53	234362.2	44236.0	66676.6

Source: Calculated from Census data and data supplied by Government of Orissa on IAY.

The above table shows additional fund requirement if we consider that all the remaining dilapidated and liveable structures need to be replenished by the IAY to solve the housing problems in rural Orissa. On this score, the annual resource requirement works out to Rs. 2,343.62 crore. However, it should be obvious that this amount is a ceiling estimate, particularly for three reasons: some more houses would have been assisted since 2005-06, there are other schemes for rural housing, *albeit* smaller in scope, and not all the dilapidated and liveable houses would either require or qualify for government assistance. If we scale down the requirements for these reasons by about 20 percent, the annual resource requirement works out to about Rs. 1,875 crore. However, IAY is a centrally sponsored scheme where there are fixed allotments for each state with a 75:25 sharing of total cost between the central and the state government. Total expenditure on this scheme in Orissa has so far not crossed Rs. 200 crore. In view of this, if the objective is revised to covering 50 percent of the backlog in the next five years, then the annual fund requirement is correspondingly halved to Rs. 938 crore. This is the figure we adopt for our purposes with adjustment for inflation with the full realisation that it is far higher than a realistic figure; it may be noted that even this figure is ten times the actual expenditure on IAY in 2005-06 and can at best be called notional. However, consistent with the funding pattern, we assume that the state will need to raise only 25 percent of the cost, i.e. Rs. 235 crore annually.

VII. Financing Estimated Resource Requirements

7.1 Introduction

In this final chapter, we bring together the estimated resource requirements for the major human development concerns of the state to explore ways of financing them. The time horizon employed is from 2007-08 to 2011-12, a five year period. We first consider additional resources that may be realistically available at the state government level itself through taxation. We then consider possible resource transfer from the GoI for the period considered over and above those already assumed under various centrally sponsored schemes considered. We also consider possible reallocation of the overall budget to generate funds for human development areas. Finally, we briefly discuss ways of sharing these costs with the private sector. The purpose here is not so much to provide a blueprint for action as to indicate possibilities and strategies. Admittedly, a relatively less developed state like Orissa faces the problem of reconciling large expenditure needs simply to catch up with other states with low revenue base arising from widespread poverty and low incomes. While to some extent this reconciliation is made more manageable through central transfers and external source funding, the state itself also needs to do its best. We conclude with some indications in this direction.

7.2 Resource Requirements and Projected Availability

Table 7.1 lays down the inflation adjusted figures for additional resource requirements in the selected areas of human development.

Table 7.1: Additional Resource Needs for Human Development Sectors

(Rs. crore)

Sector	2007-08	2008-09	2009-2010	2010-11	2011-12
1. Elementary Education	118	131	145	161	174
2. Health & Family Welfare	1200	1260	1324	1390	1459
3. Nutrition	401	421	442	464	487
4. Water Supply	592	621	652	685	719
5. Sanitation	155	163	171	180	189
6. Wage Employment	405	405	405	405	405
7. Indira Awas Yojana	235	235	235	235	235
8. Total	**3105.74**	**3236.32**	**3373.80**	**3518.53**	**3668.08**

Note: The amounts were earlier expressed in 2004-05 prices, and hence adjusted now for 5% annual inflation, except items 6 and 7, which are based on norms fixed in money terms.

Almost two-thirds of the estimated additional expenditure needs will be on capital account, requiring one time expenditure. As can be easily appreciated,

these are very large amounts for a state like Orissa. To put it in proper perspective, the amount estimated as additional requirement for the year 2007-08 is more than 17 percent of the total revenue expenditure for 2007-08 (budget estimate). Clearly, raising expenditures to this extent needs some planning with respect to possible sources of funds. We begin this indicative exercise with a simple projection of tax revenues of the state for the five years starting 2007-08.

7.3 Tax Revenue Projection

This is a particularly difficult endeavor in the context of own taxes in Orissa at the present juncture. One of the usual methods of such revenue projections is to use estimated buoyancies of taxes along with projected GSDP; but examination of data reveal that there is a break from the trend in the last few years which would severely limit the applicability of the long-term buoyancy. At the same time, the year-to-year buoyancies exhibit fluctuations that make them difficult to use. In the interests of realism, the best bet appears to be a disaggregated method using all the available information. Accordingly, the reported projections are rather eclectic in that no uniform methodology has been used for the purpose; they are more judgmental than anything else. However, they build in the insights from some detailed information on specific taxes. *Table 7.2* below lays out the projections.

Table 7.2: Projections of Own Tax Revenue of Orissa – 2007-08 to 2011-12

(Rs. crore)

	2007-08 (P)	**2008-09 (P)**	**2009-10 (P)**	**2010-11 (P)**	**2011-12 (P)**
Sales Tax	3755	4124	4527	4889	5343
Entry Tax	543	589	639	690	745
Motor Vehicle Tax	576	691	795	914	1051
State Excise	391	450	517	595	684
Electricity Duty	345	397	456	525	603
Stamp Duty & Regn Fees	348	418	501	601	722
Land Revenue	198	218	240	264	290
Profession Tax	79	87	96	105	116
Other Taxes	15	17	19	22	26
Own Tax Revenue	6250	6989	7790	8606	9580
GSDP (current prices)	90487	98179	106524	115046	124250

(P): Projected

The assumptions involved in arriving at the projections are as follows:

- First, GSDP in current prices has been projected to increase at a slowly declining rate: for the years 2007-08, 2008-09, 2009-10, 2010-11 and 2011-12, the growth rates assumed are 9, 8.5, 8.5, 8 and 8 percent respectively.

- Sales tax (VAT) collections are taken to be a given ratio of total GSDP, the ratio slowly rising to build in the changing composition of GSDP. The assumed ratios (based on the recent past) for the next five years are 4.15, 4.20, 4.25, 4.25 and 4.30 respectively.
- Similarly, entry tax is assumed to be a percentage of GSDP – fixed in this case – of 6 percent, based on the figures of the last two years.
- In the case of motor vehicle taxes, an increase of 20 percent per annum (roughly what has been observed in the last three years on an average) has been assumed for the next two years, after which the growth is assumed to drop to 15 percent per annum.
- For state excise, a uniform 15 percent increase per annum is assumed over the adjusted base year figure (for 2006-07).
- The same rate of growth has been assumed for electricity duty collections with the base year figure adjusted.
- For stamp duty and registration fees, a higher uniform rate of growth of 20 percent is assumed, mainly on the expectation of a substantial part of the growing incomes in the state finding its way into the real estate sector, driving both construction activities and real estate prices.
- The large fluctuations in land revenue collections make it difficult to project; hence we use a uniform (rather low) growth rate of 10 percent per annum, given the rather inelastic nature of the revenue from this tax.
- Similarly, at this point of time, there is little expectation of being able to administer profession tax much more effectively in future than at present given the continuing inability to tap the hard-to-tax groups. As such, a uniform low growth of 10 percent per annum is assumed.
- For other taxes, a small amount, the standard growth rate of 15 percent per annum is assumed.

The total own tax revenues are derived as sums of the individual taxes. The broad outcome of the exercise is that the total persistently rises as a share of the GSDP over the entire projection period. From the base year (2006-07) ratio of 6.65 percent (taking only the adjusted figures of state excise and electricity duty), it rises to 6.91 percent in 2007-08, ending up at 7.71 percent in 2011-12.

Compared to the base year figures, the additional resources generated over the five year period 2007-08 to 2011-12 work out to Rs. 729, 1,468, 2,269, 3,085 and 4,059 crore respectively. These work out to 23 percent, 45 percent, 67 percent, 88 percent and 111 percent of the estimated additional resource requirements for human development. Thus, even if the entire estimated increase of tax revenue from the current year onwards was earmarked for only the additional expenditures estimated, the former would fall far short of the latter even though the gap between them narrows over the years until the former is larger than the latter in the final year, 2011-12. This is so because we have evenly spread the additional expenditure over the five year horizon, while the tax

revenues usually grow at a given rate every year. Obviously, at least for the first three years, alternative sources of funds have to be looked for.

Although there is an official policy of increased use of user charges, we do not expect these to garner any significant amount of resources. This is because the areas we have covered (elementary education, primary health, nutrition, rural water supply, rural housing and poverty alleviation) do not realistically admit of collection of a significant amount of user charges, being basic necessities for the poor. All the same, charging small user charges with exemptions for the poor can be useful to meet other objectives like generating a small amount of resources to be used locally. However, rationalising user charges for several other services provided by the government – mainly physical infrastructure – can be and should be undertaken. The non-tax revenues of the government do show some rise in recent years, possibly from higher user charges in these areas, but there is still likely to be some additional scope. But, realistically the additional resource generation from this source is not likely to be significant; moreover, in some sense, the sectors from which such charges are collected would have first claim on the resources mobilised through such charges.

7.4 Reallocation of Expenditures

Another possibility of raising resources for the purposes at hand is through reallocation of expenditures, putting relatively higher priority on the human development concerns. A common difficulty with this approach is that while it is easy to assert a higher priority, there is no rational method of actually assigning such priorities in terms of expenditure shares, even when the resource envelope is known. This is a critical problem in practice, since each type of 'developmental' expenditure is supposed to benefit the citizens irrespective of whether it is in the area of human development or physical infrastructure. In general, these issues are sorted out by the political-cum bureaucratic process as a 'default' mechanism. While a political resolution of the issue is not necessarily bad – in fact, it may be the expected manner of resolution in a representative democracy like ours – it does acquire undesirable overtones when the resolution process does not reflect the peoples' mandate to their representatives, but only intra-governmental power structure. In such a situation, some manner of injecting rational considerations into this process becomes important.

Table 7.3: Actual and Estimated Expenditures on Selected Services in Orissa

(Rs. lakh)

Sectors	Actual Expenditure 2004-05	Estimated Expenditure 2004-05
Education	199740.48	189993.57
Health	63089.83	31142.43
Water Supply	27550.23	25819.25
Housing	7814.31	5786.03
Urban Development	3732.23	4867.30
Rural Development	46770.78	45930.43
Labour and Employment	2301.71	17023.37
Agriculture and Allied	59003.35	69938.38
Irrigation and Flood Control	69413.04	73733.81
Energy	8034.98	4946.65
Industry & Minerals	4629.69	4998.36
Transport	50443.25	68344.29
Total of the Above	***542523.88***	***542523.88***

Source: Sen and Karmakar (2007)

We provide indicative computations of possible reallocation of resources based objective criteria – that of the relative progress of the state, as revealed by various indicators on which data are available, compared to the best performance among different states. The idea simply is that highest priority is attached to that service where the relative position of the state is the farthest from the best performing state, and the lowest priority is attached to that service where the relative position of the state is the closest to the best performing state. All the services in between can also be ordered in terms of priority in this manner. Unit costs of providing these services also have to be incorporated into the analysis to arrive at budget shares (for details, *see* Sen and Karmakar, 2007). Further, since it is only possible to carry out changes at the margin, this methodology can be used for *changes* in total resource envelope. Application of this methodology yields *Table 7.3*.

The illustration using the data for 2004-05 shows that If we kept expenditures on general and fiscal services aside, and only considered reallocation within the specified services, our hypothetical reallocation based on the objective methodology briefly outlined above actually takes resources away from most of the human development areas (particularly health) except labour and employment and puts greater amounts of resources in physical infrastructure (except energy). These essentially reflect a relatively low rate of employment and a very small increase in employment between 1991 and 2001 causing the estimated unit costs to be large for labor and employment, and the fact that there has been a substantial step-up in health expenditures in 2004-05 compared to the previous years. Broadly, the reallocation pattern reflects the fact that

availability of physical infrastructure is relatively a more pressing concern than the human development areas in terms of the relative position of Orissa *vis-à-vis* the state(s) with the highest value(s) for the indicator(s). The message of this exercise for our purposes is clear: the state is already attaching a high priority to human development and further reallocation from other services cannot be expected. As such, this channel of raising resources for the needed expenditures on human development is not available to Orissa.

7.5 Central Transfers

Transfers from the central government have been traditionally a major source of funds for the GoO. In 2005-06, central transfers accounted for 55 percent of the revenue expenditures of the state; it has generally been around 45 percent on a longer-term basis. These include untied or unconditional transfers like the grants-in-aid of revenue from the Finance Commission, various plan grants and other grants. The Finance Commission grants are known for that part of our projection period that coincides with the 12th Finance Commission's award period, i.e. until 2009-10. But more than the grants, the tax sharing mandated by the Finance Commission has actually helped Orissa considerably in recent years by allowing the state to benefit substantially from the high buoyancy of the central tax collections in recent years. This is likely to continue in the near future.

Grants under various centrally sponsored schemes have also been stepped up in recent years. We have discussed some of these sectoral schemes in the previous chapters. One important area where the matching requirement for the state has gone up is SSA. The state did not fully utilise the available funds in the initial years and lost some of the transfers; a similar problem was noticed in the case of some other matching grants too. This was seen as a combination of two issues: the inability of the state government to put up the matching requirement as also tardy administration in the sense of not submitting appropriate utilisation certificates even when funds were spent. On both counts, there has been some improvement in recent years. This needs to be emphasised on a continuing basis given the state's dependence on central transfers. There are certain areas where the terms of central transfers are actually improving as far as the state is concerned; for example, with NREGA being applicable to all districts, the state's own cost of employment oriented programmes (SGRY and NREGA together) per person day is likely to decline. With National Rural Health Mission, a similar possibility exists in the area of health. Further, at a fairly low cost to itself, the state government can now expand its mid-day meal scheme to VIII standard. It is important for the state to prioritise its allocations on the basis of maximum value for its own funds now so that it can take full advantage of the various schemes under which central transfers are available. We have seen that the allocations for IAY to Orissa are woefully inadequate compared to the backlog; the state must make attempts to ensure that the central allocations are raised to make a dent on this huge problem.

In terms of Finance Commission transfers, its grants as recommended for Orissa actually taper off after the first year of the award period, i.e., 2005-06. Thus, it is unlikely to be a source of additional resources. But the continuing buoyancy of central taxes (particularly income tax) indicates that tax shares can be. It is not easy to predict the amounts, but given an expected annual growth of around 20 percent in central tax revenues and a constant tax share, the same growth can be expected in the state's share of central taxes. This translates to additional resource availability from this source of around Rs. 1,200, 2,750, 4,500, 6,650 and 9,300 crore in 2007-08 to 2011-12 respectively, compared to the baseline figure of Rs. 6,220 crore in 2006-07. Clearly, if all additional tax revenues (own as well as shared) were to be used exclusively for the purposes covered in our estimates, only 2007-08 would be a problem – there would be adequate funds for the other years. However, it is patently unrealistic to think that the additional resources will not have other claims. In fact, in view of the complementarities between various services, use of entire additional resources for the selected services exclusively could substantially defeat the purpose. On the other hand, we must remember that our estimates are also something like ceiling estimates; it is unlikely that the government can scale up the given services in the way we have assumed even if the necessary funds were available. In the end, the exercises so far yield the qualitative conclusion that a major part of the resource requirements for scaling up the services can be met through additional tax receipts (own and shared) if the government continues to assign high priority to these areas and maximises available central transfers. But realistically, it would still leave some resource gap to be filled up by other means.

7.6 Enhancing Expenditure Efficiency

In most governmental systems in India (and elsewhere), there are significant inefficiency costs that get built into the costs of providing various services. While measuring such inefficiency costs is not easy, they are generally believed to be large, despite elaborate systems of auditing.[23] Consequently, there ought to be large payoffs to better expenditure management, in all its aspects. There are several tools available to put this prescription into practice. These include better budgeting techniques like medium term frameworks to better monitoring through performance audit. Eliminating delays in project implementation through better project management and other related aspects alone would probably save large amounts for the government. The battle to reduce wastage is a continuous one, and probably an unpopular one; it can upset vested interests that benefit from such wastage. But in a resource poor state like Orissa, it is an absolute necessity.

[23] While this is not the place to go into the details of the merits of the extant system of auditing, it will suffice here to note that it does not really check for efficiency, but only observation of prescribed rules and procedure.

While we do not intend to go into specifics on this issue, one aspect of expenditure management can be highlighted as an example. The study team came across instances of ambulances without drivers, equipment without operators and school infrastructure without adequate teachers during its field visits in Orissa. This indicates a system of budgeting and acquisition by specific inputs. We would like to propose an alternative system where specific services in specific areas/localities are made the basis of budgeting and allotment of funds. Even at present, such a basis is probably there at the bottom level, but it gets broken into components for the purpose of budgeting, which then get aggregated as the demands move up the budgeting hierarchy, until at the top, there are only budgets for components. These component-wise budgets then get modified to be fitted into applicable resource constraints and competing needs, which results in the situation of ambulances without drivers and such others. Instead, if the system relies on budgets for services from the bottom to the top, any chopping and changing can be done in terms of services – the scope or coverage can be reduced if needed. This would ensure that resources will not be wasted for lack of complementary inputs. The basic idea that is sought to be conveyed here is that resource allocation should be based on a complete package of inputs needed for providing a service and not in terms of the inputs separately. An attempt to put this into practice will likely bring to the fore several other problems like those relating to mismatched timing of input supply, defining an appropriate minimum scale for various services and prioritisation. These problems exist even now, but are not visible. The proposed system would bring them into the open and in all probability, cause solutions to be found. In this process of suggested reform, the highest priority should be accorded to filling up identified small input gaps in the effective provision of services on which the government has already spent resources.

7.7 Public-Private Partnerships (PPP)

It is being increasingly realised that the resource requirements for effective service provision by the government is too large to be financed through its own resources. While this is particularly true for physical infrastructure, it has some applicability in the social services sector as well. Also, the government is not always a good manager. A proposed solution of these problems is to emphasise that while it is the duty of the government to ensure supply of services that the citizens consider essential, it need not necessarily be the producer or even distributor of that service. The private sector can be involved in such supply in various ways, limited only by the ingenuity in finding a combination that is mutually acceptable. Private sector can mean a range of non-governmental institutions starting from individual charities or charitable organisations to profit-motivated commercial organisations. There are several instances of PPP even in the sectors relevant for human development, the most widespread being involvement of not-for-profit non-governmental organisations (NGO). The GoO itself has in the past attempted several such PPPs, some of which have not worked (e.g. in the area of primary health). But this is a concept that is evolving,

new paradigms are constantly being created and new areas of PPP are constantly being identified. Hence this is a policy option that must always be kept in mind and explored. Again, it is not possible to go into specifics here, but as an example of possibilities, we can recall the suggestion to involve one or more NGOs for the supply of mid-day meals in schools.

References

Ager, Alastair and Katy Pepper, 2005. "Patterns of Health Service Utilization and Perception of Needs and Services in Rural Orissa", *Health Policy and Planning*, 20(3):176-184.

Baral, Chitta 2006. "The Gold that Keeps Orissa Poor", *Indian Express* (online edition), posted November 17.

Bedamatta, Rajshree 2006. "Neoliberal Economic Reforms and Targeted Public Distribution System – A Case Study of Two Orissa Villages", Paper presented at ***International Young Scholars' Seminar***, 4-6 April, Academy of Third World Studies, Jamia Millia in association with Leftword Books, New Delhi.

CESR, no date. *Evaluation of Indira Awaas Yojana in Orissa.* New Delhi: Council for Economic and Social Research.

CYSD, 2005. *Budget Watch 1: State Spending on Social Services in Orissa 1995/96 – 2003/04.* Centre for Policy Research and Advocacy, Bhubaneswar: CYSD.

CDSA 2000. *Monitoring of Social Inputs in Ganjam and Nuapada Districts of Orissa (Sectoral Overview) Part I*, Report Submitted to the Planning Commission. Pune: Centre for Development Studies and Activities.

Das Prafulla 2004. "Hunger and Death", *Frontline*, 21 (17). Downloadable from www.flonnet.com/fl2117/stories/20040827001204900.htm

Debi, Sailabala 2001. "Inequality of Access to Elementary Education in Orissa: An Inter- and Intra-spatial Analysis", in (*eds*.) A. Vaidyanathan and P.R. Gopinathan Nair, *Elementary Education in Rural India: A Grassroots View.* New Delhi: Sage Publications.

Deaton, A. 2003. "Adjusted Indian Poverty Estimates for 1999-2000", *Economic and Political Weekly*, January 25:322-6.

de Haan, Arjan and Amaresh Dubey, 2003. "Poverty in Orissa: Divergent Trends? with Some Thoughts on Measurement Issues", Paper presented at the workshop on ***Monitoring of Poverty in Orissa***, 26-27 February, Bhubaneswar (*mimeo*).

----------, 2005. "Poverty, Disparities, or the Development of Underdevelopment in Orissa", *Economic and Political Weekly*, May 28-June 4:2321-29.

Glinskaya, Elena and Susanne van Dillen, 2005. "Poverty and Vulnerability in Orissa: Diagnosis and Approach". New Delhi: The World Bank (*mimeo*).

GoI, 2004. *Health Sector Reforms in India: Initiatives from Nine States*, Ministry of Health and Family Welfare, New Delhi: Government of India.

GoO, 2004. *Human Development Report 2004: Orissa*, Department of Planning. Bhubaneswar: Government of Orissa.

-------, 2005, *Orissa Health Sector Plan (OHSP) (2005-2010)*, Department of Heath and Family Welfare, Government of Orissa, October.

Kumar, Kundan 2004. "Dispossessed and Displaced: A Brief Paper on Tribal Issues in Orissa", Paper of the Land Tenure, Access, and Rights Group. Bhubaneswar: Vasundhara.

Kumar, Kundan and P.R. Chaudhary (no date). "Territorial Strategies and Natural Resources Governance in Orissa: Is Democratisation Possible?" Downloaded from www.indiana.edu/~iascp/bali/papers/Kumar_Kundan.pdf.

Kumbhar, Rathi Kanta 2001. *Food Security in a Regional Perspective: A Study of Public Distribution System in Orissa, India*. M. Phil dissertation. Thiruvananthapuram: Centre for Development Studies.

Mackinnon, John 2002. "Assessing the Impact of Fiscal and Structural Reforms on Poverty in Orissa". Unpublished paper downloaded from http://www.prspsynthesis.org/India(Orissa)_Final_PSIA.doc.

Misra, Surendra Nath and Manaranjan Behera, 2001. "Mid-Day Meals Scheme: Its Impact on Enrolment, Attendance, Retention and Reduction of Dropout Among Primary School Going Children in Orissa and Tamil Nadu – A Comparative Study". Working Paper No. 52, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar.

Nayak, Bhabani Shankar 2002. *Public Distribution System and Food Security in Orissa: A Case Study of Kalahandi District*, M. Phil dissertation, Department of Political Science, University of Hyderabad.

---------- 2007. "Silenced Drums and Unquiet Woods: The Myth of Modernization and Development in Orissa", *Journal of Comparative Social Welfare*, *23(1)*, 89-98

---------- and Ishan Cader, 2007. "'Needs' based Development to 'Desired' Development: Locating the Freudian Idea in Social and Economic Development of Tribals after the New Economic Reforms in India". Unpublished paper.

Mahal, Ajay *et. al.* 2002. *Who Benefits from Public Spending in India: Results of a Benefit Incidence Analysis for India.* New Delhi: National Council of Applied Economic Research (NCAER).

NCDS, no date. *Toward a Poverty Reduction Strategy for Orissa: Some Analytical and Policy Issues*, Research and Academic Cell (PTF), Bhubaneswar: Nabakrushna Choudhury Centre for Development Studies.

NCDS, 2006. *Sarva Shiksha Abhiyan Programme in Orissa (Half Yearly Monitoring Report for 1st April to 30th Sept.2006)*, Bhubaneswar: Nabakrushna Choudhury Centre for Development Studies.

Padhi, Sakti, Nilakantha Panigrahi, and Aswini Kumar Mishra , 2005. "Tribal Population and Chronic Poverty in Orissa: The North-South Divide". Paper presented at CPRC-IIPA seminar on ***Chronic Poverty: Emerging Policy Options and Issues***. New Delhi, 29-30 September.

Paul, V. K. and A. V. Ramani, 2000. "Newborn Care at Peripheral Health Care Facilities", *Journal of Pediatrics*, 67(5): 378-82.

Planning Commission, 2005. *Performance Evaluation of Targeted Public Distribution System (TPDS)*, New Delhi: Programme Evaluation Organisation, Planning Commission, Government of India.

PRAXIS 2001. *The Politics of Poverty.* Bangalore: Books for Change.

Rai, Parshuram 2007. *Rural Job Scam: Survey Report on Implementation of NREGA in Orissa*, New Delhi: Centre for Environment and Food Security

Roy, Indrajit 2003. "Penury in Plenty", *HIMAL South Asian*, July 2003; downloaded from http://www.himalmag.com/2003/july/analysis.htm

Sen, Tapas K. and Krishanu Karmakar, 2007. "Reprioritisation of Public Expenditure for Human Development", Financing Human Development Working Paper 2, National Institute of Public Finance and Policy, New Delhi.

Shah, Amita, Saroj Kumar Nayak, Bipin Das, 2005. "Remoteness and Chronic Poverty in a Forest Region of Southern Orissa: A Tale of Entitlement Failure and State's Apathy". Paper presented at CPRC-IIPA Seminar on ***Chronic Poverty: Emerging Policy Options and Issues***, 29-30 September, New Delhi (*mimeo*).

Singh, Ramvir 2005. in (*eds*.) Sim H.C. S. Appanah and N. Hooda, *Forests for Poverty Reduction: Changing Role for Research, Development and Training Institutions*, Bangkok: Food and Agriculture Organisation (Regional Office).

Vasundhara, 1998. *NTFP Policy in Orissa and a Comparative Analysis of NTFP Policy and Prices with Neighbouring States.* Bhubaneswar: Vasundhara.

----------, 2005. *Development Policies and Rural Poverty in Orissa: Macro Analysis and Case Studies.* Bhubaneswar: Vasundhara.

----------, 2006. *Financing Income of Marginalized Communities through Appropriate Policy Changes.* Bhubaneswar: Vasundhara.