Report No. 44612-IN

India
Orissa in Transition
Challenges for 2006–2010

November 21, 2008

Poverty Reduction and Economic Management
India Country Management Unit
South Asia Region

Document of the World Bank

CURRENCY EQUIVALENTS
(Exchange Rate Effective)

Currency unit	=	Rupees (Rs.)
Rs.1	=	US$0.02005
US$ 1	=	Rs. 49.885

FISCAL YEAR
April 1 – March 31

ABBREVIATIONS AND ACRONYMS

AT&C	Aggregate Technical & Commercial	NTFP	Non-Timber Forest Produce
ATMAs	Agricultural Technology Management Agencies	O&M	Operations and Maintenance
CAA	Constitutional Amendment Act	OERC	Orissa Electricity Regulatory Commission
CCPPO	Confederation of Captive Power Plants, Orissa	OHSP	Orissa's Health Sector Plan
DISTCOs	Distribution Companies	OMGI	Orissa Modernizing Government Initiative
FDI	Foreign Direct Investment	PCE	Per Capita Expenditure
FR&BMA	Fiscal Responsibility and Budget Management Act	PESA	Panchayat Act to Scheduled Areas
GoI	Government of India	PETS	Public Expenditure Tracking Survey
GoO	Government of Orissa	PHEO	Public Health Engineering Organization
GP	Gram Panchayat	PMGSY	Prime Minister's Gram Sadak Yojana
HDI	Human Development Indicator	PP	Paani Panchayats
HRMIS	Human Resource Management Information System	PPPs	Public-Private Partnerships
ICDS	Integrated Child Development Services	PRI	Panchayati Raj Institutions
IDCOL	Industrial Development Corporation	R&R	Resettlement & Rehabilitation
IMFL	Indian Made Foreign Liquor	RGGVY	Rajiv Gandhi Gramin Vidyutikaran Yojana
IPR	Industrial Policy Resolution	SCs	Scheduled Castes
JGSY	Jawahar Gram Samridhi Yojana	SGRY	Sampoorna Grameen Rozgar Yojana
JNNURM	Jawaharlal Nehru National Urban Renewal Mission	SHGs	Self-Help Groups
MLD	Million liters daily	SMART	Simple, Moral, Accountable, Responsible, and Transparent
MNP	Minimum Needs Program	SMEs	Small and Medium-Scale Enterprises
MoU	Memorandum of Understanding	STs	Scheduled Tribes
MRP	Mixed reference period	TFC	Twelfth Finance Commission
MTFP	Medium-Term Fiscal Plan	TPDS	Targeted Public Distribution System
MTPA	Million tons per annum	UIDSSMT	Urban Infrastructure Development Scheme for Small and Medium Towns
NRHM	National Rural Health Mission	ULBs	Urban Local Bodies
NOAP	National Old Age Pension	URP	Uniform Reference Period
NREG	National Rural Employment Guarantee	VAT	Value Added Tax
NSS	National Sample Survey	WSS	Water Supply and Sanitation
MRP	Mixed reference period		

Vice President:	Isabel M. Guerrero, SARVP
Acting Country Director:	Rashid Benmessaoud, SACIN
Country Manager:	Fayez S. Omar, SACIA
Sector Director:	Ernesto May, SASPF
Sector Manager:	Miria Pigato, SASPF
Task Manager:	V.J Ravishankar, SASPF

Team and Acknowledgements

This Economic Report was prepared by a team led by V.J Ravishankar. Individual chapters were contributed by Deepak K. Mishra (economic growth), Marina Wes (fiscal turnaround), Clive G. Harris (infrastructure), Lant Pritchett (human development), and Vikram Menon (accountability for service delivery). Other staff who contributed are: Manivannan Pathy (agriculture), Varsha Marathe (investment climate), Srikumar Tadimalla (power and PPPs), Nupur Gupta (transport), Deepak Ahluwalia and Prabir Joardar (irrigation), Richard Clifford and Smita Misra (urban), Sangeeta Goyal (education), Peter Berman (health), Philip O'Keefe and Md. Ihsan Ajwad (social protection), Maitreyi Das (social impact and benefit sharing), Elena Glinskaya (poverty and employment trends), Pooja Churamani (economic and fiscal data analysis)Rita Soni and Shiny Jaison (document production). The work was carried out under the overall direction and management of Sadiq Ahmed (former Director, SASPR), Fayez Omar (SACIA), and Kapil Kapoor (former manager SASPR). The team is particularly grateful for valuable formal peer review comments from Professor Suresh Tendulkar (external), Mona Haddad (EASPR) and Sanjay Kathuria (ECSPE).

The Report could not have been prepared without the close cooperation of the Government of Orissa (GoO), including and especially Ajit Kumar Tripathy, chief secretary; R. N. Bohidar, development commissioner; Subas Pani, former chief secretary; U. Sarat Chandran, former principal secretary, finance; B. K. Patnaik, principal secretary to chief minister and department of public enterprises; R. N. Senapati, principal secretary, finance; Chinmoy Basu, former principal secretary, health; R. V. Singh, special secretary, planning and coordination; K. C. Badu, former special secretary, finance; N. C. Vasudevan, former principal secretary, housing and urban development, and presently principal secretary, science and technology; S. N. Tripathi, secretary, rural development and information technology; Madhur Sarangi, principal secretary, cooperation; I. Srinivas, former secretary, industries; S. P. Nanda, former principal secretary, forest and environment, and presently agriculture production commissioner; H. S. Chahar, former principal secretary, agriculture, and presently principal secretary, forest and environment; A. K. Tripathy, former secretary, energy, and presently secretary, tourism; Mona Sharma, secretary, women and child development; R. K. Sharma, secretary, food supply and consumer welfare; Raja Lakshmi, former principal secretary, science and technology; G. C. Nanda, former director, vigilance; D. K. Dey, former secretary, works; A. K. Meena, managing director, IDCO, Nitin Chandra, former special secretary, general administration department; V.Tyagarajan, ex-inspector general, vigilance, L.N. Gupta, ex-secretary, steel and mines, G.V.V Sharma, secretary, revenue and disaster management, S.C. Patnaik, secretary, school and mass education, K.C. Mohanty, director, panchayati raj and B.C. Mohapatra, additional secretary, finance. The Team is grateful to Dr. Sakti Padhi, Director, Naba Krushna Choudhury Centre for Development Studies and representatives of civil society, nongovernmental organizations, academics and private sector firms in Orissa with whom wide range of consultations were undertaken.

The report has been discussed with the Government of India but does not necessarily bear their approval for all its contents, especially where the Bank has stated its judgments/opinions/policy recommendations.

Table of Contents

List of Figures

List of Tables

List of Boxes

List of Annexes

OVERVIEW

1. **Since 2000 Orissa, a seriously lagging state in the nineties, has become a state in transition.** Rapid economic growth, spurred by investment in metal industries, has had a multiplier effect throughout the economy. Opportunities for nonagricultural self-employment, as well as wage employment, have expanded. A remarkable fiscal turnaround, achieved through the state's own efforts and complemented by performance-linked support from the central government and external donors, has created space for developmental initiatives and high-priority public investments by the Government of Orissa (GoO). Although agriculture has performed below its potential, growing at the same rate as in rest of India, there are some welcome signs of diversification and dynamism in various parts of the state, pointing to large potential for further growth.

2. **Change has given rise to hopes as well as anxiety**. The acceleration of Orissa's economic growth to a rate faster than the rest of India during 2002-07 brings hope that the state may at last be able to catch up with the rest of the country. Expectations of the younger generation have begun to change. A recent survey of high school children in the capital city of Bhubaneswar revealed that only one in seven looked forward to a career in public service, compared with one in every two in their parents' generation. Nonetheless, a nagging concern remains about whether the poor and hitherto excluded, such as the scheduled tribes (STs) (22 percent of the population and 40 percent of the poor) who live in remote villages located in hilly terrain, will gain or lose from the market-driven growth process. Will those who live in the mineral-rich districts benefit adequately from mineral-based industrial growth? Orissa's growing civil society movement has already voiced its concern on such issues. The necessity and urgency of addressing the inclusion agenda has been highlighted by recent controversies over land acquisition for industries. It has prompted the Orissa government to adopt a consultative process steered by a Group of Ministers, before undertaking a progressive resettlement and rehabilitation policy.

3. **Several inequalities have begun to narrow, while some remain key outstanding challenges.** The gap between Orissa and the rest of India in per-capita income narrowed during 2000–06, after having widened during the past five decades. Regional inequalities within Orissa have also narrowed between 1999/2000 and 2004/05, according to latest available National Sample Survey (NSS) data on household consumption expenditures. A wide cross-section of the population, including scheduled castes (SCs), has gained from the expansion in income-earning opportunities since 2000. However, the poorest 40 percent of the population has gained much less than the better-off 60 percent, most of the scheduled tribes are part of this poorest 40 percent and continue to lag behind.

4. **Compared with the fiscal stress and liquidity crisis that prevailed in 1999/2000, the fiscal outcomes achieved as of 2006/07 present a remarkable success to build on**. That Orissa was headed for a fiscal crisis was known in the late 1990s, which ended with the heavy impact of the pay hike awarded to government employees—raising the ratio of salaries, pensions, and interest payments to above 100 percent of total revenue. The policy stance of the government of Orissa changed after the election in 2000 of the present incumbent government headed by Shri Naveen Patnaik. The government issued a white paper in 2001 on the pathetic condition of the state's finances and signed a memorandum of understanding (MoU) with the Government of India (GoI) to undertake fiscal reform measures. The state government built up public acceptance and government ownership of the fiscal reform program through a consultative and transparent process. Over the past seven years, the primary fiscal balance has been converted from a deficit of 5.9 percent of gross state domestic prices to a surplus of 2.8 percent—a correction by 8.7 percentage points, stronger than in any other Indian state.

5. **Fiscal turnaround and economic acceleration have assisted and contributed to one another.** The reforms began with the necessity for fiscal correction. However, such a strong fiscal correction would not have been possible without the acceleration of market-oriented growth. Without employment and livelihood opportunities expanding in the private sector, the Orissa government would not have been able to win public support and move ahead with rightsizing the civil service and retrenching employees of public enterprises. Nor would revenue growth have been as buoyant as it has been since 2004/05. In turn, fiscal reforms have contributed to economic growth by speeding up the completion of capital investment projects, such as long-pending construction of roads, bridges, and irrigation canals. The improved financial situation and the end of liquidity constraints also enhanced the willingness of private firms and external donors to place their faith in Orissa's future. For instance, the World Bank postponed approval of a State Roads Project in 2002, due to the acute fiscal stress, and is now moving ahead toward approving a bigger version of that project in 2008, as a result of the fiscal turnaround.

6. **National economic reforms have been important for Orissa, and in turn the success of economic transition in Orissa has been important for inclusive growth in India as a whole**. Orissa's accelerated growth in private industrial investments has been triggered by the India-level reform that eliminated the freight equalization subsidy, a policy that had annulled the state's comparative advantage as the location for metal industries. The private investment boom today is led by metal industries, including Indian and international majors in steel, aluminium, and chrome products. Entry of major Indian information technology companies into Orissa is a spillover effect of the rapid growth of that sector at the all-India level, with the saturation of Bangalore, Chennai, Hyderabad, and other preferred locations. In turn, the success of accelerated economic growth and poverty reduction in Orissa has had an important demonstrative impact on the rest of Eastern India and on other poor regions and states in the country. Against the backdrop of widening interstate disparities during the 1990s, catching up by one of the poorest heralds a welcome change toward convergence among Indian states.

7. **This Report assesses the ongoing transition in Orissa.** It examines how and why the successes were achieved. It attempts to outline the dimensions of the challenge ahead, as Orissa marches forward into the second phase of policy and institutional reforms, building on its improved fiscal position to deliver rapid and inclusive growth. It highlights key issues and binding or soon-to-be binding constraints. The concluding section identifies priorities for public expenditure and public policy outcomes in the immediate, medium-term, and long-term future.

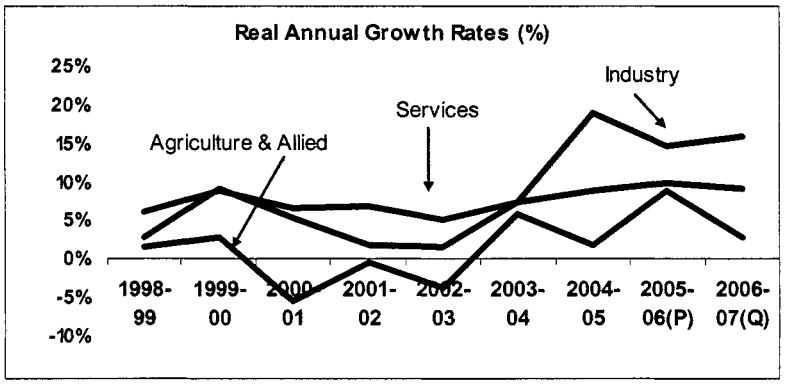
8. **The Report is intended as a contribution to the public debate and consultation initiated by Government of Orissa on the state's long-term vision and development strategy until 2020.** The first two chapters focus respectively on economic growth performance and fiscal performance during the past 5–6 years. The subsequent three chapters focus respectively on key aspects of the outstanding challenge facing the state, namely: infrastructure, human development, and public accountability for service delivery. The final chapter summarizes the main findings and recommendations and poses considerations about priorities and sequencing.

A. Growth and Poverty Reduction since 2000

9. **Accelerated growth since 2000 has been broadly based and more robust than seems to be generally perceived.** The general perception in the Indian media seems to be that the economic boom in Orissa is narrowly focused on the mining sector. Facts show otherwise. According to the updated official data on gross state domestic prices, growth during 2002/03-2006/07, the period of the Tenth Five-Year Plan, has averaged 8.5 percent annually as compared to 7.8 percent for India as a whole. Industry has grown at around 15 percent in Orissa compared to 9 percent in India as a whole. Not only mining but manufacturing has grown faster than the rest of the country, and so have trade and transport services. Agriculture recovered from a drought year in 2002/03 and has grown at around 2 percent on average, similar to the rest of

India. Private investments under implementation in Orissa are massive, at about US$125 billion, almost three times the annual gross state domestic prices. Double-digit growth of the Orissa economy over the next decade or two is clearly within the realm of possibility, with annual growth during 2008–13 projected to be faster than 20 percent.

Figure A: Industry has led the accelerated growth in Orissa since 2003

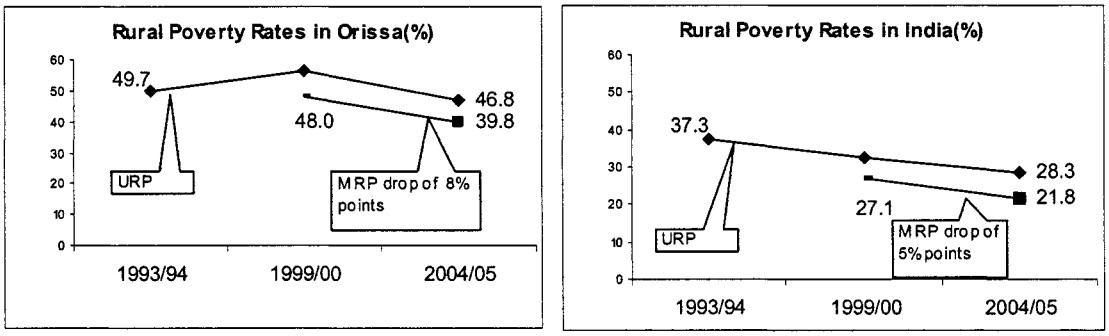


Sources: Government of India, Central Statistical Organization; Government of Orissa, Department of Planning and Coordination.

10. **Income from agriculture, fisheries, and forestry, on which most poor depend, remains volatile and excessively dependent on rainfall.** Sustaining a double-digit growth rate of the state economy depends critically on the performance of industry and services, while the inclusiveness or "pro-poor" quality of economic growth depends a lot on the performance of agriculture and other primary sectors. Reforms in land tenure and land administration are critical for raising agricultural productivity, while joint forest management is a promising route to improve incomes from nontimber forest products. Effective investment and management practices in irrigation are also a high priority. Success of participatory irrigation management, through the formation of *paani panchayats* (PPs) (water user groups), backed by a state-level legal framework, holds significant promise for improving agricultural performance and diversification to higher-value added crops. Amendment of the Agricultural Products Marketing Act has paved the way for expanding market access and economic returns to farmers from more competitive trading arrangements.

11. **Poverty reduction has accelerated in Orissa since 2000 and has perhaps been more rapid during 2000–05 than in India as a whole**. The data available from the National Sample Survey for 1993/94, 1999/2000, and 2004/05 suffer from lack of comparability because of the mixed reference periods (MRPs) used in 1999/2000. Estimates based on the "uniform reference period" (URP) indicate that declines in poverty over the past 10–12 years have been much less in Orissa than in India as a whole—with the rural poverty rate declining by less than three percentage points during 1993–2005 in Orissa, compared with nine percentage points overall in India. However, estimates based on the "mixed reference period" (MRP) suggest that the poverty headcount ratio declined by more than 8 percentage points in rural and 2.5 percentage points in urban Orissa during 2000–05, compared with 5 and 2 percentage points respectively in India as a whole. The two comparisons, put together (Figure B), suggest that Orissa's performance has turned around from being much worse during 1993–99 to better than national average since 2000. Subject to caveats about comparability of the MRP between 1999/00 and 2004/05, the best available estimate is that the number of poor declined by about 1.5 million between these two years.

Figure B: Rural poverty has declined faster in Orissa than in all of India since 2000



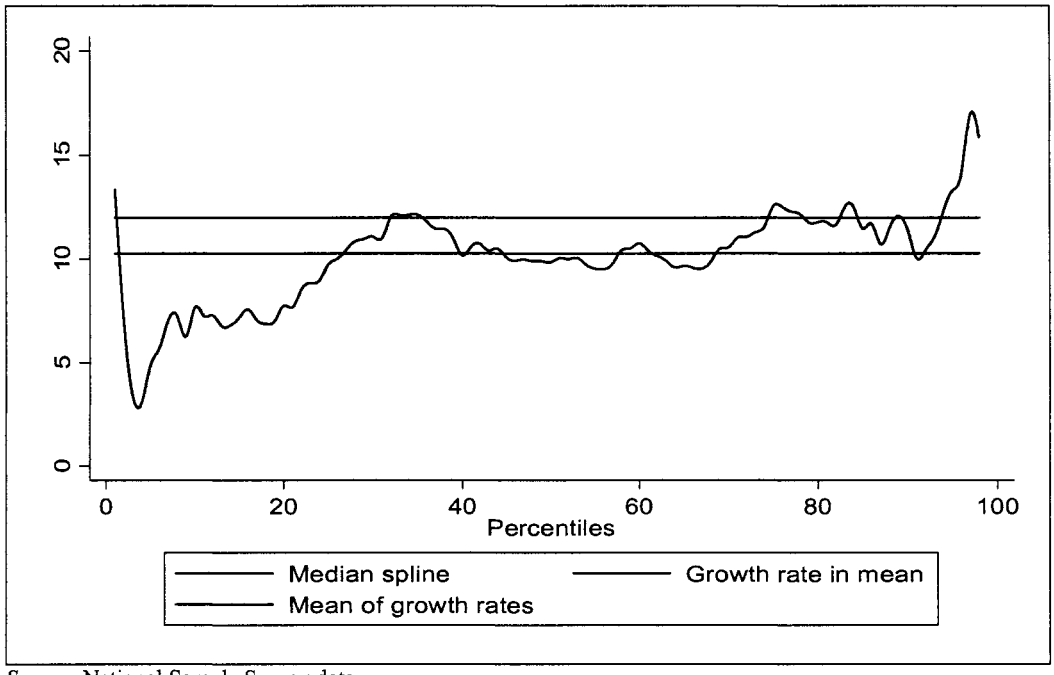
Note: URP stands for uniform reference period which is comparable for the years 1993/94 and 2004/05; MRP stands for mixed reference period which is comparable over the period 1999/00 and 2004/05.
Source: GoI, Press Information Bureau, New Delhi, March 21, 2007 for 2004/2005 data and various National Planning Commission publications for the earlier data.

12. **Regional income disparities within Orissa have narrowed during 2000–05.** Comparison of household expenditure levels in 1999/2000 and in 2004/05 shows that per-capita expenditure increased faster in rural areas (by 12 percent over five years or 2.3 percent annually), as compared with urban areas (by 4 percent over the period or 0.8 annually). In rural areas, the most rapid growth was recorded in the poorest Southern region where per-capita expenditure increased by 25 percent (4.6 percent annually), followed by the Coastal region (12 percent, or 2.3 percent annually), and then the Northern region (6 percent, or 1.2 percent annually). In urban areas, per-capita expenditure grew overall by only 4 percent over the five-year period. Regional distribution of urban expenditure moved in favor of the Northern region, where per-capita expenditure grew by 14 percent (2.7 percent annually), spurred by mineral-based industrial growth and its multiplier effects.

13. **While various disparities have narrowed, the scheduled tribes continue to lag behind.** Those belonging to scheduled castes (SCs) experienced growth in real per-capita spending of 7 percent during 2000–05, similar to the general population. However, growth in per-capita spending by the scheduled tribes (STs) lagged at only 2 percent over five years. The relatively impressive performance of scheduled castes is due to their gaining significantly from nonagricultural self-employment opportunities and experiencing rising agricultural wages as well. Lagging of scheduled tribes reflects the fact that geographical seclusion has limited their access to new self-employment opportunities, and as labor supply has remained abundant in the remote villages with negligible out-migration, agricultural wages for this group did not grow to the same extent that they did for the scheduled castes.

14. **The lagging behind of scheduled tribes, who constitute 40 percent of the poor in Orissa, has led to some widening income disparities.** Figure C presents the growth incidence curve for rural Orissa. It shows that all income categories of the rural population gained in real terms from the accelerated economic growth, but those in the middle- and higher-income groups prospered more than those in the lowest-income group. Still, growth in this period was more inclusive than before, while it is not as inclusive as is desirable and necessary for rapid poverty reduction. In other words, even though the nonpoor have gained more than the poor, economic performance since 2000 has been far better than before 2000 in enabling people to emerge from poverty.

Figure C: Among Orissa's rural population, middle- and higher-income groups prospered more than the lowest-income group from the accelerated economic growth in 2000–05



Source: National Sample Survey data.

15. **Achieving rapid and inclusive growth requires focusing on intrastate connectivity and on productivity and terms of trade gains in agriculture and forestry**. Over 40 percent of all villages in the state are small and isolated, with less than 500 residents and no all-weather connectivity with the rest of the world. Around 85 percent of the population of Orissa lives in rural areas and hilly regions, dependent on agriculture, fisheries and forestry. Productivity and terms of trade are constrained by outdated land tenure legislation and land administration. A ban on land leasing has given rise to widespread use of illegal sharecropping arrangements, wherein farmers have no recorded rights and hence no access to institutional credit. Unsettled land ownership is a problem in some areas. Another major challenge that the state government is grappling with is to reform forest management to enhance the role of the forest dwellers. The overriding challenge that Orissa faces is to ensure that rapid industrialization is accompanied by improved intrastate transport and electric connectivity, alongside productivity and terms of trade gains in agriculture and forestry through appropriate policy and institutional reforms. These are among the most essential conditions to ensure that economic growth is not only rapid but also inclusive.

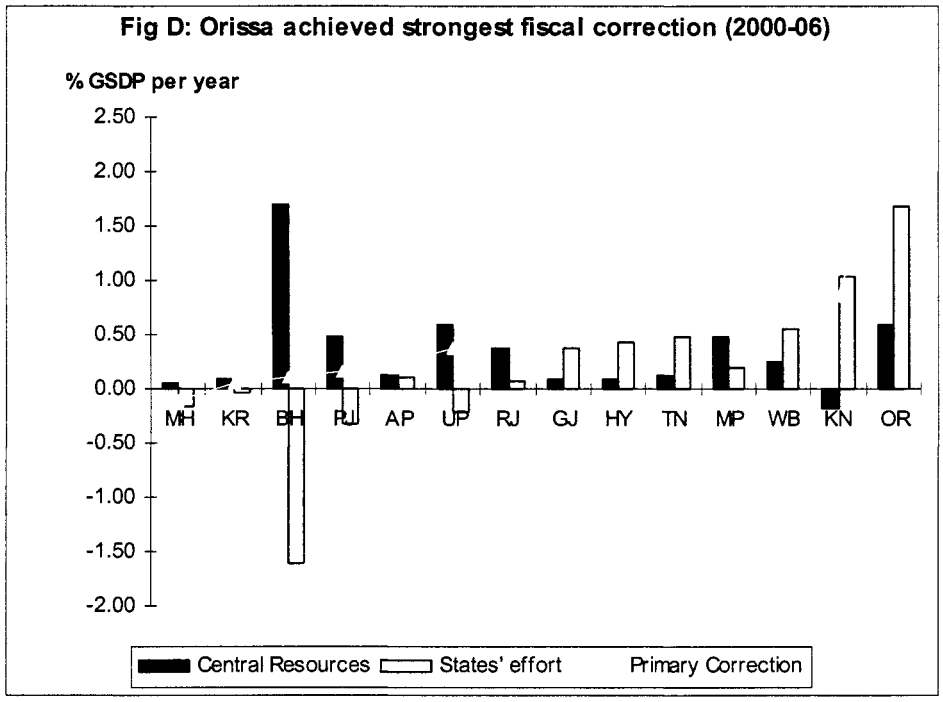
16. **Ease of entry for small and medium enterprises, with strengthened environmental due diligence, is another important condition for broad-based, inclusive economic growth.** The current private investment boom is dominated by large mega investments in steel and power. Such mega investments will have a multiplier effect on demand for a wide range of goods and services, which small- and medium-scale enterprises (SMEs) can provide. For this multiplier effect to play out, the regulatory climate for SMEs must be improved. The easier it is for a small investor to enter the scene, the more such investments will take place in the state, and the larger will be the overall impact on employment and poverty reduction. Hence the ongoing efforts of the government to operationalize the "single window" clearance system at the district level, which is

where SME investment proposals are screened, assume special importance. Given the significant environmental externalities associated with mineral-based industries, there is need to strengthen environmental institutions. Ongoing plans and current efforts of the government toward strengthening the public consultation mechanisms as part of environmental assessment will play a crucial role in determining the sustainability of mineral sector investments in Orissa.

B. The Fiscal Turnaround

17. **Orissa stands out among Indian states as a very poor state that achieved a very strong fiscal correction during 2000–06.** Orissa's fiscal stress was among the highest in India at the turn of the century, as a result of over-expansion of government and public enterprise, with low returns financed in part by high-cost debt from the Government of India. Salaries, pensions, and interest payments exhausted the state's own revenues, as well as central transfers. The fiscal crisis acted to galvanize reform momentum in Orissa, with policy-based external assistance playing a catalytic role, and political commitment ensuring continuity and persistence. Today, Orissa enjoys a primary fiscal surplus of over 2 percent of GSDP, and its interest-to-revenue ratio is declining steadily toward 20 percent by 2010 from 40 percent some years ago. The ambitious targets of the Orissa Fiscal Responsibility and Budget Management Act have been met ahead of time.

Figure D: Orissa achieved the strongest fiscal correction among India's states in 2000–06



18. **Orissa is the only Indian state where all sources of fiscal correction have contributed significantly**. The state's own effort accounts for approximately 55 percent of the fiscal correction between 1998–2000 and 2006/07, while increasing progressiveness of central resource sharing accounts for 45 percent. If the period until 2005/06 is considered, for which compiled data are available for all states, Orissa's own effort accounts for 70 percent, much higher than other low-income states, where central transfers have contributed most to the fiscal correction

(Figure D). While the majority of states have achieved an increase in their own revenues since 2000, hardly any state other than Orissa has gained significantly both from revenue enhancement and expenditure containment.

19. **At least three important lessons emerge from Orissa's fiscal success story.** These are lessons not only for other states to gain from, but also for Orissa's own foray into other areas of politically difficult policy reforms.

20. **First, the consultative approach adopted by the Government of Orissa helped build public support for change.** The government publicized the assessment of a 1999 World Bank Report that the state's finances were on an unsustainable path, and a major course correction was needed. The state leadership built public opinion slowly but surely in favor of shedding excess staff positions in the government establishment, and in favor of separating employees of loss-making state-owned enterprises through a voluntary retirement scheme (VRS). Extensive consultations were held on the public enterprise reform program, with support from the UK Department for International Development (DfID).

21. **Second, political stability and the medium- to longer-term outlook of the political leadership made it possible to sequence the reforms sensibly.** In the first period, 2000–03, fiscal correction in Orissa was mainly based on enhancing the state's own revenues, which was politically less difficult than tackling the expenditure side. The correction grew stronger after the 2004 re-election, with significant expenditure containment and restructuring measures accompanying tax reforms. Acceleration of economic growth and expansion of employment opportunities in the private sector made it politically feasible for the Government of Orissa to implement significant downsizing of the public sector during 2004–06.

22. **Third, Orissa's experience shows how a crisis can be used to strengthen outcome orientation in government departments.** The government used the tight resource position and constrained aggregate capital budget to emphasize the need for accelerating the rate of project completion, so as to deliver more with the same amount of rupees. Within the given constrained resource envelope, the government launched an exercise called the Zero-Based Investment Review to maximize the number of projects completed each year, through reallocation within the departmental budget. This was a highly successful effort to turn the focus of departmental attention from outlays to outcomes. Completion of long-pending roads and bridges became a visible quick win that strengthened public support for the reforms.

C. Addressing the Infrastructure Gap

23. **Orissa must improve and expand infrastructure services to achieve rapid and inclusive economic growth.** Orissa has significant natural resource endowments and a strategic location with a coastline facing South East Asia. Without adequate road, rail, and port infrastructure, the economy cannot exploit its potential and sustain the rapid economic growth of recent years. The strain on transport infrastructure is already evident. Capacity constraints in rail have diverted goods traffic to roads, which is highly inefficient. Constraints in port capacity have diverted cargo to ports in other states. Continuation of rapid industrial growth could further accentuate transport constraints in the coming years. Massive upgrading of urban infrastructure is needed to be able to attract and retain the skilled labor force demanded by modern industry and services.

24. **The boom in industrial growth, while providing its own challenges, also provides opportunities for new partnerships with the private sector to provide infrastructure.** Given the scarcity of resources, public-private partnerships (PPP) could be developed as part of a comprehensive master plan for upgrading infrastructure. The Government of Orissa has prepared a public-private partnership policy and established a public-private partnership cell reporting to the Planning and Coordination Department. There is a shelf of 36 public-private partnership

projects at various stages of preparation, including 9 road projects, 3 rail projects, 4 ports projects, 9 industrial projects , 6 urban projects and a few each in tourism, information technology, industry, and fisheries.

25. **The Government of Orissa needs to emphasize that public-private partnerships must be pursued only where they represent value-for-money for the government**. Translating this principle into practice would require strengthening the capacity of the Finance Department to measure and report the state government's financial support, including tax breaks, land grants, and contingent liabilities. Such costs need to be factored into decision-making by line agencies.

26. **Orissa faces some particular challenges of exclusion linked to its geography and social structure**. Tiny villages and remote habitations in the hills pose a very big challenge for achieving full transport connectivity. Electric connectivity is also a major challenge, as rural electrification in Orissa is among the lowest in the country. Electric connectivity can open up possibilities for e-services, including medical consultations for patients in remote areas. Rural transport connectivity and rural electrification need to be identified as high-priority claims on the additional fiscal space being created in the state. Given that (a) about 52 percent of villages in the state are too small to qualify for the central grant-financed rural roads program, and (b) Orissa is yet to receive the promised grant funds from the center for rural electrification, the state may consider allocating a rising share of its own capital budget resources to address these critical gaps.

27. **Access to electricity in Orissa is well below national levels**. While the richest quintile has nearly universal access, access falls off rapidly, with only 18 percent of the poorest two deciles having electricity, compared with 38 percent in all of India. The Government of Orissa could look at the potential for innovative approaches for rural electrification, including franchises and cooperatives for service delivery. Some countries have also established umbrella organizations—such as the Rural Electrification Board in Bangladesh and the National Rural Electric Cooperative Association in the United States—to effectively dispense subsidies as well as quality advice on technical, human resources, and financial management matters to numerous small, scattered entities engaged in service delivery

28. **Lessons from the lackluster experience with privatization of power distribution.** Orissa led the way in power sector reforms in India, but these reforms have not delivered the desired results. Power distribution continues to be plagued by high aggregate technical and commercial losses. Why has the actual outcome been much poorer than what was targeted through the reform program? The main reason lies in the lack of competitive pressure and adequate incentives to aggressively go after efficiency improvements and reduction of losses due to power theft. The Orissa Electricity Regulatory Commission (OERC) attempted to create a multiyear tariff framework in 2005, which was aimed at creating incentives for the distribution companies to reduce losses and keep some of the gains. While conceptually a sound approach, this attempt was undermined in practice by what the companies perceived as an ungenerous starting revenue allowance and the appointment by the commission of administrators for day-to-day management of the distribution companies.

29. The **Orissa Electricity Regulatory Commission could consider developing new multiyear tariffs on the basis of realistic business plans.** There appears to be merit in re-launching this strategy by approving fresh long-term, say, five-year business plans, at least for the three distribution companies where the private ownership (and management) is back in control. This re-launching has to include a starting point and targets that are realistic and incentives large enough to induce the distribution companies to improve their performance in the most pressing areas of concern, namely overall technical and commercial losses, distribution losses, and arrears of receivables. To make such an incentive system robust and credible, Orissa Electricity Regulatory Commission would need to simultaneously enhance its own capabilities to

independently monitor and verify progress, as well as the claims of the distribution companies in each of the critical areas targeted for improvement.

30. **Urban areas are also critical to Orissa's future development**. Although Orissa has one of India's lowest levels of urbanization (15 percent of the state population of 37 million), urban centers are growing at a rapid rate from this low base. The urban population in Orissa is currently growing at about twice the rate of overall population in the state. The demand for urban water supply and sewerage services is likely to increase manyfold as a result of recent increase in private sector investment in steel and other metals, as well as tourism and information technology services. Sound state and local finances, land use planning, housing, service delivery models, and regulatory frameworks are needed to meet the needs of the growing manufacturing and service industries and the urban population.

31. **Filling the infrastructure gaps requires a combination of additional state funding, partnering with private investors, and lobbying effectively with the center**. Some components of the infrastructure investment agenda require significant additional state resources, such as transport connectivity. Some others require Orissa to play an enabling role for private providers to operate, with little or no commitment from the state budget. Yet others, like rail connectivity, require only effective lobbying by the state government with the central authorities. While there is likely to be a fair amount of private interest in developing port facilities, the Orissa government will need to address the overall strategic direction and a conducive regulatory framework for the port sector.

32. **Not funds but implementation capacity could become a binding constraint for infrastructure investment**. Expanding fiscal space and potential private participation could together meet the rising infrastructure financing needs, but construction capacity is currently lacking to be able to spend efficiently on infrastructure investment. Out of Rs.31.6 billion of central grant funds allocated during 2000–07 for rural roads in Orissa, the state was able to utilize roughly Rs.14 billion, or less than half. Rejection rates of the executed works by the national quality-monitoring cell have been as high as 25 percent, indicating that rural engineering capacity has been overstretched. Orissa could consider relying more on national and international players in the state highways and major roads segments, thereby freeing up more of the state's own capacity to address the lower-level connecting roads and rural roads.

D. Addressing Human Development Needs

33. **Sustaining rapid and inclusive growth in Orissa depends on the quality of the labor force it can produce.** Raising the quality of Orissa's labor force requires imparting strong educational fundamentals in the schooling system from the earliest years, supplemented by some public and mostly private efforts in training and skill development. The health system is also crucial, both to provide a healthy foundation for productivity and to avoid health shocks that leave households in poverty. While social protection and antipoverty schemes may seem peripheral to the growth process (and have been treated that way at times), they can play an important complementary role in fostering a vibrant rural economy. And given the nature of exclusion in Orissa, an inclusive strategy will require much greater attention to geographical targeting of social programs.

34. **The demand for skilled labor in industry and modern services will rise rapidly in Orissa over the next decade or two**. If the Government of Orissa does not invest now to generate a supply of skilled workers from within the state, the best paying jobs are likely to benefit persons migrating from outside the state, which could be perceived negatively and potentially lead to political resistance to modernization itself. To increase the productivity of human capital acquired in school and to make it more valuable in the labor market, the state also has to find efficient ways of providing training to the labor force. At the least, the state will have

to ensure: (a) universal participation in and completion of primary education; (b) attainment of learning goals in primary education; and (c) development of marketable skills in its youth by creating an enabling environment for private providers.

35. **A simple "business as usual" expansion of the system will not tackle the labor force skills problem**. Based on the evidence from Orissa, from India, and from around the world, it is clear that simply spending more in the same old ways is not a feasible option for achieving the learning progress needed to make Orissa a skill-based economy. At existing learning levels, even if Orissa achieves universal elementary school completion, a large section of its youth will grow up without the skills necessary for employment or the ability to seek higher education. The poor quality of primary education casts its shadow on learning outcomes at higher levels of schooling.

36. **Reducing the gaps in performance across schools, by strengthening teacher accountability, is potentially the most important reform**. Some government schools are 30–40 percentage points above the achievement levels of other schools, even after controlling for the impact of student background and school inputs. Reducing the gaps between the poorly performing and better performing government schools could increase skills enormously. The key to reducing performance gaps is to address the issue of teacher accountability.

37. **A bold approach to strengthen teacher accountability has been initiated**. Orissa has taken innovative steps in the direction of improving accountability, especially in relation to its large contingent of contract teachers, who form nearly a third of the teaching force in elementary education in the state. The state has established a credible career path for contract teachers, whereby they become regularized after nine years of satisfactory performance as monitored by the village education committees. The village education committees are required to certify satisfactory attendance before releasing the teacher's salary

38. **Government-sponsored occupational training is largely ineffective**. It suffers from outdated equipment, training that is disconnected from industry needs, and instructors who are not conversant with changing industrial methods. With such limitations, it is not surprising that students who undergo training in public sector institutions are poorly prepared to enter the labor force; often they cannot find jobs at all or they find jobs unrelated to their training. A recent study shows that only 17 percent of industrial training institute graduates in Orissa had found any employment within 12 months of completing training, compared with 30 percent for India as a whole.

39. **Private enterprise is growing in the field of training, which is a welcome development**. In Orissa, as in other Indian states, the formal training sector has been growing at a fast rate since 1980–90. Much of the growth has been in the private sector, which far outstrips the public sector in training capacity. When the benefits from training are almost fully captured by the individual, economic efficiency does not require any government financing. The role of the government should be to facilitate the entry of the private sector in this market, with some role in providing information about quality, but with the firm and/or the trainees bearing the costs.

40. **In the health sector, Orissa has decisively moved away from an input-based approach to a more sophisticated focus on outcomes.** In the past, ministries and departments of health have been tempted to view the problems of health too narrowly. By focusing on what they felt they could control, public agencies often adopted a facility-based approach. Orissa's Health Sector Plan (OHSP) as approved in 2005 envisions a much broader approach to improving health status.

41. **Seclusion of tribal villages calls for innovative and flexible approaches to reach critical health services to them**. Tribal villages and hamlets are often hilly and forested, making it difficult to reach them. Standard population norms for the construction of health centers, schools, or roads are too high to meet the needs of these isolated village residents. Service

providers, such as doctors, do not reside in these areas and very often do not even visit them, because of the problems of connectivity. Despite dramatic improvements in overall infant mortality in the state in the past 5–10 years, districts with a high proportion of scheduled tribes lag behind the rest. The predominantly tribal districts are also the poorest performers in immunization and access to antenatal care.

42. **More than the level of government spending on antipoverty programs, the main problem lies in delivery gaps and leakages to the nonpoor**. Approximately 80 percent of all households in Orissa receive some benefit from at least one government-sponsored antipoverty program. This is slightly higher than the all-India average of 78 percent of households receiving some benefit from at least one government scheme. Around half of all households in Orissa benefit from the public distribution system, where analysis using national survey data has indicated large leakages in Orissa as well as in other states. Orissa is the first and so far only Indian state to have requested the World Bank to carry out a professional assessment of delivery gaps in two antipoverty programs, through a public expenditure tracking survey. This is a sign that the state government recognizes the problem, which is the first step toward a solution.

E. Increasing Accountability for Service Delivery

43. **Instilling fiscal discipline is only a first step in the program to modernize government and make it accountable for delivering quality services that the public needs.** Improvement in the state's financial position is only the means to an end, not an end in itself. The end goal is to provide a transparent and efficient government that takes seriously its mandate to ensure that quality services are delivered to the people it represents. That the Government of Orissa has begun to recognize this larger goal is evident from the thrust of its finance minister's annual budget speeches in recent years, wherein the need to translate outlays into outcomes has become the overarching theme. Fiscal correction has created space in the state budget for new investments and development initiatives. Thus the reform program now has to move into a new phase that emphasizes the output and outcomes achieved through public spending programs.

44. **Accountability means that policy makers must hold service providers and line departments responsible for results, not merely for spending on a set of inputs.** Recognizing the need for an appropriate institutional mechanism to plan, manage, and monitor administrative reform initiatives, the government has launched a program entitled the Orissa Modernizing Government Initiative (OMGI), housed under the General Administration Department headed by the chief secretary. The objective of OMGI is to encourage and support cross-cutting and department-specific reforms and initiatives to improve service delivery. Tackling institutional barriers to efficiency would be critical to the success of this program. This would include dealing with fundamental issues of human resource management including performance management issues and skill shortages, modernizing government monitoring and evaluation systems and supporting better financial management within departments. In addition, improvements in service delivery require fundamental reforms in the way schemes and programs are implemented, including at the level of the district administration. Structural reforms need to take place at the district and sub-district levels that allows for better planning, coordination and convergence of inputs by departments; and better enforcement of the compact between government and citizens.

45. **The government's focus on anticorruption and transparency has had a significant impact on people's expectations of government services.** Political analysts in India have suggested that the alliance that is in power in Orissa today originally won in 2000 on account of its promise to provide good governance and reduce corruption. Its re-election in 2004 was also largely seen as a vote for increased transparency and accountability. Focus on enforcement and wide reportage of corruption cases filed against prominent civil servants and officers responsible for service delivery has created an environment that supports deterrence. It has created a greater consciousness around the issue of corruption. Orissa is one of the few states in India to have taken

up cases and jailed even senior officers for corruption. An independent survey of citizens' perception of government departments rated the Vigilance Department (which leads the anticorruption drive) as one of the best performers.

46. **While Orissa has done very well on enforcement, tackling the roots of corruption will require also reforms in business processes to minimize opportunities for rent seeking.** Corruption proofing the administration is in many ways more important than punitive action to tackle corruption when it occurs. Orissa's Anti-Corruption Action Plan recognizes this but strong commitment will be required to take forward reforms that allow for more transparent procurement processes, that strengthen internal and performance audit both at the level of departments and at the district level, and support stronger internal vigilance systems within government agencies.

47. **The Government of Orissa has launched innovative moves toward decentralization, which needs to be complemented with strengthening capacity of elected local bodies.** Decentralization could lead to community empowerment, if public awareness among both elected representatives and citizens is increased, along with the capacity of elected representatives to fulfill their role. In elementary education, a new career path for teachers has been launched that gives the local bodies much greater input into teacher assessment. In connection with the National Rural Health Mission (NHRM), there is a move away from state government personnel based at distant facilities to workers from the local community. Women's self-help groups (SHGs) can complement the elected bodies as another arm of civil society holding local bodies accountable for fulfilling governmental functions.

F. Conclusions

48. **Orissa can and must learn from its successes so far to meet the challenge ahead**. As Orissa races to become a dynamic state capable of crossing the Indian standard of living by 2020, it must be mindful of the most important lesson of its fiscal success: ***the need to take the public into confidence***. Today, such an open and consultative approach is needed on the question of industrialization and modernization of Orissa. The government needs to win over public opinion to the cause of encouraging and steering the current economic boom toward inclusive development. It is far better to encourage development and try to shape it to benefit as many as possible, than to block development prospects on the plea that it may leave some worse off. The results so far from the industry-led growth in Orissa indicate that some inequalities have begun to narrow. With timely reforms in land tenure, land administration, and joint forest management, alongside a more geographically focused and outcome-oriented public expenditure program, Orissa could narrow the gaps between rural and urban living standards, between the interior and the coast, between the scheduled tribes and castes and others, and between women and men.

49. **A particularly challenging task of high priority is to make sure that adequate resources and attention are allocated for strengthening transport and electric connectivity within the state**. Even at a gradual pace, greater connectivity will integrate the remote tribal villages, slowly but surely over the next 15 years, with the rest of Orissa, India, and the world. This is of strategic importance, given that geographical seclusion is a major factor underlying social exclusion in Orissa, and that the remote tribal villages have been most vulnerable to insurgent movements.

50. **Several critical gaps need to be addressed, but not all require funding from the state budget**. Some of the infrastructure needs—such as ports and urban housing—can be addressed by creating an enabling environment for private sector participation. Other needs, such as rail connectivity, require effective lobbying with the center. A few will require state budget support, such as intrastate road connectivity and rural electrification. With respect to education, health

services, and antipoverty programs, accountability needs to be strengthened before budget allocations are increased, so as to avoid pouring more resources into leaky systems.

51. **Orissa has entered a second phase of fiscal reform**. The emphasis now has to be on: (a) prioritizing the use of the additional fiscal space that is being created by earlier reforms; (b) raising the efficiency of spending; and (c) linking additional allocations to outputs and outcomes. Devolution to local bodies is one of the ways that can potentially contribute to strengthening accountability for service delivery. Given that the government has already achieved significant fiscal correction, going forward there is considerable room to step up capital investment. The fiscal situation is no longer the binding constraint to scaling up public investment; capacity to execute good quality construction works is becoming the binding constraint. Improving financial management therefore requires strengthening technical capacity within government, as well as administrative capacity to manage private consultants hired to execute publicly funded projects.

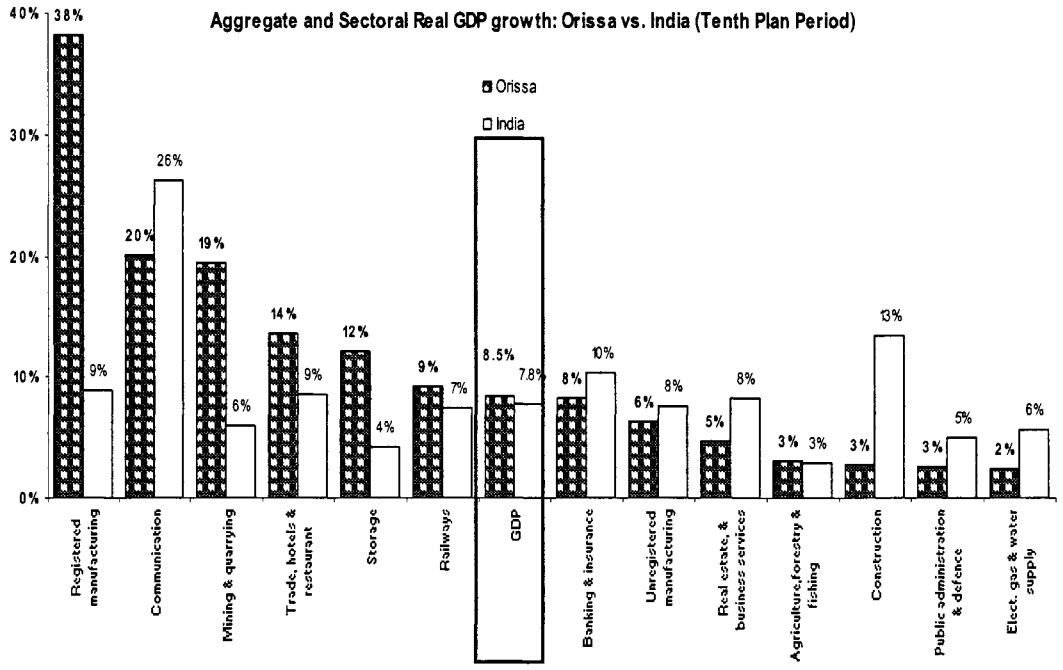
52. **It is time for the Government of Orissa to scale up public investment in infrastructure during 2007–12 and in human development subsequently**. Addressing infrastructure gaps is the most urgent priority for sustaining rapid growth. Addressing human development needs requires institutional change as a prior condition for allocating additional public resources. Hence, in terms of the claims on the state's resources, infrastructure needs top priority during 2007–12. An Eleventh Five-Year Plan focused on infrastructure, followed by one devoted to human development, could take Orissa to its ambitious vision of becoming a better-than-average Indian state by 2020.

53. **Real improvements in service delivery will require a fundamental transformation to make the government more performance-oriented.** The scaling up of public investment and improvements in service delivery, in order to be sustainable, needs to be accompanied by institutional reforms that focus on creating better systems for policy formulation, planning, and results-based monitoring and evaluation. Staff with new skills and systems with new capabilities will have to be put in place. As far as human resource management is concerned, although the principle of "doing more with less" remains valid, this logic is not sustainable or efficient over the medium to long term, unless accompanied by second-generation reforms that refigure changes in the structure and skills of staff who can take this agenda forward. The key problem is to develop well-defined and suitable criteria for identifying essential staff needed to support better planning, implementation, and monitoring of government programs. There is need to link additional budget allocations with commitment to deliver additional and better outcomes. It is a problem whose solution is a public expenditure management system that is genuinely oriented toward *results* and *outcomes*.

CHAPTER 1: FROM AN ANEMIC PAST TO A DYNAMIC FUTURE

1.1 **Orissa, traditionally one of the lagging states, inclusive of the poorest regions of India, has been growing at an extraordinary rate in recent years.** A booming economy has suddenly catapulted Orissa into the league of fastest-growing Indian states. Growth of the gross state domestic product (GSDP) has averaged 8.5 percent a year during the period of the Tenth Five-Year Plan (2002-07), compared with 7.8 percent for all India (Figure 1.1: Economic growth is broad based and faster than the national average for 2002- 07). The opening up of the Indian economy and the repeal of the freight equalization policy have made Orissa a more attractive destination for investment in metal industries, which along with power generation and some other industrial investments are stimulating economic activities in a wide range of sectors including trade and transport services. Improved transport connectivity, resulting from improvement in the state's financial management, has helped expand market access for many rural small entrepreneurs, reflected in significant growth of nonfarm self-employment. While growth of agricultural output in the aggregate has not been too dynamic, there is evidence of very high growth in some specific cash crops, such as maize and cotton.

Figure 1. 1: Economic growth is broad based and faster than the national average for 2002-07



Source: World Bank Live Database, Author's calculation.

1.2 **Given its poor record in the past, can Orissa sustain its current growth momentum?** Skeptics and critics point to Orissa's abysmal past record on growth and development. It has been the second poorest state, with per-capita income of US$350; one of the slowest-growing states, with an average rate of 4 percent during the 1990s. It is also the state with the highest poverty

headcount ratio in the country (46 percent) and with deep-rooted social exclusion and geographical isolation of scheduled tribes in the society. They argue that the current growth acceleration is merely a recovery from the low base and is unlikely to be sustained. Some others view the industry-led growth as a zero-sum outcome—benefiting the investors, while destroying the livelihood of local people. Neither of these points of view tallies fully with the facts.

1.3 **There are many reasons to be optimistic about Orissa's long-term prospects**. First, the revival of the Orissa economy has coincided with the Indian economy moving to a higher growth trajectory, and it is likely that several common factors underpin both of these growth successes. Second, the rate of poverty reduction in recent years has been faster than in earlier periods, more rapid in rural than in urban areas, with towns in the mining districts having seen greatest reduction in urban poverty. Finally, along with higher growth, Orissa has also emerged as a leading reforming state with a stable and committed political leadership. The state appears to have made a decisive break from its past.

1.4 **The recent growth spurt in Orissa is indeed part of a larger story of an impressive turnaround in macroeconomic policy stance**. Orissa has emerged from an extremely stressful fiscal situation to become a fiscally responsible state. During 2001–06, the fiscal deficit has fallen from around 10 percent of GSDP to less than 1 percent, with the current account deficit turned into a surplus—three years ahead of target. By strengthening managerial oversight and cracking down on corrupt practices among government officials, the government has managed to improve the rate of completion of public investment projects. By simplifying regulation to improve the climate for private investors, and taking advantage of national policy change, it has also emerged as an important destination of private investment.

1.5 Orissa ranks first among Indian states in private investment projects under implementation, according to data compiled by the Center for Monitoring the Indian Economy (CMIE) The largest projects are concentrated in steel, power, aluminium, petrochemicals, tourism, information technology and IT-enabled services. With some of the foreign direct investment (FDI) exceeding the total annual output of the state—the South Korean company, Posco, is setting up a steel factory for approximately $12 billion and Mittals' Steel is undertaking a greenfield project for $10 billion—there is a feeling that Orissa could finally close the gap between its potential and actual performance.

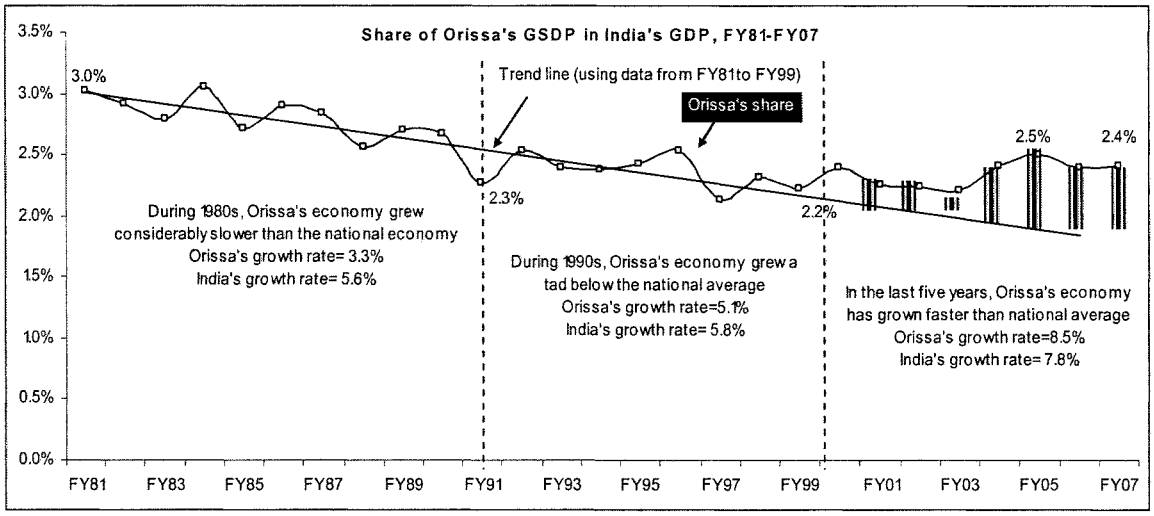
1.6 **This chapter examines Orissa's long-term growth prospects and their implications for development, and it suggests ways to sustain the momentum and make its beneficial impact more inclusive.** Sudden growth acceleration has raised many issues. Can Orissa sustain the momentum? Is the growth broad-based? Is it geographically and socially inclusive? Is this growth coming at the expense of the natural environment? If it can be sustained, by when will Orissa's per-capita income equal the all-India level, and to what level will poverty decline by 2020? What could the government do in the coming years to make growth more sustainable and inclusive? These questions are uppermost in the mind of the concerned citizens of Orissa, as the state's political leadership prepares an ambitious long-term vision for the state.

A. Orissa's Long-term Growth Prospects

1.7 **There are many misconceptions about the nature and foundation of Orissa's growth**. It is commonly believed that Orissa benefited significantly from the protectionist and licensing policies adopted by the central government in the post-independence era, as evidenced by the location of the Rourkela steel plant and other large public sector industries in the state. According to this view, Orissa's economy did well under protectionism, but began to slow down after the liberalization of the early 1990s, as it failed to compete with the more developed and reforming Indian states. An examination of national income data shows that this view has no foundation. Orissa's growth performance, compared with the rest of India, was weakest during

the 1980s. As shown in Figure 1.2, Orissa's share in national output fell in the 1980s and stagnated in the 1990s, but has moved to a higher growth trajectory since then.

Figure 1. 2: Orissa's share in national output has moved to a higher growth trajectory since 2000



Source: World Bank Live Database, Author's calculation.

1.8 **Orissa's poor growth performance in the past can be traced to its inability to exploit the upside of being a Coastal state while succumbing to all the downsides of being resource abundant.** It is often said that "Orissa is rich, but the people of Orissa are poor." The two most important sources of Orissa's wealth come from its geography and geology: the coast and mineral /forest assets in its interior. Being a state with a long coastline, with easy access to the fastest-growing region in the world, namely, East Asia including China, Orissa has the potential to emerge as a maritime hub of the country. Combine this with the fact that Orissa also contains nearly a quarter of India's mineral wealth—the recipe for industrialization and growth is quite straightforward.[1] But Orissa's growth record post-independence has belied all these expectations. The state has been an exception to the otherwise robust finding in the growth literature that Coastal countries (states) tend to grow faster than the land-locked ones. As the left panel of Figure 1.3 (Orissa had poorly exploited its geographical advantages in the past) shows, barring Orissa, all the seven major Coastal states in India have grown faster than the six major land-locked states. Orissa's growth experience has been consistent with the burgeoning literature on the "resource curse" hypothesis, according to which countries (states) with abundant natural resources tend to perform poorer than those that are resource scarce (right panel, Figure 1.3).

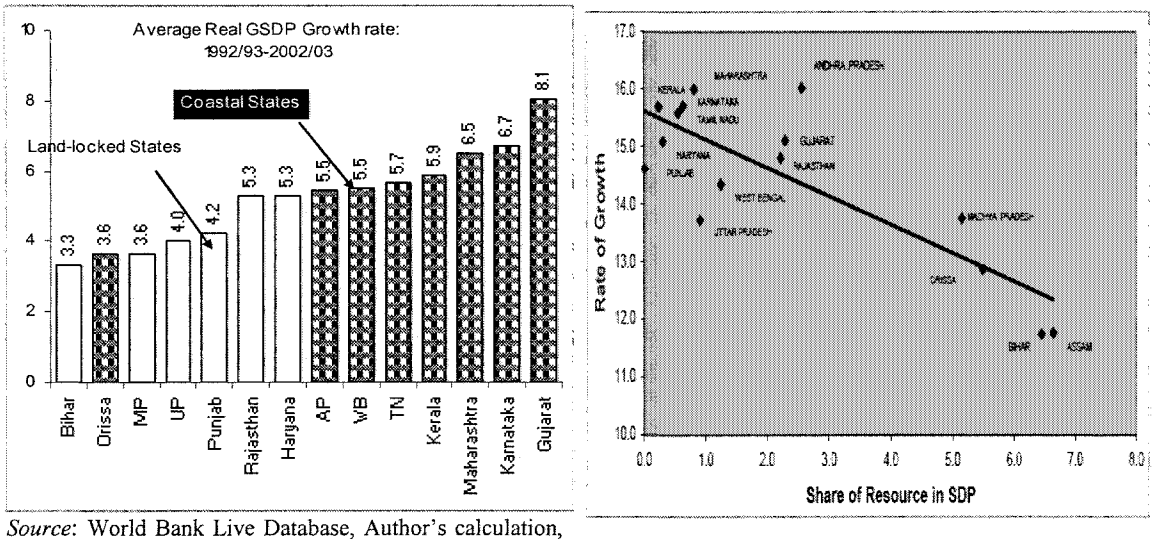
1.9 **Some ill-conceived policies of the past played a role in Orissa's inability to exploit its natural advantages.** In a closed economy, there is little advantage of being a Coastal state, and Orissa, like the other Coastal states in India, hardly benefited from its close proximity to the ocean during the first three decades after independence. This, along with the freight equalization policy, which ensured that freight rates for minerals are equal across the country, annulled Orissa's geographical advantage of being closer to the mineral base. Consequently, it became

[1] Orissa's growth acceleration has often come from these two advantages. Its history is replete with stories about people from Orissa traveling to Bali, Sumatra, and Sri Lanka to trade metals, spices, and other commodities. And the growth acceleration of the past three years can be traced to large exports to China and East Asian countries, much of it going through its port in Paradip.

largely a raw material supplier to the rest of India—its share in India's mining and quarrying output doubled between 1982/83 and 1996/97, while its share in manufacturing shrunk Figure 1.4, (Past policies led to expansion of the mining sector but little industrialization). In 1991, when India begun to gradually dismantle its industrial licensing system and investment decisions were made by market forces, Orissa, with its poor infrastructure network and low human capital base, initially lost out to the relatively better-off states. It is only in recent years that Orissa's share in both mining and manufacturing sectors have begun to rise. New investments are massive in size and for value addition within Orissa, unlike in the past, and appear to be having a wider impact through forward and backward linkages.

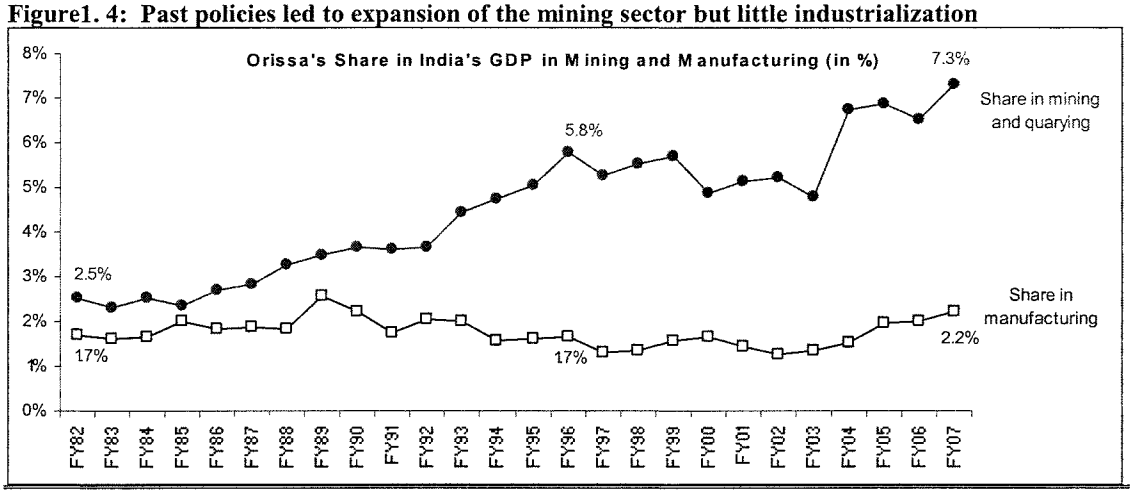
Figure 1. 3: Orissa had poorly exploited its geographical advantages in the past

Coastal states have grown faster than land-locked states. Resource-based states have poor growth records.



Source: World Bank Live Database, Author's calculation, and Damania and Gupta 2004.

Figure1. 4: Past policies led to expansion of the mining sector but little industrialization



Source: World Bank Live Database, Author's calculation.

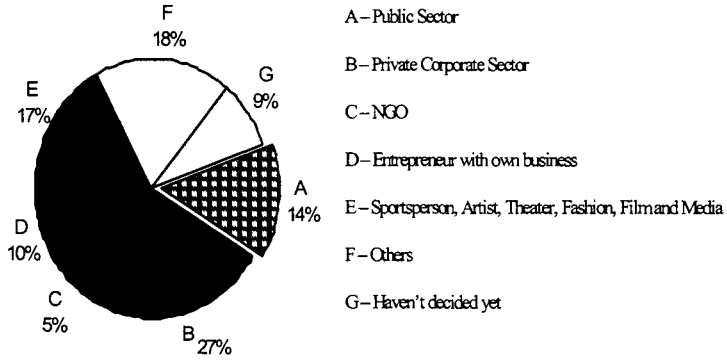
1.10 **With an appropriate set of policies and institutions in place, Orissa could potentially sustain a growth rate that is higher than the national average.** Along with geography, Orissa has many other growth-enabling attributes. Its abundant water resources and fertile land can be an important source for accelerating growth in rural areas and making the distribution of benefits more inclusive. Orissa also offers plenty of relatively skilled labor at low wages, which has attracted big IT firms, such as Infosys and Satyam to the state. The state has been politically stable and relatively free of political and ethnic violence. Orissa's society is also undergoing considerable change, with the younger generation willing to take more entrepreneurial risk and less interested in jobs offered in the public sector—a healthy sign for an economy that is receiving enormous private investment. (see Box 1.1: The Changing Oriya Society: Views of Two Generations).

Box 1. 1: The Changing Oriya Society: Views of Two Generations

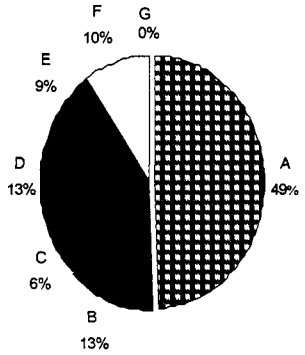
As part of this study, a survey was conducted on 100 secondary school students in Orissa (in grades 10 and 11), which asked them the following question: "What kind of professional organization would you like to be part of when you grow up?" It was followed by the question: "What kind of professional organization did your parents want to be part of when they were your age?"

Although students reported that one out of every two parents wanted to join the public sector when they were growing up, only one out of every seven students now wants to opt for a career in the public sector. Instead, a quarter of the current generation wants to be an entrepreneur and/or venture into modern sectors like fashion and entertainment.

Views of the younger generation



Views of their parents



Note: The survey is based on only one school in Bhubaneswar and is unlikely to be representative of the entire state.

1.11 **Current investments under implementation indicate the possibility of Orissa growing faster than all other Indian states over the next 5-6 years.** The fact that Orissa is starting from a low base—with considerable lag behind other states in agricultural yields, and its growth acceleration is led by manufacturing industry—implies that the state can sustain faster than national growth in the medium term. Based on the size of current investment projects under implementation, Orissa has the possibility to become the fastest-growing state of India in the next half-decade. According to projections carried out by CMIE for this Report, using their unique micro database on investment projects at various stages of implementation, the additional value added consequent to completion of 413 ongoing investment projects would be Rs. 5.4 trillion by 2012/13, under conservative assumptions about gestation periods. This translates into a real growth rate of 20 percent annually during 2008-13.

1.12 **Sustaining the current growth momentum is a necessity for Orissa, given the rapid growth of the Indian economy**. Since 2003/04, the Indian economy appears to have moved to a new growth plane, with growth averaging nearly 9 percent for the past four years. There is widespread consensus that India can sustain a long-term growth rate of around 8 percent a year for the next decade or more. Under such a growth scenario, if Orissa grows at the same rate as the rest of the country, that is, 8 percent a year, per-capita income in 2020 will rise to Rs. 24,000, which is similar to the current level in Gujarat and Maharashtra. If we assume that Orissa will grow at the rate projected by CMIE, that is, annual average of 20 percent in real terms during 2008-13; and subsequently at 15 percent annually, then Orissa's per-capita income by 2020 could rise to as high as Rs. 62,000—completely eliminating the per-capita income gap between Orissa and India in slightly more than a decade.

B. The Implications for Poverty and Human Development

1.13 **Regional and some social inequalities within Orissa have begun to narrow, while some others remain major outstanding challenges.** Regional inequalities within Orissa narrowed between 1999/2000 and 2004/05, according to latest available National Sample Survey data on household consumption expenditure. Real per-capita expenditure increased faster in rural than in urban Orissa, and faster in interior districts than in Coastal ones. Rural per-capita expenditure increased by 12 percent over the period, compared with 4 percent in the urban areas. Within rural areas, the highest expenditure growth was recorded in the poorest Southern region, where the increase was 25 percent, followed by the Coastal region (12 percent) and then the Northern region (6 percent). In urban areas, while real per-capita expenditure remained flat in Coastal and Southern regions, it grew by 14 percent in the Northern region where most of the mining and industrial activities are taking place. This growth was driven by the very large increases in per-capita expenditure in the households engaged in mining and in financial services, followed by the increase in the households engaged in social and personal services. Although Orissa's Coastal region remained the wealthiest and the Southern region the poorest, the gaps did begin to narrow during 2000–05. A wide cross-section of the population, including scheduled castes, has gained from the expansion in income-earning opportunities since 2000. However, the poorest 40 percent of the population has gained much less than the better-off 60 percent, and most of the scheduled tribes remain among the poorest and continue to lag behind.

1.14 **Poverty reduction has accelerated in Orissa since 2000 and has perhaps been more rapid during 2000–05 than in India as a whole**. The data available from the National Sample Survey for 1993/94, 1999/2000, and 2004/05 are not strictly comparable because of the mixed –reference periods used in 1999/2000. Estimates based on the "uniform reference period" indicate that poverty has declined much less in Orissa over the past 10–12 years than in India as a whole, with the rural poverty rate declining by less than three percentage points during 1993–2005 in Orissa, compared with nine percentage points in all of India. However, estimates based on the "mixed reference period" suggest that during 2000–05, the poverty headcount ratio declined by more than eight percentage points in rural and 2.5 percentage points in urban Orissa, compared with five and two percentage points, respectively, in India as a whole. The two comparisons, put together, suggest that Orissa's performance has turned around from being much worse during 1993–99 to probably better than the national average since 2000. Although exact magnitudes are subject to comparability errors, that economic performance changed in favor of the poor in Orissa since 2000 emerges as an indisputable conclusion.

1.15 **The composition of the labor force has changed considerably, and real wages have risen significantly.**[2] While in 1999/2000 almost 45 percent of all household heads indicated that their primary occupation was agricultural labor, in 2004/05 this proportion declined to 30 percent. The proportion of self-employed in nonagricultural activities, which represent the second wealthiest group (after the group termed "other"), increased from 12 percent to 19 percent. The share of nonagricultural labor doubled from 5 percent to 10 percent. The real agricultural wages of men in their working prime ages increased by 45 percent, on average, while women's agricultural wages increased by over 25 percent. In the Southern region, men's agricultural wages almost doubled.

Table 1. 1: Selected Human Development Outcomes in Orissa, 1992/93–2005/06

Indicator	*1992/93*	*1998/99*	*2005/06*	*Trend*
Percentage of children 12–23 months old who received all recommended vaccines:				
Urban	44	56	53	↑ ↓
Rural	35	42	52	↑ ↑
Percentage of children under age 3 who are:				
Stunted (too short for age)	45	44	38	↑ ↑
Wasted (too thin for height)	23	24	19	↑ ↑
Underweight (too thin for age)	52	54	44	↓ ↑
Average number of infant deaths per 1,000 live birth in the past five years:				
Urban	85	81	40	↑ ↑
Rural	117	81	69	↑ ↑
Trends in contraceptive use (percent) among currently married women 15–49 years old:				
Urban	47	54	59	↑ ↑
Rural	34	46	49	↑ ↑
Trends in institutional deliveries (percent) for births in the past three years:				
Urban	41	55	65	↑ ↑
Rural	10	19	35	↑ ↑

Note: ↑ implies improvement and ↓ implies deterioration.
Source: Government of India, Ministry of Health and Family Welfare, Provisional results from 2005–06 National Family Health Survey (NFHS).

1.16 **Orissa has registered reasonable improvements in several human development outcomes between 1992/93 and 2005/06.** The proportion of children who received recommended vaccines increased from 44 percent to 52 percent, reaching parity between rural and urban areas. Currently, the proportion of vaccinated children in Orissa is higher than the all-India average. Trends in child malnutrition indicate that Orissa has caught up with the rest of India from being much worse in the past. The number of infant deaths per 1,000 live births fell in rural Orissa from 81 to 69, remaining higher than the all-India average of 62; in urban areas it declined from 81 to 40 falling below the 42 deaths per 1,000 live births recorded for all-India. Progress has been made, albeit at a slower pace, in improving the use of contraceptives and in attracting women to institutional deliveries Table 1.1, (Selected Human Development Outcomes in Orissa).

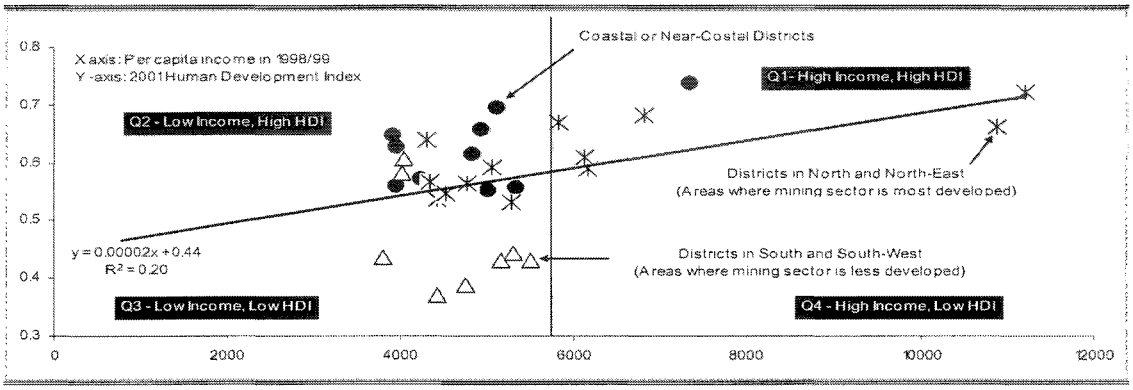
1.17 **Of particular concern is the social and environmental impact on livelihood of those affected by mineral-intensive industrial growth.** Given the substantial growth potential of the

[2] The highest growth of per-capita expenditure in rural areas has been recorded among the households self-employed in nonagricultural sectors.

economy's natural endowments, there is little doubt that natural resources in general, and minerals in particular, will continue to play a prominent role in shaping Orissa's development. The Government of Orissa has recognized the importance of demonstrating an environmentally and socially responsible approach to promoting investments in mineral-based industries. It has put in place a progressive resettlement and rehabilitation policy, which was adopted in May 2006. A recent World Bank Report, *Towards Sustainable Mineral-Intensive Growth in Orissa*, underscores the importance of the government's efforts to develop systematic mechanisms that extend the benefits of mineral-based economic growth to the local communities living in and around areas affected by the mining through: (a) job creation; (b) flow of funds to local governments and/or tribal communities; (c) improvements in public service delivery; and (d) strengthening social protection. As the Report points out, "to succeed, this process needs to be supported by strengthening institutions and implementation record at both the state and local levels of government, in close cooperation and consultation with the communities."[3]

1.18 **These social improvements, however, have had different impacts across castes and regions because of the strong social and spatial exclusions in Oriya society**. The scheduled castes and scheduled tribes together constitute nearly 40 percent of the state's population. Although the scheduled castes suffer from socially exclusive practices, as in other parts of India, the scheduled tribes suffer also from geographical isolation, being concentrated in the hilly interior regions and residing largely in small, remote villages and hamlets. In fact, remoteness is perceived as the most important barrier to the tribes' development.[4] About 52 percent of all villages and hamlets in Orissa are too small to qualify for the central grant-financed rural roads program called the Prime Minister's Gram Sadak Yojana (PMGSY)—and the population of such small remote settlements constitutes about 15 percent of the Orissa population and over 80 percent of the tribal population. The intersection of social and spatial inequality plays out in markedly poorer outcomes in areas where the scheduled tribes are concentrated. When asked about the impact of their remoteness, respondents in a recent study in four villages in Koraput indicated that the greatest impact was on access to public services, rather than employment or business opportunities.

Figure 1. 5: Orissa's regions vary markedly in their per-capita income and human development indicators



Source: Orissa Human Development Report, 2001, and Author's calculation.

[3] World Bank, *Towards Sustainable Mineral-Intensive Growth in Orissa: Managing Environmental and Social Impacts*, Washington, D.C., April 2007.

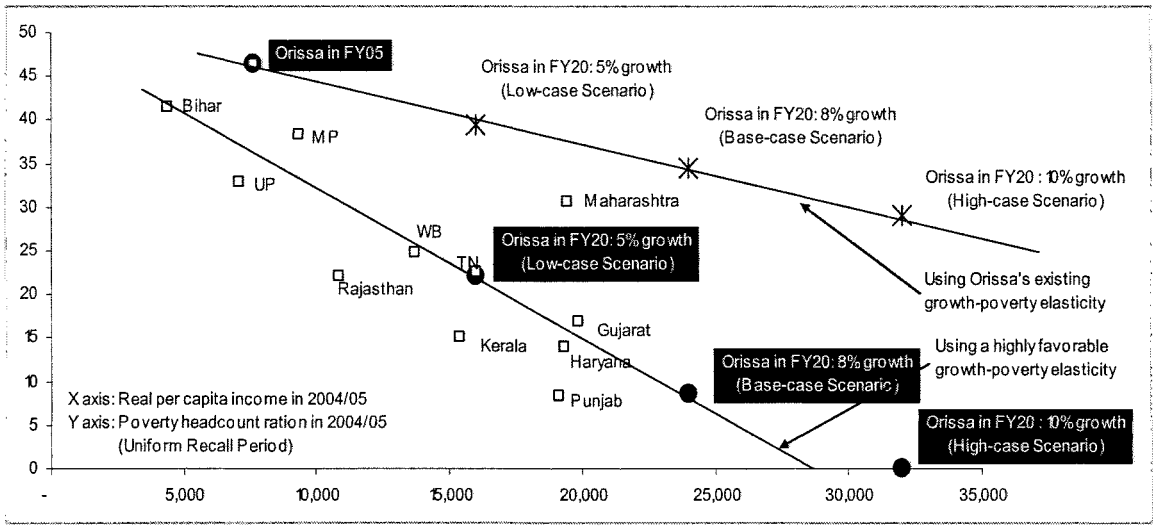
[4] Amita Shah, Saroj Kumar Nayak, and Bipin Das, *Remoteness and Chronic Poverty in Forest Region of Southern Orissa: A Tale of Entitlement Failure and State's Apathy*, paper presented at CPRC-IIPA Seminar on Chronic Poverty: Emerging Policy Options and Issues, 29–30 September 2005, New Delhi, Indian Institute of Public Administration, 2005.

1.19 **Different types of exclusion require different approaches**. As shown in Figure 1.5, (Orissa's regions vary markedly in their per-capita income and human development indicators) six of the eight districts located in the South and Southwest regions of the state—which are the poorest regions—fall in the quadrant with low income and low human development indicators (HDI). Some of these districts have per-capita income as high as the Coastal districts and yet have extremely low human development indicators, a symptom of the high income inequality and high degree of exclusion in these districts, where remoteness is a problem but not mining. The districts in the North and Northeast, which are rich in mineral resources, also tend to have relatively high per-capita income, but perform a little below the Coastal districts in human development indicators. Clearly, raising per-capita income through higher growth will have greater impact on human development indicators and poverty reduction in Coastal districts than in the other two regions. The other two regions need growth plus appropriate direct interventions, at least in the short to medium term, to reduce poverty in those areas.

1.20 **Given the widespread regional and social disparities in the state, the impact of growth on poverty will depend on the extent of resolution of social exclusion and geographical seclusion**. As shown in Figure 1.6, (Orissa's poverty headcount ratio, compared with other Indian states, will vary dramatically under different growth and social exclusion scenarios) assuming that historical levels of inequality will continue, the poverty headcount ratio in Orissa is likely to range between 39 percent and 29 percent in 2020, depending on the growth outcome. If Orissa overcomes its disadvantage and achieves the pattern seen in other Indian states in the relation between per-capita income and poverty headcount ratio, then poverty will be reduced to around 22 percent under the low-growth scenario (5% average annual growth rate), to 10 percent in the base-case scenario (8% average annual growth rate), and to zero in the high-case scenario (10% average annual growth rate).[5] The reality lies somewhere in between the two paths shown in Figure 1.6. Exactly where it lies will depend on both the level of aggregate growth and the distribution of its benefits. That critical issue of distribution will be determined by the extent to which the Government of Orissa can address structural issues, like the lack of connectivity, the persistence of social exclusion, and the impact of mineral-intensive industrialization.

[5] More recent studies (e.g., see CMIE, 2008) indicate that Orissa's potential growth rate could even exceed 10 percent average annual rate assumed here under the high-case scenario.

Figure 1. 6: Orissa's poverty headcount ratio, compared with other Indian states, will vary dramatically under different growth and social exclusion scenarios



Source: NSS, 61 Round, Orissa PD and author's calculation.

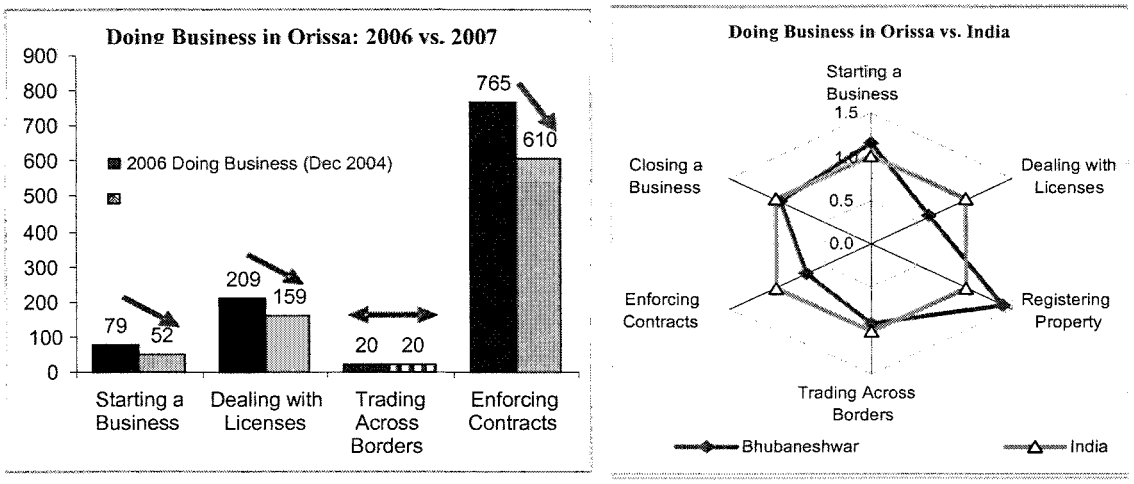
C. Sustaining the Growth Momentum

1.21 **The recent growth acceleration was preceded by significant reforms by the state government**. Orissa has made important progress in improving its regulatory framework for private enterprises including: (a) establishment of a single-window system to speed the processing of applications; (b) introduction of a combined application form to reduce the number of clearances required to establish a business from 18 to 1; (c) introduction of a time-bound clearance system; and (d) self-certification for compliance with provisions of applicable industry- and labor-related acts and rules. A new state-level resettlement and rehabilitation policy, adopted after broad stakeholder consultations, has been notified. The Orissa Rural Infrastructure and Socio-Economic Development Act, 2004, levies a tax varying from 5 percent to 20 percent of the value of land allocated for mineral extraction, with the revenue earmarked for developing rural and mine-affected areas. The government has also issued an ordinance that requires the mining companies in tribal areas to: (a) allot 2 percent of equity to displaced people; and (b) allocate 5 percent of net post-tax profits on peripheral development (in a radius of 15 km around the mining area).

1.22 **The government has also taken a number of measures to increase the competitiveness of its agriculture sector**. The Agricultural Produce Markets Act has been amended to permit private investment in marketing yards and storage facilities for agricultural products and to facilitate contract farming, so that farmers can diversify out of low-value paddy to higher-value horticulture and other crops. The government has also rolled out Agricultural Technology Management Agencies in all districts to better facilitate the transfer of knowledge and technology in agriculture. To facilitate empowerment of farmers in water resources management, irrigation schemes have been put under the control of *paani panchayats*, so far covering 0.98 million hectares. To improve access to land for the poor, the Government of Orissa is establishing a modernized land administration system with updated records of rights and

digitized cadastral maps. The government has also formulated a comprehensive forest sector vision and strategy, including the revision of guidelines for joint forest management, new approaches for nontimber forest produce, bamboo, medicinal plants, and timber production aimed at raising the income of forest-dependent people.

Figure 1. 7: The cost of doing business in Orissa has declined over time and is now comparable to the rest of India

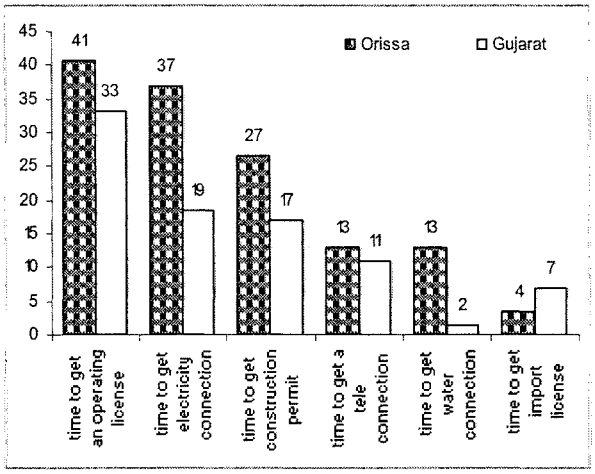


Source: Doing Business Reports, 2006 and 2007.

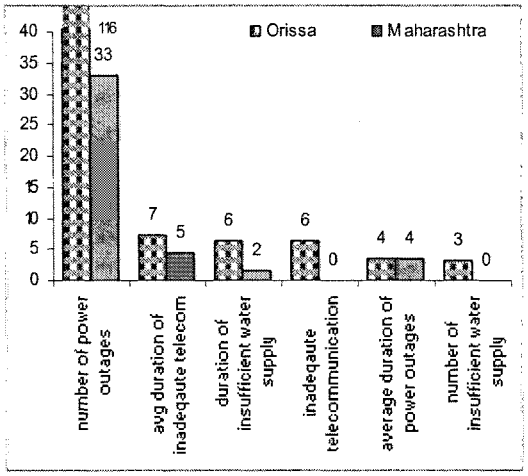
1.23 **Regulatory reforms have reduced the cost of doing business in Orissa**. Between 2004/05 and 2005/06, the number of days elapsed to start a business declined from 79 days to 52 days, the days to deal with licenses fell from 209 days to 159 days, and the days to enforce a contract reduced from 765 days to 610 days (left panel, Figure 1.7: The cost of doing business in Orissa has declined over time and is now comparable to the rest of India). With these improvements, the cost of doing business in Orissa is now comparable with the rest of India. However, relative to states such as Gujarat and Maharashtra, which historically have had the best investment climate in the country, Orissa still has a lot of catching up to do, especially in provision of infrastructure services like power, water supply, and telecommunication. It not only takes longer to get connection to these services in Orissa than in Gujarat (left panel, Figure 1.8) but the quality of services is also considerably inferior in Orissa than in Maharashtra (right panel, Figure 1.8).

Figure 1. 8: Orissa continues to lag behind states with better investment climates, especially in infrastructure services

Time to get connection to various services, 2006/07



Quality of services provided, 2006/07



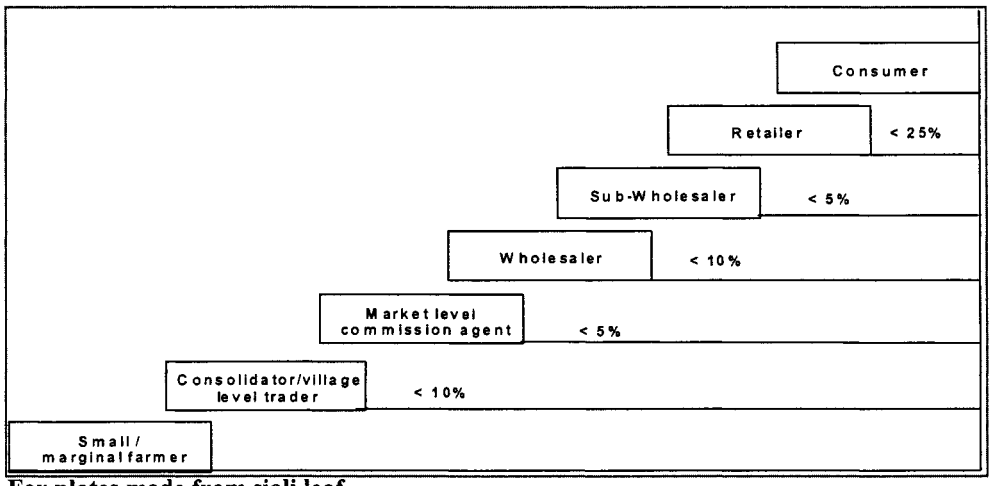
Source: Investment Climate Assessment, 2007.

1.24 **Diversification of crops, measures to increase yields, and creation of a competitive and integrated supply chain are critical to sustain the improved growth performance in the agriculture sector**. Orissa's agriculture remains single-mindedly based on rice (85 percent of cropped area grows rice, as shown in Figure 1.9), even though experts have argued that diversification into higher-value agriculture is important to restore soil nutrients, to raise farm income, and to create more farm and nonfarm jobs. Some signs of diversification are evident: maize is emerging fast as an important cash crop in Orissa, and cotton has increased from 5 million bales in 2002/03 to 14.5 million bales in 2005/06, a growth of 191 percent. Along with diversification, Orissa's agriculture can get a big stimulus by closing the "yield gap," the difference in productivity per hectare with the all-India average, with the largest gains likely to come from paddy and from the fruits sector. By shifting 1 million hectares of land from cultivation of rice to fruits and vegetables and by closing the yield gap in both by half, Orissa could treble its agricultural output. But for the diversification strategy to succeed, Orissa needs better connectivity, improved storage, and an efficient distribution system.

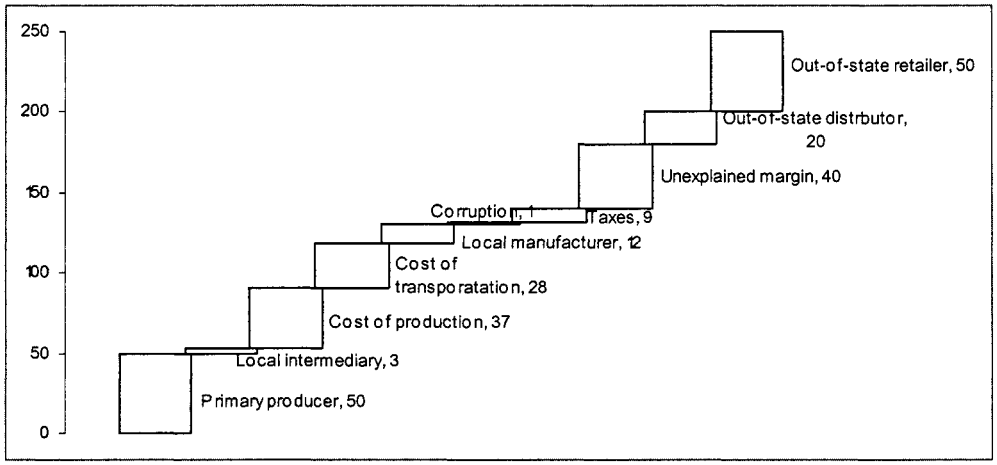
1.25 **Reforms in land tenure and land administration systems are of high priority to close the yield gap in Orissa's agriculture.** Although no official data exist, several researchers have documented the widespread prevalence of informal land leasing or sharecropping arrangements in Orissa. Such arrangements are informal because the Land Reform Acts of the early post-independence period made land leasing illegal in Orissa. The legal ban does not benefit the small-scale tiller of the land, who it was intended to protect in the first place. The owners of land today are typically smallholders resident in towns, who enter into informal arrangements with sharecroppers to send them a fixed share of the output each year. The tenant farmer, who has no security of tenure or any form of recognized rights, is deprived of access to bank credit. As a result, little to no investment is made in the land to raise its productivity. The first step that the Government of Orissa has taken to address this constraint is the initiation of measures toward a transparent and user-friendly land registration and land administration system. The next crucial step is to initiate an informed public debate about the need to reform land legislation, balancing the interests of the farmers with that of the landowners.

Figure 1. 9: A typical agricultural supply chain in Orissa is highly fragmented and is marked by the excessive presence of intermediaries

For fruits and vegetables



For plates made from siali leaf



Source: Background study for World Bank, *A Brief Review of Anti-Poverty Programs and their Effectiveness in Orissa*, Washington, D.C., 2006, and interview with traders.

1.26 **Like most other Indian states, Orissa's agricultural supply chain is fragmented, small-scale, and inefficient**. According to a World Bank study, the agricultural marketing channel works as follows. The village-level consolidator collects the produce from small farmers and brings it to the wholesale market. The commission agent in the wholesale markets sells it to the wholesaler and charges 6 percent commission on the transaction. The wholesaler sells the produce either to a subwholesaler or directly to retailers, who in turn sell it to consumers. The mark-up across the chain is shown in Figure 1.9 (top panel). Along with excessive intermediaries, the absence of connectivity, the lack of proper logistics, and the perishable nature of products further tend to increase wastage and mark-ups at each stage. The farmer actually receives an unremunerative return. The marketing of certain forest produce, such as the plates made from siali leaf, also suffers from similar problems (bottom panel, Figure 1.9).

D. Conclusions

1.27 **Economic growth faster than the national average is both possible and necessary in Orissa**. Our analysis indicates that Orissa, historically part of the lagging regions of India, has been experiencing a broad-based economic expansion since 2000, with the pace of expansion quickening significantly since 2003. The acceleration is a result of a more open policy and regulatory climate for private investment, both nationally and in the state. It is a result of the turnaround in the state's fiscal health, accompanied by an improved governance environment. Sources of dynamism in the Orissa economy include: (a) the surge in private industrial investments in steel, aluminium, and other metals, resulting from national and state-level policy changes as well as global factors like the rising demand for metals; (b) the increase in self-employment and small business enterprise, following improved road connectivity achieved through fiscal reforms and results-based management of the capital budget; and (c) the diversification of agriculture into cash crops in some parts of the state, leading to higher economic returns per hectare. Increased and more effective public investment, which was made possible by fiscal and governance reforms, along with improvement in the investment climate, have succeeded in "crowding in" private investment. Large-scale investments in some sectors have begun to have a multiplier effect on other sectors of the economy.

1.28 **Despite Orissa's poor past record on growth and development, the current expansion, which is grounded on real reforms, is likely to be more durable**. With appropriate policies and institutions, Orissa can sustain a growth rate that is higher than the national average, thanks to its locational advantage as a Coastal state and its preferred location for metals production. The sustainability of its growth rate is likely to depend critically on its ability to bridge the gaps that persist in infrastructure, human development, and public service delivery, which challenges are discussed in the next three chapters.

1.29 **The most serious risk is political opposition to industrialization**. Ongoing investments may get blocked and industry may slow down in Orissa if political opposition grows due to real and/or perceived exclusion of the scheduled tribes from the benefits of industrialization. Inclusion of the hitherto excluded sections is therefore the most critical challenge ahead for Orissa. Inclusive growth is not only desirable for its own sake, but also a condition for sustaining rapid growth in this state.

1.30 **Different kinds of exclusion need different interventions**. Those suffering from remoteness need one set of interventions, while those suffering from the negative effects of mining need another set of interventions. Those suffering from social discriminatory practices need interventions aimed at uplifting their social status through collective action, such as the successful Orissa program for women's empowerment, called Mission Shakti.

CHAPTER 2: THE FISCAL TURNAROUND

2.1 **This chapter presents the story of the fiscal turnaround achieved in Orissa, clearly the strongest among poor Indian states.** How was this extraordinary degree of correction achieved? What were the contributing factors and sources of correction? What lessons can be drawn from this experience? These questions are addressed in this chapter, as well as measures to strengthen public expenditure and financial management practices, given their close connection with the successful fiscal turnaround in Orissa.

2.2 **Orissa faced a fiscal crisis in 1999/2000 as a result of overexpansion of government and public enterprise, with low returns financed in part by high-cost debt from Government of India.** The crisis was aggravated by the unaffordable pay hike awarded to government employees in line with the central Fifth Pay Commission award of 1997 and by the super-cyclone of 1999. The fiscal deficit peaked at 10 percent of gross state domestic product (GSDP) in 1999/2000, when interest, pensions, and staff salaries consumed all of the state's revenue and central grants. The state also faced serious liquidity constraints. The treasury was closed every month after salaries and interest were paid, and overdrafts were resorted to on more than 250 out of 365 days in the year.

2.3 **The fiscal crisis galvanized the reform momentum in Orissa.** That Orissa was headed for a fiscal crisis was known in the late 1990s. Two analytical World Bank reports, in 1996 and in 1999, had highlighted fiscal imbalances as the binding constraint to addressing Orissa's development challenges. In 2001 the government issued a white paper on the pathetic condition of the state's finances and signed a memorandum of understanding with the central government to undertake fiscal reform measures, thereby publicly acknowledging the fiscal crisis and openly committing to address the problem.

2.4 **The firm negotiating position of external financial institutions and the central government helped to instill and consolidate fiscal discipline in Orissa**. Both the World Bank and the Government of India were willing to help, but only on the condition that the Government of Orissa took corrective steps to enhance its own revenues and reign in unproductive expenditures. This firm negotiating position helped tip the scale in favor of a strong fiscal correction. The correction was almost all on the revenue side in the initial phase, which faced less political resistance than expenditure-saving measures. Orissa effectively used professional consultants for reforming the tax administration, with grant support from the UK Department for International Development (DfID). Unlike the results in many other Indian states, elections held in spring 2004 returned the incumbent Chief Minister and coalition in Orissa for a second term that extends until 2008–09. The renewed mandate strengthened the commitment of the Chief Minister and his team to press ahead in implementing the reform program, both revenue and expenditure measures, as well as to widen its scope to address a broad agenda of issues affecting economic growth and human development. From relying on the public sector for job creation and direct government interventions for poverty reduction, the Orissa leadership seriously began to regard the private sector and community groups as the major engines for expanding employment and reducing poverty, with the government playing a facilitating and complementary role. And to play its role effectively, the Government of Orissa embraced fiscal discipline as a necessary first step.

A. Fiscal Consolidation

2.5 **Roots of fiscal imbalance were identified.** The historical and structural roots of the fiscal crisis in Orissa included a poorly functioning state tax system, an excessively large and unaffordable civil service, an excessive number of loss-making public enterprises, and a large debt overhang. All these factors combined to create an unsustainable deficit path and a skewed composition of public expenditure, with interest, salaries, and pensions absorbing 100 percent of the state's total revenues at the end of the 1990s (see also Annex B).

2.6 **The pace of fiscal correction had to be strong enough to pull Orissa out of the deep hole it had sunk into.** Given the high inherited debt and debt-servicing burden, Orissa had to achieve a significant primary fiscal surplus so that debt and debt-servicing indicators would decline, not merely stabilize. Through a process of dialogue with civil society, as well as with the central government and the World Bank, Orissa arrived at its own medium-term fiscal plan and further institutionalized it by adopting the Fiscal Responsibility and Budget Management Act, 2005 (FRBMA), which went into effect in June 2005. The Act stipulates that the government shall eliminate its deficit on current account and turn it into a surplus by 2008/09 and that the overall fiscal deficit will be brought down and maintained below 3 percent of GSDP. Orissa has achieved these targets way ahead of time. The reduction in the primary (noninterest) deficit and the revenue (current account) deficit has been higher in Orissa than that in any other Indian state during 1999–2006 (Figure 2.1). The Fiscal Responsibility and Budget Management Act also mandates several measures for fiscal transparency, including annual reporting of unpaid bills along with the cash-based financial accounts. Orissa now produces an annual medium-term fiscal plan, which shows how its Fiscal Responsibility and Budget Management Act targets will be achieved.

Figure 2. 1: Fiscal corrections were higher in Orissa than in any other Indian state in 1999–2006

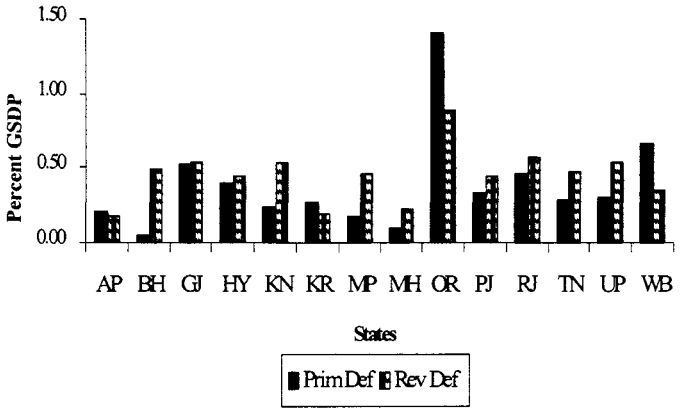
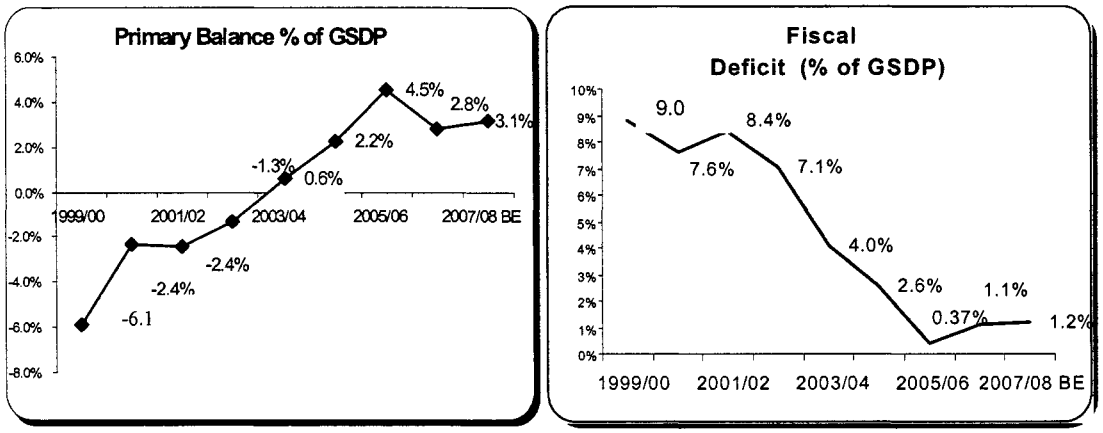


Figure 2.2: Orissa has made large and consistent fiscal corrections



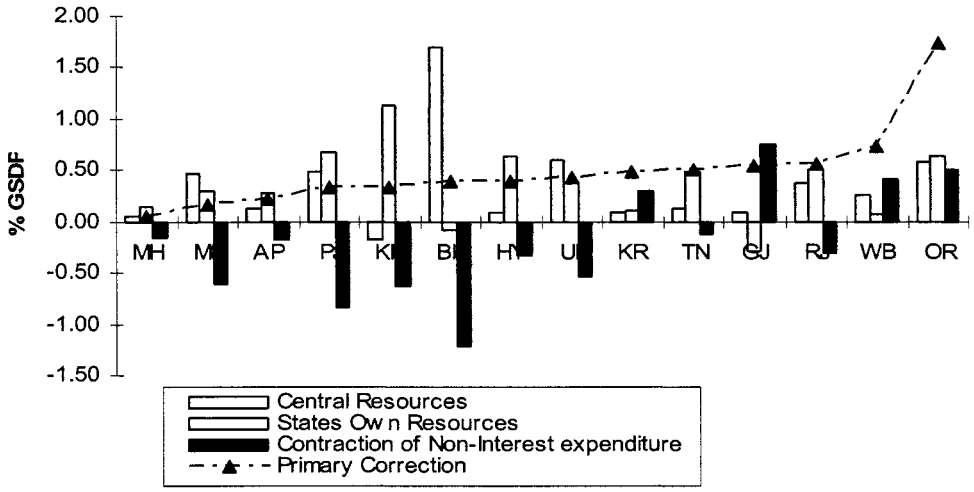
2.7 **The ambitious Fiscal Responsibility and Budget Management Act targets have been met ahead of time.** The state has more than fulfilled the targets set in its medium-term fiscal plan. According to the latest financial accounts and estimates, the primary fiscal balance has been converted from a deficit of 6.0 percent of GSDP in 1999/2000 to a surplus of 4.5 percent in 2005/06—a correction of 10.5 percentage points in six years. The fiscal deficit has been brought down to less than 0.5 percent of GSDP, and Orissa has eliminated the deficit on current account (called the revenue deficit) three years ahead of target, achieving a surplus for the first time in 22 years amounting to 0.6 percent of GSDP in 2005/06. The revenue deficit-to-GSDP ratio has declined faster in Orissa than in any other Indian state, albeit from a higher base.

2.8 **Orissa is the only Indian state where all sources of fiscal correction have contributed significantly.** The fiscal correction in Orissa has been achieved from a variety of sources: own revenue enhancement, increased central revenue transfers, and containment of noninterest expenditures (Table 2.1). While the majority of states have achieved an increase in their own revenues, hardly any state other than Orissa has gained significantly both from revenue enhancement and expenditure containment (Figure 2.3). The awards of the Eleventh and Twelfth Finance Commissions raised the level of central resource transfer to Orissa by 3.9 percentage points of GSDP between 1999/2000 and 2006/07. Tied grants for maintenance (separate grants for roads, buildings, and forests) are conditional on states' increasing their own spending in these areas, as are the health and education grants, which are only for the poorer states.

Table 2.1: Contributions to Fiscal Correction in Orissa, 1999/2000–2007/08

Indicator	*Annual average % of GSDP – Change between 1999/00 & 2007/08*	*% contribution to change in primary balance*
Primary Balance	**10.4**	**100**
Revenue	**7.6**	**73**
Own revenue	3.6	35
Revenue from center	4.0	38
Non-interest spending	**-2.8**	**27**
Salaries	-3.8	-37
Pensions	0.1	1
Capital and non-wage operation and maintenance	0.9	9
Interest payments	0.2	
Overall Fiscal Balance	10.2	

Figure 2.3: : Orissa is the only state with significant contribution from all three sources of fiscal correction (Annual average, 1999-2006)



B. Reforms in Tax Policy and Administration

2.9 **Orissa's experience shows that poor states can significantly enhance their own revenues through tax policy and administrative reforms.** Orissa's own taxes provide 70 percent of its own revenues. Increasing the own revenue-to-GSDP ratio through tax reform has been an important part of Orissa's fiscal reform program, supported by technical assistance from the U.K Department for International Development. Orissa has been successful in this regard, with an increase in the rate from 5.2 percent in 1999/2000 to 9.2 percent in 2007/08, on the back of a series of tax policy and administration reforms. Whereas in 1999/2000, Orissa was ranked at 13 among the major states on tax collections as a share of GSDP, it has now climbed to rank 10. Moreover, estimates of the buoyancy of own tax revenue with respect to GSDP in current prices between 1993/94 and 2006/07 show that the buoyancy has increased since 2001, and in particular since 2004. This suggests that tax revenues have become more responsive to GSDP growth, indicating that the reform of tax policy and administration, not simply growth alone, has helped increase tax revenues in Orissa.[6]

2.10 **The improved revenue performance of Orissa is largely attributable to recent increases in collections of sales taxes and value-added taxes.**[7] The Commercial Tax Department of Orissa is primarily responsible for the collection of taxes in the state, including value-added tax (VAT), central sales tax, entry tax, entertainment tax, and the professions tax. As in other states, the mainstay of the tax structure in Orissa is the sales tax and the VAT, which

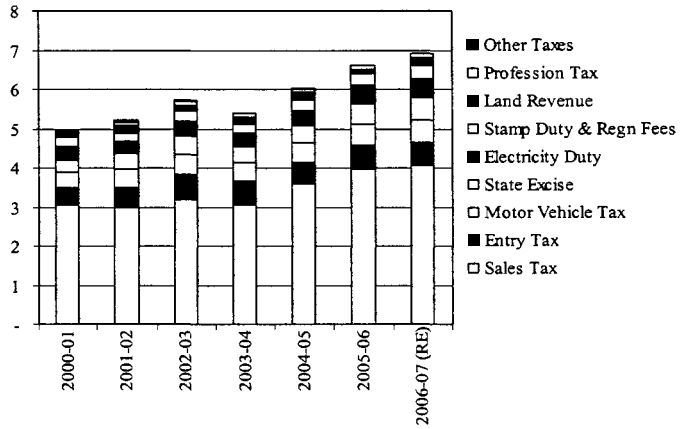
[6] The buoyancy of own tax revenues with respect to GSDP in current prices, as estimated through a double log regression, works out to 1.30 for the years between 1993/94 and 2006/07. Limiting the observations to the 1993/94–2003/04 period, the estimated buoyancy drops to 1.17; it drops further to 0.97 for the period 1993/94–2000/01. Estimated year-on-year buoyancy in 2004/05 was 2.12; and in 2005/06 it was 2.12.

[7] The Value-Added Tax Law of Orissa was adopted as a model by the Empowered Committee of State Finance Ministers for implementation of value-added taxes in other Indian states.

account for about 60 percent of own tax revenues. The rise in sales tax revenues actually preceded the formal introduction of the VAT, which took place on April 1, 2005, and appears to be related in part to an increase in the number of registered dealers, which jumped from 68,186 in 2004/05 to 90,873 in 2005/06.[8] Sectors contributing most to the increased revenues were automobiles, petroleum products, mining, and industry, linked to the start of production of a number of mineral-based industries in Orissa.

2.11 **The introduction of VAT has been the most important revenue reform in Orissa in recent years.** With the introduction of VAT, the cascading effects of single-point taxation have been eliminated, opportunities for evasion by underreporting of value have been pruned, and there has been an overall transformation of the VAT administration through organizational restructuring and computerization. As a result of the reforms, electronic information regarding the compliance of dealers, for instance, is more easily available, facilitating timely enforcement activities by the Commercial Tax Department (Box 2.1).

Figure 2.4: Orissa's own tax revenues have risen from a wide variety of sources



2.12 **Tax incidence has become more progressive**. The value-added tax is a market-friendly and growth-inducing tax, whose incidence falls on final consumption. Because the VAT taxes all consumers in proportion to their consumption and the poor generally have a higher marginal propensity to consume than the rich, the VAT could be considered a mildly regressive tax. Therefore, to make overall tax incidence more progressive, a state would be well advised to strengthen its other major taxes, especially the excise on liquor and stamp duties on real estate transactions, both of which tax mainly the better-off in society. Orissa seems to have enhanced the overall progressivity of state taxes during 1999–2006, as it has considerably enhanced revenues from liquor excise and from stamp duties (Figure 2.4). State excise on liquor has doubled as a share of GSDP since 1999/2000, in response to the implementation of a wholesale state monopoly for the trade designated as Indian-made foreign liquor, which appears to have been quite effective.

2.13 **Nontax revenues are more significant in Orissa than in many other Indian states.** Mining royalties from nonferrous mining and metallurgical industries account for the bulk of nontax revenues and have consistently been the second-highest own revenue source in Orissa, after the sales tax and VAT. Nontax revenues as a share of GSDP have stayed roughly constant since 1999/2000. User charges for publicly provided services, such as education, health, irrigation, and drinking water supply, have remained modest in Orissa, although in some areas they could rise in the context of private sector participation—for specialized uses such as technical education, professional education and training, specialty health services, and urban water supply.

[8] The increase in the number of dealers might be connected to the expected introduction of the VAT, since a registered dealer has an incentive to purchase only from another registered dealer to get the advantage of offset.

Box 2.1: Administrative Reforms in Orissa's Commercial Tax Department

Administrative reforms, training of officers, a wide publicity campaign, and computerization of the Commercial Tax Department have allowed for better monitoring and compliance and played a major role in expanding the efficiency of tax collection. The introduction of the VAT, leading to an increase in the number of dealers to be administered, mandated the need for change in the functioning and structure of the department. An organizational review of the department conducted in 2000 recommended functionalization of the department, and this has been partially implemented at the level of the enforcement range. All processing activities are carried out at that level and specialized audit, debt management, assessment, and return units have been established. Leakages have been reduced through on-line monitoring and computerization of 41 of the total of 54 circle offices and of four major check gates. Opportunities for evasion of tax by underreporting of value, which existed in the earlier regime, have been pruned. About 3.6 million trucks carrying goods enter and leave Orissa every year—and all goods entering and leaving the state can now be monitored.

According to the department, it was virtually impossible to monitor the earlier paper-based and widely dispersed tax collection system encompassing 110 field offices, 5 enforcement ranges, and 44 circle offices. Circle offices are now on-line, and information on dealers, transactions, and turnover can be captured on the computer. All registered dealers are provided government weigh bills at circle offices, which are recorded in the electronic system. Copies of the weigh bills can be accessed at the check gates, allowing for better scrutiny and a system of checks and balances. In addition, about 600 dealers who contribute over 60 percent of the total tax collection are monitored on a continuous basis.

The Commercial Tax Department also works closely with the state's Vigilance Department, which is responsible for the anticorruption and investigation functions. A special cell has been established within the Vigilance Directorate comprising tax specialists. These specialists along with enforcement officials have the authority to do spot checks on goods at check gates and directly collect fines and taxes. The Commercial Tax Department therefore has developed a practically independent tax enforcement function, which has been responsible for collecting over Rs.10 crore of fines every year. Moreover, this cell acts as a strong deterrent to tax evaders

The computerization initiative has been backed by an effective capacity-building strategy that has included training in rules, audit, revenue planning, and performance improvement, as well as the management and control of tax evasion and fraud. A wide multimedia publicity campaign was also mounted by the department to spread public awareness among dealers about the benefits of the VAT regime. Evidence suggests that the campaign, which used television advertisements, as well as serialized capsules on VAT, radio "jingles," street plays, and hoardings was successful in achieving implementation of VAT with lower resistance than in other states.

C. Expenditure Restructuring

2.14 **Expenditure composition, although still burdened by the state's high debt service, has improved significantly.** The ratio of the salary bill to the state's own revenues—selected by the Government of Orissa as a key indicator of its fiscal reform efforts—has fallen dramatically from over 161 percent in 1999/2000 to 62 percent in 2006/07. Capital outlays have rebounded to an estimated 2 percent of GSDP in 2006/07 (roughly equivalent to the 1.9 percent in 1999/2000), after being at about 1.5 percent of GSDP in recent years. Nonwage operation and maintenance spending has also rebounded from 0.45 percent in 2003/04 to just over 1 percent in 2006/07, driven by increased spending on road maintenance. The sectoral composition of government spending (net of interest and pensions) shifted slightly in favor of human development, including education, health, drinking water supply, social protection, and antipoverty programs: the combined share of these sectors increased from 45.3 percent in 1999/2000 to 52.5 percent in 2005/06.

2.15 **Resource constraint has put more emphasis on outcomes from capital spending**. The degree of fiscal stress and the massive correction that was required convinced the government by 2002/03 that it was not possible to finance any increase in capital spending for the next couple of years; the capital budget could at best be maintained constant in nominal rupee terms. Within the given constrained resources, the government launched an exercise called Zero-Based Investment Review to maximize outcomes through reallocation within the departmental budget. This effort turned departmental attention from outlays to outcomes. A high-powered committee headed by the chief secretary asked every infrastructure-related department this key question: "How many investment projects can your department complete this fiscal year, assuming you get the funds needed?" Projects close to completion were accorded higher priority, and resources were reallocated from lower-priority projects to bring them to conclusion. The budget documents began to carry data on the number of investment projects identified and numbers completed by each of the investing departments. The number of bridges completed rose from 19 in 2004 to 85 in 2005 and over 100 in 2006. Thus, by tackling the problem of spreading limited resources thinly across too many projects, the state government achieved an increase in outcomes on the ground, even when budget allocation remained constant. Faster completion of long-pending bridges and connector roads, with high benefits to the local population, became a visible quick win that the political leadership began to publicize to gain political support.

2.16 **Right-sizing the civil service has been the major contributor to the expenditure side of fiscal stabilization.** The public sector in Orissa had acted for years as the employer of first resort, leading to a government workforce proportionately much larger than in most Indian states. A white paper on public expenditure management and administrative reforms laid out a reform path for Orissa and noted that the state's proportion of public sector employees to the population was twice the average for all India (1.6 percent compared with 0.8 percent nationally). Development expenditure had been squeezed to a minimum by the large and growing salary bill and interest burden. The ratio of the salary bill to the state's own revenues was 150 percent in 1999/2000.

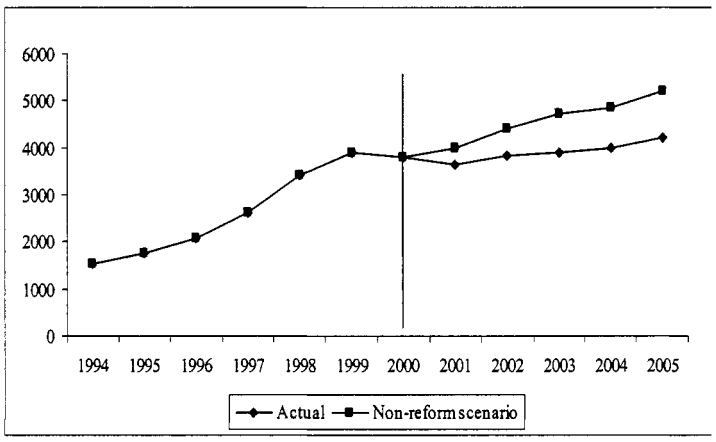
2.17 **The salary bill has fallen significantly by 3.5 percent of GSDP over the past six years.** A memorandum of understanding signed with the Government of India committed Orissa to reduce government employment by 20 percent (about 1, 00,000) people in the medium term. Between 1998/99 and 2005/06 Orissa has brought down the total number of employees in the public sector from 4,75,791 to 3,92,805, a reduction of more than 80,000 people. The reduction in civil service numbers has been achieved without actually retrenching anyone in service. It has

been achieved through the elimination of vacant posts and a ban on new recruitments across government, with negligible exceptions. The reforms began in 2001 and were reinforced by government orders in 2004 that required all departments to abolish 75 percent of base-level regular posts that became vacant every year. The salary bill for temporary workers has also been halved from Rs.0.32 billion in 2003/04 to an estimated Rs.0.15 billion in 2005/06.

2.18 **The containment of the salary bill has yielded substantial savings.** Although it is difficult to estimate what the salary bill of the state government would have been if there had been no reform, projections done by the Finance Department suggest that the state government would have spent an additional Rs.36 billion on salary expenditures in the absence of the right-sizing measures. Figure 2.5 shows the projections of what the salary costs may have been in a "business as usual" counterfactual scenario compared with the actual salary bill.

2.19 **Containing the cost of administration has been a core element of fiscal discipline championed by the Finance Department.** Much of the credit for the fiscal turnaround needs to be laid at the doors of the Finance Department, which has consistently identified areas for savings and for delivering more with less burden on the budget. Establishing better budgetary controls and monitoring of staffing policies of departments have contributed to the overall fiscal strengthening. Starting in 2002, the Finance Department has periodically issued orders to the line departments to tighten administrative spending. While there is a continuing policy of abolishing 75 percent of base-level posts falling vacant every year, the Finance Department has also established clear guidelines for filling the remaining 25 percent of the vacancies. Departments have been urged to fill these posts with contractual-level staff on a consolidated salary, and decisions on staffing have been required to be made on the basis of proven administrative necessity. Furthermore, departments are required to abolish the corresponding sanctioned post before creation of a contractual post to avoid litigation around tenure. Uniform formats have been issued to all departments to use for such contracts. The Finance Department has shown extraordinary attention to detail in dealing with the crisis and instilling fiscal discipline. Austerity measures that have been introduced and strictly monitored include:

Figure 2. 5: Significant fiscal savings have come from containing the public sector salary bill



Note: The projections are made using the following assumptions: (a) in a "no reform" or "business as usual" scenario, the net attrition would be zero; i.e., every post that falls vacant would be filled up; (b) annual incremental hikes would be 2.5 percent of basic pay, and (c) a "dearness allowance"—an inflation-based allowance on basic pay—would have been same as actual rates paid out by the Government of Orissa.
Source: Government of Orissa, Finance Department.

- A complete ban on the creation of any new post under any scheme. Abolition of any equivalent posts would be required in case there is an absolute necessity for a new post to achieve modernization or effective implementation.
- Redeployment as the first recourse for filling posts.

- A ban on the purchase of new vehicles and equipment, a ceiling on the monthly consumption of fuel allowed for every officer, and a stipulation that no additional budgetary provisions would be allowed for transport costs for any department.
- Ceilings on reimbursable expenditure on telephone bills for both ministers and civil servants.
- Restrictions on travel and official visits, including a ban on air travel to attend workshops and seminars.
- Restrictions on entertainment and hospitality.
- Restrictions on transfers. Orders have been issued restricting mass transfers of officers except on completion of a minimum tenure of three years in a post and six years in a district.
- Ban on withdrawals from civil deposits.
- Strict economies on the sale of fixtures, furniture, and stationery, including instructions on the best way of managing paper consumption and on note writing.
- Instructions on better monitoring of receipts and recoveries.
- Bimonthly reports to the Finance Department from administrative heads on scheme reviews, and orders that utilization certificates on expenditures incurred need to be provided within two months.

2.20 **Containment and reduction of explicit and implicit subsides and grants have been a noteworthy accomplishment, an important political victory over vested interests**. The Government of Orissa has managed to reduce different forms of drain on the budget, including: (a) subsidizing the running of loss-making state-owned enterprises; and (b) government grants to cover teachers' salaries, claimed by nongovernmental educational institutions without any reference to the output or outcomes they deliver.

2.21 **Orissa is a leader among Indian states in public enterprise reform.** Orissa has made considerable headway in closing down loss-making enterprises and privatizing viable units. The 2002 public enterprise reform and privatization policy recommends divesting government from commercial activities, reducing the fiscal losses, and facilitating private investment through a program of privatization, closure or liquidation, and restructuring of state-owned enterprises. Since the onset of the power sector reform program, no explicit subsidies have been granted to the power sector. As discussed in greater detail in Chapter 3, the financial performance of the power sector has improved considerably, with all distribution companies now paying 100 percent of their bulk supply tariff bills and paying parts of their pre-privatization debts. Technical and commercial losses, although they are still high, are consistently on the decline. Enterprise restructuring has also helped to cut the cost of the previously significant subsidy to the Orissa Lift Irrigation Corporation. About 6,450 employees have been separated, and a program for formation of *paani panchayat*s (water user bodies) is well under way. Phase I of the public enterprise reform program, supported by UK's Department for International Development, has led to the separation of 14,700 employees under the VRS with an estimated fiscal savings of Rs. 7.5 billion. In total, as of January 2006, 31,248 employees have been separated.

2.22 **Education grants are also being reformed to emphasize the performance of students and teachers**. Grants-in-aid to colleges and high schools to cover teachers' salaries was politically the most difficult problem to tackle. Starting in 2002/03, the Government of Orissa began to publish, as part of its annual budget documents, data on the number of students on the rolls and the percentage who pass the final examinations. By publicizing the fact that a number of educational institutions drawing government grants were showing zero as their pass percentage, the Finance Department enhanced public awareness and public sympathy for reforming the grant system. Reforms are moving the grants toward linking budget support to performance and

outcomes. The first step has been taken in this direction by delinking grants from teachers' salaries and converting them into block grants per student enrolled.

2.23 **Progress has been made to bring down the stock of outstanding guarantees.** Over and above the immediate fiscal gains that the public enterprise program has provided, it has also helped to control the future build-up of liabilities and unproductive investments. During 2002/03 the government fixed the guarantee ceiling. The power sector accounts for over two-thirds of the outstanding guarantees; outside the power sector, the Orissa State Financial Corporation and the Orissa Industrial Development Corporation are the largest recipients of guarantees. A guarantee redemption fund was established in 2002/03, to be utilized for meeting payment obligations from guarantees. Total outstanding guarantees were reduced from 11.2 percent of GSDP in March 2002 to 4.6 percent in March 2006.

D. Debt Restructuring

2.24 **Debt restructuring has been an important part of Orissa's strategy to bring the interest burden under reasonable limits.** Orissa had been classified by the Twelfth Finance Commission as a highly debt-stressed state, principally on the basis of two indicators: (a) the debt-revenue ratio was higher than the stipulated maximum of 300 percent, at about 338 percent in 2003/04; and (b) the interest-revenue ratio stood at 35 percent in 2003/04, much higher than the maximum of 20 percent. The Government of Orissa has made use of available debt restructuring and swapping possibilities with the support of the Government of India, used part of the proceeds of the budget support from the World Bank to prepay expensive debt to domestic financial institutions, and qualified for debt relief under the Debt Consolidation and Relief Facility by passing the Fiscal Responsibility and Budget Management Act and bringing the fiscal deficit to below 3 percent of GSDP. In addition, Orissa rescheduled high-cost loans from the Government of India at lower interest rates. As a consequence, Orissa has saved almost Rs.1.6 billion in interest alone since 2002/03, when the state first started swapping high-cost debt. The government has swapped almost Rs.30 billion since then (Table 2.2). All these steps have helped Orissa bring down the interest-to-revenue ratio from 35 percent in 2002/03 to 26 percent in 2005/06, and the ratio of outstanding debt[9] to revenue fell below 300 percent in 2004/05.

Table 2. 2: Debt Swapped by the Government of Orissa, 2002/03–2006/07

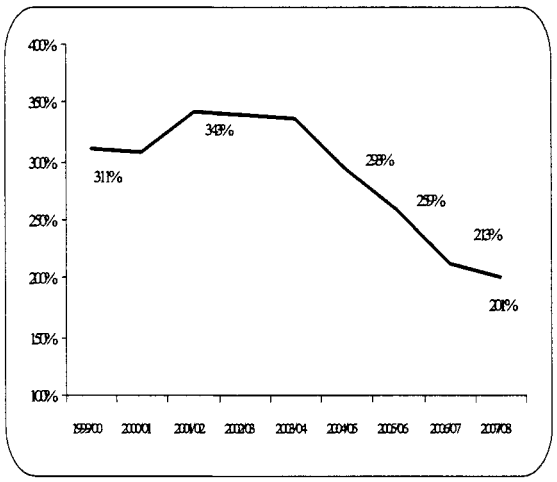
Year	*Amount swapped (Rs. billions)*	*Type*	*Interest savings (Rs. billions)*
2002/03	4.75	NSSF	0.33
2003/04	8.64	NSSF	0.62
2004/05	12.05[a]	NSSF/loans from the GoI	0.49
2005/06 and2006/07	4.00	Open Market / NSSF	0.17
Total	29.44		1.61

Note: NSSF indicates]
a. Includes Rs.325 crore of WB

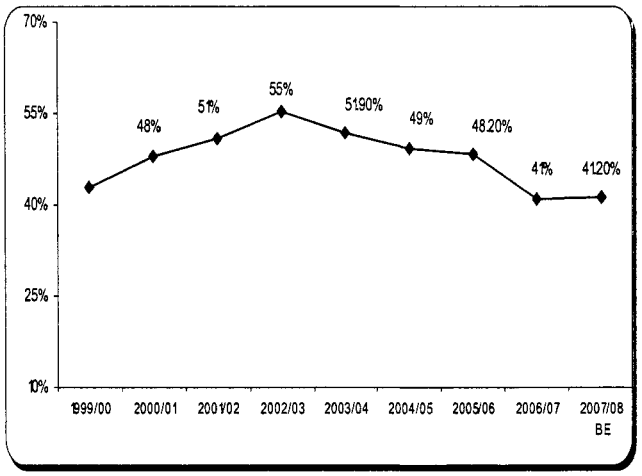
[9] Outstanding debt includes year end debt stock plus off-budget borrowing.

Figure 2. 6: Orissa's debt is becoming sustainable as it declines in relation to revenue and GSDP

Debt/Revenue



Debt/GSDP



E. Public Expenditure and Financial Management

2.25 **Orissa has made important improvements to the budget process**. Starting with new investment procedures in 2003/04 (tightening the funding of schemes by setting in advance binding sectoral budgets, giving priority to continuing projects and to projects nearing completion, requiring viability analysis for proposed schemes, and several other measures), medium-term expenditure programming has been gradually introduced. The state has adopted a medium-term approach, whereby an expenditure projection is formulated for the next five years, updated annually, and presented to the Assembly at the same time as the annual budget. In the past three years, clear guidance has been issued in formulating the annual budgets, aligned to the medium-term fiscal plan and focusing on curtailment of unproductive expenditures, enhancing revenues, and speedy completion of priority investment schemes.

2.26 **Orissa has also made progress in enhancing financial accountability for management of public funds.** The government has complied strictly with the financial disclosure norms prescribed under the Orissa Fiscal Responsibility and Budget Management Act. The "budget at a glance" has been enriched to meet the requirements of the Fiscal Responsibility and Budget Management Act and provides more comprehensive financial information on topics like employee position, sources of revenues and allocations, reform initiatives, contingent liabilities, state enterprises, debt, and liabilities. This information, along with the revised medium-term fiscal plan and updated summarized accounting information, is accessible on Government of Orissa's website. The government did not resort to overdraft or short-term advances from Reserve Bank of India (RBI) even for a single day during 2004/05, for the first time in 22 years. Actual spending was more than 95 percent of the targeted outlay under the annual plan in 2004/05 and in 2005/06, compared with only 82 percent during 1997-2002, indicating more realistic planning consistent with available resources and the approved annual borrowing ceiling. Utilization of central assistance has risen significantly, as a result of regular monitoring of the timeliness of submission of utilization certificates. Monthly financial reports of actual expenditures against allocations,

forwarded to the individual departments by the Orissa auditor general, also increase the accountability of departmental secretaries.

Box 2. 2: Treasury Computerization

When reforms were launched in 2000/01, the Finance Department did not have the knowledge and capacity to identify, let alone monitor, its 6,000 officers working across the state. In the past five years the department has established a computerized treasury management system that allows every transaction to be reported on a daily basis and has become a key instrument to both manage financial and human resource information and maintain financial accountability. The system will also be linked with the Office of the Accountant General, so that there are no delays in reporting and accounting of expenditures. All budget lines will be centrally managed and will be entered into the system, so that no officer can bypass the budget allocations, as bills will pass through the system only if there is a valid budget head.

The computerized treasury system will allow for the reconciliation of accounts on a daily basis. Furthermore, it can verify salary bills electronically in association with the computerized human resource management information system. The previous manual system was both time consuming and open to fraud and graft. Over 3, 00, 000 human resource records have already been placed in the database, and about 20 percent of all government employees' payroll is already being verified electronically. A pensioners' database is also being developed, and linkages are being made with banks to enable salaries and pensions to be paid directly through banks.

2.27 **Attention is being focused on financial management systems and the capacities of public enterprises and local governments.** With the increasing responsibilities and roles of urban local bodies (ULBs), attention is being focused on their financial management systems and capacities that would enable them to enhance their own revenues and leverage funds from the market to meet the infrastructure financing gaps. The Government of Orissa has agreed to pilot improved financial management systems in two urban local bodies as demonstration models of excellence. As part of the wider reforms in public enterprises, the government has focused on ensuring that accounts and audits of all operating enterprises are brought up-to-date. Reduction in the backlog of audits will be a key indicator of progress and will be monitored closely. Orissa is probably the first Indian state to publish on its website the month-end summarized financial statements of selected local rural governments or *panchayati raj* Institutions.

2.28 **Timely compliance with audit objections is being monitored to establish greater accountability in administrative departments.** An apex committee under the chairmanship of the chief secretary, a review committee under the chairmanship of the additional chief secretary (finance), and departmental committees have been formed to monitor progress. A handbook on compliance has been published by the Finance Department.

F. Conclusions

2.29 **Orissa's consultative approach helped build public support for fiscal reform.** One of the key factors for success in Orissa was the consultative approach adopted by the government to address the structural imbalance in its finances. During 2001-03, the state conducted a series of regional workshops, inviting academics, nongovernmental organizations, and prominent personalities to sensitize them about the fiscal crisis. The main message conveyed at these events was that "business as usual" cannot continue, and a major paradigm shift was required. The Government of Orissa publicized the assessment of a 1999 World Bank Report that the state finances were in a very bad shape. Similar consultations were also held on the need to privatize, close down, or restructure state-owned enterprises.

2.30 **Sequencing was determined, sensibly, by political economy considerations.** The remarkable fiscal improvement is underpinned by improved revenue performance and

expenditure restructuring, in that order. In 2000–03, fiscal correction in Orissa was mainly based on enhancing the state's own revenues, which was politically less difficult than tackling the expenditure side. The correction grew stronger after the 2004 re-election, with significant expenditure containment and restructuring measures.

2.31 **Orissa's experience shows that Indian states can achieve significant savings in their salary bills, even without throwing anybody out of work.** Staffing was cut through the ban on recruitment, the abolition of many base-level vacant positions, and the use of redeployment and contractual employment wherever possible, rather than layoffs or dismissals. As a result, the government managed to effect fiscal savings as large as 3.5 percentage points of GSDP during 1999–2007.

2.32 **Orissa's experience also shows how fiscal stress can be used to strengthen outcome orientation in government departments.** The government used its tight resource position and constrained aggregate capital budget to lay emphasis on accelerating the rate of project completion, so as to deliver more with the same amount of rupees. Going forward, the challenge facing the government is to continue with and further strengthen outcome orientation in a period when the resource constraint is easing and fiscal space is expanding for additional development expenditure.

CHAPTER 3: ADDRESSING THE INFRASTRUCTURE GAP

3.1 **Orissa must improve and expand its infrastructure services to sustain rapid economic growth.** The development of a mineral-rich, strategically located economy such as Orissa's depends on logistical efficiency. Already, critical constraints on rail transport and ports have diverted cargo to more expensive roads and to ports in other states. The poor state of the transport network has eroded the state's competitiveness. Investment climate surveys reveal that access to power is also a major concern, even though the state has been a pioneer in power sector reforms. Massive upgrading of urban infrastructure is needed to attract and retain the skilled labor force demanded by modern industry and services. In expanding infrastructure stock, the state has not yet benefited from the growth in public-private partnerships, particularly in the transport sector, that have flourished in other parts of India.

3.2 **Rural and tribal areas in the state need better infrastructure to share in the benefits of economic growth.** Orissa's many tiny villages and remote habitations pose a big challenge for achieving full transport connectivity. Almost 52 percent of the villages have a population of less than 500, which makes them ineligible for the main government program funding rural road upgrades (the PGMSY). Even some larger villages outside tribal areas fall outside the scope of the central program, leaving almost 21,000 villages, or 43 percent of all villages, unconnected by road. In power, even after successful completion of ongoing rural electrification projects, there will still be about 11,650 villages and 4.2 million rural households without electricity.

Table 3. 1: Key Infrastructure Indicators for Orissa and All India

Indicator	*Orissa*	*All India*
Roads		
Overall density (km/1000 sq. km)	1635	755
Trunk roads	48	62
Surfaced roads	538	432
Type of roads as a % of total network		
Trunk roads	3	7
Unsurfaced roads	66	43
Railways		
Railway density (km/1000 sq. km)	14.6	19.3
Electricity		
Per-capita consumption in 2004–05 supplied through utilities (KWh/year)	203	354

3.3 **The state has yet to take full advantage of its strengths, including major water and energy resources and a long coastline that can be exploited to provide ports access.** The boom in industrial growth, while providing its own challenges, also provides the opportunity for new partnerships with the private sector to strengthen connectivity and improve service provision to townships and areas located near the new industrial centers.

3.4 **Increasing access is not just a question of building more assets but also of reforming policies and institutions.** Of course, greater connectivity requires expansion of facilities, but greater accountability and efficiency in service provision are needed as well. The poor financial position of many infrastructure service providers, which stems from under pricing and operational weaknesses, means that too little is spent on maintenance and too many demands for service go unmet. This chapter examines prospects for improving transport, power, irrigation, and urban land and water infrastructure in Orissa. It concludes with an assessment of the scope and prospects for public-private partnerships.

A. Transport

3.5 **The state's road network, though improving, is inferior to that of many other states.** About 80 percent of the principal state road network carrying the bulk of the traffic (consisting of national and state highways and major and other district roads) is single lane or less, compared with 60 percent nationally. Most roads do not have adequate crust, proper drainage, or lane width to cater to the increasing volume of traffic. Over 66 percent of the entire network is still unsurfaced, compared with the national average of 43 percent.

3.6 **Planning and prioritization of expenditures must improve to better match the needs with the available resources.** Much greater expenditures are being allocated to national highways in the state, although spending on maintenance will have to be greatly increased and then protected. In the case of state highways and district roads where resources are scarcer, classifications are frequently changed to access specific forms of funding. The state should develop a comprehensive master plan of the upgrades needed for highways and district roads, based on long-term traffic projections, and then develop a time-bound implementation plan with a funding strategy. Maintenance planning and funding, which tend to be largely dictated by the budgetary allocations, need to be systematized through the adoption of sophisticated technologies, such as road management systems. Given the scarcity of resources, public-private partnerships should be developed on stretches where tolling can provide a large proportion of project costs.

3.7 **Orissa faces unusual challenges in ensuring rural connectivity.** Orissa is unique in that it has a widely dispersed population consisting largely of scheduled tribes living in small, isolated villages. Connecting these communities with the rest of the economy is critical for the balanced development of the state. Yet, the state also has a very extensive rural roads network, which presents its own maintenance challenges (Table 3.2).

3.8 **Implementation capacity must be greatly improved to deliver this connectivity.** Of the Rs.3,160 crore of works sanctioned during 2000–07 the state has implemented roughly Rs.1,400 crore worth of works under the Prime Minister's Gram Sadak Yojana. Another Rs.6,370 crore of works are proposed for sanction for 2007–09. The rejection rates of the national quality monitoring cell for the works implemented have been as high as 25 percent (43 percent in the case of works in progress), indicating that resources are stretched and some mitigation is needed.

Table 3. 2: Rural Road Connectivity in Orissa, by Village Population

Indicator	*Survey date*	***1000+***	***500-999***	***250-499***	***Less than 250***	***Total***
Total number of habitations	April 2000	9,173	12,474	12,932	15,522	50,101
Total number of connected habitations	April 2000	5,470	5,759	5,011	4,838	21,078
Total number of unconnected habitations	April 2000	3,703	6,715	7,921	10,684	29,023
Balance unconnected after PMGSY	Feb. 2007	1,139	5,389	7,174	10,138	23,840
Balance unconnected after PMGSY	March 2009	0	3,984	7,193	10,133	21,310
Balance unconnected after KBK scheme	March 2009	0	2,976	7,193	101,33	203,02
Balance unconnected (%)	March 2009	0	24	56	65	41

Source: NRRDA, Department of Rural Development.

3.9 **The poor state of the Indian railway network has forced cargoes onto the road network, exacerbating congestion and other problems.** Railways are the most efficient and cost-effective form of land transport for bulk commodities such as coal and iron ore, worldwide and in India. The existing lines pass through the fringes of the state, leaving vast areas untouched. Several critical railway projects, connecting the iron ore and coal mining belts to production centers and ports, have been much delayed. The long-awaited Daitari-Banspani rail link, expected to connect the iron ore belt with the manufacturing centers and ports, reduce the overall travel distance by more than half, and significantly improve the economics of iron ore trade, was sanctioned as far back as 1992/93. This line is now expected to be commissioned soon.

3.10 **The state government has in recent years become proactive in proposing critical developmental projects to Indian Railways.** A more structured approach to identifying projects based on a statewide master plan would be far more useful for timely identification and follow-up of projects critical to Orissa's economy, compared with the present informal approach. The Indian Railways' initiative for public-private partnerships in rail projects has opened a window of opportunity. Already, the Paradip-Haridaspur project is being developed through such a partnership.

3.11 **The state enjoys a vast coastline, which it has been slow to exploit.** Orissa accounts for about 6 percent of India's sea trade (30 million tons per year). Its only operational port, Paradip, has severe capacity constraints for cargoes such as iron ore, which has led to the diversion of coal and iron ore traffic to the neighboring ports of Haldia and Vizag. Paradip is a major port, so the state-center coordination problems noted in rail have also played a factor here.

3.12 **State-level ports offer great potential, though progress has been slower than in many other Coastal states.** The ports of Dhamra and Gopalpur and more recently Subarnrekha have been awarded to private developers. Dhamra, awarded in the late 1990s, has been significantly delayed on account of environmental and land acquisition problems and has only recently achieved financial closure. The 2004 port policy identifies 13 other potential port locations. With growing investor interest in mineral-based industries, port infrastructure also becomes extremely critical. While there is likely to be a fair amount of private interest in both captive and common user facilities, strategic direction and a conducive regulatory framework for the development of the port sector will be critical.

B. Power

3.13 **As with roads, access to electricity lags in rural areas.** Electricity is yet to reach nearly 18,000 villages (about 40 percent of the total) and about 50 lakh rural households (about 80 percent of the total, well above the national average of 56 percent, based on the 2001 census). The state is mobilizing funds for rural electrification through schemes such as Members of Parliament Local Area Development Scheme (MPLAD), the Minimum Needs Programme (MNP), and the Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY). According to the Department of Energy, during the past four years, Rs.72 crore were spent (mainly using funds from MPLAD and MNP) to cover about 3,600 villages. Under RGGVY, six projects sanctioned at a total cost of Rs.609 crore are expected to cover 2,734 unelectrified villages, 6,083 electrified villages, and 7.8 lakh rural households. However, even after successful completion of the ongoing projects, there will still be about 11,650 villages and 42 lakh rural households without electricity.

3.14 **Access to power in Orissa is well below national levels.** While the richest quintile have nearly universal access, this share falls off rapidly, with less than a fifth of the poor households in the state having access to electricity (Table 3.3).

Table 3. 3: Percentage of Households with Access to Electricity in Selected Indian States, by Income Quintile, 2004

State	*Overall*	*Poorest*	*Poorer*	*Middle*	*Richer*	*Richest*
Bihar	13	6	8	14	32	58
Uttar Pradesh	39	18	27	38	56	73
Orissa	40	18	39	57	72	92
Rajasthan	60	43	44	62	68	85
Andhra Pradesh	81	68	76	78	86	98
Punjab	93	53	96	96	89	98
National average	64	38	50	63	78	92

Source: World Bank staff estimates from National Sample Survey, Round 60.

3.15 **The Government of Orissa should look at the potential for innovative approaches to rural electrification, such as franchisees and cooperatives for service delivery.** Some countries have established umbrella organizations, such as the Rural Electrification Board in Bangladesh and the National Rural Electric Cooperative Association in the United States, to dispense subsidies and advice on technical, human resources, and financial management matters to numerous small, scattered entities engaged in service delivery.

3.16 **Orissa led the way in power reforms in India.** But these have not delivered results in the state, whereas other states have seen greater success. In particular, power distribution continues to be plagued by high levels of aggregate technical and commercial losses (Table 3.4). The sector's performance—with 43 percent of such losses in 2006–07—compares rather poorly with West Bengal, Andhra Pradesh, Gujarat, and Karnataka, which have reportedly managed to bring down their aggregate technical and commercial losses in 2004–05 to 24 percent, 27 percent, 30 percent, and 35 percent, respectively. Delhi, unlike Orissa, has improved its losses by privatizing its distribution sector.

3.17 **Orissa has had lackluster experience with the privatization of electricity distribution.** Private companies were invited to run the power distribution business with the expectation that their drive for private profits would improve commercial discipline and reduce system losses. Why has the actual outcome been much poorer than what was targeted through the power sector reform program? The main reason lies in the lack of competitive pressure and adequate incentives to aggressively go after efficiency improvements and reduce power thefts.

Table 3. 4: Aggregate Technical and Commercial Losses and Annual Growth of Sales for Power Distribution Companies in Orissa, 2002/03–2006/07

Distribution company	*Aggregate technical and commercial losses (%)*					*Growth of energy sales, 2002/03–2005/06(%)*
	2002/03	2003/04	2004/05	2005/06	2006/07	
WESCO	48.1	46.2	41.4	41.5	39.7	8
NESCO	51.4	49.2	44.9	44.0	38.8	15
SOUTHCO	50.3	50.5	45.8	46.3	47.7	2
CESCO/CESU	55.0	51.1	51.0	49.4	47.1	1

Source: Orissa Electricity Regulatory Commission.

3.18 **Improving the performance of the distribution companies is the critical concern in Orissa.** The Orissa Electricity Regulatory Commission (OERC) attempted to boost performance with its multiyear tariff order of 2005, which was intended to give the distribution companies incentives to reduce losses and keep some of the gains. Conceptually this is a sound approach. In practice the attempt was undermined by what the distribution companies perceived as an ungenerous starting revenue allowance and by the appointment by the Orissa Electricity Regulatory Commission of administrators and officers for day–to-day management of the distribution companies. The companies in fact successfully challenged the tariff order before the Administrative Tribunal.[10]

3.19 **The Orissa Electricity Regulatory Commission could consider developing new multiyear tariffs on the basis of realistic business plans.** There is merit in relaunching this strategy, by approving fresh long-term, say, five-year business plans, at least for the three distribution companies where the private ownership (and management) has been restored. The relaunch has to include a starting point and targets that are realistic, and it must provide sufficient incentives to induce the companies to improve their performance in the most pressing areas of concern, namely, overall aggregate technical and commercial losses, distribution losses, and arrears of receivables. Furthermore, to make such an incentive system robust and credible, the Orissa Electricity Regulatory Commission may have to simultaneously enhance its own capabilities to independently monitor and verify the progress, as well as the claims of distribution companies in each of the critical areas targeted for improvement.

3.20 **The Orissa Electricity Regulatory Commission and the government may also want to expedite steps to instill commercial orientation or private participation in the distribution company, CESU.** An earlier attempt to sell CESU failed, reportedly, because of deficiencies in structuring and marketing of the sale offer. The large unfunded liabilities accumulated through inefficient performance in the past were said to have been the main deterrent. Hence, the Orissa Electricity Regulatory Commission and the government may consider engaging a competent adviser to structure the transaction in a manner that would be attractive for private participation.

3.21 **Improving distribution efficiency will be critical, because generation costs are likely to rise, with the share of cheaper hydropower projected to fall.** The state has so far been able to keep its overall power procurement costs low thanks mainly to its own low-cost hydropower, which currently meets nearly 35 percent of its internal requirements. Orissa's significant coal resources provide it with great potential to expand its generating base for export to the rest of the country. However, this will need the allocation of coal blocks, a decision that falls under the purview of the central government. An agreement between the center and the state governments would be required on Orissa's demand to levy duty on power generation, avail concessional power, and receive compensation for mitigating environmental hazards.

3.22 **Captive power generation is an area that offers significant scope for ramping up the total supply of power.** Already, captive generation is playing a substantial role in meeting the state's demand for electricity; capacity under this category is 2030 MW, whereas the total installed capacity serving the utilities is around 3530 MW. With the advent of the Electricity Act

[10] The specific issues regarding which the distribution companies obtained relief included: (a) allowing full pass through of complete interest costs payable on National Thermal Power Corporation (NTPC) bonds; (b) bridging the gaps between income and expenditure of North Eastern Electricity Supply Company of Orissa Ltd. (NESCO) and Southern Electricity Company of Orissa Ltd. (SESCO), left uncovered in the approved annual revenue requirement over several years; (c) rectifying errors in the computation of miscellaneous income in the order; (d) providing benefits for the increase in simultaneous maximum demand; and (e) requiring the commission to undertake a truing-up exercise on a regular basis.

2003, there has been renewed interest in establishing captive capacity, with the explicit aim of selling surplus power. According to the Confederation of Captive Power Plants, Orissa, captive generation capacity in this segment is likely to increase by 3470 MW by 2012. The enthusiasm of the potential investors, however, seems to be dampened by a variety of factors such as, for example, a hike in the electricity duty (to 20 paise per unit) and a lack of certainty regarding the availability of open access. The state government and the Orissa Electricity Regulatory Commission may want to address these concerns expeditiously as part of the new captive power policy, which is reportedly under preparation.

C. Irrigation

3.23 **The inadequacy of irrigation inhibits agricultural productivity and growth.** Nearly 60 percent of cultivated area in the state is rainfed and exposed to weather fluctuations. Total irrigation potential created so far is 2.75 million hectares, about 40 percent of cultivable land, or 55 percent of what is assessed as the ultimate potential (about 5 million hectares, or 75 percent of the 6.6 million hectares of cultivable land are assessed to be the "irrigable area"). Given the importance of irrigated agriculture for increasing farm incomes and providing rural employment round the year, the Government of Orissa attaches high priority to expanding irrigation and optimizing the use of water resources.

3.24 **The area actually irrigated is considerably below the potential created.** In 2005/06, for instance, the area actually irrigated was only about 60 percent of the state's full potential. Poor operations and maintenance are primary factors behind the weak performance. Variability in rainfall and changes in cropping patterns from what was envisaged at the design stage are also important contributory factors.

3.25 **The state policy on water resources has changed to embrace participatory irrigation management.** From being a mere provider of water, the Government of Orissa has moved to a paradigm of sustainable water resource management based on user participation. Starting with a few pilot projects, participatory irrigation management has been extended as a general policy for the sector as a whole. The *Paani Panchayat* (water users' associations) Act 2002 and the *Paani Panchayat* Rules 2003 provide legal status to 13,284 water users' associations that were registered as of the end of March 2006. Elections have been conducted in 6,400 of them, and the process is ongoing in the rest. *Paani Panchayats* cover 1.05 million hectares of irrigated land, of which 0.8 million have been handed over to them for operation and maintenance. The government reports a 40 percent increase in cropping intensity on such lands, resulting from diversification in favor of more remunerative crops and the use of improved seeds and fertilizers. Orissa is planning to hand over all irrigated land to *Paani Panchayats* during the Eleventh Five-Year Plan period (2007–12).

3.26 **To strengthen the *Paani Panchayats,* attention is needed to build their capacity, improve their financial sustainability, and increase their inclusiveness.**

- ***Training and capacity building***. This type of support is needed to ensure that they are able to carry out their responsibilities for operations and maintenance. These tasks remain to be satisfactorily addressed in a large number of *Paani Panchayats*.
- ***Financial sustainability***. This type of support can be achieved by improving their access to adequate financial resources to carry out operations and maintenance. Currently the amount of resources being transferred to *Paani Panchayats* are not enough to satisfactorily operate and maintain the system.

- ***Inclusiveness.*** Membership of the *Paani Panchayats* is presently limited under the act only to water users who are landholders in the area. To resolve conflicts that have emerged, consideration needs to be given to also covering tenants, and in the case of minor irrigation tanks in particular, to including other traditional tank users, such as fishermen, who are presently excluded.

3.27 **If the Government of Orissa continues to rely largely on major and medium surface irrigation projects, it would take over two and a half decades for Orissa to reach the ultimate potential of irrigating 75 percent of cultivable land.** Of the total irrigated potential created, about 45 percent is through major and medium irrigation schemes (i.e., individual schemes irrigating more than 2,000 hectares), about 19 percent is through minor flow schemes (mostly tanks), and about 15 percent is through minor lift irrigation schemes. This suggests that other possibilities need to be explored as well. The rate of exploitation of groundwater, for instance, is lower in Orissa than in all other major states. While groundwater exploitation is not possible or not cost effective in parts of the state where the soil is rocky, it could be a viable alternative in selected areas. It may be the best alternative in nonrocky areas that are outside existing and potential surface irrigation systems.

D. Urban Infrastructure

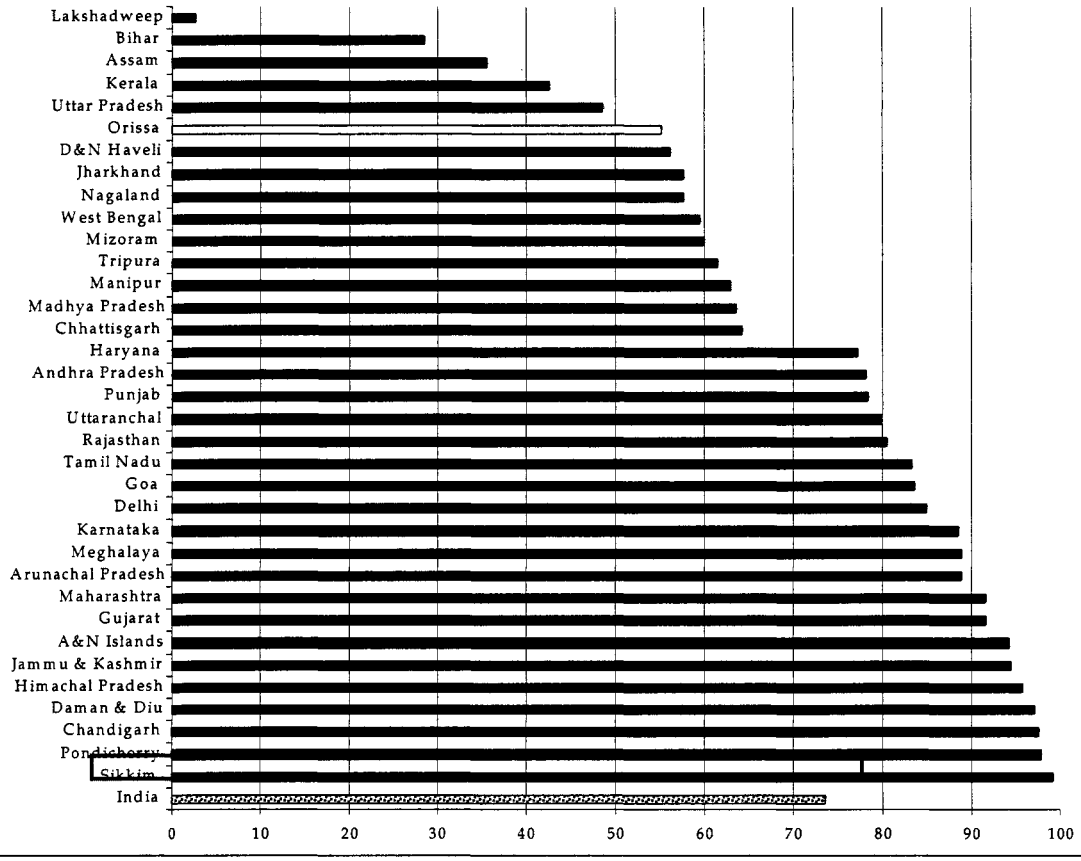
3.28 **Urban areas are critical to Orissa's future development.** Although Orissa has one of India's lowest levels of urbanization (15 percent of the state population of 37 million), the urban population is currently growing twice as fast as the general population. The state has seven Class I cities (greater than 1, 00,000 inhabitants). Bhubaneswar, the capital, is currently estimated to have approximately 8, 00,000 inhabitants. The state is receiving large Foreign Direct Investments to support the development of information technology services, natural resource extraction and processing, steel manufacturing, and ports. While the capital city will continue to play a prominent role in Orissa's development, much of the foreign investment will flow to several secondary cities. Demand for urban water supply and sewerage services is likely to increase many fold. Sound state and local finances, land use planning, housing, service delivery, and regulatory frameworks are needed to meet the needs of the growing manufacturing and service industries and the urban population.

3.29 **Orissa has embarked on an ambitious urban reform program.** The state's efforts are in the context of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT). The state issued a government order on 6 November 2006 detailing a range of actions to support urban development, including the transfer of planning and land use functions, building regulations, service provision, and revenue generation and management (including property tax). These actions are consistent with the implementation of the 74th Constitutional Amendment Act and the Jawaharlal Nehru National Urban Renewal Mission. Together, they frame the urban development strategy for the medium term.

3.30 **Water supply and sanitation services in Orissa typify the problems of poor quality and access, overlapping responsibilities, and ad hoc planning that plague all urban services in the state.** These issues are compounded by the absence of "ring-fencing" of finances and accounts, as well as the lack of data collection and monitoring. At present about 60 percent of the population in 103 urban local bodies of Orissa have access to intermittent "piped" water through house service connections and street standposts for four to eight hours daily. The National Sample Survey 2002 indicates that 55 percent of urban households in Orissa have a tap in their premises (Figure 3.1). Orissa compares poorly with the all-India average of approximately 74

percent of urban households having access to a tap and is sixth from the bottom in a comparison across all states. The Public Health Engineering Organization estimates that only 17 percent of Orissa's urban households have domestic water connections, which implies that most of the tap connections are privately owned, developed by citizen societies, or unauthorized or illegal.

Figure 3. 1: Urban households in Orissa have poorer access to tap water than those in most other Indian states



3.31 **Sanitation access also lags seriously behind**. Approximately 49 percent of urban households have a toilet within the house, relying mainly on water closet, pit, and other types of latrines, while 40 percent have no latrines and 42 percent have no drains. Provision of sewerage services is poor in the state, with only partial coverage in Bhubaneswar and Cuttack. The sewerage system in Bhubaneswar collects sewage from 40 percent of the population; Cuttack covers only 7 percent of the population. There is no sewerage system in the other urban local bodies.

3.32 **For drinking water services, the problem is distribution management not production capacity.** Given the reasonably good water resources and electricity in the state, the low level of drinking water service clearly points to the need for sectoral reforms to improve efficiency and accountability. Estimated demand is about 300 million liters daily, against the production capacity of about 666 million liters daily, indicating a huge surplus. Physical distribution losses (over 40 percent) are responsible for the inadequate delivery of water service

for only four to eight hours daily. Thus, the need is for improving distribution, rather than production.

3.33 **Average cost recovery is only about 30 percent of direct operating costs.** Even that low return does not take account of depreciation and debt service charges. Historically, tariffs have not been revised regularly, and decisions have been made ad hoc. There is no proper system of cost accounting maintained by the department and hardly any assessment of the unit cost of supply.

3.34 **Improving accountability is the key to improving water and sanitation services.** There is a huge potential for better management of Orissa's urban water and sanitation systems, which could raise the efficiency of services and accommodate future increases in demand. One of the mandatory reforms that will improve accountability is the decentralization of water operations and maintenance to the urban local bodies by 2009–10. As a result, local service users will have more input into the quality and cost of services provided. To make the transfer fiscally sustainable, the urban local bodies will also receive the right to collect water tariffs directly and the deputation of personnel who now perform these functions at a more centralized level.

3.35 **The government needs to improve the overall framework for urban services.** To create an environment conducive to attracting investment and skilled workers to Orissa's growing urban areas, reforms must go beyond the water and sanitation sector, as critical as these services are. The government's development strategy raises a host of policy, financial, and institutional issues: What is the appropriate policy mix for urban planning? For example, how will land use decisions be made, and what can be done to ensure an adequate supply of housing? What financing strategies will provide the best incentives to upgrade urban services? For example, should the urban local bodies have their own sources revenue and access to financial markets? What can be done to increase institutional capacity of the government and the service providers? How can the urban local bodies and private partners be prepared to undertake planning, budgeting, and implementation of projects, and how should the government regulate urban services? These questions are especially vexing in those secondary cities where large investments—critical to the success of the state's development plan—are likely to occur.

3.36 **Urban planning and management must be reformed**. As in most cities across India, in Orissa urban planners rely on rigid master plans that are inappropriate for rapidly changing urban spaces. Though conventional restrictions, such as the Urban Land Ceiling and Rent Control Acts, are not present in Orissa, the master planning process still tends to constrict uneconomic land use and shape the spatial development of urban areas. By limiting the supply of buildable land (and space) the master plans also distort the development of housing markets and even encourage the proliferation of slums. Development regulations also impede the provision of affordable housing. Reservation requirements for public facilities create perverse incentives for property owners (their land is "frozen" until the government steps in and acquires the land). The planning process needs to: (a) integrate land use planning with investment planning for service delivery; and (b) allow land markets to develop at an even pace with investments in economic infrastructure.

3.37 **Reforms must also address the ability of urban local bodies to improve their financial soundness and begin to access finance from the capital markets.** Urban local bodies suffer from interconnected problems that constrain their competitiveness, diminish their bankability, and impede their capacity to deliver services. Though Bhubaneswar has achieved some success, property taxes are an underutilized source of revenue in most cities and towns. Development charges and other land use fees are also underutilized, thus depriving urban local bodies of their own revenue sources. This lack of own-revenue and weak management also

undermine the urban local bodies' creditworthiness and limit their access to financial markets. Again, Bhubaneswar is making progress in this area, but other urban local bodies lag behind. For the most part, these urban local bodies lack adequate financial management systems and practices, with the result that they cannot make sound plans, manage assets or liabilities, or account for the way funds are spent.

E. Public-Private Partnerships

3.38 **The Government of Orissa is keen to use public-private partnerships to address its infrastructure deficits.** Such partnerships could potentially be formed in a wide variety of sectors, ranging from power, transport, and urban amenities to education, health, and tourism. The government has already prepared a policy on public-private partnerships and established a public-private partnership cell as part of the State Planning and Coordination Department. This, in coordination with the line departments, has created a portfolio of 36 public-private partnership projects (Table 3.5).

3.39 **It will be important for Orissa to emphasize that public-private partnerships must be pursued where they represent value-for-money for the government, given the often extensive amounts of government support involved for individual projects.** This principle would then need to be put into practice by strengthening the capacities of the Finance Department to measure and report the financial support provided by the government, including tax breaks, land grants, and contingent liabilities. The cost of all these types of support needs to be factored into decision-making by line agencies. The state can also benefit from existing models at the national level for risk allocation under public-private partnership contracts. Putting in place such safeguards assumes even more importance in light of government's reported initiatives to enter into negotiated arrangements with selected organizations, such as IL&FS and IDFC, to develop public-private partnership projects on a success fee basis.

Table 3. 5: Public-Private Partnership Projects in Orissa, by Stage of Development

Sector	*Projects at each stage*				*Total*	
	Construction / implementation	*Bidding*	*Detailed project report*	*ISR / RFP]*	*Number*	*Est. .cost (Rs. Cr.)*
Roads	1 (28 km)	-	-	8 (523 km)	9 (551 km)	2,334
Railways	1 (78 km)	-	2 (169 km)	-	3 (247 km)	1,163
Ports	2	-	-	2	4	7,900
Others	3	4	4		11	1,180
Total	**7**	**4**	**6**	**10**	**27**	**12,577**

Note: In addition, the portfolio also contains five projects for which cost estimates are not available. These comprise one project in the aviation sector (ISR/RFP stage) and four projects in housing and urban development (three in construction/implementation stage and one in ISR/RFP stage). The category "others" comprises projects in tourism, information technology, industry, and fisheries sectors.

3.40 **The institutional framework needs to ensure that line departments have sufficient ownership of the public-private partnership program.** The current approach of the state-level public-private partnership cell rightly envisages that the line departments (and their respective public-private partnership units) will "own" the public-private partnership projects and, at the same time, work in tandem with the state-level public-private partnership cell, so as to mobilize an array of resources, skills, and capabilities to expedite public-private partnership transactions.

However, at present, the focus seems to be predominantly on the public-private partnership cell's developing isolated public-private partnership transactions, which are not obviously integrated into the sector investment program or the line department activities. It would be useful to recognize that, in certain sectors (for example, roads), the full potential of public-private partnerships could be better harnessed through a programmatic approach, because of the scope for replication, the network economies, and the need for relatively intensive monitoring over long periods. Accordingly, the state will need to build capacities for undertaking public-private partnerships not only in the state cell but also in a few selected line departments.

3.41 **Experience elsewhere suggests that the ability of the public-private partnership cells to be proactive depends on the quality of their staff and the financial resources at their disposal.** Considering that the state government may not be able to find experts with requisite skill sets for undertaking public-private partnership transactions within itself, it may want to consider making up this critical deficiency through lateral recruitment or outsourcing. At the same time, it may be useful to consider deputing a few staff from the government to the public-private partnership cells, to develop a core group of "in-house" professionals with capacities to effectively internalize and manage the public-private partnership approach in the long run.

F. CONCLUSIONS

3.42 **Without adequate road, rail, and port infrastructure, Orissa cannot exploit its natural resource endowments and sustain the rapid economic growth of recent years.** The strain on transport infrastructure is already evident. Capacity constraints in rail have diverted goods traffic to roads, which is highly inefficient. Constraints in port capacity have shifted cargo to ports in other states. Continuation of rapid industrial growth could further accentuate transport constraints in the coming years. Massive upgrading of urban infrastructure is needed to be able to attract and retain the skilled labor force demanded by modern industry and services.

3.43 **Orissa faces challenges of exclusion linked to its geography and social structure.** Tiny villages and remote habitations in the hills pose a very big challenge for achieving full connectivity in transport and power. Rural electrification in Orissa is among the lowest in the country. Although Orissa led the way in power sector reforms in India, these reforms have not delivered the desired results because of a lack of competitive pressure and adequate incentives to aggressively go after efficiency improvements and reduction of losses due to power theft. The Orissa Electricity Regulatory Commission could consider developing new multiyear tariffs on the basis of realistic business plans. To make such an incentive system robust and credible, the Orissa Electricity Regulatory Commission would need to simultaneously enhance its own capabilities to independently monitor and verify progress, as well as the claims of the distribution companies in each of the critical areas targeted for improvement.

3.44 **Urban areas are critical to Orissa's future development.** Although Orissa has one of India's lowest levels of urbanization, the urban population is currently growing twice as fast as the total population. The demand for urban water supply and sewerage services is likely to increase manyfold as a result of recent increases in private sector investment in steel and other metals, as well as tourism and information technology services. Sound state and local finances, land use planning, housing, service delivery models, and regulatory frameworks are needed to meet the needs of the growing manufacturing and service industries and the urban population.

3.45 **Filling the infrastructure gaps requires a combination of additional state funding, partnering with private investors, and lobbying effectively with the center.** Some components of the infrastructure investment agenda require significant additional state resources,

such as transport connectivity. Some others require Orissa to play an enabling role for private providers to operate, with little or no commitment from the state budget. Yet others, like rail connectivity, require only effective lobbying by the state government with the central authorities. While there is likely to be a fair amount of private interest in developing port facilities, the Orissa government will need to address the overall strategic direction and a conducive regulatory framework for the port sector.

3.46 **Not funds but implementation capacity could become a binding constraint for infrastructure investment**. Expanding fiscal space and potential private participation could together meet the rising infrastructure financing needs, but construction capacity is currently lacking to be able to spend efficiently on infrastructure investment. During 2000–07 the state was able to use less than half of its allocation for rural roads, and almost a quarter of executed works failed to meet the standards of the national quality-monitoring cell, indicating that rural engineering capacity has been overstretched. Orissa could consider relying more on national and international players in the state highways and major roads segments, thereby freeing up more of the state's own capacity to address the lower-level connecting roads and rural roads.

CHAPTER 4: ADDRESSING HUMAN DEVELOPMENT NEEDS

4.1 **A critical constraint on economic growth in Orissa in the past, despite its abundance of natural resources and Coastal geography, has been its low quantity and quality of human capital.** A healthy, better educated, and skilled labor force is necessary for Orissa to move from a reliance on primary commodities (agriculture and mining) to growth led by industries and services. Only with a more diversified economic base can Orissa sustain its double-digit growth for a decade or longer and catch up with the all-India average per-capita income.

4.2 **Human development has to be an essential component of any strategy for inclusive development.** In the absence of human development, rapid economic growth, even if it can be achieved, will likely result in widening inequalities. For economic growth to be inclusive, its benefits will have to be tangible to more and more people. That can happen through better participation of the currently poor and excluded sections of society in the expanding market economy and by reducing vulnerability through more effective social protection programs. It can also happen through raising the quality of social services that benefit households today and their children in the future.

4.3 This chapter examines four dimensions of Orissa's human development gap. The chapter considers: (a) how to strengthen basic education; (b) how to instill the skills needed to modernize the labor force; (c) how to improve public health, especially in remote villages; and (d) how to create greater social protection and increase the effectiveness of antipoverty programs.

A. BASIC EDUCATION

4.4 How much of Orissa's growth potential will be realized will depend on the amount and effectiveness of investments made in the human capital of its young. There is no questioning that demand for skilled labor in industry and modern services will rise rapidly in Orissa over the next decade or two. If the government does not invest now to generate such a supply from within the state, the best-paying jobs would benefit persons from outside the state, which could be perceived negatively and potentially lead to political resistance to modernization itself. At the least, the state will have to ensure: (a) universal participation and completion in primary education; (b) attainment of learning goals in primary education; and (c) development of marketable skills in the youth.

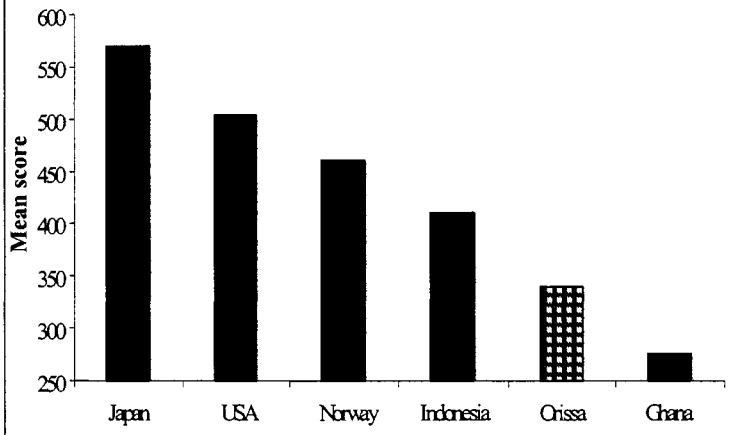
4.5 On education there is good news in Orissa, but also bad news, and some hopeful news. The good news is that there has been a significant increase in enrollment and retention of children in elementary schools. The bad news is that on learning achievement Orissa lags very badly behind other countries and other states in India. In a recent comparison of students in grade 9 in Orissa with students in grade 8 (one year behind) in other countries, Orissa lagged all but three countries—by a substantial margin. It appears that less than one in five children in Orissa are mastering even basic mathematics by grade 9. This poor performance is somewhat offset by the fact that the very top of the achievement in Orissa is high by international standards. A tiny minority is rising to top global standards, while the vast majority are not learning even very basic concepts. The hopeful news is that the state government has launched bold initiatives to improve teacher management and accountability.

4.6 **There has been a substantial expansion of schooling in Orissa, especially in the last 10–15 years**. According to the Census of India 2001, the literacy rate in the state was 63.61 percent, just below the Indian average of 64.84 percent. Over time, literacy in the state has caught up with the national average. Current enrollment rates, which will determine the amount of schooling in the labor force in the future, are also at the national average, high in elementary education. The Gross Enrolment Ratio (GER) in upper primary level is rapidly increasing and GER during 2006-07 in the state is 89.73 percent.

4.7 **Even as more children are enrolling in formal schooling, school participation is far from universal in the state**. Four out of every ten children who enroll in school drop out before completing the primary cycle. A further two drop out before completing the secondary cycle. Nearly 8 percent of children 5–14 years old are not in school.[11] Not only are the drop-out rates high, they have declined slowly in the last half-decade for which we have data.

4.8 **On learning achievement, Orissa's students fall way behind most other countries.** Recently 6,000 students in grade 9 in Orissa were tested on their mathematics competencies using questions from an international examination that were administered in other countries to students in grade 8. This is the first time that a random sample of Indian students has been compared with international students and the results have been made comparable (Das and Zajonc 2007]). While the international average was around 500, the students in Orissa scored only 341, which was worse than all but three countries of the 51 that have taken the examination. On the same test, the United States, which is constantly worried about maintaining its competitiveness in relation to places like Japan, lags Japan by 70 points, whereas Orissa lags Japan by 230 points. Orissa lags Indonesia by as much as the United States lags Japan (Figure 4.1). Moreover, it is likely that if comparable grades were compared, Orissa would lag behind even Ghana.

Figure 4. 1: Students in Orissa test far behind those in other countries on mathematical achievement



Source: Das and Zajonc, 2007

4.9 Orissa's poor showing on mathematical achievement strongly suggests its children are not being adequately prepared to enter a modern labor force. If one is concerned about the education of the labor force, then the skills on completion of education are of concern, and in most OECD countries students in grade 9 are far from completing their education. Thus, even though Norway, at 461, scores the lowest of the prosperous OECD countries, most of these students will remain in school through high school and get some post-secondary schooling. In Orissa, most students in grade 9 are at the end of their schooling, and in fact the majority of children in that age group have already dropped out. Testing enrolled students, as this test does, is a way of assessing the quality of schooling, but the implications for economic growth depend on the skills of the entire age group (cohort) entering the labor force.

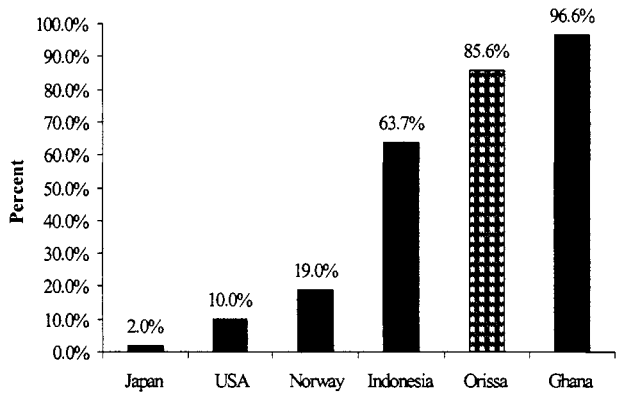
[11] In some districts, nearly a fifth of all 5–14 year olds are not in school: Bolangir (15.34 percent), Malkangiri (16.42 percent), Nawrangpur (18.18 percent), and Koraput (20.69 percent).

4.10 **The majority of Orissa's teenagers lack basic mathematical knowledge.** In the international examination, while the average was 500 there were also benchmark scores, and a score of over 400 implied the student had "some basic mathematical knowledge" and was the low international benchmark. If we assume that students who dropped out before grade 9 did not reach the low benchmark of 400, then we can calculate what fraction of a cohort of grade 9 age did not reach even that level of proficiency by adding those enrolled in grade 9 who did not reach the basic proficiency level plus the fraction of the total cohort not reaching grade 9. In Orissa if we take the drop-out rate from Table 4.1 of 62 percent and take the estimate from Das and Zajonc (2007) that of those enrolled only 38 percent[12] score above 400, then we can estimate that 85 percent of the current age group entering the labor force do not reach even a standard of "some basic mathematical" knowledge (Figure 4.2).

Table 4. 1: School Drop-Out Rates, 2004–05

	Grades 1–5	*Grades 1–8*	*Grades 1–10*
Orissa	39.34	61.95	64.42
India	28.49	50.39	61.92

Figure 4. 2: The vast majority of youth in Orissa do not reach the standard of "some basic mathematical knowledge"



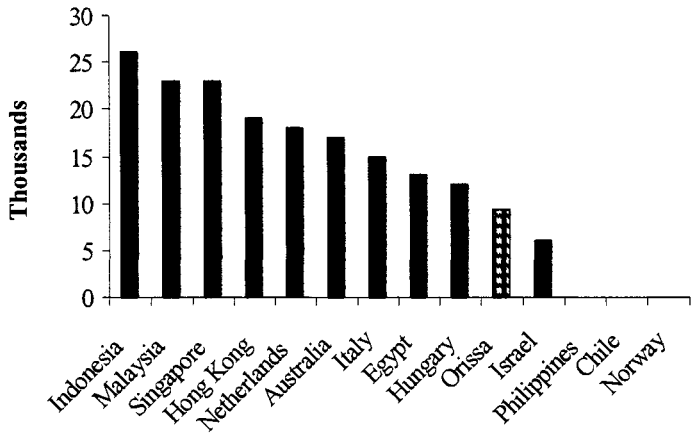
Source: Das and Zajonc, 2007.

4.11 **A small proportion, but large in absolute number, achieve international standards of learning.** Although the vast majority of children leave school completely unequipped for a modern economy, the better performing students in Orissa perform very well, and, given the very large absolute numbers of students, the absolute magnitude of high-quality labor force entrants is quite high. The "advanced" international benchmark was set at a mathematics score of 625 or above. Because the Indian (and Orissa's) educational system has maintained a very rigorous and demanding elite tier, with fiercely competitive examinations, the best students in Orissa are very good. Approximately 2.5 percent of grade 9 students achieve above this threshold, compared with only 1 percent in Indonesia, almost no one in Norway (where the distribution is much more equal, implying fewer poor performing but also fewer super-high performing students), and 7 percent in the United States. The fact that the best are very good, combined with the size of the cohorts in a

[12] For ease of exposition, we are glossing over the difficult technical details of how these distributions of scores were estimated. Das and Zajonc (2007) use two different methods of estimating the distribution and find a range of 36 percent to 40 percent of enrolled not reaching 400 with the two methods and we just take the mid-point of that range of 38 percent.

large state like Orissa, implies a large absolute number of grade 9 students above the international threshold (Figure 4.3).

Figure 4. 3: Thousands of students in Orissa are able to meet the high international benchmark in mathematics

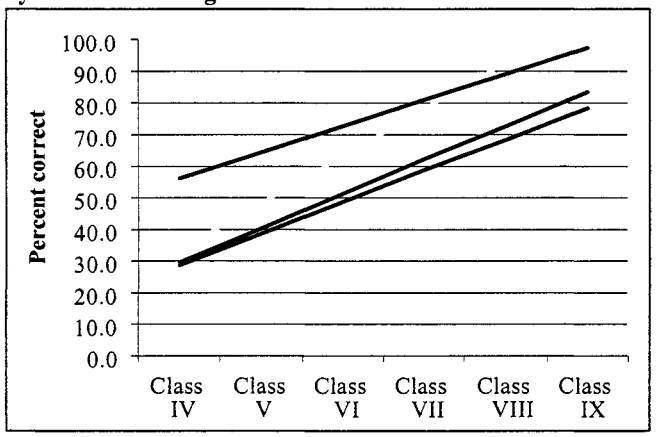


Note: Figure excludes the "big five" Japan, USA, Korea, China and Russia.
Source: Das and Zajonc, 2007.

4.12 **If the state succeeds in attracting modern industries, then initially there will be available skills, but the supply is thin and will soon be exhausted**. As demand grows, skilled labor will be drawn in from other places, and the shortage of skills could inhibit the development of new industries. We discuss two ways of improving the skills of the labor force: (a) higher achievement of those coming out of school; and (b) more training in skills when out of school.

4.13 **Learning progress is extremely low in elementary education**. A recent study (World Bank, 2006 examined learning achievement of roughly 6,000 randomly selected students in grades 4 and 5 from government, aided, and private unaided schools to measure both learning outcomes and the household and school correlates of achievement. The "learning profile"— that is, the increase in learning achievement with increase in years of schooling, appears to be very flat. Only in grade 9 have the grade 4 competencies been mastered by most students (Figure 4.4). At existing learning levels, even if Orissa achieves universal elementary school completion, a large section of its youth will grow up without skills and opportunities, because poor learning will mean they are neither employable nor able to seek higher education. Poor quality of primary education casts its shadow on learning outcomes at higher levels of schooling.

Figure 4. 4: Students from many kinds of schools in Orissa show only modest gains in learning achievement with increase in years of schooling



Gov't (actual)
Gov't (if PTR=20)
Govt (if all teachers graduates)
Private unaided

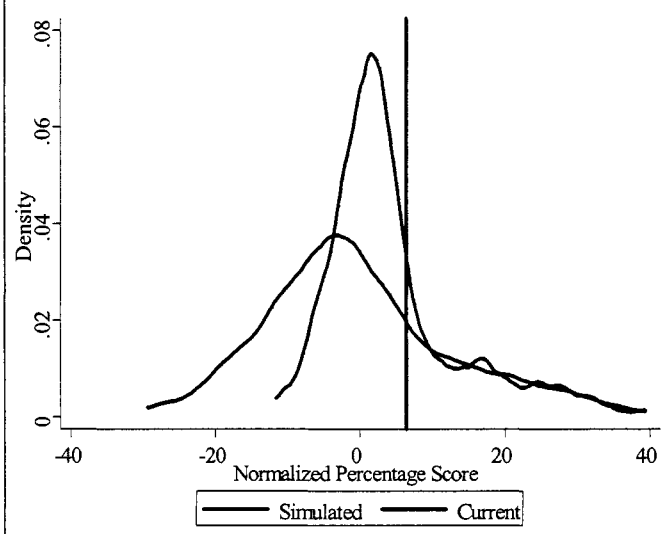
4.14 **A simple "business as usual" expansion of the system will not tackle the labor force skills problem**. Averaging the estimates of the pupil-teacher ratio across grades 4 and 5, and across reading and mathematics, suggests that reductions in class size from the existing average

of 43 pupils per teacher to 20 would only lead to one percentage point increase in scores (illustrated in Figure 4.). Similarly, students with teachers who were graduates do better than other students, but even if one were to somehow move from the existing 33 percent of teachers who are graduates to 100 percent (which would take decades and be very costly) the scores would increase by only five percentage points a year. It would still take until grade 7 to reach mastery of the grade 4 curriculum. Based on the evidence from Orissa, from India, and from around the world, "input-based" strategies for increasing learning outcomes—simply spending more in the same ways—are not feasible options for the progress in learning achievement needed to make Orissa a skill-based economy.[13]

4.15 **These findings do not mean that nothing can be done, as there do appear to be large school-specific effects**. The average difference between the private unaided and the government schools was between 20 and 30 percentage points, depending on the subject.[14] These differences are enormous compared with the scope for "input-based" approaches.

4.16 **Reducing the gaps in performance across schools, by strengthening teacher accountability is potentially the most important reform**. Even after empirically controlling for student background and observable characteristics of teachers and schools, there is a large variance in learning achievements across schools. Some schools are 30–40 percentage points above other schools, even taking out the impacts of student background and school inputs. The simulated distribution in Figure 4.5 shows how much better performance would be if, say, over a five-year period every school could close even half the gap between their performance and that of the 75th percentile school.

Figure 4. 5: Reducing the gaps between the poorly performing and better performing government schools could increase skills enormously



4.17 **A bold approach to strengthen teacher accountability has been initiated**. The Government of Orissa has already taken several bold steps to address the issue of teacher accountability. Studies indicate weak incentives for accountability on the part of teachers and principals within government-run education systems in India. According to a national survey of

[13] This is consistent with the state report for Orissa from the NCERT study based on achievement surveys in 2002. This study examined the correlates of achievement and found that across the three tested subjects—EVS math, and language—there were very few factors statistically associated with observed learning achievement (e.g., "pupil – teacher ratio" was not correlated with learning outcomes in the expected way) and that even in those cases where a statistically significant association could be found the magnitude of the coefficient suggested very small magnitudes of impact. For instance, an index of "teacher-learner practices" was associated with better scores in all three subjects, but the magnitude was that a substantial improvement (one standard deviation) would lead to only around a 1.5 percentage point higher average achievement.

[14] This is consistent with the evidence from the ASER report in 2005, which reported that only 30.4 percent of children in grade 5 in government schools in Orissa could do both subtraction and division, compared with 53 percent in private schools, 23 percentage points higher. This raw comparison does not adjust for the different socio-economic composition of private versus public schools, which may account for some of the difference.

teacher absence (World Bank, 2004), the absenteeism rate in Orissa was close to the Indian average of 25 percent. Even when they are not absent, teachers spend 45 percent of their time in nonteaching activities. Orissa has taken innovative steps in the direction of improving accountability, especially in relation to its large contingent of contract teachers, who form nearly a third of the teaching force in elementary education in the state. The state has established a credible career path for contract teachers, whereby they become regularized after nine years of satisfactory performance as monitored by the village education committees. Even during their time of service, the village education committees are required to certify satisfactory attendance before releasing the teacher's salary.

B. Skill Development

4.18 **Skill development differs from school education**. The route to skill development is through training, whether on-the-job training or pre-employment training provided in vocational and trade institutions. Some vocational education is provided in the higher secondary grades in schools. Pre-employment training is provided both by public institutions, usually under subsidized terms, and private institutions, generally financed by student fees. Despite regular government claims to increase the share of students who enter the vocational stream in schools to 25 percent, currently less than 4 percent of students opt for it (World Bank, 2006).

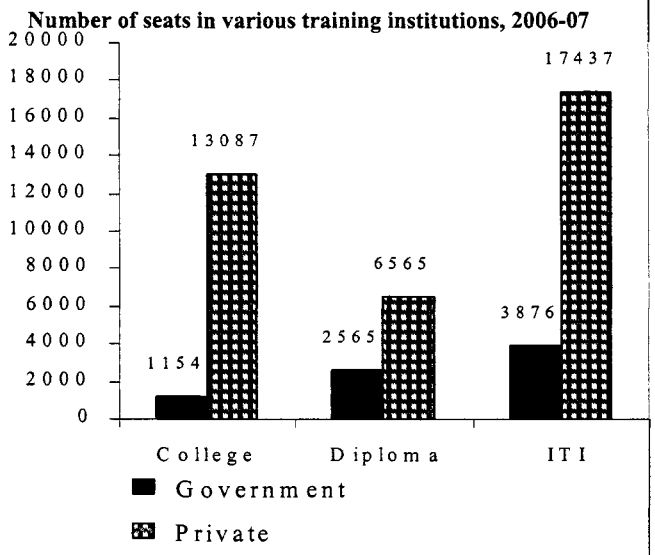
4.19 **Orissa, like many states in India, is facing the paradox of both large numbers of educated unemployed and skill shortages**. This is especially the case in sectors attracting large investments from domestic and foreign sources, such as steel, other metals, and construction. The state government is concerned that the lack of readily available skilled labor would lead to the out-sourcing of job opportunities, at the very least to people from other Indian states.

4.20 **Government-sponsored occupational training is largely ineffective**. It suffers from a number of weaknesses, including outdated equipment, training that is disconnected from industry needs, and instructors who are not conversant with the changing industrial methods. Students who receive training in public sector institutions often have difficulty finding jobs afterwards, and the jobs they do manage to find are often unrelated to their area of training. According to a nationally representative tracer study, only 17 percent of ITI pass-outs (technical school graduates) in Orissa had found any employment within 12 months of completing training (World Bank, forthcoming). The average for India as a whole was also low at 29.9 percent, but nearly double that for Orissa.

4.21 **Private enterprise is growing for training in marketable skills**. In Orissa, as in other Indian states, the formal training sector has grown rapidly since 1980. Much of the growth has been in the private sector. The private sector far outstrips the public sector in training capacity (Figure 4.6). On-the-job training is considered more effective than pre-employment training, which is a high-cost activity that often yields low returns. There is little on the extent of on-the-job training in the state.

4.22 **The role of the government should be to facilitate the entry of the private sector in this market, with some role in providing information about quality.** When the benefits from training are almost fully captured by the individual, economic efficiency does not require any government financing. In competitive markets where workers are paid their marginal productivity, firms should be willing to bear the costs of firm-specific training (Becker, 1962). If markets are noncompetitive, firms should also be willing to pay for even general training (Acemoglu and Pischke, 1998). In India, in general, only large firms share in training costs, even as firms in general complain of skill shortages.[15]

Figure 4. 6: Private training institutions in Orissa have much greater capacity than public institutions



Source: Presentation made by the director of technical education, April 2007.

4.23 **In the face of chronic shortages of trained labor, especially professional skills, development of such skills may lead to large social returns.** To capture those social returns, government intervention and public spending may be justified, either on its own or in partnership with the private sector. Public-private partnerships for training are a relatively new phenomenon, and most have been specific to particular industries or locations. Public-private partnerships for training are often governed by memoranda of understanding between the state and the industry guaranteeing the placement of graduates, which has the advantage of reducing search costs and uncertainty for both the students and the industry. In Orissa, a number of large industrial establishments, especially in the steel, mining, and power sectors, have tied up with the government to provide training in skills needed for these sectors.

C. Health

4.24 **Health status is an essential part of people's well being, and health shocks are a major cause for sinking into poverty.** One key way of making growth inclusive is by ensuring that the benefits of economic growth translate into concrete gains in the survival and nutritional status of children and their mothers; and reductions in the vulnerability of households to health shocks.

4.25 **Orissa has made substantial progress in reducing infant and child mortality, but much remains to be done.** Between 1992/93 and 2005/06, the proportion of children who received recommended vaccines increased from 44 percent to 52 percent, reaching parity between rural and urban areas. Currently, the proportion of vaccinated children in Orissa is higher than the all-India average. Trends in child malnutrition indicate that Orissa has caught up with the rest of

[15] One possibility is for small firms to act as a consortium to provide training that is specific to the industry and therefore, general across firms in that industry.

India from being much worse in the past. The number of infant deaths per 1,000 live births fell in rural Orissa from 81 to 69, remaining higher than the all-India average of 62; in urban areas it declined from 81 to 40, falling below the all-India average of 42. Progress has been made, albeit at a slower pace, in improving the use of contraceptives and in attracting women to institutional deliveries.

4.26 **The majority of both rural and urban population depends on public facilities for health care in Orissa, and public provision varies widely between districts.** The National Sample Survey (60th Round, 2004) shows that out of households who reported episodes of ill health, 62 percent in rural and 58 percent in urban Orissa used public facilities, while the remaining used private facilities or did not seek care at all. Lack of access was cited as a major reason for not seeking care or preferring nongovernment providers. Orissa displays wide inter-district disparity in public health provision (Table 4.2). The best served district has 11 times the number of doctors as the least served district; for nurses this ratio is 26 and for beds it is 28.

Table 4. 2: Inputs and Outputs in Public Health System, 2005–06

	No. of Districts	Lowest District	Highest District	Mean	Standard Deviation
Bed	30	70	1,942	467.4	423.2
Doctor	30	17	197	87.6	47.2
Nurses	30	16	412	74.8	82.5
Sterilization	30	40	10,524	2,768.3	2,146.6
I.U.D	30	665	9,837	5,320.8	2,598.1
B.C.G	30	6,670	84,832	30,827.2	16,081.3
Measles	30	6,200	71,222	27,329.2	13,767.1
Outpatients	30	1,14,405	19,02,364	8,70,373.4	4,76,791.1
Inpatients	30	6,286	2,67,068	88,843.0	61,371.7

Source: IIT, Chennai (2008).

4.27 **Recent analysis indicates significant room to raise efficiency of public spending through reallocating resources from surplus to deficit districts.** An innovative diagnosis of output efficiency, using Data Envelopment Analysis (DEA) methodology, has been carried out by the Indian Institute of Technology, Chennai, across the 30 districts of Orissa. This study has generated districtwise efficiency estimates, using number of doctors, nurses, and beds as inputs; and number of inpatients, outpatients, sterilizations, BCG, TT, and measles vaccinations as the outputs. The study covers all health facilities from medical college hospitals down to health sub-centers. It finds that 13 of the districts were technically "efficient" while the other 17 were technically "inefficient". Seven out of the 13 technically efficient districts are found to be also scale efficient (experiencing constant returns to scale, or CRS) – meaning that they have the most productive size, given the input-output mix. The inefficient districts together had 574 beds in excess, 23 surplus doctors, and 129 underutilized nurses. Only two districts (Rayagada and Baragarh) were found to have surplus doctors; otherwise, doctor as an input was scarce in all the remaining districts. Given that the Data Envelopment Analysis is a nonparametric approach, it has no way of accounting for random noise, which is one limitation of this methodology. The results are also highly sensitive to the quality of data; they are therefore to be treated with caution. They are *illustrative* and not *conclusive*.

4.28 **Institutional constraints to health service delivery**. In Orissa, as in the rest of India, health service delivery is hostage to a number of institutional constraints. A recently completed Detailed Implementation Review of the Orissa Health Systems Development Project financed by the World Bank identified a range of administrative weaknesses that provide opportunities for fraud and corruption, and pose risks to effective health outcomes. These include: (a) weaknesses in human resource staffing and management; (b) limited planning and coordination capacity; and (c) weak systems for concurrent and performance monitoring of process, outputs, and outlays. Poor financial management systems, particularly at the district level, and inefficiencies in coordination and convergence across sectors affect health sector investments and service delivery. Weaknesses in procurement and contracting systems and weak contract management often result in poor infrastructure. These findings are not unique to Orissa; such institutional weaknesses are common across most Indian states

4.29 **Commitment to institutional reforms**. The Government of Orissa has realized that institutional and governance reform within the health sector is a key determinant for improving outcomes. Following the Detailed Implementation Review, the government has developed an action plan to specifically deal with the major weaknesses highlighted in that report. Reform measures envisaged include strengthening the procurement and contracting systems of Department of Health and Family Welfare (DoHFW) through the development of a procurement reform plan, including the establishment of a specialized organization/s to manage procurement of drugs, equipments and services, establishment of independent systems to undertake concurrent quality control and checks of the procurement activities, as well as a third party verification system for health investments. Financial systems of the Department of Health and Family Welfare are to be strengthened by expanding specialist expertise in financial management, internal audit and a performance management plan to strengthen the existing human resource and health management information systems. These institutional reforms will require sustained leadership and commitment; they have the potential to strengthen the impact of public health investments

4.30 **Discussing the way forward in improving health is complex, as health outcomes are not driven simply by the availability and quality of services,** but rather by an entire nexus of environmental factors that determine exposure to health risks. Outcomes are affected both by household and community conditions, behavioral choices of families and individuals (often based on limited information), resource constraints of households, and the availability of services (in either the public sector or from private practitioners) A conceptual framework of factors that affect child mortality in shown in Box 4.1, as an illustration.

Box 4. 1: The Framework for Understanding Child Mortality: Actors and Actions

Actor: Individual woman/mother	*Actor: The family*
Education (especially post-primary) Nutrition (during pregnancy and breastfeeding) Age at first birth and spacing between births Birth attended by trained person Length of exclusive breastfeeding Hygiene practices (especially hand washing)	Income and wealth Education of other adults in the family Water (piped into house) Hygiene practices (especially hand washing) Cooking fuels (clean) Use of insecticide nets (to combat malaria)
Actor: The community	*Actor: Service providers*
Environmental health practices (water, sanitation) Road access in all-weather conditions	Basic health and nutrition services in the village and outreach to households for antenatal care, birth, and postnatal preventative care Access to health facilities for emergency obstetric and sick child care Other services, such as schools, transport, and electricity

Source: Achieving the MDGs in India's Poor States.

4.31 **Orissa has decided to move away from an input-based approach to public health to a more sophisticated approach focusing on health outcomes.** In the past, ministries and departments of health have tended to view the problems of health too narrowly, which led to a facility-based approach. Orissa's health sector plan (OHSP), as approved in 2005, envisions a much broader approach to improving health status, with seven strategic thrusts (Box 4.2). The Orissa health sector plan, developed with assistance from the UK Department for International Development reflects a fundamentally sound approach to improving health outcomes in Orissa. Implementation of this ambitious plan poses a major challenge, as it involves a radical change in mindset, from being input oriented to being output and outcome oriented.

Box 4. 2: Seven Strategic Thrusts of the Orissa Health Sector Plan

Strategy 1: Integrate the existing programs on health and family welfare.

Strategy 2: Strengthen the health delivery system to be effective and responsive.

Strategy 3: Strengthen the health sector management systems.

Strategy 4: Enhance the demand for and use of services, particularly to further equity and gender goals.

Strategy 5: Promote decentralized, participative planning and implementation involving the *Panchayati Raj* Institutions.

Strategy 6: Address health determinants through effective cooperation among departments.

Strategy 7: Improve the efficiency and effectiveness of expenditure.

4.32 **The seclusion of tribal villages calls for innovative and flexible approaches to reach the underserved**. The isolation of most of the scheduled tribes calls for special attention from the

Orissa government to improve geographical targeting. Tribal villages and hamlets are often hilly and forested, making it difficult to reach them even in normal circumstances, but more so during natural disasters and monsoons. Services have not reached into these areas, which are more sparsely settled than the standard population norms for health centers, schools, or roads. Service providers, such as doctors, do not reside in these areas and very often do not even visit them because of the difficulty of access. Despite dramatic improvements in overall infant mortality in the state in the past 5–10 years, districts with a high proportion of scheduled tribes lag behind the rest. The predominantly tribal districts are also the poorest performers in immunization and access to antenatal care. When asked about the impact of their remoteness, respondents in a recent study in four villages in Koraput indicated the greatest impact on access to public services rather than employment or business opportunities.[16]

4.33 **Freedom to innovate requires flexibility to allocate resources within each district and down to each village.** The Orissa health sector plan consistent with the National Rural Health Mission, stresses the importance of engaging the rural local bodies or *panchayati raj* institutions (PRIs) at all levels—district, block and village, or gram panchayat (GP)—in planning and implementation (Strategy 5). In moving to greater engagement of *panchayati raj* institutions in health care, there are three key issues:

- First, if *panchayati raj* institutions are treated as nothing more than implementing agents of schemes designed elsewhere, and not given true flexibility in allocation of real resources, it will be difficult to sustain engagement of *panchayati raj* institutions or to nurture innovative approaches. Freedom to innovate in modalities of delivery (including choosing the contract with nongovernmental organizations or other providers for services) will be key to success.
- Second, information on inputs, outputs, and outcomes at the relevant level for decision-making by *panchayati raj* institutions is crucial. To make the switch from an input focus and facility-based approach to an outcome-oriented service, information is needed about outputs and outcomes at the district, block, and gram panchayat level. The state has to take the lead in creating and maintaining the information base without seeking to reassert top-down control.
- Third, capacity building is essential. As new institutions are being built, it cannot be assumed that that they can take on new responsibilities without focused assistance to build the appropriate capabilities (training in a general sense is not a substitute).

D. Social Protection

4.34 **A majority of antipoverty programs in Orissa are designed and supported by the central government, which implies that the state has limited room for maneuver.** Government social welfare or antipoverty programs implemented in Orissa cover the traditional mix of social protection interventions that promote and protect livelihoods or provide safety nets. The programs either focus on the chronically poor or those who fall temporarily into poverty as a result of income or expenditure shocks. The programs are financed by the center and the states in the ratio 80:20, on average. Broadly, these programs can be grouped as follows:

- *Programs that are meant to help households mitigate risks by facilitating income smoothing* (Jawahar Gram Samridhi Yojana, Sampoorna Grameen Rozgar Yojana).

[16] See Shah et al, 2005.

- *Programs that promote children's movement out of poverty in the long run* (school scholarship, mid-day meal program, school textbook and uniform distribution, and the Integrated Child Development Services Program).
- *Programs that provide direct support to the chronically poor, without an objective of lifting households out of poverty* (the Targeted Public Distribution System (TPDS), National Old Age Pension Program, disability pensions, widow pensions, and maternal benefits).

4.35 **Poverty is high throughout Orissa, and even higher in the interior**. Orissa has the highest proportion of poor people in its population of all states in India. However, there have been positive developments in recent years, and poverty rates in Orissa have declined from 47 percent to 39.9 percent between 1999–00 and 2004–05.[17] Despite this improvement, poverty rates in Orissa remain almost twice as high as rates in the rest of India. Poverty rates vary from 87 percent in the Southern interior region to 50 percent in the Northern interior region to 32 percent in the Coastal region (Table 4.3). Although scheduled tribes represent about 22 percent of the population of Orissa, they constitute more than 40 percent of the poor. Largely driven by central government spending increases, spending on antipoverty programs in Orissa have increased annually by 12 percent in real terms between 2002 and 2005. Government expenditures on public works increased dramatically, fuelled by the launch of the National Rural Employment Guarantee Program.

Table 4. 3: Poverty Headcount Index in Regions of Orissa, by Social Group, 1999–2000

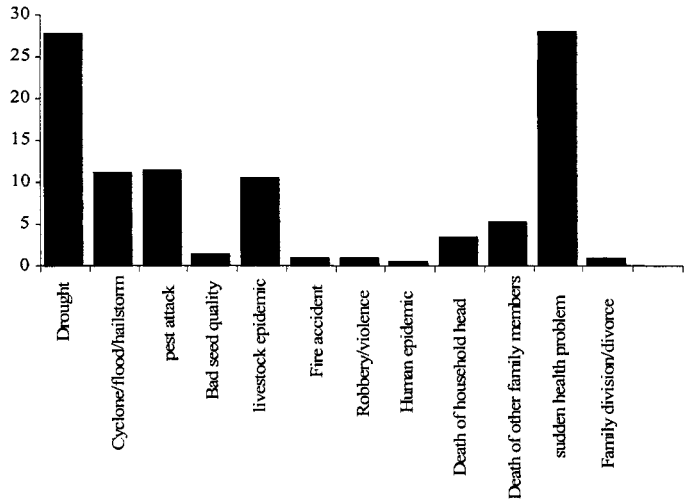
	Rural				*Urban*			
Region	***Scheduled tribes***	***Scheduled castes***	***Other***	***All***	***Scheduled tribes***	***Scheduled castes***	***Other***	***All***
Coastal	66.6	42.2	24.3	31.7	63.5	75.7	34.3	41
Southern	92.4	88.9	77.7	87.1	72.3	85.0	24.6	43
Northern	61.7	57.2	34.7	49.8	54.4	63.1	37.8	46
Orissa	73.1	52.3	33.3	48.0	59.4	72.0	34.2	43

Source: National Sample Survey Data, as calculated by A. Dubey and referenced in De Haan (2005) (Quoted in World Bank, 2006).

4.36 **Many households that are not chronically poor are vulnerable to poverty as a result of shocks.** Oriya households are vulnerable to "idiosyncratic" shocks, some of which are predictable (like old age) and some unpredictable (such as ill health, an injury, death of a work animal). They are also vulnerable to "covariate" shocks, which in Orissa include cyclones, floods, and droughts, as well as those arising from environmental degradation. Health shocks, which affect households directly through out-of-pocket expenses and indirectly through loss of earnings, are among the most frequent shocks affecting household welfare (Figure 4.7). Dev et al. (2007) argue that shocks such as droughts are generally more visible to policy makers and hence receive more attention, while health shocks are "invisible" and tend to be neglected.

[17] See Government of India Press Information Bureau (http://planningcommission.nic.in/news/prmar07.pdf) for the latest poverty estimates and details of its estimation.

Figure 4. 7: Orissa's households are vulnerable to a wide variety of risks



Source: Dev et al (2007).

4.37 **Poverty programs are more hampered by delivery gaps and leakages than by the overall level of government spending for social protection.** Orissa is the first and so far only Indian state to have requested the World Bank to carry out a professional assessment of delivery gaps in two programs, through a Public Expenditure Tracking Survey. This study estimated delivery gaps as large 50 percent in a centrally sponsored rural employment program and about 40 percent in the case of a nutrition program. Approximately 80 percent of all households in Orissa receive some benefit from at least one government-sponsored antipoverty program.[18] This is slightly higher than the all-India average of 78 percent of households receiving some benefit from at least one government scheme. Around half of all households in Orissa benefit from the public distribution system, where recent analysis using National Sample Survey data suggests that only 17 percent of

Table 4. 4: Household reported PDS off-take as share of officially reported, 2003/04

States	Wheat	Rice	Total
Andhra Pradesh	6.7	68.7	67.3
Bihar	2.3	4.5	1.6
Gujarat	40.6	45.3	24.3
Karnataka	29.0	61.2	48.1
Kerala	22.1	102.2	61.9
Madhya Pradesh	23.7	77.8	17.5
Maharashtra	39.9	43.4	25.1
Orissa	NA	20.9	16.6
Punjab	3.9	12.6	2.0
Rajasthan	11.1	6.2	5.6
Tamil Nadu	NA	87.5	85.3
Uttar Pradesh	6.0	7.9	4.2
West Bengal	3.8	17.4	4.9
All-India	**16.1**	**50.8**	**35.3**

Source: Umali-Deininger and Deininger (2006), estimated from NSS

[18] This section draws primarily from Ajwad (2007). The Human Development Profile of India (2004–05) survey is used in the analysis. The sample size for Orissa is 10,600 individuals in 2,066 households (representative at the state and rural-urban level). The large sample size allows for a descriptive analysis of most major social protection programs, with the exception of the Sampoorna Grameen Rozgar Yojana.

the foodgrain allotments meant for the poor actually reach them, as compared with 35 percent for India as a whole (Table 4.4).[19]

4.38 **Geographical distribution of spending appears to be skewed against the poorer regions.** Using the 55th Round of the National Sample Survey and administrative data on program expenditure, Table 4.5 presents the spending per households classified as being below the poverty line or poor in three major programs aimed at rural wage employment, self-employment, and housing.[20] Per poor household, spending is lowest in the poorest Southern interior region and highest in the richest Coastal region. Without more information on the absorptive capacity of spending, further inferences cannot be drawn, but the current pattern of spending is clearly in need of close scrutiny.

Table 4. 5: Average Spending on Poor Households by Antipoverty Programs in Various Regions of Orissa, 2002–05

Region	*Poverty rate (%)*	*Annual spending per household below the poverty line (program data)*	*Annual spending per poor household (National Sample Survey)*
Coastal	32	Rs. 965	Rs. 1,867
Northern	50	Rs. 1,453	Rs. 1,300
Southern	87	Rs. 961	Rs. 966

Source: National Sample Survey, 55th Round, Bank staff estimates, Government of India data on poverty and spending.

4.39 **A concerted effort is required to ensure that scheduled tribes are made aware of the programs available for their benefit.** Program awareness is significantly lower among the scheduled tribes than among all others, for 8 of out of 12 major antipoverty programs. Orissa ranks better than Madhya Pradesh and Karnataka in program awareness overall, but those states rank better than Orissa for program awareness among the scheduled tribes and castes.

E. Conclusions

4.40 **Sustaining rapid and inclusive growth in Orissa depends on the quality of the labor force it can produce.** That requires strong educational fundamentals imparted in the school system from the earliest years, supplemented by public and mostly private efforts in training and skill development. The health system is crucial, both to providing a healthy childhood foundation for future productivity and for avoiding health shocks that leave households in poverty. While social protection and antipoverty schemes may seem, and have been treated at times, as peripheral to the growth process, they can play an important complementary role in fostering a vibrant rural economy. And finally, given the nature of exclusion in the state, an inclusive strategy will require much greater attention to geographical targeting in social programs.

[19] Here "leakage" is defined in a conservative sense, i.e., the difference between officially reported release of public distribution system grains relative to the quantities of such grains reported as received by households in the National Sample Survey. This does not include leakage of TPDS grains at BPL or AAY prices to nonpoor households.

[20] Poor households are classified according to a consumption aggregate calculated using a detailed household expenditure module. It is generally thought to be a more accurate descriptor of poverty than the designator "below the poverty line."

CHAPTER 5: ACCOUNTABILITY FOR SERVICE DELIVERY

5.1 **Instilling fiscal discipline is only the first step in the program to modernize government and make it accountable for delivering quality services that the public needs.** Fiscal correction has created space in the state budget for new investments and development initiatives. The reform program has reached a new phase, when the focus has to be on translating outlays to outcomes. Improvement in the state's financial position is only the means to an end, not an end in itself. The goal is to provide a transparent and efficient government that takes seriously its responsibility and mandate to deliver quality services to the people it represents. The Government of Orissa has begun to recognize this goal, as is evident from the thrust of its finance minister's annual budget speeches, which take as their theme the need to translate *outlays to outcomes.*

5.2 **The relationship between the people and their elected representatives—one of the key components of accountability— is relatively sound in Orissa.** Recent literature on the determinants of public service delivery uses the framework of a triangle of relationships, namely: (a) between the people and policy makers or elected representatives; (b) between the policy makers and the service providers; and (c) between the service providers and the people. The first, explicitly political dimension is sound in the sense that elections at state and local levels have been held regularly. There is an active media in English and Oriya languages, with government performance and nonperformance being a topic of regular debate. The elected government does appear to feel the pressure from below to perform or be voted out. After being reelected in 2004, Shri Naveen Patnaik is reported to have conveyed to his Cabinet colleagues that two successive electoral wins were the maximum returns possible from his "clean" image, so now the emphasis has to be on performance and results.

A. Policy Makers and Service Providers

5.3 **Accountability of service providers to the policy makers means holding line departments responsible for results, not merely for spending on a set of inputs.** Recognizing the need for an appropriate institutional mechanism to plan, manage, and monitor administrative reform initiatives, the government has launched a program entitled the Orissa Modernizing Government Initiative (OMGI), housed under the General Administration Department headed by the chief secretary. The objective of Orissa Modernizing Government Initiative is to encourage and support cross-cutting and department-specific reforms and initiatives to improve service delivery. With grant support from the U.K. Department for International Development, technical assistance is being offered for line departments to draw on to take forward reform initiatives.

5.4 **There is need to strengthen planning and budget formulation.** Multiyear medium-term expenditure plans incorporating performance targets are being developed in key social sectors, such as health. Going forward, these must form the basis for budget formulation, providing closer linkages between the annual budget and the desired development outcomes.

5.5 **Developing better systems for policy formulation, planning, and results-based monitoring and evaluation is critical for improving service delivery.** Policy formulation is weak across government departments, and districts have little capacity in place for planning. There is a clear need to strengthen planning as an independent function, particularly when policy requirements demand that financing be linked with district plans. Staff with new skills and systems with new capabilities will have to be put in place. Planning reforms need to be linked with improved monitoring and evaluation systems. Existing monitoring and evaluation of

government programs are largely rooted in finance and compliance audit. Real improvements in service delivery will require a fundamental transformation to make the government more performance-oriented.

5.6 **There is need to "rebuild the muscles."** Orissa recognized, in 2001, the need for a major surgery to cut excess fat in the government establishment, and it has succeeded in carrying out this surgery over the past five years. As with most major surgeries, some muscle has also been cut in the process. Now, in the upcoming phase, the Finance Department needs to refine its stance with respect to recruitment of skilled personnel. Human resource management needs to go beyond cutting employee positions and freezing recruitment. The policy of a blanket ban on hiring in most categories has probably served its purpose and may be counterproductive to continue. Although the principle of "doing more with less" remains valid, this logic is not sustainable or efficient over the medium to long term, unless accompanied by second-generation reforms that refigure changes in the structure and skills of permanent staff. The key problem is to develop well-defined and suitable criteria for identifying essential staff needed to support better planning, implementation, and monitoring of government programs, particularly in the context of increasing levels of investment in public services. This requires the linking of additional budget allocations with commitment to deliver additional and better outcomes. It is a problem whose solution is public expenditure management system that is genuinely oriented toward *results* and *outcomes*.

5.7 **It is not only the quantity of staff, but also the quality that matters.** If Orissa is to meet its human development goals, it will need to radically restructure the long-term skill profile of its employees. One stark example emerges from the Health Department. Orissa has only three anesthetists in government service to serve a public health system that covers 38 million people. To develop a robust basis for decisions on right sizing, several new capacities are required: (a) a qualitative analysis to determine staffing patterns and norms across categories and departments; and (b) a database on surplus employees, which can form the basis of an equitable staffing policy that will support better staffing of underserved departments and districts and allow for better cadre and human resource management. These actions will require considerable administrative and political commitment. The human resource management agenda needs to go beyond the Finance Department and become an integral part of all line department functioning.

5.8 **The launch of Orissa Modernizing Government Initiative holds promise for the development of better systems of human resource management and reengineering of government processes and systems.** An excellent beginning has been made in developing a Human Resource Management Information System (HRMIS). This will have a major impact on accountability, as the problem of ghost workers will be completely eliminated once the system is linked with a computerized payroll being driven by the Finance Department. The program has also supported the development of a policy on staff redeployment and the establishment of a mechanism to deploy surplus manpower through the establishment of a central database on surplus employees. This process will need to go hand-in-hand with a process for identifying staffing needs of departments and districts. Together these policies will substantially meet the criticisms faced by the Government of Orissa that its focus on rightsizing has caused distortions in human resource availability at the implementation level.

5.9 **There has also been some progress in taking forward the reengineering of government procedures and processes to improve productivity.** Some of the reforms being taken forward through Orissa Modernizing Government Initiative include: (a) reviewing the rules of business; (b) restructuring state government training institutions; and (c) improving the format of performance appraisal systems to simplify processes and reduce transaction costs. A caseload management system is being introduced to improve litigation management, and it will be piloted

in departments with the largest caseload problem in 2007–08. Sectoral and department-specific reforms are also being undertaken to increase efficiency and accountability. Good progress has been made by the Food and Civil Supplies Department, which is piloting a food tracking and management system. All of these measures are improving citizens' perceptions of government operations (Box 5.1).

Box 5. 1: Transforming the Way in which Citizens Perceive the State

Moving from a situation where citizens perceive the state to be inefficient and its services to be poor in quality, to a situation where they feel that the state is actively intervening to guard them against poor quality services requires a generational shift. There are some indications that the shift is beginning to take place, and reforms in accountability and transparency over the past five years have supported this progression. Particularly noteworthy is the Government of Orissa's focus on anticorruption and transparency. Political analysts in India have suggested that the alliance that is in power today had originally won in 2000 on account of its promise of providing good governance and reducing corruption. Its reelection in 2004 was also largely attributed as a vote for increased transparency and accountability.

It is widely accepted that a focus on enforcement and wide reportage of corruption cases filed against prominent civil servants and officers responsible for service delivery has created an environment that supports deterrence and has created a greater consciousness around the issue of corruption. Orissa is one of the few states in India to have taken up cases and jailed even senior officers. A recent newspaper survey on citizen's perception of government departments rated the Vigilance Department (which leads the anticorruption drive) as one of the best performers. Political support for the anticorruption agenda has played an important role in defining the way in which people view the nature of government.

Computerization of land records and the commercial tax records are attempts to effect reforms in government functions that deal directly with citizens and that may be open to the misuse of discretionary authority. The implementation of the Right to Information Act has directly affected transparency, and an effective State Information Commission has introduced innovative mechanisms to prioritize cases that have a direct bearing on public issues through establishing a system of "public interest cases."

5.10 **Orissa shows a rare political commitment to supporting anticorruption initiatives.** It is one of two states in India to develop a comprehensive anticorruption action plan. Actions include expanding investments in enforcement, prevention, and public awareness. The Vigilance Department in Orissa has a well-established reputation for competence and effectiveness. Orissa has one of the highest levels of registered cases on corruption in India, with 1,659 cases being registered between 1997 and 2002, compared with 2,722 cases in Maharashtra, 1,238 in Karnataka, and 167 in Bihar. A further indicator of anticorruption enforcement is the high number of anticorruption cases (39) filed against high-ranking officers. The anticorruption action plan recognizes the centrality of procurement reform as an important area, and e-procurement is being piloted in the Works Department. The government has also passed the Orissa Special Courts Act, which allows for the setting up of special courts to try high-level corruption cases within one year. The Act also allows for the confiscation of property of corrupt officials.

5.11 **Better accountability and transparency in service delivery is also being driven through a focus on e-governance.** Administrative reforms, such as business process reengineering, that will have an impact on both efficiency and accountability, are also being reinforced by a specific thrust on e-governance solutions for better monitoring and evaluation. Significant gains have been made in the area of computerization of land records and motor vehicle accounts and automation of processes in registration, commercial taxes, and *panchayati raj* departments (Box 5.2).

Box 5. 2: Information Technology Solutions for Better Accountability

An information and communications technology policy of 2004 and an e-governance vision released in 2006 aims at "establishing a networked government for greater transparency and accountability." In 1999/2000 Orissa had little web-based connectivity. Today, every district and block is linked through a VSAT-based network, which facilitates the monitoring of schemes and fund utilization. A local area network for the secretariat connects various departments, and computers have been provided to every department. A secretariat training facility has been created for providing basic as well as specialized training to officers. A state portal has been established to provide information and interactive services for customers.

Progress has been rapid, and initiatives include:

- Computerization of land records
- Computerized registration of deeds, endorsements, and issue of certificates
- A foodgrain monitoring system
- Treasury automation
- Automation of commercial tax processes, including applications for registration, identification of defaulters, and issue of forms
- Establishment of a unique child-tracking and intervention-monitoring system across the state. A comprehensive database of every child below age 14 in the state has been created, and all 14 interventions under the Sarva Shiksha Abhiyan are monitored online.
- Web-based applications for monitoring accounts and fund flows in the *Panchayati Raj* department and across blocks and *Gram Panchayats* and for monitoring work flows under the National Rural Employment Guarantee Scheme. Currently 19 of DRDA's 205 blocks and 3,672 *Gram Panchayats* use this package for registration of job seekers, issue of job cards, and muster rolls.
- E-procurement is being implemented in four departments, including Information Technology, rural development, works, and water resources.

5.12 **Strengthening the district units will enable better district planning and coordination.** While decentralization should be the main driver for improving service delivery, successful decentralization requires reforming and repositioning the existing civil administration at the district level. Frameworks need to be established within which the district administration can take on new roles of planning, regulation, and oversight. There is a need to move to a system of district plans, which are not merely aggregations of the plans of central and line departments, but are based on specific district needs and priorities. Districts at present lack the ability to plan and manage resources effectively. At the same time, capacity needs to be built within local government, which would inevitably be time consuming.

B. Service Providers and the Public

5.13 **Important lessons have been learned about the role of decentralization in bringing service providers closer to the people they serve.** An extremely important initiative to strengthen service delivery through the devolution of responsibilities to the local community is the recent decision of the government of Orissa to empower village education committees to certify teacher attendance in elementary schools. The government is also piloting the devolution of running the mid-day meal scheme in schools to women's self-help groups. While progress is being made in strengthening the elected rural local bodies or *panchayati raj* institutions, there remains a need to have a comprehensive capacity-building strategy for rural local body officials.

5.14 **Decentralization could lead to community empowerment, if public awareness amongst both elected representatives and citizens is increased.** A recent survey[21] conducted in some of the poorest districts of the state before the *panchayat* elections of 2007 revealed that only 6 percent of the *Gram Panchayat* representatives were aware of the 73rd and 74th Amendments to the Constitution, which empowers *panchayati raj* institutions. Less than 1 percent of the representatives were aware of the provisions included in the extension of the *Panchayat* Act to Scheduled Areas (PESA). In terms of attendance, 71 percent of the village population was shown to attend meetings of the *Palli Sabha,* while only 39 percent actively attended. The majority of respondents felt that, although they had adequate voice in the deliberations, their decisions were often overruled at the higher block level. A large number of respondents felt that officials did not disseminate information about development schemes, and nearly 40 percent had no idea about budgetary provisions to their area.

5.15 **Self-help groups can complement, but cannot be a substitute for *panchayati raj* institutions.** Most of the new centrally sponsored schemes are putting more and more power and implementation responsibility in the hands of the rural local bodies or *panchayati raj* institutions. However, there is still quite low capacity in the *panchayati raj* institutions in Orissa, as systemic efforts to strengthen *panchayati raj* institutions have just begun. The need to implement programs at the local level, combined with the weakness of *panchayati raj* institutions, often leads to a reliance on other "community" groups, either special purpose groups created by the scheme itself or other functional groups at the local level. Indeed, in the current situation in Orissa, both the state government and external donors are attracted by the option of delegating women's self-help groups (SHGs) for delivering services, such as for kerosene distribution. This approach has several risks. Self-help groups are membership-based organizations that have neither the constitutional mandate nor electoral accountability to act as tiers of government. Self-help groups can play a role as a complement to *panchayati raj* institutions—as another arm of civil society holding *panchayati raj* institutions accountable for fulfilling governmental functions—but cannot be the substitute in the long run for effective local governments.

5.16 **Orissa is moving rapidly ahead to empower *panchayati raj* institutions.** The government has now devolved 21 of 29 subjects in 11 departments to the three tiers of the *panchayati raj* institutions. In September 2006, the entirety of rural drinking water was devolved to the *panchayati raj* institutions , issuing detailed instructions for the allocation of assets, as well as responsibilities for an array of activities (from planning to maintenance) and funds (allocating the existing sources of funds). This detailed attention is required in every sector, as studies in other states have found that devolution is often thwarted by unclear and concurrent allocations of responsibilities that then tend to revert to centralized control.

5.17 **Orissa has launched innovative moves toward decentralization in a number of sectors.** In elementary education, a new career path for teachers has been launched that gives the local bodies, which are in a position to observe aspects of teacher performance, much greater input into teacher assessment. In connection with the National Rural Health Mission, there is a move away from facility-based personnel to workers who come from the local community and are responsible to the local community. In the devolution of the rural drinking water schemes, the employees were transferred to the respective tiers of the *panchayati raj* institutions, while remaining affiliated to their parent department at the state level. Orissa is pushing to take the motto of Simple, Moral, Accountable, Responsible, and Transparent (SMART) governance to the local level. This requires the difficult task of strengthening overlapping tiers of accountability, so that they can work together.

[21] The survey conducted by the Center for Youth and Social Development in March 2007 in the districts of Koraput, Keonjhar, Kalahandi, Sundargarh, Rayagada, and Cuttack in 34 Gram Panchayats.

C. Conclusions

5.18 **Accountability means that policy makers must hold service providers and line departments responsible for results, not merely for spending on a set of inputs.** Recognizing the need for an appropriate institutional mechanism to plan, manage, and monitor administrative reform initiatives, the government has launched a program entitled the Orissa Modernizing Government Initiative, housed under the General Administration Department headed by the chief secretary. The objective of the Orissa Modernizing Government Initiative is to encourage and support cross-cutting and department-specific reforms and initiatives to improve service delivery.

5.19 **The government's focus on anticorruption and transparency has had an impact on people's expectations of government services.** Focus on enforcement and wide reportage of corruption cases filed against prominent civil servants and officers responsible for service delivery has created an environment that supports deterrence. It has created a greater consciousness around the issue of corruption. Better accountability and transparency in service delivery is also being driven through a focus on e-governance, whereby government records and application forms are readily accessible on-line.

5.20 **Although Orissa has made innovative moves toward decentralization, building the capacity of district units and elected local representatives remains a largely unmet need.** Decentralization could lead to community empowerment, if public awareness among both elected representatives and citizens is increased, along with the capacity of elected representatives to fulfill their role. Self-help groups can play a role as a complement to the local governments—as another arm of civil society holding local officials accountable for fulfilling governmental functions—but cannot be the substitute in the long run for effective local governments.

CHAPTER 6: CONCLUSIONS FOR PRIORITY SETTING AND SEQUENCING

6.1. **Orissa has entered a second phase of fiscal reform.** The emphasis now has to be on: (a) prioritizing the use of the additional fiscal space being created, along with measures to raise the efficiency of spending; and (b) linking additional allocations to outputs and outcomes. Devolution to local bodies is one of the ways that can potentially strengthen accountability for service delivery.

6.2 **Given that Orissa has already achieved significant fiscal correction, going forward there is considerable room to step up capital investment**. The fiscal situation is no longer the binding constraint to scaling up public investment. The fiscal deficit is well below the ceiling prescribed by the Fiscal Responsibility and Budget Management Act. The capacity of the construction industry needs to be scaled up by attracting contractors from outside the state and concomitantly upgrading the capacity within the state.

6.3 **There are several priority gaps to be addressed, but not all require funding from the state budget**. Some of the infrastructure needs— such as ports, urban housing, and vocational training institutions—can be addressed by creating an enabling environment for private sector participation. Other needs, such as rail connectivity, require effective lobbying with the center. A few will require state budget support, such as intrastate road connectivity, rural electrification, and surface irrigation. With respect to education, health services, and antipoverty programs, strengthened accountability needs to precede increased budget allocations to avoid pouring more resources into leaky systems.

6.4. **Intrastate transport connectivity is of highest priority**. Sustaining high rates of economic growth needs immediate as well as long-term investment to strengthen transport connectivity. Improved road connectivity within the state has been one of the factors underlying the improved economic performance of Orissa in recent years. There is an urgent need to address the gaps in road infrastructure that serves the main industrial hubs and tourist centers. There is a long-term need to provide all-weather connectivity to hitherto secluded areas. These two considerations together imply that investments in transport connectivity will have to absorb the largest share of additional allocations in the capital budget over the next 5–10 years.

6.5 **Investing in irrigation is also a high priority for the state, but the quality of investment matters**. In-depth analysis carried out as part of the completion report of the World Bank-assisted Orissa Water Resources Consolidation Project indicates that the returns to farmers from public irrigation investment are potentially high, provided the quality of investment is assured through sound technical design, competitive procurement, and close monitoring of implementation. Past public investment in irrigation in Orissa has not been cost effective; most such projects have been plagued with time overruns and consequent cost overruns. They also generally involve large-scale displacement of people. Moreover, relying mainly on such investments would imply that Orissa cannot reach its ultimate irrigation potential even in two decades from now. Going forward, Orissa could explore more intensive use of other methods of irrigation to complement the surface systems, including tanks and groundwater in selected areas where the possibility exists for cost-effective investment with user participation to ensure effective maintenance.

6.6 **Sequencing of reforms and investments must take account of economic and political considerations.** Reforms in land tenure are important for pro-poor agricultural growth, but they

are politically difficult and likely to require a consultative process, hence they will be time consuming. That is a good reason to initiate the process immediately. Successful implementation of the state's resettlement and rehabilitation policy and significant sharing of benefits between private investors and affected residents in the case of mineral-based investments are high priorities in the short to medium term to secure the sustainability of rapid economic growth in the state. The key reform challenges and high-priority claims on the state budget during the next two five-year periods, is summarized in Table 6.1.

Table 6. 1: Possible Sequencing of Reforms and Investments, 2007–17

Areas	*Actions during 2007–12*	*Claim on state budget*	*Actions during 2012–17*	*Claim on state budget*
Structural reforms for accelerating growth	1. Joint forest management 2. Land administration 3. Land tenure 4. Single window	1. Nil 2. Low 3. Nil 4. Nil	1. Forest inventory	1. Low
Infrastructure reform, initiatives, and investments	1. Rail 2. Roads 3. Irrigation 4. Rural electrification 5. Urban infrastructure	1. Nil or low 2. Very high 3. High 4. Moderate 5. Low	1. Rail 2. Roads 3. Irrigation 4. Rural electrification 5. Urban infrastructure	1. Nil 2. High 3. Moderate 4. Low 5. Nil
Human development reform, initiatives, and investments	1. Teacher accountability 2. Health delivery reform 3. Reduce delivery gaps 4. Decentralize to PRIs	1. Low 2. Low 3. Nil 4. Low	1. Upgrade schools 2. Health facilities 3. Scale-up program	1. High 2. High 3. Moderate

6.7 **It is time for Orissa to scale up public investment in infrastructure during 2007–12 and in human development subsequently**. Addressing infrastructure gaps is the most urgent priority for sustaining rapid growth. Addressing human development needs requires institutional change as a prior condition for allocating additional public resources. Hence, in terms of the claims on the state's resources, infrastructure needs to be accorded the highest priority during 2007–12. An infrastructure focused Eleventh Five-Year Plan, followed by a human development focused plan, could take Orissa to its ambitious vision of exceeding the national average or even becoming a leading state over the next two or three decades.

ANNEX A: ECONOMIC GROWTH AND POVERTY

Table A. 1: Gross State Domestic Product of Orissa at Current Prices, by Sector, 2000–07

Sector	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06(Q)	2006-07(A)
Agriculture, Animal Husbandry, Forestry & Fishing	119.71	136.55	137.25	179.96	179.65	190.82	198.35
Industry	**113.15**	**112.52**	**118.05**	**154.31**	**197.35**	**213.79**	**248.78**
Mining	23.42	25.04	30.13	43.02	52.31	60.91	70.13
Manufacturing	42.76	39.89	47.35	59.01	82.55	93.34	113.29
Electricity, Gas & Water Supply	15.29	17.56	12.80	24.88	29.51	24.05	28.84
Construction	31.69	30.03	27.77	27.41	32.98	35.50	36.52
Services	**206.95**	**223.63**	**246.18**	**276.43**	**313.37**	**352.45**	**383.04**
Trade, Hotel & Restaurant	45.16	49.18	55.88	64.46	83.84	91.28	97.10
Transport, Storage & Communication	31.49	34.57	38.33	45.79	53.80	64.47	72.35
Finance, Insurance, Real Estate, Ownership of Dwelling, Business Services & Legal Services	45.25	52.31	58.94	64.26	66.50	73.82	82.45
Community Social & Personal Services	85.05	87.57	93.04	101.92	109.24	122.88	131.14
Total GSDP	439.81	472.70	501.49	610.71	690.37	757.06	830.16

Note: Data are in Rs. billion at current prices.
Source: CSO and Government of Orissa.

Table A. 2: Gross State Domestic Product of Orissa at Constant Prices, by Sector, 1999–2007

Sector	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06(Q)	2006-07(A)
Agriculture, Animal Husbandry, Forestry & Fishing	**130.81**	**121.07**	**140.70**	**116.42**	**143.08**	**147.04**	**151.52**	**151.21**
Mining	20.33	21.86	22.18	28.29	33.46	39.09	41.49	46.21
Industry	**104.01**	**107.57**	**102.36**	**107.05**	**126.71**	**154.66**	**160.37**	**180.45**
Manufacturing	44.10	41.86	38.48	44.16	52.00	68.49	74.66	87.73
Electricity, Gas & Water Supply	14.28	13.20	13.68	9.61	17.44	19.52	15.88	18.72
Construction	25.31	30.66	28.01	24.98	23.81	27.57	28.35	27.79
Services	**190.45**	**200.15**	**210.48**	**226.28**	**244.29**	**266.27**	**289.62**	**306.08**
Trade, Hotel & Restaurant	37.85	42.34	44.63	49.05	53.89	63.72	69.00	71.36
Transport, Storage & Communication	28.97	31.57	33.94	37.63	44.26	50.50	57.63	63.35
Finance, Insurance, Real Estate, Ownership of Dwelling, Business Services & Legal Services	40.96	43.57	46.73	50.54	52.07	54.93	58.75	63.31
Banking Insurance	13.64	14.89	16.81	19.36	19.32	20.98	22.74	24.77
Real Estate, Ownership of Dwelling, Business Services & Legal Services	27.32	28.67	29.92	31.18	32.75	33.95	36.00	38.54
Community Social & Personal Services	82.68	82.68	85.17	89.07	94.08	97.13	104.24	108.07
Total GSDP	**425.27**	**428.79**	**453.54**	**449.76**	**514.08**	**567.98**	**601.51**	**637.75**

Note: Data are in Rs. billion at constant 1999–2000 prices.

Table A. 3: Incidence of Poverty in Orissa and All-India, 1993/94–2004/05

Area and measure		1993/94	1999/2000	2004/05	Change (percentage points)	Change (percent)
Orissa						
URP	Rural	49.72	-	46.80	2.92	6.24
	Urban	41.64	-	44.30	-2.66	-6.00
MRP	Rural	-	48.01	39.80	8.21	20.63
	Urban	-	42.83	40.30	2.53	6.28
All-India						
URP	Rural	37.30	-	28.30	9.00	24.13
	Urban	32.40	-	25.70	6.70	20.68
MRP	Rural	-	27.10	21.80	5.30	19.56
	Urban	-	23.60	21.70	1.90	8.05

Note: "URP" stands for uniform reference period; "MRP" stands for mixed reference period.
Source: GoI, Press Information Bureau, New Delhi, 21March 2007 for 2004/2005 data and various National Planning Commission publications for the earlier data.

ANNEX B: FISCAL POSITION

Table B. 1: Fiscal Summary for Orissa, 1999/00–2007/08

(in Rs. billion)

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Indicator	**Actuals**	**Actuals**	**Actuals**	**Actuals**	**Mod. Actuals/a**	**Mod. Actuals/a**	**Actuals**	**RE**	**BE**
Revenue	58.85	69.02	70.48	82.14	94.40	116.33	140.847	176.49	194.67
State's own revenue	**24.21**	**28.69**	**31.59**	**38.77**	**43.96**	**53.05**	**65.34**	**76.06**	**81.96**
Tax	17.04	21.84	24.67	29.16	33.02	41.77	50.02	57.53	66.16
Non-Tax	7.16	6.85	6.92	9.61	10.95	11.29	15.32	18.53	15.81
Central Resources	**34.64**	**40.33**	**38.89**	**43.37**	**50.44**	**63.28**	**75.50**	**100.43**	**112.71**
Shared taxes	17.48	26.04	26.49	27.62	33.28	39.78	48.76	62.13	67.91
Central grants	17.16	14.29	12.41	15.75	17.16	23.50	26.73	38.30	44.80
Non-interest expenditure	84.83	79.42	81.77	88.68	90.50	100.84	106.64	152.98	164.43
Salary	38.87	38.03	36.28	41.13	39.03	41.89	42.63	47.90	52.39
Pension	6.88	8.32	10.03	12.30	11.58	12.60	13.38	16.20	21.26
Capital outlay	7.99	8.39	8.87	10.74	8.53	10.56	10.38	16.25	19.14
Net lending	3.73	5.59	2.47	1.66	1.96	-0.12	-2.80	0.44	1.57
Primary balance	**-25.98**	**-10.40**	**-11.29**	**-6.55**	**3.90**	**15.49**	**34.2**	**23.51**	**30.24**
Interest payments	12.38	22.87	28.35	28.85	28.60	33.32	36.97	32.72	40.49
Overall balance	-38.36	-33.27	-39.64	-35.39	-24.70	-17.83	-2.76	-9.21	-10.25
Memo:									
Revenue balance	-26.64	-19.29	-28.30	-22.99	-14.21	-7.39	4.81	7.48	10.46
GSDP at 99-00 prices	*425.27*	*439.81*	*472.70*	*501.49*	*610.71*	*690.37*	*757.06*	*830.16*	*938.08*
Current (revenue) balance/ Revenue receipt	-45.3%	-27.9%	-40.1%	-28.0%	-15.1%	-6.4%	3.4%	4.2%	5.4%
Salary/state's own revenue	160.6%	132.5%	114.9%	106.1%	88.8%	79.0%	65.3%	63.0%	63.9%
Salary/ Revenue exp (net of interest & pension)	58.7%	66.6%	60.1%	64.3%	57.0%	53.8%	49.8%	39.9%	42.8%
Capital outlay/GSDP	1.9%	1.9%	1.9%	2.1%	1.4%	1.5%	1.4%	2.0%	2.0%
Interest/Revenue	21.0%	33.1%	40.2%	35.1%	30.3%	28.6%	26.2%	18.5%	20.8%
Outstanding debt/GSDP	43.1%	48.2%	51.1%	55.4%	52%	49.4%	48.2%	45.3%	41.2%
Outstanding debt/Revenue receipts	311.4%	307.4%	343.0%	338.5%	335.8%	293.3%	259.1%	212.9%	198.4%

a/ Actual figures have been adjusted to exclude impact of one-time shocks, including securitization of power sector liabilities in 2003-04; and one-time receipt of interest, dividend and loan recovery from power utilities in 2004-05.

Source: Government of Orissa budget documents.
Note: RE = Revised Estimate; BE = Budget Estimate.

Table B. 2: Fiscal Summary for Orissa, 1999/00–2007/08 (as % of GSDP)

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Indicator	**Actuals**	**Actuals**	**Actuals**	**Actuals**	**Actuals/a**	**Actuals/a**	**Actuals**	**RE**	**BE**
Revenue	13.8%	15.7%	14.9%	16.4%	15.5%	16.9%	18.6%	21.3%	20.8%
State's own revenue	5.7%	6.5%	6.7%	7.7%	7.2%	7.7%	8.6%	9.2%	8.7%
Central resources	8.1%	9.2%	8.2%	8.6%	8.3%	9.2%	10.0%	12.1%	12.0%
Non-interest expenditure	19.9%	18.1%	17.3%	17.7%	14.8%	14.61%	14.09%	18.4%	17.5%
Current exp .excl interest	17.2%	14.9%	14.9%	15.2%	13.1%	13.1%	13.1%	16.4%	15.3%
o/w salary bill	9.1%	8.6%	7.7%	8.2%	6.4%	6.1%	5.6%	5.8%	5.6%
o/w pension	1.6%	1.9%	2.1%	2.5%	1.9%	1.8%	1.8%	2.0%	2.3%
o/w capital outlay	1.9%	1.9%	1.9%	2.1%	1.4%	1.53%	1.37%	1.96%	2.04%
o/w net lending	0.9%	1.3%	0.5%	0.3%	0.3%	0.0%	-0.4%	0.1%	0.2%
Primary balance	-6.1%	-2.4%	-2.4%	-1.3%	0.6%	2.2%	4.5%	2.8%	3.2%
Interest payments	2.9%	5.2%	6.0%	5.8%	4.7%	4.8%	4.9%	3.9%	4.3%
Overall balance	-9.0%	-7.6%	-8.4%	-7.1%	-4.0%	-2.6%	-0.37%	-1.1%	-1.09%
Memo items:									
Salary/ own revenue	161%	133%	115%	106%	89%	79%	65.3%	63%	64%
Interest/ Revenue	21.0%	33.1%	40.2%	35.1%	30.3%	28.6%	26.2%	18.5%	20.8%
Salary/ Rev.exp (net of interest & pension)	58.7%	66.6%	60.1%	64.3%	57.0%	53.8%	49.8%	39.9%	42.8%
Current (revenue)balance/GSDP	-6.3%	-4.4%	-6.0%	-4.6%	-2.3%	-1.1%	0.6%	0.9%	1.1%
Current balance/Revenue receipts	-45.3%	-27.9%	-40.1%	-28.0%	-15.1%	-6.4%	3.4%	4.2%	5.4%
Outstanding debt/Revenue receipts	311%	307%	343%	338%	336%	293.3%	259.1%	212.9%	198.4%
Outstanding debt/GSDP	43%	48%	51%	55.4%	51.9%	49.4%	48.2%	45.3%	41.2%
GSDP 99-00 prices	425.27	439.81	472.70	501.49	610.71	690.37	*757.06*	*830.16*	*938.08*

a/ Actual figures have been adjusted to exclude impact of one-time shocks, including securitization of power sector liabilities in 2003/04 and one time receipt of dividend, interest and loan recovery of power utilities in 2004/05

Source: Government of Orissa budget documents

Note: RE = Revised Estimate; BE = Budget Estimate.

Table B. 3: Debt and Guarantees as a Share of Revenue in Indian States, 1998/01–2004/05

	Debt/Revenue			(Debt+Guar)/Rev	
	1998-01	2004/05	2005/06	1998-01	2004/05
Andhra Pradesh	175	235	208	249	296
Bihar	255	293	257	264	300
Gujarat	178	309	278	266	386
Haryana	215	209	203	313	248
Karnataka	144	157	163	218	222
Kerala	249	314	292	331	405
Madhya Pradesh	165	206	210	225	253
Maharashtra	159	221	208	257	364
Orissa	313	290	254	369	322
Punjab	354	338	285	462	415
Rajasthan	253	320	302	348	392
Tamil Nadu	148	178	172	201	205
Uttar Pradesh	272	289	255	303	311
West Bengal	319	478	423	359	549

Source: Ravishankar, Zahir, and Kaul, 'Indian States' Fiscal Correction -- An Unfinished Agenda,' Economic & Political Weekly.

Table B. 4: Own Tax Revenues in Orissa, by Source, 2000/01–2005/06

(in Rs. billion)

Source	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Sales Tax	13.4	14.0	16.1	18.6	24.7	30.1
Entry Tax	1.9	2.5	3.1	3.8	3.8	4.6
Motor Vehicle Tax	1.8	2.2	2.6	2.8	3.4	4.1
State Excise	1.4	2.0	2.5	2.6	3.1	3.9
Electricity Duty	1.5	1.4	1.7	2.0	2.6	3.5
Stamp Duty & Regn Fees	1.1	1.1	1.4	1.5	2.0	2.4
Land Revenue	0.5	0.8	0.8	1.0	1.3	0.7
Profession Tax	0.1	0.4	0.5	0.5	0.6	0.7
Other Taxes	0.1	0.3	0.1	0.1	0.3	0.1
Own Tax Revenue	21.8	24.7	28.7	33.0	41.8	50.0

Source: Sen Tapas 2007.

ANNEX C: INFRASTRUCTURE

Table C. 1: Village Electrification in India, by State, as of March 2006

State	Total no. of inhabited villages per 2001 Census	Total no. of villages electrified	Balance of unelectrified villages
Andhra Pradesh	26613	26565	48
Arunachal Pradesh	3863	2335	1528
Assam	25124	19081	6043
Bihar	39015	19251	19764
Jharkhand	29354	7641	21713
Goa	347	347	
Gujarat	18066	17940	126
Haryana	6764	6759	5
Himachal Pradesh	17495	16891	604
Jammu and Kashmir	6417	6301	116
Karnataka	27481	26771	710
Kerala	1364	1364	0
Madhya Pradesh	52117	50474	1643
Chattisgarh	19744	18532	1212
Maharashtra	41095	40351	744
Manipur	2315	2043	272
Meghalaya	5782	3016	2766
Mizoram	707	691	16
Nagaland	1278	1216	62
Orissa	47529	37663	9866
Punjab	12278	12278	0
Rajasthan	39753	37276	2477
Sikkim	450	405	45
Tamil Nadu	15400	15400	0
Tripura	858	818	40
Uttar Pradesh	97942	57042	40900
Uttaranchal	15761	13131	2630
West Bengal	37945	31705	6240
Total (States)	**592857**	**473287**	**119570**
Total UTs	**875**	**875**	**0**
All India	**593732**	**474162**	**119570***

Note : Asterisks indicate data compiled under the new definition of village electrification (effective in 2004-05).
Total number of unelectrified villages is estimated to be around 1, 25,000.
Source: Indiastat.com.

Table C. 2: Index of Social and Economic Infrastructure in India, by State

States	Index
Andhra Pradesh	103.3
Arunachal Pradesh	69.71
Assam	77.72
Bihar	81.33
Goa	200.57
Gujarat	124.31
Haryana	137.54
Himachal Pradesh	95.03
Jammu & Kashmir	71.46
Karnataka	104.88
Kerala	178.68
Madhya Pradesh	76.79
Maharashtra	112.8
Manipur	75.39
Meghalaya	75.49
Mizoram	82.13
Nagaland	76.14
Orissa	81
Punjab	187.57
Rajasthan	75.86
Sikkim	108.99
Tamil Nadu	149.1
Tripura	74.87
Uttar Pradesh	101.23
West Bengal	111.25

Source: Report of the Eleventh Finance Commission (for 2000–05), June 2000, Government of India and Indiastat.com.

Table C. 3: Road Density in India, by State, 1971–72 to 1996–97

States/UTs	1971-72	1981-82	1991-92	1996-97
Delhi	7984	10527	14256	17924
Pondicherry	3508	4286	6698	4859
Kerala	3106	2751	3567	3749
Goa	1581	2141	2005	2245
Orissa	366	772	1260	1687
Tamil Nadu	714	1020	1523	1588
Chandigarh	710	1250	14000	15377
Tripura	386	759	1341	1405
Punjab	594	916	1078	1278
Maharashtra	316	586	730	1176
Nagaland	284	379	901	1107
Dadra and Nagar Haveli	460	492	643	1086
Assam	383	760	836	872
Uttar Pradesh	382	520	692	868
West Bengal	599	642	700	850
Karnataka	525	557	701	751
India	344	466	615	749
Andhra Pradesh	264	468	553	647
Haryana	307	542	601	637
Himachal Pradesh	215	369	459	542
Bihar	670	481	492	508
Manipur	392	239	314	490
Gujarat	221	375	419	464
Madhya Pradesh	162	242	321	451
Meghalaya	303	233	291	379
Rajasthan	146	212	363	378
Sikkim	329	156	227	258
Mizoram	43	119	179	229
Arunachal Pradesh	125	152	131	168
Jammu and Kashmir	40	53	56	97

Note: Road density in km is the road length per 1,000 sq. km. of area.
Source: Tenth Five-Year Plan 2002–07, vol. 3, Planning Commission, Government of India.

ANNEX D: Human Development

Table D. 1: Key Indicators of Human Development in Orissa, 2005–06

Indicator	NFHS-3 (2005-06)	Residence		NFHS-2 (1998–99)	NFHS-1 (1992–93)
		Urban	Rural		
Marriage and Fertility					
Total fertility rate (children per woman)	2.4	1.9	2.5	2.5	2.9
Median age at first birth for women age 25-49	20.0	21.0	19.8	19.6	19.1
Child Immunization and Vitamin A Supplementation[1]					
Children 12–23 months fully immunized (BCG, measles, and 3 doses each of polio/DPT) (%)	51.8	52.7	51.6	43.7	36.1
Treatment of Childhood Diseases (children under 3 years)[1]					
Children with diarrhea in the last 2 weeks who received ORS (%)	41.3	58.8	38.8	35.1	16.8
Children with diarrhea in the last 2 weeks taken to a health facility (%)	58.6	75.6	56.2	46.9	46.7
Child Feeding Practices and Nutritional Status of Children[1]					
Children under 3 years who are underweight (%)	44.0	33.3	45.7	54.4	52.4
Knowledge of HIV/AIDS among Ever-Married Adults (age 15–49)					
Women who have heard of AIDS (%)	62.1	83.7	57.8	39.0	-
Women's Empowerment					
Currently married women who usually participate in household decisions (%)	55.3	60.0	54.3	---	---
Ever-married women who have ever experienced spousal violence (%)	38.5	31.0	39.9	---	---

Note: Figures are provisional. Asterisk indicates data are not shown; based on fewer than 25 unweighted cases.
[1] Based on the last 2 births in the 3 years before the survey.
[2] For children, the education refers to the mother's education. Children with missing information on the mother's education are not included in the education columns.
Source: National Family Health Survey (NFHS) for various years.

Table D. 2: Human Development Index for India, by State

States/UTs	1981		1991		2001	
	Value	Rank	Value	Rank	Value	Rank
Andhra Pradesh	0.298	9	0.377	9	0.416	10
Assam	0.272	10	0.348	10	0.386	14
Bihar	0.237	15	0.308	15	0.367	15
Gujarat	0.360	4	0.431	6	0.479	6
Haryana	0.360	5	0.443	5	0.509	5
Karnataka	0.346	6	0.412	7	0.478	7
Kerala	0.500	1	0.591	1	0.638	1
Madhya Pradesh	0.245	14	0.328	13	0.394	12
Maharashtra	0.363	3	0.452	4	0.523	4
Orissa	0.267	11	0.345	12	0.404	11
Punjab	0.411	2	0.475	2	0.537	2
Rajasthan	0.256	12	0.347	11	0.424	9
Tamil Nadu	0.343	7	0.466	3	0.531	3
Uttar Pradesh	0.255	13	0.314	14	0.388	13
West Bengal	0.305	8	0.404	8	0.472	8
India	0.302		0.381		0.472	

Source: Human Development Report 2001 and Indiastat.com.

Table D. 3: Coping Strategies Adopted by Households, by Type of Risk and Income Group

(in percent)

Coping Strategy	All risks	Idiosyncratic	Covariate	Poorest quartile	Q2	Q3	Richest quartile
Asset depletion	10.4	8.8	11.6	4.23	11.29	13.18	9.77
Labor market exposure	7.0	4.8	8.8	14.08	11.29	5.43	5.26
Borrow	24.7	26.2	23.5	26.76	27.42	18.60	26.32
Intra HH adjustments	7.0	6.5	7.5	1.41	2.42	8.53	9.02
Depend on aid	9.0	7.5	10.2	11.27	9.68	9.30	7.52
Others	6.3	5.4	6.9	4.23	3.23	9.30	6.02
None	35.7	40.8	31.5	38.03	34.68	35.66	36.09

Source: Dev et al. 2007.

Table D. 4: Awareness of Antipoverty Programs, by Selected Groups and States

(in percent)

Program	Quartile 1	Quartile 4	Scheduled castes	Scheduled tribes	Orissa	M.P.	Karnataka
IAY (Indira Awas Yojana)	87.0	83.0	88.3	83.3	86.0	62.0	58.0
NOAP (National old age pension)	64.0	70.0	76.6	63.3	69.0	62.0	---
Widow/disable pension	64.0	68.0	84.0	60.5	69.0	57.0	---
PDS (Public Distribution System)	84.7	92.8	91.5	87.9	90.2	89.0	94.0
AAY	55.9	56.3	64.9	44.2	55.3	27.0	---
ICDS	50.5	60.4	56.4	50.7	57.2	23.0	19.0
Mid-Day Meal	64.3	70.9	76.6	70.2	73.6	64.0	82.0
Free text-book	56.9	63.7	71.3	58.1	65.6	50.0	87.0
Free uniform	49.0	60.4	60.6	51.2	56.8	38.0	83.0
SGRY	53.8	58.0	62.8	59.5	62.3	16.0	---
Food for work	30.7	37.7	35.1	40.0	35.4	31.0	---
IRDP/SGSY	26.5	46.9	36.2	36.3	39.0	--	---

Source: Dev et al. 2007.

Table D. 5: Proportion of Households Benefiting from Antipoverty Programs in Orissa and All-India

(in percent)

Benefit	Orissa	All-India
Bought grain from Fair Price Shop (among all households)	25.6	26.3
NOAP (National old age pension) among households with at least one member above 64 years old	21.8	8.3
Annapurna (among households with at least one member above 64 years old)	6.6	1.6
Widow pension (among households with at least one widow)	20.2	6.2
Disabled (among all households)	0.8	0.3
Scholarship (among households with at least one member between 6 and 18 years of age)	3.2	9.2
IAY (among all rural households that *ever* received benefits)	20.0	12.6
IRDP/SGSY (among all households)	1.0	0.8
Health insurance (among all households)	1.7	2.5
Life insurance (among all households)	16.8	20.4

Source: Ajwad 2007.

References

Ajwad, M.I. (2007), 'Coverage, Incidence and Adequacy of Safety Net Programs in India,' World Bank, Mimeo.

Orissa State Pollution Control Board (2003, 2004 and 2005), *Annual Report.*

Comptroller and Auditor-General of India (2003), 'Performance Audit: Ministry of Rural Development: Rural Housing,' Ch 3.

Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar (2002c), *Orissa Development Report*, Planning Commission, New Delhi.

Department of Health and Family Welfare, Bhubaneswar (2002f), 'Orissa Vision 2010 – A Health Strategy: Orissa State Integrated Health Policy, Strategies and Action Points.'

Dev, M. K. Subbaroa, S. Galab, C. Ravi (2007), 'Safety Net Programs in India: Outreach and Effectiveness: Village-Level Perspectives in Three States,' World Bank, Mimeo.

Directorate of Economics and Statistics, Planning and Coordination Department, Bhubaneswar, (2006-07), Draft Eleventh -Year Plan – 2007- 2012.'

Government of Orissa, Finance Department, Bhubaneswar, *Finance Accounts,* various years.

Government of Orissa, *Human Development Rreport – 2004.*

Government of Orissa, 'Orissa Budget, 2006-2007.'

Government of Orissa, 'Orissa Budget at a Glance,' various years.

Goyal, Sangeeta, (2006), 'Learning Achievements in India: A Study of Primary Education in Orissa,' Mimeo.

Government of Orissa, *Human Development Report*, (2004-2005).

Jalan Jyotsna and Murgai Rinku (2006), 'An Effective Targeting Shortcut?' An Assessment of the 2002 Below-Poverty Line Census Method,' Mimeo, World Bank, New Delhi, India.

Mallik R.M. and N. Panigrahi (1998), 'Non-Timber Forest Produce Collection: Benefits and Management in Orissa,' Nabakrushna Choudhury Centre for Development Studies, Orissa.

Mines and Minerals (Development and Regulations) Act, 1957 (As amended up to October, 2004).

Ministry of Finance, New Delhi (2007), *Economic Survey 2006-07*, Economic Division.

Office of the Registrar General Bhubaneswar, Census of India, Orissa, 1971, 1981, 1991.

Planning Commission (2002b), *National Human Development Report*, 2001, Oxford University Press, New Delhi.

Ravishankar, Zahir, and Kaul, 'Indian States' Fiscal Correction – An Unfinished Agenda,' Economic & Political Weekly

Resettlement and Rehabilitation Policy of Government of Orissa, 2006.

Sen Tapas (2007), 'Orissa's Tax Performance in Recent Years: A Structural Break?

World Bank (2007), 'Towards Sustainable Mineral Intensive Growth in Orissa: Managing Environment and Social Impacts,' *Draft Final Report.*

UNIDO (2001), *Annual Survey of Industries Data.*

Van Dillen, S. (2005), 'Poverty and Vulnerability in Orissa,' World Bank, Mimeo.

World Bank Group (July 1998), 'Pollution Prevention and Abatement Handbook – Iron and Steel Manufacturing.'

World Bank (2005), 'Orissa Investment Climate Assessment– Towards a High-Performing State.'

World Bank (2006), 'A Brief Review of Anti-Poverty Programs and their Effectiveness in Orissa,' South Asia Human Development Sector, World Bank, Washington, D.C.

World Bank (2007), 'Doing Business in South Asia.'

World Bank, 'Extractive Industries and Sustainable Development,' An evaluation of World Bank Group Experience

World Bank (1999), 'India Fiscal Reform and Economic Growth in Orissa.'

World Bank, Report No. 28849-IN (2004), 'India State Fiscal Reforms in India: - Progress and Prospects."

World Bank, Report No: 39878-IN (2007) 'India: Towards Sustainable Mineral-Intensive Growth in Orissa.'

World Bank, Report No. 26550-IN (2004) 'Orissa Socio-Economic Development Program I.'

World Bank, Report No. 33767-IN (2006), 'Orissa Socio-Economic Development Program II.'