Document of
The World Bank

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Report No: 40725-IN

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF US$250 MILLION

TO THE

REPUBLIC OF INDIA

FOR AN

ORISSA STATE ROADS PROJECT

AUGUST 11, 2008

Sustainable Development Unit
India Country Management Unit
South Asia Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective: July 18, 2008)

Currency Unit = Indian Rupees
Rs.42.8 = US$1.0

FISCAL YEAR
April 1 – March 31

ABBREVIATIONS AND ACRONYMS

AADT	Annual Average Daily Traffic
ACG	Anti-Corruption Guidelines
AG	Accountant General
CAS	Country Strategy
CRN	Core Road Network
CVO	Chief Vigilance Officer
EA	Environment Assessment
EMC	Environment Management Cell
EMP	Environmental Management Plan
GAAP	Governance and Accountability Action Plan
GOI	Government of India
GOO	Government of Orissa
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
ISAP	Institutional Strengthening Action Plan
LA	Land Acquisition
MCA	Model Concession Agreement
MDR	Major District Road
MOSRTH	Ministry of Shipping, Road Transport and Highways
MTEF	Medium Term Expenditure Framework
NHDP	National Highway Development Program
ODR	Other District Roads
OSRP	Orissa State Roads Project
OWD	Orissa Works Department
PAP	Project Affected Person
PIO	Public Information Officer
PMGSY	Prime Minister Graham Sadak Yojana
PMU	Project Management Unit
PPP	Public-Private Partnership
R&R	Resettlement and Rehabilitation
RAP	Resettlement Action Plan
RTI	Right to Information Act
SA	Social Assessment
SMC	Social Management Cell
SBD	Standard Bidding Document
TDP	Tribal Development Plan
VGF	Viability Gap Funding

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Task Team Leader:	Binyam Reja

INDIA
Orissa State Roads Project

CONTENTS

INDIA

ORISSA STATE ROADS PROJECT

PROJECT APPRAISAL DOCUMENT

SOUTH ASIA

SASDT

Date: August 11, 2008	Team Leader: Binyam Reja
Acting Country Director: Rachid Benmessaoud	Sectors: Roads and highways (100%)
Acting Sector Manager: G. George Tharakan	Themes: Infrastructure services for private sector development (P);Public expenditure, financial management and procurement (S)
Project ID: P096023	Environmental screening category: Full Assessment
Lending Instrument: Specific Investment Loan	

Project Financing Data

[X] Loan [ ] Credit [ ] Grant [ ] Guarantee [ ] Other:

For Loans/Credits/Others:
Total Bank financing (US$m.): 250.00
Proposed terms: IBRD Flexible Loan with variable-spread option and total maturity of 30 years including a grace period of 5 years.

Financing Plan (US$m)

Source	Local	Foreign	Total
Borrower	72.50	0.00	72.50
International Bank for Reconstruction and Development	142.50	107.50	250.00
Total:	215.00	107.50	322.50

Borrower:
Republic of India

Responsible Agency:
Orissa Works Department
Bhubaneswar, Orissa, India 751001
Tel: 91-674-2391645
workssec@ori.nic.in

Estimated disbursements (Bank FY/US$m)

FY	2009	2010	2011	2012	2013	2014	0	0	0
Annual	6.0	13.0	62.0	62.0	56.0	51.0	0.0	0.0	0.0
Cumulative	6.0	19.0	81.0	143.0	199.0	250.0	0.0	0.0	0.0

Project implementation period: November 30, 2008 End: June 30, 2014
Expected effectiveness date: November 30, 2008
Expected closing date: December 31, 2014

Does the project depart from the CAS in content or other significant respects? ***Ref. PAD A.3***	[ ]Yes [X] No
Does the project require any exceptions from Bank policies? ***Ref. PAD D.7***	[ ]Yes [X] No
Have these been approved by Bank management?	[ ]Yes [ ] No
Is approval for any policy exception sought from the Board?	[ ]Yes [ ] No
Does the project include any critical risks rated "substantial" or "high"? ***Ref. PAD C.5***	[ ]Yes [X] No
Does the project meet the Regional criteria for readiness for implementation? ***Ref. PAD D.7***	[X]Yes [ ] No

Project development objective ***Ref. PAD B.2, Technical Annex 3***

The Project Development Objective (PDO) is to remove transport bottlenecks in targeted transport corridors for greater investment and economic and social development activities in the State of Orissa. The PDO will be achieved by (a) improving the performance, safety, and carrying capacity of priority roads in the state in an environmentally and socially sustainable way, (b) increasing the role of the private sector in road infrastructure financing and management, (c) assisting Government of Orissa (GOO) to establish conducive policy, institutional and governance framework to improve road sector management, financing and safety.

Outcome Indicators. By project completion, businesses and households in project areas will enjoy a significant reduction in generalized transport cost, and the Orissa Works Department (OWD) will improve its capacity and efficiency to provide sustainable road infrastructure service to users. The outcome will be monitored by the following indicators.

(a) vehicle operating costs in project corridors reduced by 15 percent;
(b) vehicle speed in project corridors increased from 40 to 55 km per hour;
(c) favorable response by businesses and road users during surveys about the condition of the transport corridors improved under the project;
(d) OWD efficiency and transparency improved via:
  (i) operation and maintenance arrangement for the Core Road Network put in place;
  (ii) core business functions being fully operational;
  (iii) OWD meets RTI disclosure requirements and implements the Governance and Accountability Action Plan (GAAP); and
  (iv) road safety action plan put in place.

Project description *[one-sentence summary of each component]* ***Ref. PAD B.3.a, Technical Annex 4***

Component A: Road Corridor Improvement Component. This component will support the widening, strengthening, and selective realignment of about 461 km of existing roads to double-lane standard. In addition to the physical works, the project will finance costs associated with supervision consultants, implementation of Environment Management Plans, Resettlement and Rehabilitation (R&R), Indigenous People (Tribal) Development Plan (TDP), HIV/AIDS mitigation measures, and road safety awareness campaign, as well as cost to be borne solely by the government for land acquisition and utility shifting.

Component B: PPP Enabling Support, Sector Policy and Institutional Development, and Implementation Support Component. This component will assist GOO to (i) introduce private

sector participation in financing and management in the road sector, (ii) modernize OWD organization and capacity, (iii) improve the policy, institutional and legal framework of the State road sector, and (iv) implement and monitor the project.

Which safeguard policies are triggered, if any? ***Ref. PAD D.6, Technical Annex 10***
Environmental Assessment (OP/BP/GP 4.01).
Natural Habitats (OP/BP 4.04).
Cultural Property (OP 4.11).
Forests (OP/BP 4.36).
Involuntary Resettlement (OP/BP 4.12)

Significant, non-standard conditions, **if any**, for:
Ref. PAD C.7

Board presentation: September 9, 2008.

Loan/credit effectiveness: November 30, 2008

Covenants applicable to project implementation:
Effectiveness. Only standard effectiveness conditions apply.

Implementation Stage. In addition to the standard covenants for financial management, report and auditing, the following covenants will be incorporated in the legal documents.

Institutional Arrangement and Project Implementation.

The Government of Orissa / Orissa Works Department shall:

(i) maintain the State Level Empowered Committee, and ensure that the State Level Empowered Committee provides the overall direction and governance authority for the Project, and has the composition and powers sufficient to fulfill its functions under the Project;

(ii) maintain the Institutional Strengthening Action Plan (ISAP) Steering Committee, and ensure that the ISAP Steering Committee is responsible for the implementation of the ISAP, and has the composition and powers sufficient to fulfill its functions under the Project;

(iii) maintain the Project Management Unit (PMU), Environmental Management Cell (EMC), Social Management Cell (SMC) and Public-Private Partnership (PPP) Cell and ensure that the PMU, EMC, SMC, PPP Cell, and the OWD field offices have officials, staff and resources required under the Project;

(iv) ensure that the Environmental Management Plan (EMP) and the Resettlement Action Plan (RAP) for Phase II Roads are prepared and adopted by the OWD in a timely manner, and are consistent and comply with the R&R Framework;

(v) ensure that the Project is carried out in accordance with the terms, conditions and procedures set forth in the ISAP, EMPs, Resettlement and Rehabilitation (R&R) Framework, RAPs, HIV/AIDS Action Plan, Financial Management Manual, Anti-Corruption Guidelines and Governance and Accountability Action Plan (GAAP); and that ISAP, EMPs, R&R Framework, RAPs, HIV/AIDS Action Plan, Financial Management Manual and GAAP are not revised, amended, or abrogated without the prior approval of the Bank;

(vi) ensure that the OWD carries out a traffic census and a vehicle speed survey on the Core Road Network every two years, with content and in a format satisfactory to the Bank, and publishes the results on the OWD website, with the first report due by March 31, 2010;

(vii) ensure that the OWD carries out an annual roads condition survey of the Core Road Network, and provides a copy of the survey report to the Bank by March 31, with the first report due by March 31, 2010;

(viii) carry out, with respect to the Project roads: (a) three user satisfaction and land use surveys, and produce reports for each survey, with the first (baseline) survey to be carried out and the report to be produced no later than June 30, 2009, and the second survey to be carried out and the report to be produced no later than June 30, 2011, and the third survey to be carried out and the report to be produced no later than June 30, 2013; (b) one value engineering and quality review and the report to be produced no later than June 30, 2010;

(ix) by December 31, 2008, designate the most important State roads as Core Road Network, ensure earmarking of maintenance funds for such Core Network Roads in the 2009/2010 State of Orissa budget, and assign a separate Chief Engineer for managing the Core Road Network;

(x) by December 31, 2010, carry out the road sector institutional development study in accordance with terms of reference satisfactory to the Bank;

(xi) by December 31, 2011, adopt a road sector policy taking into account the recommendations of the road sector institutional development study;

(xii) by December 31, 2012, prepare a comprehensive road master plan covering roads under the OWD management, and revise and update the road reclassification system, taking into account the recommendations of the road sector institutional development study; and

(xiii) by June 30, 2013, adopt operation and management arrangements, including toll management arrangements, where appropriate, for the completed Project roads, taking into account the recommendations of the road sector institutional development study.

Project Monitoring, Reporting, Evaluation

(i) GOO shall monitor and evaluate the progress of the Project and prepare Project Reports on the basis of indicators agreed with the Bank. Each such report shall cover the period of one Fiscal Year quarter, and shall be furnished to the Borrower and the Bank no later than forty-five (45) days after the end of the period covered by such report.

(ii) OWD shall carry out a comprehensive mid-term Project review, and shall by December 31, 2010, prepare and furnish to the Bank a mid-term Project progress report, satisfactory to the Bank.

Financial Management, Financial Reports, Audits

(i) The GOO shall maintain a financial management system and prepare financial statements related to the Project in accordance with consistently applied accounting standards acceptable to the Bank, both in a manner adequate to reflect the operations and financial condition of the Project Implementing Entity, including the operations, resources and expenditures related to the Project.

(ii) The GOO shall prepare and furnish to the Bank as part of the Project Report not later than forty-five (45) days after the end of each Fiscal Year quarter, interim un-audited financial reports for the Project covering the quarter, in form and substance satisfactory to the Bank.

(iii) The GOO shall have the financial statements referred to above audited by auditors acceptable to the Bank, in accordance with consistently applied auditing standards acceptable to the Bank. Each audit of these financial statements shall cover the period of one Fiscal Year. The audited financial statements for each period shall be furnished to the Borrower and the Bank not later than six (6) months after the end of the period.

I. STRATEGIC CONTEXT AND RATIONALE

A. Country and sector issues

The India Context

1. India's economy growth performance in recent years has been impressive by historical and global standards. The economic growth is being fueled in part by the rising investment and saving levels, expansion of the service sector, and favorable external demand for Indian commodities. Yet, several surveys of the private sector have shown that India's substandard infrastructure (including road transport) hinders private sector investment, especially in transport-dependent manufacturing and industrial sectors, and could become a bottleneck for sustaining the rapid economic growth momentum as the service sector expansion matures. Similarly, while Indian economic growth has been remarkable, there are variations among states, with particularly poor growth performance in states like Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh, and as a result, income disparities between the growing and lagging states have been exacerbated.

2. Recognizing the fact that an efficient road transport system is fundamental for improving the investment climate and facilitating a private-sector-led economic growth, the Government of India (GOI) has been implementing since 1999 a large road development program through the National Highway Development Program (NHDP)[1]. The NHDP is a phased program designed to upgrade and widen (mostly to four lanes) existing national highways to international standard. The first three phases are planned to develop about 24,000 km of four-lane modern highways at a cost of about US$21 billion. So far, the first phase, focusing on the development of the Golden Quadrilateral, connecting India' four major metropolis, Delhi, Mumbai, Chennai and Kolkota, has been largely completed with about 5,800 km widened to four-lane modern highways at a total cost of US$6.8 billion. Similarly, the second phase, focusing on the North-South and East-West corridors, plans to widen about 8,600 km existing national highways to four-lane highways at a cost of US$8 billion. So far, about 1,600 km of the second phase have been completed, and the rest are at various stages of development and expected to be completed by December 2008. The remaining phases of the NHDP are at early stages of development and conception.

3. The NHDP is largely financed through fuel levies, domestic borrowing and financing from World Bank, ADB and JBIC. There are currently some limited toll roads under Public-Private Partnership (PPP) schemes, but this is expected to increase during Phases III and IV of the NHDP. About 10,000 km of National Highways are planned to be developed under PPP scheme. The GOI has undertaken a number of measures to create the enabling policy and regulatory environment that would attract private investment in road infrastructure. To assist states and line agencies in mobilizing private funds for PPP projects, the central government has established a Viability Gap Fund (VGF) grant to provide subsidies to infrastructure PPPs that are economically feasible but not necessarily financially viable. According to VGF guidelines, GOI

[1] In parallel to the NHDP, the Ministry of Shipping, Road Transport and Highways (MOSRTH) has been implementing non-NHDP activities to improve important national highways within states, but not included in the NHDP. GOI has also a rural roads program, the Prime Minister's Rural Road Program (PMGSY) designed to provide all-season road connectivity to habitations with more than 500 people (See Annex 1, Sector Background, for details).

would provide up to 20 percent of the project cost as grant, and, if required, an additional grant of up to 20 percent of the project cost to be provided by the states or sponsoring line agency. The GOI has also established a special purpose vehicle for infrastructure finance, the India Infrastructure Finance Corporation Limited (IIFCL), to channel long-term debt financing towards infrastructure PPP projects.

The Orissa Context

4. The State of Orissa, located on the east cost of India, has lagged behind the rest of the country on key economic and human development indicators. Orissa's economy grew only by about 4 percent a year in the last decade, keeping the GDP per capita stagnated at US$250, about a third of the all-India average, and poverty to remain widespread. Nearly half of Orissa's 38 million people live under the official poverty line versus the all-India average of 26 percent, making it the second poorest state in the nation after Bihar. The vast majority of Orissa's population (87 percent) lives in rural areas, and 80 percent are engaged in agriculture. Urbanization has been slow in Orissa, with only a handful of cities and towns that have significant concentration of population and economic activity. There are no cities over 1 million people, while 35 such cities exist in India. Neighboring Andhra Pradesh, by contrast, has three metropolitan areas with more than 1 million people, including Hyderabad with almost 6 million population. Orissa's infrastructure is rated by the business community as a major deterrent to doing business in the state, only second to problems of governance and regulation[2]. 19 percent of business managers surveyed in 2004 referred to *transport* as a major or severe obstacle to business operations or growth in the state.

5. Despite the low initial conditions mentioned above, Orissa has huge potential to become an industrial and mining center of India, and thereby overcome its economic and social stagnation, as well as contribute to the overall growth of the Indian economy. Orissa's mineral deposits are huge and one of the largest in India. It has 97 percent of India's chromites, 95 percent of nickel ore, 77 percent of graphite, 50 percent of bauxite, 34 percent of iron ore and 24 percent of coal. Yet Orissa exploits less than 1 percent of its minerals (except for iron ore and chromite) and the value of total mineral production is equivalent to 10 percent of the national level. This is however changing rapidly. In part due to the economic growth in India and other Asian economies, and the state government's renewed commitment to tap its mineral resources, exports of key minerals have increased by 369 percent from 2000-2001 to 2004-2005, and royalty revenues to the state government have more than doubled since 2000, and make up 65 percent of the non-tax revenue in the state. The mining sector has also become a major contributor to the economic growth rate in the state. Orissa has signed 47 Memoranda of Understanding with domestic and international investors, for investment proposals totaling about US$30 billion, including the single-biggest foreign direct investment proposal to India to date – US$12 billion investment in the steel sector. Improvement in transport facilities will be essential to sustain this development.

6. Since 2000, Orissa, has been undertaking a series of fiscal and governance reforms to improve its economic and social standing and to catch up with the rest of the country. These reform efforts were supported by the World Bank[3]. GOO has implemented fiscal reform program

[2] Orissa Investment Climate Assessment, World Bank, April 2005.

[3] The Orissa Socioeconomic Development Program is supported by programmatic Development Policy Loans (DPLs); two operations have been completed, and a third is currently under preparation.

successfully and achieved fiscal stability[4]. The state's fiscal position has gone from a deficit of 6.5 percent of GSDP in 2000 to a surplus of 2.7 percent in 2005 a 9.2 percent fiscal correction. The ratio of interest payments to total revenue has dropped from 40 percent in 2001/02 to 28.6 percent in 2004/05 and is projected to reach 24.6 percent in 2006/07. A Medium Term Expenditure Framework (MTEF, 2003-08) has been under implementation since 2003, and underpins the government's commitment to prudent fiscal management. To institutionalize the fiscal reforms and the MTEF, Orissa has passed the Fiscal Responsibility and Budget Management Act of 2005, which requires GOO to balance its revenue account, to set annual deficit reduction targets, and to remain within an overall fiscal deficit of 3 percent of the GSDP. It also mandates several measures for fiscal transparency including annual reporting of unpaid bills along with the cash based financial accounts. These requirements have been largely met. The state has since FY 05/06 maintained a balanced revenue budget and GOO does not face liquidity constraints.

7. Orissa is the first state in India to articulate a comprehensive medium-term Anti-Corruption Action Plan. The Action Plan provides for major expansion of enforcement machinery within departments through the establishment of internal vigilance units and new special courts to try corruption offences. It calls for management reforms, including systemic reforms in procurement and business process re-engineering in areas where corruption is recognized to be a problem and where citizen-government interaction is the highest. The Action Plan also aims to strengthen citizen "voice" through reforms in program implementation and empowering communities through providing information about their service delivery rights.

8. The fiscal and governance reforms carried out by GOO in recent years have contributed to significant changes in economic growth and private sector investment in the state. Economic growth has averaged 8.4 percent per annum since 2004, which is at par with all-India growth rate. Private sector investment has increased, not only in the mining and steel industries, but also in tourism and IT sectors.

The Road Sector in Orissa

9. Consistent with its recent past economic and human development indicators, the quality of Orissa's road network is considerably lower than comparator states in India. Only 22 percent of the state's 230,967 km of roads is paved, compared to 58 percent in all-India, and 90 percent in Gujarat and 61 percent in Andhra Pradesh. Most of Orissa's roads are village and district roads that have limited network integration to the national highway system. The main road network in Orissa, managed by the Orissa Works Department (OWD), comprises about 18,000 km (including 3,592 km of National Highways (NH), 3,887 km of State Highways (SH), 4,277 km of Major District Roads (MDR), and 6,314 km of Other District Roads (ODR)). 86 percent of the main roads are single and intermediate lane roads. At least half the main road network is considered in poor condition, with rough riding quality and poor safety geometry.

10. The poor quality road network is in large part due to inadequate investment over the last decade, owing to the government's fiscal constraints. Orissa's capital investment in the road sector has been among the lowest in India. During 2001-2005, Orissa invested about US$220

[4] Orissa Socioeconomic Development Program: Implementation Completion Report, December 21, 2005.

million on capital expenditure for upgrading and improving the road network, compared to US$600 million in Gujarat, and US$720 million in Andhra Pradesh during the same period.

11. To sustain the recent economic growth, Orissa needs to improve and expand infrastructure services. More importantly, the large private sector investment proposals in mining and industrial sectors will require an efficient transportation system, covering road, rail and ports. Accordingly, Orissa has started the improvement of its road network to meet the development requirements of the state. Under the GOI's Twelfth Finance Commission (TFC) Grant, Orissa has been allocated about US$360 million to maintain and improve its road network during 2006-2010. Of this amount, US$146 million will be allocated to OWD to finance non-wage expenditure of maintenance and improvement of about 4,700 km, which covers a third of the network. The rest of the TFC allocations are earmarked for other road agencies in the state.

12. While the TFC allocation will provide adequate maintenance funding of the main road network for the immediate future, Orissa will need to evolve a long-term strategy to ensure adequate resources beyond the period of the TFC, i.e., from 2010-11 onwards. One option that GOO plans to consider to prepare for the post-TFC years is to establish a dedicated road fund by improving revenue collection from road users (including introduction of a fuel levy), and to earmark a share of it for a road maintenance fund, to be managed by an autonomous roads board.

13. In seeking to expand its infrastructure stock, Orissa has not yet benefited from the growth of PPPs in India, in particular in the transport sector. However, the recent boom in industrial and mining investments in Orissa has created opportunities for new partnerships with the private sector to develop the state's infrastructure. Currently, there are 27 PPP projects at various stages of preparation, including nine road projects, three rail, four ports and several projects in tourism, IT, industry and fisheries. GOO has passed a PPP Policy framework and established a state-level PPP Cell to promote PPP projects in line agencies, as well as to leverage the VGF grant available from GOI for qualified PPP infrastructure projects.

14. The OWD is the main agency involved in managing the state's main road network, including the SH, MDR and ODR. It also manages the non-NHDP part of the NH sections in the state under agreement with the central Ministry of Shipping, Road Transport and Highways (MOSRTH). The rural road network is managed by the Rural Road Development Department and the Panchayat Raj Department, which manages 27,882 km and 160,256 km of roads respectively. The road agencies in the state are mostly engaged in the execution of road projects and carry out very little policy development and planning. There is no state-level organization responsible for strategic planning of the overall road network and for ensuring that GOO's road sector policies are coordinated and achieve the government's development objectives in the sector in an integrated and effective manner. The GOO has for several years also maintained an Orissa Bridge and Construction Corporation (OBCC) charged with execution of small-scale OWD works and GOO projects on a direct-charge basis, though with very limited resources and capacity.

15. The current OWD structure is organized as a traditional public works department (PWD) with little customer orientation and service delivery focus. The OWD covers most of the public works in the state, including roads, buildings and sanitation. This institutional arrangement has had the effect of spreading the scarce human and financial resources too thinly among the various sectors managed by OWD, and, more importantly, deprives the most important OWD

asset – the roads – of adequate resources and attention. Although the PWD structure continues to be the most prevalent model in road management in India (at both the center and state levels), GOI and a number of states have undertaken reforms to create parallel institutions to manage important roads within their jurisdiction. At the center, the National Highway Authority of India was established to manage parts of the NHDP, while among the states, Andhra Pradesh, Tamil Nadu, Karnataka and Maharashtra have all established semi-autonomous Road Development Corporations to manage the state's core road network and/or PPP roads and their development, outside of the PWD structure. Although Orissa has also made some ad hoc efforts to improve its roads sector capabilities, this has not so far included policy and structural reforms comparable to other major states and its road infrastructure planning, development and asset management capacities are still comparatively weak. Overall, the present institutional arrangements in Orissa's road sector leave the state ill-equipped to meet the transport demands and challenges now arising from the state's rapid economic development and growing societal expectations. Although major road construction and improvement works are carried out by the private sector under short-term contract, OWD carries out most maintenance works through its field offices via in-house labor and equipment. There is no private sector so far involved with the financing and management of state roads, although the state is actively considering such a scheme for high traffic roads.

16. GOO lacks a multi-modal transport policy and strategy that provides for a balanced investment program for all modes, including rail, which could be an important mode of transport in this mining and industrial state. Road transport services are provided, as in the rest of India, by owner-operators of 10-ton trucks that are heavily loaded, causing premature deterioration of the road. The truckers in the state have poor working conditions and are poorly trained, causing serious accidents. Yet there is no known data of the magnitude of accidents in the state. Road safety records and investigations are limited to accidents involving fatalities, and therefore there is only a partial knowledge of the causes of road accidents. There are also no ongoing community road-safety initiatives to educate people, especially in congested rural areas, of the changes in traffic patterns and speed because of road improvements. Moreover, the truckers and other transport workers, despite being considered a major risk group, are not targeted with campaigns to protect them from HIV/AIDS.

17. The GOO has developed an Institutional Strengthening Action Plan (ISAP) and a Governance and Accountability Action Plan (GAAP) to underpin its vision and strategy for the road sector as a whole, and to modernize the OWD in particular. Both the ISAP (Annex 4) and the GAAP (Annex 6A) provide for time-bound interventions, expected outputs and outcomes in institutional capacity and performance. The ISAP focuses on reforms and improvements in road asset management, resource mobilization, road safety, PPP transactions, capacity development in OWD's core responsibilities, such as procurement, project implementation, contract management and quality control, and maintenance management The GAAP, which has synergies and convergence with the ISAP, has been designed to support implementation of the relevant provisions of the state's anti-corruption plan in OWD, as well as to meet the requirements of India's Right to Information Act (RTI) of 2005 for greater transparency and information disclosure by public institutions.

B. Rationale for Bank involvement

18. The rationale for Bank support in Orissa's road sector is a logical extension of the Bank's current engagement in the state under the Orissa Socioeconomic Development Program (OSEDP), as well as the Bank's continued support to modernize India's road sector. The reforms implemented under the OSEDP have created substantial fiscal space for the state to undertake productive investments in social and infrastructure sectors. However, despite the improved fiscal space, Orissa has not been able to meet its own targets for increasing capital investment to 3 percent of GSDP, which is currently hovering around two percent of GSDP. Thus, the proposed project will assist Orissa to meet the capital investment goals in a sector that is crucial for the state's overall economic growth and poverty reduction goals. In addition, the project would support the state government in implementing institutional and governance reforms in the road sector through the implementation of the ISAP and GAAP, thus enhancing the efficacy of public sector expenditure in the road sector.

19. With respect to the road sector, the Bank has supported nine[5] state-level road projects since 1998 and four national highway projects to support the NHDP. The state-level loans total about US$2.7 billion and financed the widening and upgrading of about 7,000 km and maintenance of 11,000 km of state-managed roads. For the national highway network, the Bank has financed the widening and upgrading of 1,525 km of the NHDP under Phases I and II with about US$2 billion investment since year 2000. With this vast engagement and experience in India's road sector, the Bank is well positioned to assist Orissa to bring India-wide and worldwide expertise and lessons to bear in modern road management and financing, safety enhancement, integrating social and environmental impact management in road development.

C. Higher level objectives to which the project contributes

20. The proposed project supports the Bank's Country Strategy (CAS)[6] for India (FY05-08), which aims, among other things, to build development partnership with states where poverty is increasingly concentrated and public institutions are especially weak (Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh) in order to reduce the widening gap in social and economic indicators between faster and slower growing states, and to support infrastructure development (including roads) to facilitate accelerated economic growth and improve service delivery.

21. The project also supports Government of Orissa's efforts to reduce poverty and enhance growth through improving the investment climate to help the state exploit its mining, industrial and tourism potentials. The project is designed to support Orissa's ambitious plans to become an industrial and mining center of India. Of the 47 MOUs signed between GOO and domestic and foreign investors, 14 of them totaling US$8 billion worth of investment proposals are located in the project influence area.

[5] Three projects (Andhra Pradesh, Karnataka, Gujarat) have been completed.
[6] Country Strategy for India (discussed at the Board on August 26, 2004).

II. PROJECT DESCRIPTION

A. Lending instrument

22. A Specific Investment Loan will be used to finance the physical investments, and improve the policy and institutional environment in Orissa's road sector. An Adaptable Program Loan was considered as an alternative instrument, but was deemed inappropriate given that this is the first Bank operation in Orissa's road sector and future sector reform programs are not fully developed yet to link future programmatic support to reforms. For the same reasons, a Sector Wide Approach is also not considered.

23. The loan would be an IBRD Flexible Loan with variable-spread option and total maturity of 30 years including a grace period of 5 years.

B. Program objective and Phases

Not Applicable

C. Project development objective and key indicators

24. The Project Development Objective (PDO) is to remove transport bottlenecks in targeted transport corridors for greater investment and economic and social development activities in the State of Orissa.

25. The PDO will be achieved by (a) improving the performance, safety, and carrying capacity of priority roads in the state in an environmentally and socially sustainable way, (b) increasing the role of the private sector in road infrastructure financing and management, (c) assisting GOO to establish a conducive policy, institutional and governance framework to improve road sector management, financing and safety.

26. *Outcome Indicators*. By project completion, businesses and households in project areas will enjoy a significant reduction in generalized transport cost, and the OWD will improve its capacity and efficiency to provide sustainable road infrastructure service to users.

27. The outcome will be monitored by the following indicators.

(a) vehicle operating costs (at constant input prices) in project corridors reduced by 15 percent;
(b) vehicle speed in project corridors increased from 40 to 55 km per hour;
(c) favorable response by businesses and road users during surveys about the condition of the transport corridors improved under the project;
(d) OWD efficiency and transparency improved via:
    (i) operation and maintenance arrangement for the Core Road Network put in place;
    (ii) core business functions being fully operational;
    (iii) OWD meets RTI disclosure requirements and implements the GAAP; and
    (iv) road safety action plan put in place.

D. Project components

28. The proposed project comprises two components: (a) Road Corridor Improvement Component, and (b) PPP Enabling Support, Sector Policy and Institutional Development, and Implementation Support Component. Table 1 provides the cost and financing arrangement for the project. The total project cost is US$322.5 million, and the IBRD financing, at 80 percent of the total project cost, is US$250 million.

Table 1: Summary of Project Components, Costs and Financing Arrangement (US$ millions, including Contingencies)

Component	Costs	% of Total	IBRD Loan	% IBRD	GOO Share	%GOO
A - Road Improvement Component 1	**305.9**	**94.9%**	**236.2**	**94.7%**	**69.8**	**96%**
Civil Works	272.7	84.6%	218.1	87.4%	54.5	75%
Supervision Cost	12.8	4.0%	10.2	4.1%	2.6	4%
LA, R&R, Utility Shiifting	20.5	6.3%	7.8	3.1%	12.7	17%
B- PPP Enabling, Institutional Development and Implementation Support	**15.9**	**4.9%**	**12.7**	**5.1%**	**3.2**	**4%**
Total Project Cost	321.8	99.8%	248.9	99.7%	72.9	100.0%
Front-end Fee	0.63	0.20%	0.63	0.250%	0	0.00
Total Financing Required	**322.5**	**100%**	**250**	**100%**	**72.9**	**100%**

Component A: Road Corridor Improvement Component (Estimated Cost: US$305.9) million: IBRD Loan: US$236.2)

29. This component will support the widening, strengthening and selective realignment of about 461 km of existing roads to double-lane standard. The project roads are part of three road corridors that connect industrial, mining and tourist areas to major National Highways and ports in Orissa and neighboring Andhra Pradesh, as well as provide connectivity and improve the availability of transport services for the poor and tribal communities living along the road corridors. In addition to the physical works, the project will finance costs associated with supervision consultants, implementation of Environment Management Plans, Resettlement and Rehabilitation (R&R), Indigenous People (Tribal) Development Plan (TDP), HIV/AIDS mitigation measures, and road safety awareness campaign, as well as cost to be borne solely by the government for land acquisition and utility shifting.

Component B: PPP Enabling Support, Sector Policy and Institutional Development, and Implementation Support Component (Estimated Cost: US$15.9 million; IBRD loan: US$12.7 million)

30. This component will assist GOO to (i) introduce private sector participation in financing and management in the road sector, (ii) modernize OWD organization and capacity, (iii) improve

the policy, institutional and legal framework of the State road sector, and (iv) implement and monitor the project.

31. *PPP Enabling Support.* The project will assist GOO to attract private sector participation in financing and management of selected high-traffic roads through leveraging the VGF grant available from GOI for qualified PPP infrastructure projects. The loan will finance costs for transaction adviser and independent engineer consultancy services to help the state upgrade and widen additional high traffic mining/industrial roads totaling about 229 km under PPP basis in the first phase. The project will also earmark some additional funds for possible financing of another transaction advisory service to develop additional, viable PPP roads in a second phase during project implementation.

32. *OWD Modernization Support.* The project will finance technical assistance and advisory services for OWD to (a) establish a Road Asset Management System to develop an objective maintenance planning and resource allocation system for road maintenance; (b) develop and implement a strategy for modernizing OWD financial management, records management, facilitating public information access and introducing e-procurement, (c) strengthen OWD capacity in core business functions, including Environment and Social Management, Road Safety, Road Asset Management, and PPP Transactions; (d) revise and update the PWD Codes and Manual to improve contract management and procurement practices in OWD; and (e) provide training and capacity building for OWD staff.

33. *Institutional Development Support.* The project will finance technical assistance and advisory services to assist GOO to improve its road sector policy, institutional and legal framework to align it with the rapidly changing environment and context. This will include support to (a) improving operation and management (O&M) structure for managing the State's Core Road Network; (b) establish sustainable road maintenance financing arrangements; (c) establish a State road development council to coordinate the various road agencies in the state; (d) develop a Road Master Plan, including revision/update and implementation of the road network classification system; (e) develop a Road Safety Policy Action Plan; and (f) develop state-level axle load control policy and implementation strategy.

34. *Project Implementation and Monitoring Support.* The project will finance incremental operating costs to facilitate project implementation. This will include costs incurred by the Project Management Unit for the operation and maintenance facilities, vehicles and equipment used for Project implementation (including without limitation, vehicle rental, office rental, fuel costs and stationeries), expansion of office spaces, and salaries and allowances of incremental staff assigned to Project Management Unit for Project implementation, but excluding salaries of the Recipient's civil servants.

35. In view of the expected additional investment required in Orissa's road sector, the project has earmarked funds for pre-investment studies for a possible follow up project. The project will also re-finance the Project Preparation Advance used to finance project preparation activities.

E. Lessons learned and reflected in the project design

36. The Bank has accumulated extensive experience and lessons from the implementation of several state and national highway projects and sector policy reviews in India, as well as in the region and worldwide. The proposed OSRP is one of the "second generation" state highway

projects being prepared in the last two years, taking into account the lessons learned from the previous seven "first generation" state highway projects. The following are the key operational lessons.

37. ***Adequate readiness of construction sites before project launch.*** Previous projects have shown that pre-construction activities, including land acquisition, resettlement and rehabilitation of affected persons, clearing of trees, and shifting of utilities are common factors that delay project implementation. In order to avoid this occurrence, and consistent with the Bank-GOI agreed project readiness filter, all pre-construction activities for about 25 percent of civil work contracts, should be reasonably ready before contract award.

38. ***Government ownership of land acquisition and resettlement and rehabilitation (R&R) policy framework.*** This is important for timely implementation of R&R and land acquisition activities in project roads. These are often delayed in road projects due to in part that the governments and implementing agencies do not fully own the R&R policies, who perceive them only as Bank requirements. In contrast, the proposed OSRP will follow Orissa's R&R policy, with some minor modification. The Policy was approved by GOO in April 2006 and complies in large part with Bank requirements[7].

39. ***Incremental institutional reforms have better government buy-in.*** Previous projects in the region involving major, sophisticated institutional interventions in comparatively under-developed environments have experienced implementation delays and difficulties due to limitations in the client's absorptive capacity, and administrative constraints and lack of wider institutional framework to underpin road sector reforms. Weak and/or inconsistent government support for key change elements has previously hindered implementation and expected outcomes. Projects that have taken an incremental approach to institutional reforms, with phased actions to modernize and strengthen a minimum set of core roads management functions within the existing context, have typically performed better. The IS Action Plan now endorsed by the GOO reflects such a progressive and incremental approach, along with a strong focus on major enhancements in selected core sector functions and policy. Similarly the GAAP builds on the advances already made in 'public information' and 'accountability' aspects of the Orissa administrative environment through recent state and national legislation, rather than advocating major new 'breakthrough' interventions that would exceed the GOO policy boundaries in this area and require a new level of consensus and support.

F. Alternatives considered and reasons for rejection

40. ***Focus on road development versus maintenance of existing network.*** Orissa's underdeveloped road network requires the project to focus on upgrading and widening selected roads, rather than maintaining its current infrastructure. The traffic projections also show that the composition of the traffic will have heavy commercial vehicles for the transport of mining and industrial goods across the state and beyond, and would require properly designed structures to avoid premature failures. As such, the investment of the first Bank road project in Orissa will primarily focus on upgrading the road network, while at the same time supporting institutional and financing reforms to institute sustainable maintenance of the road network.

[7] The Orissa R&R policy was recognized as the most progressive and flexible in India by the Government of India and World Bank during a Workshop on Non-Lending Technical Assistance for Strengthening and Transforming Institutions for Management of LA and R&R in January 2007.

41. ***Private Sector versus Public Sector Financing.*** Consideration was given earlier during project preparation as to whether all project roads (rather than selected ones) could be developed under PPP. Although some of the project roads will be tolled once improved, PPP scheme for all roads was rejected because of the weak financial viability of the roads, even with the available VGF. However, a number of the good practices in PPP management will be utilized for the O&M phase of the project roads, including improved toll collection and management by private party under a long-term maintenance contract.

42. ***Comprehensive versus incremental sector reforms.*** The state's road sector policy and institutional arrangements are antiquated and require far-reaching reforms to secure improved sector outcomes. However, a comprehensive "big-bang" approach is rejected because the state's capacity to absorb the many impacts and costs of a sweeping reform in the road sector in a short time is not guaranteed and there is little prospect of early, wider 'enabling reforms' separately arising (i.e., through non-project factors) in the state's civil service structure and administration which determine the overall institutional framework for the roads sector. At the present time, the state government's reform agenda is focused on improving the fiscal and investment climate in the state. Road sector reforms that may have longer term merit but would require strong political consensus, such as down-sizing OWD and comprehensive restructuring and outsourcing of activities, will jeopardize OWD capacity to simultaneously manage the implementation of this project, overburden the political space for reform and hence may not get full ownership from the GOO. Instead, the proposed incremental approach to reform will include introducing new cells within the existing OWD structure to manage an enhanced range of core functions, implementing targeted training programs for OWD, and initiating a new dedicated management structure for the core road network, while leaving the rest of the network under the existing arrangements. Such incremental and focused reforms – implemented with project-financed technical assistance and expert support - will have a greater chance of succeeding and demonstrating good results, which can then later be scaled up and developed further in other OWD areas and in other elements of the road sector. This is consistent with reforms undertaken in other states in India.

III. IMPLEMENTATION

A. Partnership arrangements

Not applicable

B. Institutional and implementation arrangements

43. The OWD will be the implementing agency for the project. A Project Management Unit (PMU) has been established in OWD since 2005 to handle the preparation of the project. The same PMU will continue to manage the implementation of the project during the execution phase. The PMU has been progressively fully staffed as per the staffing plan discussed with GOO and the Bank, and includes the following.

(i) Chief Engineer (World Bank Project) as head of the PMU and project director;

(ii) Six Executive Engineers to manage implementation of the project components and activities, including civil works and environment (4 engineers), asset management and PPP (1), and ISAP/ Information Disclosure (1);

(iii) Assistant Commissioner (1), Special Officer –cum- Zone Officer (1) deputed from the Revenue Department to handle land acquisition, R&R and other social aspects;

(iv) Senior Divisional Accounts Office deputed from the Auditor's General to take care of financial management and internal control; and

(v) Several Assistance/Junior Engineers, social and environmental staff, financial to work with the above senior engineers and officers on various activities.

(vi) Environment and Social Management Specialist and Financial Analyst are being recruited from the market to assist the PMU in the implementation of the environment and social safeguards.

44. *Civil works.* OWD will engage qualified contractors through international and national competitive bidding process to undertake the upgrading component. OWD will also recruit supervision consultants internationally to serve as the Engineer and supervise the work of the contractors. The OWD engineers will also monitor the work of the contractor and supervision consultant as the client's representatives in the field. In addition, a system of third-party monitoring, like use of the state government appointed independent panel of Project Quality Monitors (PQMs) will be instituted as part of the governance and accountability arrangement for the project.

45. *PPP Activities.* The responsibility for timely and adequate preparation of PPP projects supported under the OSRP would be vested directly to the OWD PPP Cell, which has been recently constituted. The PPP Cell currently comprises the Joint Secretary Planning, the Additional Financial Advisor, an Executive Engineer from the OWD, and some technical and support staff. The OWD PPP Cell is expected to assume ownership on behalf of OWD for all road PPP transactions regardless of the sponsor, and would be required to ensure that PPP projects are conceptualized, structured and implemented in a manner that is attractive to the private sector and, at the same time, ensure better value-for-money for the government and the end users. The PPP Cell would be supported by a Transaction Adviser, which has already been recruited and undertaking the preparatory studies to develop the first phase of PPP roads.

46. *ISAP Activities.* A Task Force, composed of senior OWD and GOO officials and headed by the Engineer-in-Chief of OWD, was established early during project preparation to draft the ISAP and discuss it widely with all stakeholders, including private sector representatives and relevant government departments. The same Task Force will continue throughout the project implementation period, under the oversight of the high-level OSRP Steering Committee, to oversee and coordinate the implementation of the ISAP-related activities, including the OWD modernization actions and the preparation and implementation of several policy and institutional reforms. A range of technical assistance and advisory services have been identified to support GOO and OWD to implement the ISAP. The focus of those services includes Road Asset Management, IT/ICT/MIS and other diverse Road Sector Institutional Development measures.

47. *Accountability and Transparency.* As part of the GAAP implementation to be supported under the project, a *disclosure policy* of the project has been formulated by OWD with the intention of allowing greater access to information, including disclosure of mid-term review reports, safeguards information, audit reports and selected information on the entire procurement process. In addition, *systems and procedures* are being developed to implement the disclosure

policy including document management system and information management system, as well *organizational arrangements* and *capacity building* plan, and *reporting and monitoring* arrangements to monitor implementation of the disclosure policy. As per the RTI requirements, a Chief Vigilance Officer (CVO) has been appointed in OWD.

48. *Third party monitoring.* Given the complex nature of the project, a third-party, composed of engineering/technical students and their professors drawn from local engineering universities, will be engaged to undertake independent monitoring of the road works. The third-party monitoring will focus primarily on quality aspects, including adequacy of design, execution of work by contractors, and adequacy of supervision and quality enforcement arrangement.

C. Monitoring and evaluation of outcomes/results

49. The Results Framework, shown in Annex 3, is the main instrument for monitoring and evaluation of the achievement of the PDO and outcome indicators. All required baseline data have been collected. During project implementation, bi-annual data will be collected on road conditions, traffic volume, vehicle operating costs and vehicle speeds on OSRP-financed roads. An asset management system to be developed during the project implementation will also generate the required data on the performance improvements of the main road network, including the OSRP roads. Institutional development impact will be monitored as part of the ISAP implementation. This will include measuring the performance improvement of OWD in terms the use of objective criteria for maintenance planning and resource allocation, functioning of core business processes, and improvement in procurement and contract management, and enhanced disclosure of OWD activities.

50. At least three road user satisfaction surveys will be carried out, firstly at the start of the project, then at project mid-term and finally just before project closure, to assess the perception of road users of the performance of road sector conditions and services in Orissa. Road user satisfaction will be an important measure of whether the project is having an impact on the broader investment climate. In addition, a land-use impact study will be carried out after the project mid-term to assess whether project roads lead to improved land-use patterns and facilitate location of industries in project areas.

51. Physical and financial progress of the project components will be carried out as part of the Financial Management Report. OWD will be responsible for collecting the data and reporting on the agreed format on a quarterly basis.

D. Sustainability

52. The Operation and Maintenance arrangement envisaged for the completed roads includes managing the corridors as toll roads under private sector management concession. Thus, with the available finance from tolls and improved management, the sustainability of the improved roads is ensured. In the rest of the OWD roads, the near-term sustainability is ensured by the availability of funding from the Twelfth Finance Commission. For the medium-term, a new State Road Policy will be developed to allow dedicated financing for the road sector through fuel levy and other sources of financing. The planned institutional reforms and the capacity-building measures under the project will also contribute to the sustainability of project and sector outcomes by improving the efficiency of OWD to deliver road infrastructure services to users.

E. Critical risks and possible controversial aspects

Description of Risk	*Mitigation Measures*	*Rating[a] of Residual Risk*
Sector policies and institutions		
Overt public discontent with toll and the consequent weakening of GOO's resolve to continue with tolling.	Periodic dissemination of information on benefits of PPP to the public through well targeted campaigns.	L
Technical/Design		
Poor technical design results in road failure.	Detailed review of technical design during project preparation.	M
Implementation capacity and sustainability		
(a) Weak implementation capacity in OWD could strain the available resources, resulting in delays.	(a) OWD capacity will be strengthened by mobilization of carefully-targeted project-financed technical assistance and consultancy services to support the civil works, PPP and institutional strengthening elements of the project strategy.	M
(b) No experience in implementing PPP roads.	(b) OWD will be trained by transaction advisor on contract management of PPP roads and an independent engineer will be engaged to assist in monitoring of concessionaires' contractual obligations. States where PPP components have been implemented will be consulted.	M
Financial management		
(a) Use of parallel project reporting systems, with no in-built internal control measures for reconciliation, increases the exposure to risk that the expenditures reported may not be correct or reliable.	(a) Building the main project components as sub heads into the state's own budget classification will allow harmonization of the accounting and reporting processes for the project with the State's systems, avoid parallel accounting and reporting for the project and thereby increase the levels of fiduciary assurance by providing reliable information of actual spends.	L
(b) The dispersed nature of project implementation arrangements invariably results in delays in compilation of financial information (and SOEs) required for preparation of withdrawal claims.	(b) All project related payments (works and establishment) will be centralized at the PMU level and the new technologies available will be used by way of e-banking to make timely payments, on receipt of approved bills from the implementing divisions of OWD. In addition, the information on project related expenditures by project components obtained from the existing monthly financial reports prepared for the AG's Office will be used for purposes of preparation of monthly/quarterly interim unaudited financial reports.	L
(c) Weak capacity leading to submission of incomplete documentation required for traditional SOE method of disbursement.	(c) The project will use interim unaudited financial reports used for project reporting as supporting documentation for purposes of disbursement. Under this arrangement, the requirement for submitting additional documentation is minimal.	L
(d) Delays in providing funds for project implementation have been a standard feature of the Orissa portfolio, leading to inefficiencies in project management.	(d) Orissa has since overcome the cash constraints, as a result of increased tax revenues and increased transfers from central government. This is reflected in the fact that the state has not resorted to any overdrafts since 2004-05. While this remains an inherent risk, the probability of the same is not high given the current fiscal situation of the GOO.	L
(e) Delays in submission of audit reports, leading to suspension of	(e) Efforts have been made to mainstream accounting into the state systems, to allow the project financial statements to	M

Description of Risk	*Mitigation Measures*	*Rating[a] of Residual Risk*
SOE based disbursements.	be prepared from the AG's own financial reports. These measures will help to mitigate the risk of delays in submission of audit reports.	
Procurement		
(a) Weak capacity of procurement cell of the implementing agency.	(a) Development and implementation of permanent training program for the staff in procurement operations.	L
(b) Absence of complaint management system.	(b) It will be established and implemented under GAAP.	M
(c) Weak capacity of contractors and consultants during execution.	(c) Require contractors and consultants to be trained in national training centers. (d) Active marketing by GOO to attract qualified contractors within India and internationally.	M
(d) No prior experience in OWD on procurement of PPPs.	(f) An experienced transaction advisor has been engaged to undertake the preparation and procurement of PPP roads. Capacity Building support will also be financed.	L
Social and environmental safeguards		
(a) Significant adverse impact on environment.	Integration of findings of environmental assessment studies and public consultations in engineering design; development and inclusion of corridor-specific environmental management plans in contracts; a bio-diversity assessment and management plan, application of bio-engineering and erosion protection measures, dedicated staffing; capacity building and training for effective EMP implementation; robust supervision arrangements; regular and systematic monitoring and evaluation.	M
(b) Unduly harsh impacts on project affected persons (PAPs) due to delays in or incomplete implementation of Resettlement Action Plan.	Application of a resettlement and rehabilitation (R&R) entitlement framework which was based on the R&R policy developed and endorsed by the Government of Orissa in 2006 and in compliance with the Bank's OP 4.12; development and application of a tribal development strategy that includes measures to help tribal communities access project benefits; adequate client staffing; establishment of a grievance mechanism for PAPs; robust internal and external monitoring.	L
(c) Uncertain management of sensitive environmental and tribal areas by PPP concessionaires.	In addition to the above, designs of stretches that pass through 'sensitive' areas will be decided up-front during preparation and no changes allowed by PPP concessionaire.	L
Other [b]		
Corruption, specifically collusion of contractors and unexplained cost overruns of works.	Governance and Accountability Action Plan (GAAP) agreed, which includes implementation of RTI and the actions agreed under the Orissa Anticorruption Action Plan that are relevant to PWD. Supervision Strategy developed, focusing on independent, field-based physical verification and improved procurement and financial management oversight. Finally, the project will be subject to the Bank's new ACG and sanctions regime.	M
Overall Risk (including Reputation Risks)	M	

Legend:
H – High; S – Substantial; M – Moderate; L – Low; N – Negligible.

Memo items:
[a] Rating of risks on a four-point scale according to the probability of occurrence and magnitude of adverse impact.
[b] Other examples include cost escalation, prevalence of failures in similar projects, adverse external developments affecting costs/benefits of the project, and risks specific to operations in conflict-affected areas.

F. Loan/credit conditions and covenants

53. *Effectiveness.* Only standard effectiveness conditions apply.

54. *Implementation Stage.* In addition to the standard covenants for financial management, report and auditing, the following covenants will be incorporated in the legal documents.

55. **Institutional Arrangement and Project Implementation.**

The Government of Orissa / Orissa Works Department shall:

(i) maintain the State Level Empowered Committee, and ensure that the State Level Empowered Committee provides the overall direction and governance authority for the Project, and has the composition and powers sufficient to fulfill its functions under the Project;

(ii) maintain the ISAP Steering Committee, and ensure that the ISAP Steering Committee is responsible for the implementation of the ISAP, and has the composition and powers sufficient to fulfill its functions under the Project;

(iii) maintain the PMU, EMC, SMC and PPP Cell and ensure that the PMU, EMC, SMC, PPP Cell, and the OWD field offices have officials, staff and resources required under the Project;

(iv) ensure that the EMP and the RAP for Phase II Roads are prepared and adopted by the OWD in a timely manner, and are consistent and comply with the R&R Framework;

(v) ensure that the Project is carried out in accordance with the terms, conditions and procedures set forth in the ISAP, EMPs, R&R Framework, RAPs, HIV/Aids Action Plan, Financial Management Manual, Anti-Corruption Guidelines and GAAP; and that ISAP, EMPs, R&R Framework, RAPs, HIV/AIDS Action Plan, Financial Management Manual and GAAP are not revised, amended, or abrogated without the prior approval of the Bank;

(vi) ensure that the OWD carries out a traffic census and a vehicle speed survey on the Core Road Network every two years, with content and in a format satisfactory to the Bank, and publishes the results on the OWD website, with the first report due by March 31, 2010;

(vii) ensure that the OWD carries out an annual roads condition survey of the Core Road Network, and provides a copy of the survey report to the Bank by March 31, with the first report due by March 31, 2010;

(viii) carry out, with respect to the Project roads: (a) three user satisfaction and land use surveys, and produce reports for each survey, with the first (baseline) survey to be carried out and the report to be produced no later than June 30, 2009, and the second survey to be carried out and the report to be produced no later than June 30, 2011, and the third survey to be carried out and the report to be produced no later than June 30, 2013; (b) one value engineering and quality review the report to be produced no later than June 30, 2010;

(ix) by December 31, 2008, designate the most important State roads as Core Road Network, ensure earmarking of funds for such Core Network Roads in the 2009/2010 State of Orissa budget, and assign a separate Chief Engineer for managing the Core Road Network;

(x) by December 31, 2010, carry out the road sector institutional development study in accordance with terms of reference satisfactory to the Bank;

(xi) by December 31, 2011, adopt a road sector policy taking into account the recommendations of the road sector institutional development study;

(xii) by December 31, 2012, prepare a comprehensive road master plan covering roads under the OWD management, and revise and update the road reclassification system, taking into account with the recommendations of the road sector institutional development study; and

(xiii) by June 30, 2013, adopt operation and management arrangements, including toll management arrangements, where appropriate, for the completed Project roads, taking into account the recommendations of the road sector institutional development study.

56. **Project Monitoring, Reporting, Evaluation**

(i) OWD shall monitor and evaluate the progress of the Project and prepare Project Reports on the basis of indicators agreed with the Bank. Each such report shall cover the period of one Fiscal Year quarter, and shall be furnished to the Borrower and the Bank no later than forty-five (45) days after the end of the period covered by such report.

(ii) OWD shall carry out a comprehensive mid-term Project review, and shall by December 31, 2010, prepare and furnish to the Bank a mid-term Project progress report, satisfactory to the Bank.

57. **Financial Management, Financial Reports, Audits**

(i) The GOO shall maintain a financial management system and prepare financial statements related to the Project in accordance with consistently applied accounting standards acceptable to the Bank, both in a manner adequate to reflect the operations and financial condition of the Project Implementing Entity, including the operations, resources and expenditures related to the Project.

(ii) The GOO shall prepare and furnish to the Bank as part of the Project Report not later than forty-five (45) days after the end of each Fiscal Year quarter, interim un-audited financial reports for the Project covering the quarter, in form and substance satisfactory to the Bank.

(iii)The GOO shall have the financial statements referred to above audited by auditors acceptable to the Bank, in accordance with consistently applied auditing standards acceptable to the Bank. Each audit of these financial statements shall cover the period of one Fiscal Year. The audited financial statements for each period shall be furnished to the Borrower and the Bank not later than six (6) months after the end of the period.

IV. APPRAISAL SUMMARY

A. Economic and Financial Analysis

58. Economic feasibility study has been undertaken on the project roads, which were first screened through the Strategic Options Study carried out by the OWD. The evaluation assessed whether widening of the proposed project roads to 2-lanes is justifiable based on current traffic counts and projections, and road condition survey. The evaluation was done using the Highway Development and Management Model (HDM-4), a globally accepted analytical tool for economic analysis of highways investment alternatives, which simulates life cycle conditions and costs and provides economic decision criteria for multiple road design and maintenance alternatives. The main project economic benefits are savings in vehicle operating costs, travel time costs, distance savings for bypasses, and maintenance cost reductions resulting from the road improvements. The Economic evaluation has been carried out on the basis of incremental costs and benefits comparing the total net benefits for five engineering alternatives with the "Do Minimum" alternative, defined as doing only routine maintenance and reconstruction after the 10th year of evaluation period when the roads are in very bad condition.

59. The economic evaluation was done on 461 km of roads which make up the project scope. The evaluation was done on six individual roads, three individual corridors, and the project as a whole. For the project as a whole, the economic evaluation shows that the project will have a Net Present Value (NPV) of US$287 million at a 12 percent discount rate over a twenty-year evaluation period, and the Economic Rate of Return (ERR) is estimated at 25.1 percent. The evaluation did not take into account the recent, high increases in oil prices. If such increases remain, the economic returns of improving the roads would be higher than estimated. This is because the increase in the cost for widening and paving (asphalting) the roads due to the higher oil prices would be proportionally less than the savings in vehicle operating costs as the better roads would result in lower unit consumption of oil and oil-related inputs.

60. For ***PPP roads***, a high-level pre-feasibility analysis was carried out to select road improvements on a PPP basis. Four candidate roads were selected for the analysis based on their existing high traffic count and potential to attract private sector financing. The roads are located in the mining and industrial zone of Orissa. The analysis suggested that three roads, namely, SH-10 (165 km for four-lane), Joda-Bamberi (18 km for double-lane) and Koira-Rajamunda (46 km

for double-lane) may be viable PPP projects and were included in the assignment for the PPP transaction advisor to undertake detailed feasibility study and further develop the roads as PPP.

61. ***Fiscal Space.*** Orissa's annual net borrowing (fiscal deficit) as well as its aggregate capital spending have, in recent years, been much below its own targets as well as centrally prescribed limits. Orissa has met its Fiscal Responsibility and Budget Management Act targets well ahead of time. Orissa's upper limit for capital spending is three percent of the GSDP, but in recent years, this has hovered around two percent. Fiscal space is therefore not a constraint, and the proposed loan size will fit in within this fiscal space. The project will also help Orissa move towards the goal of increasing capital spending on budget towards three percent of GSDP. Furthermore, borrowing more under this project will not affect the aggregate debt burden, because Orissa is operating within prescribed ceilings.

B. Technical

62. In general, all roads are proposed to be widened to two lanes (at least seven meters of carriageway width). Some of them with higher potential for future traffic will be designed with paved shoulders of 1.5m while others are designed with gravel/earthen shoulders. The total width of the carriageway plus the shoulders on either side is maintained at 12 m as per the Indian standards. In built up areas as requested by the local inhabitants, the land acquisition and adverse impact to the roadside inhabitants will be kept to a minimum. The designs in such locations will be 10 m wide road including 1.5 m of raised footpaths and drains underneath.

63. The existing horizontal have been modified at critical spots to avoid sharp curves and/or accident black spots. Vertical and horizontal alignment designs cater at most of the places to serve the standards fit for good state highways i.e. a speed of 80 km per hour. Cross drainage structures have been widened to cater to the increased width of approach roads. Other aspects like lane marking, road signs, junction improvements with important major roads, providing road side appurtenances/amenities for trucks and buses and pedestrian amenities in built-up areas have all been incorporated in the designs to cater to public needs. Bypass options wherever the roads pass through heavily built up towns have been considered in consultation with OWD and the local public. Eight bypasses/realignments around congested towns have been considered to ensure smooth flow of traffic. The project also considers the need for wildlife movement at critical places and provides for animal crossings and underpasses.

64. Specification and design standards adopted for the upgrading component of the project are consistent with the specifications for state highways as per Indian standards and cater for traffic flow over the next 20 years. Due to the very poor condition of pavement surface observed on certain stretches, the existing pavement will be re-constructed and a new pavement built along with the widening portions to prevent reflective cracking and differential settlements. The design raises the roads wherever necessary to allow for high water table levels. Bridges and other important cross drainage structure designs for rehabilitation or reconstruction have been based on rational testing procedures to estimate residual life through the latest techniques. The designs of new structures have been based on hydrological studies, geotechnical investigations and standard structural design methods consistent with the Indian codes and specifications.

C. Fiduciary

65. The design of the Financial Management (FM) arrangement for the proposed project takes into account the recommendations and lessons of the *State Financial Accountability Assessment* (SFAA 2004). The key design features include the use OWD financial management system, which is considered satisfactory, and the Bank's simplified disbursement policies to mainstream the project's FM arrangement, to the extent possible, within the State's own FM framework.

66. The project will be budgeted as a separate line under Planned Demand for Grants (No. 07) and will be designed to allow all project-related expenditures to be separately identified, accounted and reported in the consolidated Monthly Appropriation Report prepared by the Accountant General (AG) of Orissa. Details of expenditures by project components and sub components will be tracked at the activity level, and the updated information will be available at the AG and OWD levels. Accounting for project expenditures will be maintained on cash basis as per GOI systems as laid down in the PWD accounts and codes. This requires the OWD to compile their accounts monthly, for submission to the AG. The field units close their books every month and submit the details to the AG by the $10^{th.}$ of the next month.

67. *Report-based Disbursement.* Following the above budgeting and accounting arrangement, project-related expenditure reports will be prepared for the AG's Office and the same report will be used for purposes of preparation of monthly/quarterly interim unaudited financial reports for the project. Activity- level details of the expenditures will be captured at the project level in a manner that will allow the PMU to monitor financial progress against the Annual Work Plans. For purposes of disbursement, the total expenditures reported will be discounted for ineligible expenditures, such as the pro-rata charges, land acquisition and utility shifting expenditures (as identified by a separate budget line). Projection of expenditures for the next two quarters will help determine the value of withdrawal application. The Interim Financial Reports will also include a list of payments against contracts that are subject to the Bank's prior approval. The form and contents of these reports have been agreed with OWD.

68. Project funds will be deposited in advance into the designated account maintained in US dollars. The designated account will be operated by the GOI. Funds will be withdrawn from the designated account on the receipt of quarterly withdrawal applications from GOO and transferred to GOO following the standard Centre-State mechanism of Additional Central Assistance. Replenishments into the designated account will be based on interim unaudited financial reports and will be processed by GOI on a quarterly basis. The interim unaudited financial reports will provide information on expenditure made in the previous quarter and forecast for two subsequent quarters. Quarterly disbursements would be made based on these financial reports, providing funds for two subsequent quarters after adjustment for past disbursements.

69. The Central AG of India through its offices in Orissa will be the statutory auditor for the project. The CAG's office will conduct an annual audit of the operations of the Project. The audit report will be submitted to the Bank within six months of the close of each financial year. The Terms of Reference for the audit have been prepared in agreement with the Bank and have been sent to the CAG of India for their approval. The form of annual financial statements will be prepared by the OWD and will be agreed with the CAG of India.

D. Social

70. The core principle in planning and implementation of the project has been to minimize adverse impacts on the local population, and for those avoidance was not possible, the project would provide support to affected people to mitigate for whom their losses and help them restore their livelihood. Accordingly, project affected people will be compensated for their losses and supported as per the R&R entitlement framework of the project agreed with the Bank.

71. *Social Assessment.* As part of project preparation, a comprehensive Social Assessment (SA) was carried out for all selected roads. The roads were first screened and prioritized taking into account social and environment parameters, in addition to economic and technical criteria. The SA for the selected roads included identification of the type and extent of impacts due to project intervention, marking of properties coming within the right of way (RoW) and identifying those coming within the corridor of impact, a census survey of affected families and extensive consultations with the project stakeholders. The assessment also included the details of land acquisition/appropriation. Based on the findings of the SA and the state R&R Policy (April 2006), and R&R Entitlement Framework, complying with Bank's OP 4.12, has been prepared for the project. Accordingly, resettlement action plans (RAPs) have been prepared for the first year project roads, and RAP preparation is under progress for the second year roads.

72. *Indigenous People Development Plans.* Since a number of project roads pass through tribal areas, a focused assessment was undertaken to identify the issues related to indigenous peoples (referred as tribal) and this included consultations with different groups of these communities. This assessment provided a base for developing a tribal development strategy, which includes measures to help tribal communities to access project benefits at par with others. Additional measures required to help tribal communities have been presented as Tribal Development Plan (TDP) for each contract package, wherever tribal communities constitute significant proportion of the local population. TDP has been included in the RAP and will be implemented during the course of the project period through the institutional arrangement agreed for implementing RAP.

73. *HIV/AIDS Mitigation.* Orissa reports low number of HIV cases, primarily due to lower surveillance data and lack of knowledge about HIV/AIDS in rural areas. However, with the proposed improvement of roads, mobility of commercial sex workers, migrant workers and truckers will increase and hence chances of transmission of HIV/AIDS. The strategy under the project is to prevent HIV/AIDS cases through increased awareness level, referral services for medical care and treatment and safe sex. The strategy for implementation includes partnering with Orissa State AIDS Control Society (OSACS) and the NGOs working with it.

74. *Road Safety Awareness Program:* The project will support community awareness campaign in project corridors to reduce the risk of accidents by providing road safety information to local communities and road users, and educating the community and school children about the changes in traffic patterns and speed on the road, as well as the necessary actions to be taken in the event of the accident. The road safety awareness campaign will be carried out by NGO, in consultation with OWD and the traffic police.

75. *Stakeholder Consultation.* An important aspect of SA was extensive consultations with the project stakeholders including the affected communities, local population, NGOs and civil societies, elected representatives, District Administration, OWD and staff from other relevant government agencies. These consultations which have been adequately documented provided

input to the design of the projects and in preparing social management plans including RAP, TDP and HIV/AIDS Action Plan. These stakeholders' consultations will continue during the course of project implementation.

76. *Implementing and Monitoring Social Activities:* The social management plans (RAP, TDP and HIV/AIDS Plan. Road Safety Awareness) will be implemented by the several NGOs to be deployed to each contract package. There will be Package-level NGO and a nodal NGO at the PMU-level to help coordinate the work of Package level NGOs. Project will have both internal and external mechanisms to monitor the implementation progress of social and environmental management plans. Internal monitoring at the package level will be done by the Package Manager and the facilitating NGO and the same at the project level will be done by the Social and Environmental Unit of the PMU. An inbuilt mechanism (including Rehabilitation & Periphery Development Advisory Committee), envisaged in the state R&R policy will redress grievances for the affected people. Mid-term and end-line evaluation of social management plans including implementation of RAP, TDP, HIV/AIDS Plan will be done by this M&E agency.

E. Environment

77. ***Environmental Impacts.*** Due to the rich biodiversity and natural resources of the state, the project activities, if not properly mitigated, could have adverse environmental impacts on forests, roadside vegetation, wildlife, and some hill slopes. These impacts include: (i) direct/indirect impacts on forests and wildlife including pressure on already fragmented wildlife habitats and movement zone restrictions; (ii) felling of large number of roadside trees; (iii) adverse impacts on water resources used by the people, including ponds, river/streams, canals and hand pumps; and (iv) health and safety concerns during construction and operation stages. The environmental impacts could also include some adverse impacts on schools, hospitals and religious properties located along the road corridors due to increased noise and air pollution during construction and operation stages of the project.

78. ***Environment Management.*** During project preparation, environmental studies, including, Environmental Screening, Environmental Assessment and Biodiversity Study, and extensive public consultations were carried out to inform the project design. The findings and recommendation from the studies and consultations have been integrated into the engineering design and contract documents of the project to help avoid and reduce environmental impacts. Appropriate measures have been developed and included in the corridor-specific Environmental Management Plans (EMPs) to address the various issues identified during EA. These plans address construction-stage and operation-stage impacts such as: (a) air and noise pollution including dust generated from material transport, crushers and asphalt plants; (b) water and soil pollution from spills of fuel, lubricants and construction camp wastes; (d) operation and rehabilitation of borrow pits, quarries and construction camps; (e) traffic safety and management; and (f) worker's health and safety. EMPs also include monitoring plans and reporting arrangements for both construction and operation-stage activities. A Biodiversity Assessment Study (including management plan preparation) dealing with protection, avoidance and minimization of adverse impact on forests, wildlife and designated protected areas has been prepared to further enhance environmental management in the project. In addition, bioengineering initiatives will be introduced for slope stabilization along roads where hill cutting would be required for widening and geometric improvements to increase road safety, reduce road

maintenance cost and improve aesthetics. Implementation and monitoring arrangements required for environmental management in the Project are summarized in detail in Annex 10.

F. Safeguard policies

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	[X]	[ ]
Natural Habitats (OP/BP 4.04)	[X]	[ ]
Pest Management (OP 4.09)	[ ]	[X]
Cultural Property (OPN 11.03, being revised as OP 4.11)	[X]	[ ]
Involuntary Resettlement (OP/BP 4.12)	[X]	[ ]
Indigenous Peoples (OP/BP 4.10)	[X]	[]
Forests (OP/BP 4.36)	[X]	[ ]
Safety of Dams (OP/BP 4.37)	[ ]	[X]
Projects in Disputed Areas (OP/BP 7.60)	[ ]	[X]
Projects on International Waterways (OP/BP 7.50)	[ ]	[X]

79. ***Environmental Assessment (OP/BP/GP 4.01).*** The environment category of the project is A. The process has included undertaking: (i) Environmental Screening carried out in parallel with the engineering feasibility study; (ii) Environmental Assessment along with corridor-specific EMP and (iii) Biodiversity Assessment Study, prepared in parallel to detailed design. As the same firm is conducting both the engineering and safeguard studies, a concurrent independent review of the assessment and instruments has been conducted. The provisions of these management instruments have been appropriately incorporated in the bidding documents.

80. ***Natural Habitats (OP/BP 4.04).*** Some of the roads pass through or are located close to National Parks and Sanctuaries (such as Bhadrak-Chandbali near Bhitarkanika Sanctuary; Berhampur-Bangi Junction road near Lakhari Valley Elephant Sanctuary; Bhadrak-Anandpur road near Hadgarh Wildlife Sanctuary). However, the direct project impacts on such critical natural habitats are limited, although some induced or indirect impacts are possible if the impacts are not properly mitigated and managed. The biodiversity assessment study has identified a management plan to avoid, minimize and manage such environment risks and provides for site-specific measures such as underpasses, plantation works, provision of warning signage, development of water holes, etc. The direct impacts can be/will be largely avoided through design modifications.

81. ***Cultural Property (OP 4.11).*** A total of 118 religious properties/structures in year-one and similar or higher numbers of religious properties/structures in year-two are likely to be affected by the project. Appropriate provisions for relocation and/or enhancement of such properties have been made in the project. In the event that "chance find" occurs for archeological significance during excavation works, the EMP has provided for this occurrence.

82. ***Forests (OP/BP 4.36).*** Compensatory afforestation and plantation will be carried out as per the state's regulatory norms for the loss of trees due to widening and geometric improvement works.

83. ***Disclosure.*** Local disclosure of environment documents was carried out through public consultation and dissemination workshops across the state from November 2006 to June 2007.

The Environment Screening Report for all project corridors was disclosed at the Bank's InfoShop and state and local level (website and libraries respectively) in November 2006. The Draft EA report (including Biodiversity Assessment Report) for year-one contracts was disclosed in the GOO website in May 2007. The final EA, corridor-specific EMPs, Biodiversity Assessment Report for year-one works was disclosed in the OWD website and InfoShop before appraisal. Copies of all the above documents are available in the OWD/PMU headquarters and its field offices, as well as in the state and district libraries. Similarly, all social management plans (RAP, TDP and HIV/AIDS plan) have been publicly disclosed and posted at the project website and InfoShop before appraisal, as well as state and district offices of the project and offices of the District Collectors and Public Relation Offices.

G. Policy Exceptions and Readiness

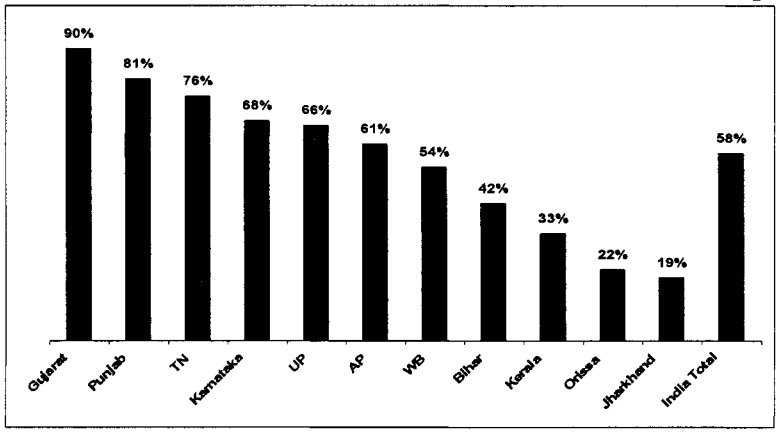
84. No policy exceptions are required. The project complies with the readiness filter for transport projects in India. The first year contracts and key consultancies are in advanced stages of bidding.

Annex 1: Country and Sector or Program Background

INDIA: Orissa State Roads Project

1. Orissa's 239,000 km road network is second only to Uttar Pradesh in terms of length. However, in terms of quality, Orissa's road network ranks among the lowest -- only 22 percent is paved, significantly below India's average of 58 percent or in other comparator states, most of which have above half of their road network paved (Figure 1).

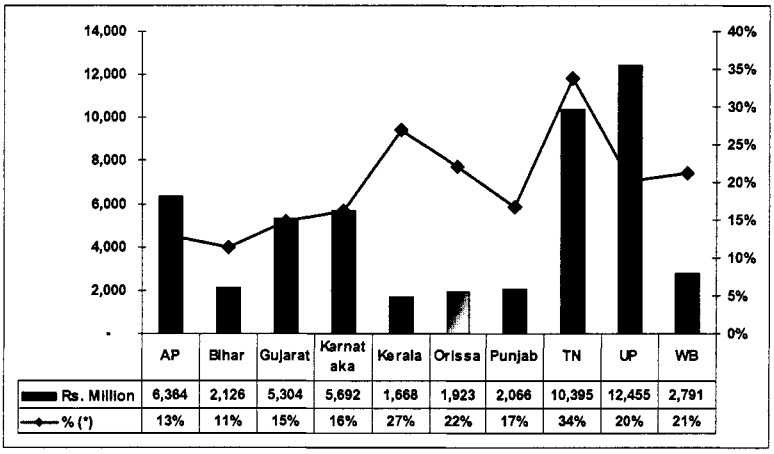
Figure 1: Paved roads as a share of total road network in Orissa and comparator states



Source: Statistical Abstract India 2004. Available at: http://mospi.nic.in

2. Current capital expenditures spent in absolute terms on Orissa's roads are insufficient to modernize the road network. While capital spending in Orissa's road sector as a share of total plan capital expenditures is comparable to other states, it is significantly lower in absolute terms (Figure 2). Orissa investment in the road sector is the second from the bottom in absolute terms; three times less than Karnataka and Andhra Pradesh, or five and six times less than Tamil Nadu and Uttar Pradesh, respectively.

Figure 2: Average annual road capital expenditures in Rs. Million and as a share of annual total plan capital expenditures, %, during 2001-2005

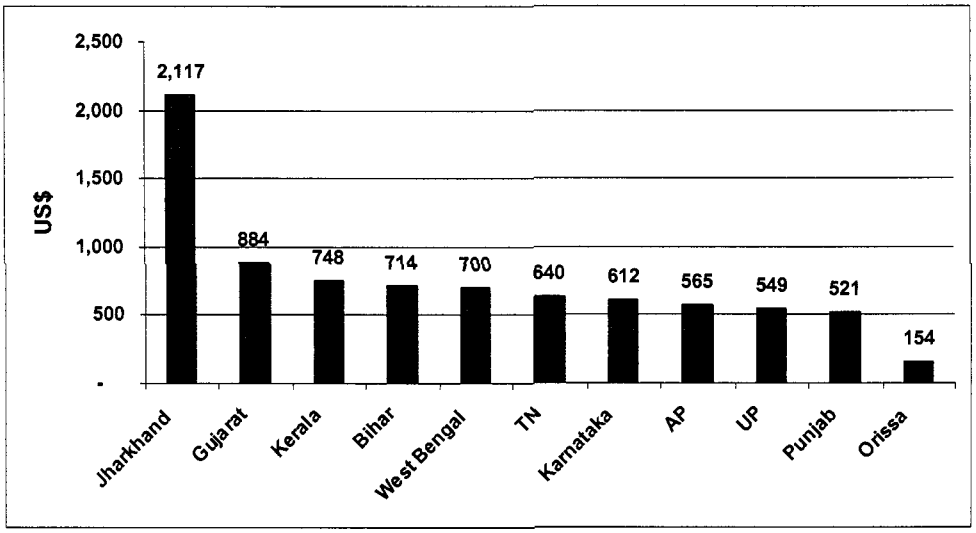


	AP	Bihar	Gujarat	Karnataka	Kerala	Orissa	Punjab	TN	UP	WB
Rs. Million	6,364	2,126	5,304	5,692	1,668	1,923	2,066	10,395	12,455	2,791
% (*)	13%	11%	15%	16%	27%	22%	17%	34%	20%	21%

Source: World Bank South Asia PREM Database.
Note: * - as a share of annual total plan capital expenditures, %

3. Similar to plan expenditure, Orissa spends substantially less on road maintenance than comparator states. In 2001-05 average annual revenue expenditures (which is allocated not only for maintenance, but also for salaries, pensions, interest payments) in Orissa road sector constituted around Rs. 1,400 million. Of all comparator states, Orissa is the only state that spends less than Rs.7,000 ($154) per km annually on maintenance, while other similar states spend above Rs.20-30,000 (US$500-700) and some even more (Figure 3).

Figure 3: Annual road maintenance expenditure in Orissa and comparator states during 2001-2005, US$/km



Source: World Bank South Asia Poverty Reduction (SASPR) Database 2006.

Future Road Maintenance and Investment Requirements

4. The major sources of funding for Orissa's road sector are the Twelfth Finance Commission (TFC) grant, PMGSY program and the proposed OSRP. Orissa still has very little plan expenditure, apart from the counterpart funds it provides these programs. The TFC and WB loan together will upgrade and improve about 30 percent of the main road network. Maintenance from regular plan budget is insignificant and mostly funds repair maintenance, wages and administrative expense. Bringing Orissa's road network into a maintainable condition would require substantial increase in funding. For the next seven years, it is estimated that Orissa will need to spend about US$400 million additional resources to maintain and improve its main road network. In addition, Orissa will need to develop high-capacity roads to meet the mining and industrial development needs of the country. According to analysis done during project preparation, Orissa's current paved highways need to increase from the 7,351 km to 17,177 km if Orissa is to attain the industrialization level currently achieved by states like Gujarat. Therefore, Orissa's capital expenditure for widening and modernizing its highways will be substantial.

Public-Private Partnership in the State and the Road Sector

5. GOO is keen to use public-private partnerships to address the infrastructure deficits in a wide variety of sectors ranging from power, transport and urban amenities to education, health and tourism. It has already established a PPP Cell as part of the State Planning and Coordination Department and also recently approved a PPP policy. As a result of this initiative, there are

currently 27 PPP projects (Table 1). For the road sector, there are 9 PPPs proposed and would be developed on stretches where tolling can help recover a large proportion of project costs.

Table 1: PPP Projects in Orissa

Sector	Number of PPP Projects in various stages				Total	
	Construction / Implementation	Bidding	Detailed Project Report	ISR / RFP	Nos.	App.Cost (Rs. Cr.)
Road	1 (28 Km.)	-	-	8 (523 Km.)	9 (551 Km.)	2334
Railways	1 (78 Km.)	-	2 (169 Km.)	-	3 (247 Km.)	1163
Ports	2	-	-	2	4	7900
Others(*)	3	4	4		11	1180
Total:-	7	4	6	10	27	12577

Source: The World Bank, Orissa in Transition: From Fiscal Turnaround to rapid and Inclusive Growth, April 7, 2007.
Note: In addition, the shelf also contains five projects for which cost estimates are not available. These comprise of one project in the Aviation sector (ISR/RFP stage) and four projects in Housing & Urban Development. (3 in construction/implementation stage and 1 in ISR/RFP stage)
(*) Others comprise projects in Tourism, IT, Industry and Fisheries sectors.

6. The institutional framework in place needs to ensure that line departments have sufficient ownership of the PPP program. The current approach of the state level PPP Cell, rightly, envisages that the line Departments (and their respective PPP Units) will "own" the PPP projects and, at the same time, work in tandem with the state level PPP cell so as to take advantage the latter's ability to facilitate as well as mobilize an array of resources, skills and capabilities to expedite PPP transactions. However, at present, the focus seems to be predominantly on the PPP cell developing individual/isolated PPP transactions which are not obviously integrated into the sector investment program or the line department activities. GOO has recognized that, in certain sectors, for example roads, the full potential of PPP could be better harnessed through a systematic planning of PPPs by the line agencies, due to the various factors such as the scope for replication, network economies and the need for relatively intensive monitoring over long periods. Accordingly, the state acknowledged the need to build capacities for undertaking PPPs not only in the State level Cell but also in a few selected Line Departments that will be undertaking substantial PPP programs. In line with this, GOO has constituted a PPP Cell in OWD. The OWD PPP Cell is expected to assume ownership on behalf of OWD for all road PPP transactions regardless of the sponsor (industrial organizations, OWD, etc). Specifically, the OWD PPP Cell would be expected to ensure that the road PPP projects are conceptualized, structured and implemented in a manner that is attractive to the private sector and, at the same time, ensure better value-for-money for the government and the end users.

7. GOO has also decided to emphasize that PPPs must be pursued only where they represent value-for-money for the government. However, translating this principle into practice would require strengthening the capacity of the Finance Department to measure and report the financial support provided by GOO, including tax breaks, land grants, and contingent liabilities. Such costs need to be factored into decision-making by line agencies. This support is envisaged as part of the overall economic support to be offered by the Bank. All PPP roads in the project, irrespective of source of funding, will be prepared in accordance with the social and environmental management framework (R&R policy, Tribal Development Strategy and HIV/AIDS plan, EA, EMPs including biodiversity assessment, as required) agreed for the project.

Annex 2: Major Related Projects Financed by the Bank and/or other Agencies

INDIA: Orissa State Roads Project

Issue	Project	Latest Supervision Ratings	
World Bank-financed, completed or on-going		Implementation Progress	Development Objective
Capacity expansion of national highways and institutional strengthening of MOSRTH and NHAI	Second National Highways Project (Ln.3470, Cr.2365-IN),	Completed	S
	Third National Highways Project (Ln.4559-IN),	MS	MS
	Grand Trunk Road Improvement Project (Ln.4622-IN)	MS	MS
	Allahabad Bypass Project (Ln.4719-IN)	S	S
	Lucknow Muzaffarpur National Highway Project (Ln. 4764-IN)	S	S
Enhancement of institutional capacity to prepare projects at the state-level	State Roads Infrastructure Development Technical Assistance (Ln.4114-IN)	Completed	S
Capacity expansion, maintenance and institutional development of state road agencies	Andhra Pradesh State Highway Project (Ln. 2490-IN)	Completed	S
	Gujarat State Highway Project (Ln.4577-IN)	Completed	S
	Karnataka State Highways Improvement Project (Ln.4606-IN)	Completed	S
	Kerala State Transport Project (Ln.4563-IN)	U	MU
	Mizoram State Roads Project (Ln.3618-IN)	MS	MS
	Uttar Pradesh State Roads Project (Ln.4685-IN)	S	S
	Tamil Nadu Road Sector Project (Ln.4706-IN)	MS	MS
	Himachal Pradesh State Roads Project (Ln.4860-IN)	Approved	Approved
Widening and strengthening of two state roads in Gujarat in a commercial format: Vadodara – Halol SH and Ahmedabad – Mahesana SH, Delhi Noida Toll Bridge	Infrastructure Leasing & Financial Services (Ln.3992-IN; Cr.2838-IN)	S	S
Other development agencies, completed, ongoing and planned			
ADB- Capacity expansion of national highways and institutional strengthening of NHAI/MOSRTH	First Highway Project, Second Highway Project, National Highway Project	Completed	
Japanese Bank for International Cooperation (formerly OECF) - Capacity expansion of national highways and institutional strengthening of NHAI/MOSRTH	Yamuna Bridge Project, National Highway Project	Completed	
ADB - Capacity expansion of NH and SH and institutional strengthening of agencies	National Highway Corridor I, Surat-Manor Tollway Project, Chattisgarh State Roads Project, National Highway Corridor II, MP State Roads Project	Ongoing	

Status of India Road Projects Financed by the Bank

Projects	Loan amount, USD million	Length of NHs or SHs, km		Project Status	Date of approval
		widening/ upgrading	Other improvement (PM)		
NHAI Projects					
Second National Highways Project	153	290		Completed	12-May-1992
Third National Highways Project	516	475		Under implementation	08-Jun-2000
Grand Trunk Road Improvement Project	589	620		Under implementation	21-Jun-2001
Allahabad Bypass Project	240	84.7		Under implementation	14-Oct-2003
Lucknow Muzaffarpur National Highway Project	**620**	**483**		Under implementation	21-Dec-2004
Sub-total for NH projects	**2,118**	**1,952.7**			
State Projects					
Karnataka	360	1,000	1,300	Completed	24-May-2001
Kerala	255	624	1,000	Under implementation	14-Mar-2002
Tamil Nadu	348	750	2,000	Under implementation	17-Jun-2003
Mizoram	60	184	520	Under implementation	14-Mar-2002
Gujarat	381	900	1,000	Completed	5-Sep-2000
Uttar Pradesh	488	1,000	2,500	Under implementation	19-Dec-2002
Punjab	250	360	590	Under implementation	5-Dec-2006
Andhra Pradesh	350	1,400	1,750	Completed	17-Jun-1997
Himachal Pradesh	220	447	2,000	Under implementation	5-Jun-2007
Sub-total for SH projects	**2,712**	**6,665**	**12,660**		
TOTAL	**4,830**	**8,618**	**12,660**		

Annex 3: Results Framework and Monitoring

INDIA: Orissa State Roads Project

Results Framework

PDO	Project Outcome Indicators	Use of Project Outcome Information
1. Remove transport bottlenecks in priority transport corridors for greater investment and economic and social development activities.	1.1 vehicle operating costs (at 2006 constant input prices) in project corridors reduced as follows: Cars/LMV: From 4.3 to 3.6 Rs/veh-KM (15%) Trucks: From 10.2 to 8.8 Rs/veh-KM (14%) Buses: From 8.7 to 7.1 Rs/veh-KM (18%) 1.2 vehicle speed in project corridors increased as follows: Cars/LMV: 45 to 60 KMPH (33%) Trucks: From 35 to 45 KMPH (29%) Buses: From 40 to 55 KMPH (38%) 1.3 favorable response by firms about the condition of road corridors improved under the project 1.4 OWD efficiency and transparency improved: (i) Operation and Maintenance arrangement for the Core Road Network put in place; (ii) core business functions fully operational; and (iii) OWD meets RTI disclosure requirements and implements the GAAP	To assess the project's contribution to improve the state's investment climate
Intermediate Outcomes	**Intermediate Outcome Indicators**	**Use of Intermediate Outcome Monitoring**
1 Three priority road corridors improved in socially and environmentally sustainable way	1.1 461 km of state highways widened and upgraded efficiently 1.2 Environmental management plans effectively implemented 1.3 Social safeguard measures (R&R, TDP, HIV/AIDS Mitigation, and Road Safety Awareness program) effectively implemented in project corridors	To assess the performance of the project and to redirect it, if necessary, to achieve the PDO
2. PPP in the Road Sector Introduced	2.1 One road identified for PPP is concessioned out to the private sector	To assess the performance of the project and to redirect it, if necessary, to achieve the PDO
3 OWD Core Business Units/Cells Fully Functional	3.1 Road Asset Management, PPP Transactions, Road Safety and Environment and Social Management operational and execute annual business programs, and IT/ICT/MIS operational 3.2 Milestones in GAAP and ISAP met	
4 Conducive road sector policy put in place to govern the management, financing and safety of the road network	4.1 Improved policy and legislative framework in place 4.2 Sustainable road maintenance financing options studied and suitably implemented 4.3 Road Safety Action Plan established and being implemented	

Arrangements for Results Monitoring

	Actual Value	Target Values					Data Collection and Reporting		
Outcome Indicators	**Baseline (2006)**	**YR1**	**YR2**	**YR3**	**YR4**	**YR5**	**Frequency and Reports**	**Data Collection Instruments**	**Responsibility for Data Collection**
1.1 vehicle operating costs in project corridors reduced by 15%	Cars Trucks Buses	4.29 10.22 8.70		15% 3.62 8.77 7.10		15% 3.62 8.77 7.10	Bi-Annual High Priority Network Condition Reports	RAMS	OWD/PMU
1.2 vehicle speed in project corridors increased from by 36%	Cars Trucks Buses	45 35 40		36% 60 km/hr 45 55		36% 60 km/hr 45 55	Bi-Annual High Priority Network Traffic Reports	RAMS	OWD/PMU
1.3 favorable response by firms about the condition of road corridors improved under the project	To be undertaken YR1			To be undertaken		To be undertaken	Baseline survey, MTR and EOP user satisfaction surveys	Survey	Independent Consultant
1.4 OWD efficiency and transparency improved: (i) Operation and Maintenance arrangement for the Core Road Network put in place; (ii) core business functions fully operational; and (iii) OWD meets RTI disclosure requirements and implements the GAAP.	To be undertakenYR1			To be undertaken		To be undertaken	User Satisfaction Surveys – every two years	Survey	OWD
Results Indicators for Each Component									
Component 1 (Road I Corridor improvement Component)									
1.1 461 km of state highways widened and upgraded efficiently	0%			204 km		461 km	Semi-annual progress report, Monthly reports, quarterly FMRs	In-house reporting, certification of quantities by CSC	OWD/PMU/CSC
1.2 Environmental management plans effectively implemented	0%			100% for Phase I		100% for Phase II	EOP report	In-house reporting	OWD/PMU
1.3 Social safeguard measures (R&R, TDP, HIV/AIDS Mitigation, and Road Safety Awareness program) effectively implemented in project corridors	0%			100% for Phase I		100% for Phase II	MTR and EOP report	Independent impact assessment	Independent Consultant

	Actual Value	Target Values					Data Collection and Reporting		
Intermediate Outcome Indicators	**Baseline**	**YR1**	**YR2**	**YR3**	**YR4**	**YR5**	**Frequency and Reports**	**Data Collection Instruments**	**Responsibility for Data Collection**
Component 2 (PPP Enabling, OWD Modernization, and Policy and Institutional Framework)									
2.1 One road identified for PPP is concessioned out to the private sector	Nil			1		1	Annual progress report	In-house reporting	OWD/PMU
3.1 Road Asset Management, PPP Transactions, Road Safety and Environment and Social Management operational and IT/ICT/MIS operational	Nil	RAMS/PPP Operational	ES operational	Road Safety Cell operational	IT/ICT/MIS 50 rollout	IT/ICT/MIS 100% rollout	Semi-annual progress report	In-house reporting	OWD/PMU
3.2 Milestones in GAAP and ISAP met	Nil		20%	60%	80%	100%	Study report and final report	In-house reporting	OWD/PMU
4.1 Improved Road Policy and Legislative Framework put in place	Nil			Study completed		Policy and Legal Framework approved by GOO	Study report and final report	In-house reporting	OWD/PMU
4.2 Sustainable road maintenance financing options studied and suitably implemented	Nil			Study Completed		Road Maintenance Financing Option suitably implemented	Annual report	In-house reporting	OWD/PMU
4.3 Road Safety Action Plan put in place	Nil			Study completed		New Safety Policy approved; institutional arrangement put in place, and Action Plan Implementation started	Study report and final report	In-house reporting	OWD/PMU

Annex 4: Detailed Project Description

INDIA: Orissa State Roads Project

1. The proposed project comprises two components: (a) Road Corridor Improvement Component, and (b) PPP Enabling Support, Sector Policy and Institutional and Policy Development, and Implementation Support Component.

Component A: Road Corridor Improvement Component

2. This component will support the development of three major transport corridors by widening and strengthening of about 461 km State Highways (SH). The road corridors and links were identified through the Strategic Options Study, which determined their priority among all the state highways, and were subjected to economic analysis to establish their economic viability. The three corridors serve 10 districts, improve transport connectivity to current and planned industrial and mining areas and tourist locations, connect major National Highways and ports in Orissa and neighboring Andhra Pradesh, and enhance the availability of transport services to poor and tribal communities living along the corridors. The current roads are mostly of single lane standard (3.5 meter), with some intermediate lane (5.5 meter) sections, and will be widened to double-lane (7 meters), and will have 2.5 meter shoulders on each side for a total road width of 12 meters, except in some environmentally sensitive areas and heavily built up locations, which will be designed and developed to minimize environment and social impacts. The list of roads to be taken up under the project is listed in Table 1 below. In addition, the project will finance the cost of repairing a high-level bridge on the Bansadhara River, which was damaged during the August 2007 floods. The bridge (150 meter span) is located on one of the project corridors (Berhampur-Bangi Jn-Rayagada) and will be reconstructed along with works for river training, embankment and approach roads.

Table 1: OSRP Major Transport Corridors

Corridor Name	KM	Road Link	SH	KM	Districts Covered
Jagatpur-Kendrapara-Chandbali-Bhadrak-Anandpur	201	Jagatpur-Kendrapara-Chandbali	SH-9A	99	Cuttack, Kendrapra and Bhadrak
		Chandbali-Bhadrak	SH-9	53	Bhadrak
		Bhadrak-Anandpur	SH-53	49	Bhadrak, Keonjhar
Kaharia-Bhawnipatna-	68	Kaharia-Bhawnipatna	SH-16	68	Kalanhandi, Bolangir and Nuapada
Berhampur-Bangi Jn-JK Pur (Rayagada) (including reconstruction of flood-damaged bridge (150 m) over Bansadhara River)	192	Berhampur-Bangi Jn	SH17	150	Ganjam, Gajapati and Rayagada
		Bangi Jn- JK Pur(Rayagada)	SH4	42	Rayagada
Total	461			461	

Component B: PPP Enabling Support, Sector Policy and Institutional Development, and Implementation Support Component

3. This component is designed to assist GOO to (a) attract private sector investment and management in the road sector, (b) modernize the main road agency in the state, (c) reform the sector policy and institutional framework governing the road sector, and (d) provide implementation support to facilitate effective and timely project implementation.

4. ***PPP enabling support.*** The project will assist GOO in attracting private sector financing to the road sector through leveraging the Viability Gap Funding (VGF) grant available form GOI for qualified PPP infrastructure projects. In particular, the loan will finance transaction advisor and independent engineer consultancy services for the upgrading and widening of three high traffic mining/industrial roads totaling about 229 km to be undertaken under PPP scheme. The roads were selected based on a high-level pre-feasibility study conducted during preparation and include the following:

a) Sambalpur-Rourkela Road (SH-10) 165 km four-lane from Rourkela (NH-23) to Sambalpur (NH-42);
b) Joda-Bamberi Road ("Expressway II") – 18 km widening of the existing mining road to 7 meters with 1.5 paved shoulder. It connects to the IDCO-sponsored Palaspanga-Bamberi road improvement currently under tender to mining/industrial areas;
c) Koira-Rajamunda – 46 km widening of the existing two lane mining road to 7 meters with 1.5 paved shoulder. Improvements of this road and rehabilitation of NH-23 will significantly reduce truck travel times from the Keonjhar mining district to processing and manufacturing plants and Paradeep port.

5. In addition to the above roads, the project will support additional PPP roads to be identified during project implementation. The additional PPP roads will be selected through a similar high-level feasibility study and those proven viable will be developed through a Transaction Advisor.

6. It is envisaged that the institutional capacities created and experience gained while developing these PPP projects would help OWD in scaling up the share of PPPs in the provision of road services in the state. In keeping with this, the project will support OWD's PPP Cell to improve its capabilities for managing road sector PPPs, including through internal allocation of staff with suitable technical skills, engaging a full-time financial analyst and a legal expert on a retainer basis, and capacity building support based on the findings of the training and capacity needs assessment o be undertaken during project implementation.

7. ***Sector Policy and Institutional Development Support.*** Under this component, the project will finance technical assistance and advisory services to support the implementation of the Institutional Strengthening Action Plan (ISAP). The ISAP, shown in summary form in Table 2, was prepared through a consultative process with major stakeholder and has been endorsed by the government. Its implementation will be facilitated by the ongoing ISAP Task Force, with oversight by a high-level inter-agency ISAP Steering Committee.

Table 2: Summary of Institutional Strengthening Action Plan for the Roads Sector (ISAP) 2008 – 2013

	Objective	*Key Result Area*
	Road Sector Strategy	
1	Effective sector institutional framework, powers and capacities.	Implementation of GOO-endorsed Roads Policy (development and management) framework. [March-2011].
		Determine the Core Road Network (CRN) [February -2009].
2	Adequate road sector funds mobilization.	Earmarking of funds for Core Road Network in the Budget [December-2010].
3	Satisfactory sector information, consultation, governance and accountability mechanisms.	Implementation of GOO-endorsed Governance & Accountability Action Plan (GAAP) for OWD. [June-2012].
4	Comprehensive master planning for main roads	Master Plan for Orissa road network development in place [June-2012].
		Multi-year plans and Annual Plans for roads development and management in place, in line with master plan(s).
5	Effective Road Safety policy, resources and action	Endorsed and funded Road Safety policy and Action Plan in place, with updated responsibility framework and capacities. [June-2011]
6	Private sector participation in road sector infrastructure	State-level PPP/BOT policy, guidelines and model concession agreements in place and projects being facilitated. [December -2009]
	Core Processes	
7	Transparent, effective and accountable *procurement* policy / processes in OWD	Clear and effective procurement delegations to OWD staff [December-2009].
		E-procurement in place as standard for OWD roads contracting. [December -2008].
8	Effective performance monitoring by OWD	Performance monitoring and evaluation (M&E) system in place. [December-2010].
9	Rationally prioritized Road Maintenance funds planning and commitment	OWD asset management system (RAMS) in place for network asset database, and for prioritization of road maintenance (RM) funds annually [June-2010].
10	Environment and Social aspects of roads activities are properly resolved.	OWD processes and capacity in place to manage Environment and Social factors and impacts in road projects/ works effectively [June 2011].
	Organizational Structure & Management	
11	Efficient management of Core Road Network	Implement new dedicated OWD capacity for CRN management [June-2009].
12	Effective OWD organization for performing the new roles and responsibilities in managing the road network.	Strengthened, updated OWD organization in place for roads policy, planning and programming roles and functions [December-2012].
	Financial Management, Audit & Administration	
13	Effective OWD finance, budget management and accounting.	Comprehensive IT-based Financial Management System and Asset Register in place in OWD [March-2012]
		Updated, adequate administrative and financial powers, authorizations and delegations in place in OWD [December-2010].
	Information & Communications Technology (ICT), MIS & GIS Applications	

14	Comprehensive and efficient IT and ICT support for OWD roads sector planning and management	Effective *IT-ICT-MIS Strategy* and implementing capacity in place in OWD [June-2010].
		Efficient, sustainable IT-based MIS resources and capabilities in place, supporting OWD decision-making [December-2011].
Human Resources (HR) Development & Capacity Building		
15	Sustainable and effective OWD capabilities and performance in roads functions	Comprehensive OWD Training Needs Assessment (TNA) completed and findings being implemented. [December-2010].
		Needs-based Training and Staff Development strategy, programs and supporting capacity in place in OWD. [June-2011].
		Improved OWD staff performance appraisal and management policy and processes in place. [December-2012].

8. While the full ISAP document (from which this summary is drawn) has also been cleared by the GOO, it has been agreed that it will be treated by both GOO and the Bank as a "living document". Accordingly, the ISAP will be jointly updated and refined at appropriate major intervals to ensure the planned institutional strengthening actions and targets stay relevant and viable in the evolving road sector circumstances during the project period.

9. The ISAP is primarily directed at modernizing OWD and improving the sector policy, institutional and governance framework. The ***OWD modernization*** program involves the following activities.

(a) Establishment of Road Asset Management System in OWD, including the creation of a Road Information System, development of software applications for maintenance planning and resource allocation.

(b) Establishing and/or building capacity in core business units/cells in OWD, including Environment and Social Management, Road Safety, Road Asset Management, and PPP Transactions.

(c) Revision of the Public Works Directives (PWD) Codes and Manuals to improve contract management and procurement practices in OWD.

(d) Implementation of IT/ICT/MIS resources to modernize financial management system, computerize record keeping, and introduction of e-procurement.

(e) Extensive training and core skills development program for OWD staff.

10. The project support for improving the road sector ***Policy and Institutional Framework*** includes the following activities.

(a) Development of a new State Road Sector Policy, to align the policy and legal framework with the evolving needs of the road sector, including to (i) update/define the legal right of way for the state's road network, (ii) clarify the roles and responsibilities of the various road agencies in the state on the one hand, and the

public and private sectors on the other, and (iii) creation of an apex road authority to coordinate the various road agencies in the state.

(b) Development of sustainable road financing option. The project will support a study to review possible road user charges that could be used to generate funding for road maintenance, and to develop an institutional arrangement for managing and channeling revenues collected from users.

(c) Preparation of a Road Master Plan, including revision/update of the road network classification system and assignment of responsibility among various road agencies.

(d) Operations and Maintenance arrangement for the Core Road Network. The project will support the establishment of a management structure for the state's Core Road Network (CRN, within OWD, and subsequently to be spun off as a separate Road Development Corporation (RDC) outside of OWD. This will ensure that the CRN Unit and subsequently the RDC will have adequate financial and human resources to manage the most important roads in the state. The project will also support improvements in current toll collection system, which focuses primarily on toll collection under a one-year contract. The project will assist GOO to improve this system by introducing long-term contracts (at least five years) and include maintenance and operation obligation in the road contract. All OSRP-financed roads will be designated as CRN, and once improved, will be managed as toll roads through the CRN Unit/RDC.

(e) Road Safety Policy and Action Plan. The project will support initial examination of the current road safety situation, including current accident rate and institutional arrangement for managing road safety, and on this basis, assist GOO to develop a Road Safety Policy and Action Plan, as well as initial implementation of the Action Plan. The project will also support a road safety awareness program, mainly directed initially to the project affected communities and road users along the OSRP project roads.

(f) Axle load control policy and strategy. The project will support a review of axle load control practice in Orissa, and assist in development of a policy change and strategy for controlling excel load by truckers.

11. The specific ***technical assistance and advisory services*** required to implement the OWD modernization and road sector institutional development support include the following:

(i) Road Asset Management System Consultancy
(ii) Revision of PWD Codes and Manuals
(iii) IT/ICT/MIS/FMS Strategy Development and Implementation
(iv) Road User Satisfaction Survey and Land Use Impact study.
(v) Road Sector Institutional Development, comprehensive study and implementation support (including on legal and statutory aspects) covering diverse policy and institutional interventions in the road sector, viz.
- Core Road Network management and development

- Re-organization and strengthening of OWD
- OWD staff training needs assessment and HRD strategy
- Road Safety policy and action planning
- Road sector policy environment and institutional arrangements
- Master Planning for the state's main road network
- Roads financing arrangements and strategy for a state-level Road Fund
- Out-sourcing of toll collection and maintenance on OWD roads
- Heavy vehicle axle load regulation and management; and
- Construction industry skills development (including establishment of a construction academy).

Project Implementation Support

12. The project will finance incremental operating costs incurred by the Project Management Unit for the operation and maintenance facilities, vehicles and equipment used for Project implementation (including without limitation, vehicle rental, office rental, fuel costs and stationeries), and salaries and allowances of incremental staff assigned to Project Management Unit for Project implementation, but excluding salaries of the government civil servants.

13. The project will re-finance the PPF, which was used to prepare the subject project. In addition, the project has earmarked some funds for pre-investment studies for a possible follow up project.

Annex 5: Project Costs
INDIA: Orissa State Roads Project

Project Costs and Contingencies

	Project Cost By Component	Local US $million	Foreign US $million	Total US $million
A	***Road Improvement***	***178.4***	***88.6***	***267.0***
	Civil Works	154.2	83.0	237.3
	Supervision Cost	5.6	5.6	11.1
	LA, R&R, Utility Shifting	18.6	-	18.6
B	***PPP Enabling, Institutional Development, Implementation Support***	***10.1***	***5.7***	***15.9***
	PPP Enabling Support	2.1	2.0	4.1
	ISAP Implementation	6.5	0.3	6.8
	Project Implementation and Monitoring Support	5.0	-	5.0
	Total Base Cost	**188.5**	**94.4**	**282.9**
	Physical Contingencies	8.0	4.4	12.4
	Price Contingencies	17.8	8.7	26.5
	Total Project Costs[1]	**214.4**	**107.5**	**321.8**
	Front-end Fee		0.63	0.63
	Total Financing Required	**214.4**	**107.5**	**322.5**

[1]Identifiable taxes and duties are US$38.7 m and the total project cost, net of taxes, is US$283.76 m. Therefore, the share of project cost net of taxes is 88 percent.

Project Costs and Financing by Component (US$ Million, Including Contingencies)

Component	Costs	% of Total	IBRD Loan	% IBRD	GOO Share	%GOO
A - Road Improvement Component	**305.9**	**94.9%**	**236.2**	**94.7%**	**69.8**	**96%**
Civil Works	272.7	84.6%	218.1	87.4%	54.5	75%
Phase 1 Roads -- 204 km	113.7	35.2%	90.9	36.4%	22.7	31%
Bhawanipatna - Khariar - 68 Kms	32.2	10.0%	25.8	10.3%	6.4	9%
Chandbali - Anandpur - 95 Kms	59.4	18.4%	47.5	19.0%	11.9	16%
Berhampur - Taptapani - 41 Kms	22.0	6.8%	17.6	7.1%	4.4	6%
Phase 2 Roads -- 257 km	152.5	47.3%	122.0	48.9%	30.5	42%
Taptapani - Raipanka - 68 Kms	36.0	11.2%	28.8	11.5%	7.2	10%
Raipanka - JK Pur - 83 Kms	49.8	15.4%	39.8	16.0%	10.0	14%
Jagatpur - Chandbali - 106 Kms	66.7	20.7%	53.4	21.4%	13.3	18%
Bansadhara Bridge (150 m span)	6.5	2.0%	5.2	2.1%	1.3	2%
Supervision Cost	12.8	4.0%	10.2	4.1%	2.6	4%
LA, R&R, Utility Shifting	20.5	6.3%	7.8	3.1%	12.7	17%
B- PPP Enabling, Institutional Development and Implementation Support	**15.9**	**4.9%**	**12.7**	**5.1%**	**3.2**	**4%**
PPP Enabling Support (Phase 1 & 2)	4.1	1.3%	3.3	1.3%	0.8	1%
ISAP Implementation Support	6.8	2.1%	5.4	2.2%	1.4	2%
Project Implementation and Monitoring Support	5.0	1.5%	4.0	0.3%	1.0	6%
Total Project Cost	**321.8**	**99.8%**	**248.9**	**99.7%**	**72.9**	**100.0%**
Front-end Fee	0.63	0.20%	0.63	0.250%	0	0.00
Total Financing Required	**322.5**	**100%**	**250**	**100%**	**72.9**	**100%**

Annex 6: Implementation Arrangements

INDIA: Orissa State Roads Project

1. The Orissa Works Department (OWD), the lead road agency in the state, will be the implementing agency for the project. A Project Management Unit (PMU) was established within OWD in 2005 to handle project preparation, and the same PMU will continue to coordinate and manage project implementation during the execution phase. The PMU has been progressively fully staffed as per the staffing plan discussed with GOO and the Bank includes the following:

(i) Chief Engineer (World Bank Project) as head of the PMU and project coordinator;
(ii) Six Executive Engineers to manage implementation of the project components and activities, including civil works and environment, (4) asset management and PPP (1) and ISAP/Information Disclosure (1);
(iii) Assistance Commissioner (1), Special LAO-cum-Zone Officer (1) deputed from the Revenue Department to handle land acquisition, R&R and other social aspects;
(iv) Senior Divisional Accounts Office deputed from the Auditor's General to take care of financial management and internal control; and
(v) Several Assistance/Junior Engineers, social and environmental staff to work with the above senior engineers and officers on various activities.

2. *Civil works.* OWD will engage qualified contractors through international competitive bidding process for construction works. There will be six packages of road upgrading contracts in two phases (three in each phase) and one bridge contract in the second phase. The procurement will be done centrally by the PMU. For supervision, the PMU will be assisted by two internationally-recruited supervision consultants that will serve as FIDIC Engineers for the project. They will provide day-to-day supervision of the work contracts. The OWD will also have field engineers that will monitor the work of the contractor and supervision consultants as the client's representatives in the field.

3. *PPP Activities.* The roads being developed under PPP will be managed by the PMU through the OWD PPP cell. The PMU will be supported by a Transaction Adviser that has been hired to undertake detailed feasibility study, prepare concession documents, assist OWD to get grant application from GOI, promote the roads in the market, and assist OWD in the selection of and negotiations with potential concessionaires.

4. In terms of the overall coordination, the institutional framework for undertaking PPPs in the state has undergone considerable change in the last year. In August 2007, GOO announced a PPP policy that paved the way for constitution of a High Level Clearance Authority (HLCA, under the chairmanship of the Chief Minister) for approving PPP projects with investment of over Rs.500 billion and an Empowered Committee on Infrastructure (ECI, chaired by the Chief Secretary) for facilitating infrastructure development in the state under PPP approach. In implementing the policy, a state level PPP Cell constituted in the State's Planning & Coordination Department is expected to play a pivotal role by way of assisting the ECI in a variety of tasks that for the development of PPPs. These tasks include developing guidelines for evaluation of projects to determine their suitability for private participation, facilitating the

creation of a shelf of projects and their monitoring, preparation of pre-feasibility and detailed project reports, conducting bidding process, capacity building and evolving appropriate mechanisms for regulation and grievance redressal.

5. This state level PPP Cell, in turn, is expected to work in close coordination with dedicated PPP Cells/Units created in the line Departments responsible for the sectors with potential for PPP projects. In line with this Policy, GOO has gazetted the resolution concerning the Empowered Committee for Infrastructure and the creation of a PPP cell in the OWD. The OWD PPP cell has been formed comprising the Joint Secretary Planning, the Additional Financial Advisor, and an Executive Engineer from the OWD.

6. Going forward, the OWD PPP Cell is expected to assume ownership on behalf of OWD for all road PPP transactions regardless of the sponsor (IDCO, industrial organizations, OWD, etc). Specifically, the OWD PPP Cell would be required to ensure that these PPP projects are conceptualized, structured and implemented in a manner that is attractive to the private sector and, at the same time, ensure better value-for-money for the government and the end users. In order to do this effectively, the OWD PPP Cell would need to be equipped with financial, legal and concession management skills, which would need to be suitably ramped up in tune with the actual increase in the number of PPP transactions in future. OWD PPP Cell should also draw extensively upon skills that are likely to be made available in the State PPP Cell. To facilitate this and ensure better coordination on all PPP related issues, it was agreed that a representative from the State PPP Cell would be included in the OWD PPP Cell.

7. Implementation of the main elements of the **Sector Policy and Institutional Development sub-component** will be led and managed by OWD, with the support from expert technical assistance and consultancy services drawn from domestic and international sources. The respective TA and consultants' inputs will be selected and delivered in accordance with specific Terms of Reference (TOR) and procurement processes, vetted in advance by the Bank. Responsibility for essential administrative, coordination, procurement and contract-management functions for activities under this component (particularly for the TA and consultancy services) will remain with the PMU. The team leader of the consultants selected to undertake the compressive institutional strengthening study, which includes, a suite of reform-based short-to-medium term studies, dealing individually with roads sector policy needs, roads financing, OWD organization and HRD / staff development, structural measures to strengthen responsibility for the CRN and achieve an RDC, road safety and master planning, will also be required to provide wider support to Steering Group and OWD on overall ISAP implementation, resources and effectiveness.

8. The planned interventions, targets and expected outputs in each element of this sub-component have been brought together into the Institutional Strengthening Action Plan (ISAP) and various aspects are also integrated in the Governance and Accountability Action Plan (GAAP). These two Plans will provide an effective monitoring framework on inputs, milestones and outputs for the various activities in this Component. The Institutional Strengthening Task Force, initiated by OWD in 2005 to lead preparation of the ISAP elements of the Project, will oversee the ISAP implementation process on behalf of OWD management, will provide a first level of scrutiny / review of major outputs from consultants, and will ensure that regular "ISAP status and results" reporting is available to the GOO. A senior OWD manager will be given

direct, substantive responsibility for the ISAP and GAAP within OWD and will also be confirmed as the Convener of the Steering Group. Action on some ISAP and GAAP elements that do not require external assistance will be carried out by internal working groups / teams initiated by OWD under the oversight of the ISAP Task Force. Overall responsibility for effective and timely achievement of ISAP targets will remain with the OWD executive.

9. ***Monitoring*** of the impacts of the Institutional and Policy Development component will mainly be approached at a more strategic, aggregated level This will include measuring performance improvements in OWD in terms of various elements of road services delivery (e.g., construction time completion, reduced 'planning to funds allocation' elapsed time, containment / reduction of construction unit-cost factors, road serviceability / maintenance performance, etc.). Additional ad hoc assessment of ISAP implementation status and results against the documented measures and targets – as well as the respective TA and consultants' inputs - will be included within Quarterly (project) Progress Reporting (QPR). Via the ISAP Task Force, OWD will also be required to provide an interim progress report and impact assessment as an input to the project's Mid-Term Review and completion reports.

Annex 6 A: Governance and Accountability Action Plan
INDIA: Orissa State Roads Project

Context

1. The context for the preparation of the proposed Governance and Accountability Action Plan (GAAP) is the recognition by the state government and the Bank the need to improve accountability arrangement with a view to reducing the chances of corruption and enhance transparency of the road sector. The GAAP is prepared based on Orissa's state-level Anti-Corruption Action Plan (approved in 2005) and India's 2005 Rights to Information Act (RTI), and integrates the lessons learned in the implementation of Bank-financed road projects in India.

2. ***Orissa Anti-Corruption Action Plan.*** Orissa is the first state in India to articulate a comprehensive medium-term, anti-corruption action plan to improve institutional transparency and accountability. The Action Plan is divided along three broad categories of governance reforms for (a) *Preventing Corruption* by developing better systems and procedures that improve transparency and accountably. These include procurement reforms and business process re-engineering in corruption prone sectors and service delivery institutions; (b) *enforcement* actions to deter corruption, including a major expansion of enforcement machinery both at the state level and within departments through the establishment of internal vigilance units and new special courts to try corruption offences; (c) *citizen "voice"* and *public awareness* to support prevention and enforcement activities, including providing information to communities about their service delivery rights. The action plan also includes establishing better information management systems to facilitate the implementation of the Right to Information Act (RTI). It is expected that Orissa's anti-corruption action plan will be piloted in four government departments, including the Orissa Works Department (OWD).

3. ***Right to Information Act (RTI).*** India passed the Right to Information Act, in 2005 and the Act became operational across India from 12 October 2005. The Act mandates the disclosure of and universal access to information wherever in the public interest. Compliance to the Act is required for all public entities. Implementation of RTI requires systems for *on demand* and *suo moto* disclosure of information, and for each government department to develop a disclosure policy, automated systems for record and document management, and information handling, and appointment of trained staff, programs for citizens' awareness, and annual progress reporting. The State of Orissa acting on the directions given in the RTI Act has promulgated the Orissa State RTI Rules 2005, and has adopted RTI Manual Template (first developed for the state of Uttaranchal). Both Orissa State RTI Rules and Manual Template, as well as the disclosures of some GOO departments are already available on the state's RTI website: http://orissagov.nic.in/rti.

Key GAAP Features

4. Taking the above two enabling environments, a Governance and Accountability Action Plan (GAAP) has been prepared to improve the transparency and accountably arrangement with which the proposed OSRP will be implemented with a view to reducing the chances of corruption. The idea is for the OSRP to make project resources (both financial and expert advice)

available to the Government of Orissa (GOO) to comply with the RTI provisions and implement the state's anti-corruption action plan, as inadequate resources could delay and stifle implementation of these important initiatives. Accordingly, through several consultations with the OWD and various GOO officials involved in the Orissa's anti-corruption plan and RTI implementation in the state, the GAAP has been prepared. The GAAP is primarily focused on the OSRP implementation, but would have implications for the entire department and could be scaled up once its efficacy is proven.

Implementation of RTI to increase transparency and accountability

5. Full compliance to the act has the potential of enhancing transparency and accountability and reducing chances of corruption. For the OSRP, complying with the RTI will involve several activities, listed below.

6. First, OWD needs to prepare a ***disclosure policy*** with the intention of allowing greater access to information, including disclosure of mid-term review reports, safeguards information, audit reports, relevant information on the procurement process, and other agreed. OWD has prepared a disclosure policy (Appendix 1 to Annex 6a provides the proposed disclosure policy and strategy). The expectation is for the OSRP, besides complying with on-demand access to information, to fully comply with provisions on *suo moto* disclosure under Section 4 of the RTI Act (See Appendix 2, A, for the relevant extracts from the Act).

7. Second, OWD needs to develop ***systems and procedures*** to implement the disclosure policy, for both on-demand requests and *suo moto* disclosure. It is expected that as the *suo moto* disclosure is fully developed, the need for on-demand information disclosure will be minimized. The OSRP will provide resources to develop the systems and procedures, including establishing a website for OSRP, and for developing automated record management system, management information system and network. Appendix 2, B provides the relevant sections of the RTI Act specifying the requirements for the systems and procedures for complying with disclosure.

8. Third, complying with RTI, OWD has developed ***organizational arrangements and capacity building plan*** (Appendix 2, C). OWD The organizational arrangement includes provisions for operationalizing the disclosure policy and the maintenance of the automated systems of disclosure. Public Information Officers (PIOs) and first appellate authority have been appointed as per the Act. Capacity building is envisaged for all involved for enhanced disclosure to become effective and improve accountability and transparency. The capacity building plan will need to be developed and organized for public to use the information most effectively. PIOs also need to be trained to become more effective.

9. Finally, complying with RTI OWD has developed ***Reporting and Monitoring system.*** Reporting requirements under the RTI includes annual report on implementation of RTI and recommendations for the future, including disaggregated indicators on various aspects of RTI compliance. Details are given in Appendix 2, D.

Business process re-engineering and analysis of corruption prone process to support better accountability and transparency

10. The anti-corruption strategy emphasizes the importance of simplification, rationalization and standardization of business processes in government departments and commits the government to systematically analyze and reform processes that are vulnerable to corruption. The OWD plans to undertake reforms related to process simplification, rationalization and improvement of systems, PWD codes and manuals. In addition, outside of this project, the GOO, under the DFID-supported Orissa Modernizing Government Initiative, will undertake a comprehensive analysis of government processes in various departments, including the OWD.

Strengthening of preventive vigilance by appointing a Chief Vigilance Officer (CVO) in OWD with adequate technical, secretariat and systems support

11. The appointment of a CVO in OWD is a critical step in focusing the anti–corruption function at the Department level. The CVO would also be provided by support team, including technical specialists, auditors and legal experts. Furthermore, an automated complaints handling mechanism would be set up in the office of the CVO. Such mechanisms already exist in other projects in Orissa and neighboring states, and a consultant will be appointed to design and implement such a mechanism in consultation with the Orissa Modernizing Government Initiative, which is spearheading the government's administrative reforms and anti-corruption plan.

Third Party Monitoring

12. Third-party monitoring by beneficiaries and stakeholders provide additional tool for ensuring better monitoring and increasing transparency. However, in the highway sector, such beneficiaries and stakeholders are not easily identifiable, as they are dispersed through out the highway. As such community or civil society based third party monitoring will not be applied in OSRP. Instead, the OWD will try innovative method of engaging independent Project Quality Monitors (PQMs) and engineering students to review engineering design (a value engineering assessment) and assess quality of construction. The engineering students and professors will be drawn from local technical universities. OWD may invite the Public Affairs Centre, Bangalore or a similar reputable agency, to help it organize and facilitate this third party monitoring.

Strengthening Core Process in Procurement and Financial Management

13. The anti-corruption strategy envisages strengthening the OWD core functions in procurement and financial management. As part of the institutional and policy development component support under OSRP, OWD will undertake a serious capacity development activities and reforms to improve its procurement, contract and financial management practices. This will include introducing e-procurement, preparing new bidding document, maintaining database on costs and contractor performance, and introducing computerized financial management system.

Monitoring indicators for compliance to the above agreements and for impact on outcomes

14. Monitoring mechanism for implementation and results will include the following:

- Implementation of RTI: (a) Quarterly reports on the format of annual reports, and (b) monitoring the index for disclosure of information like the duty to publish index (DTP).

- The complaints handling system and the system of sanctions and remedies will be supervised mainly through (a) periodic review of statistics based on records kept on the OSRP website, and (b) field level checks to ensure that problems are being reported, tracked and acted upon.
- Corruption Perception Surveys carried out once in two years.
- Maintain a database on unit prices and review of unit prices within the project and outside the project as a result of the various actions taken under the project for increasing transparency and competitiveness.
- Benchmarking for indicators like lead times from the time of bidding to the signing of contracts, extent of responses against ITBs, adequacy of estimates through review of actual costs vis-à-vis estimated costs, etc.

Governance and Accountability Action Plan Matrix

Action To Be Taken	Time Line	Responsibility	Remarks
1. Implementation of Right to Information Act, 2005 (RTI)			
i. Agree on a disclosure policy	Done	OWD	Done
ii. Develop systems and procedures to implement RTI	By Appraisal and continue	PMU	Website established and information being updated.
iii. Develop organizational arrangements	Done	PMU	Appellate Authority, PIO/ APIO appointed. An officer (AE) to be assigned for implementation of various provisions under GAAP
iv. Conduct training for RTI staff	Start by Appraisal and continue	PMU	
v. Reporting and monitoring arrangement	Done	PMU	Done
vi. Disclosure of information indicators	Start in December 2007 and continue	PMU	50% by Year1; 80% by Year2; 100% by mid-term
i. Simplification and rationalization of systems – PWD code, procurement manual, etc.	December, 2008	PMU	TOR for hiring consultant agreed with the Bank
3. Improving procurement practices in the works Department			
i. Implementation of e-procurement system covering electronic publication of invitation for bids, availability of bid documents and publication of contract award	July, 2008	GOO	Has been under operation for government transactions
ii. Development of standard templates and uploading on project website	August, 2008	OWD	
iii. Development of databases for contracts, contractors, prices, specifications, etc. and document management and management information systems	March, 2009	OWD	
iv. Independent quality and quantity checks	Start with the first contract	PMU	A panel of Project Quality Monitors (POMs) to be formed.
v. Independent financial and technical audits	Every year	Accountant General (Financial) and PQMs	

		(Technical)	
vi. Benchmarking of indicators like procurement lead times, extent of bid responses, contract performance, etc.	March 2009	PMU	Start with project roads.
4. Strengthening preventive vigilance			
i. Appointment of a CVO	March, 2007	OWD	OWD already has put in place a CVO.
ii. Setting up of an on-line complaint handling system in the government which will direct the complaints for redressal/ investigation to PMU based on nature of complaint	In place.	GOO/CVO	
5. Third party monitoring			
i. Use Project Quality Monitors (PQMs) for Third party monitoring	February 2009	PMU	
ii. Decision on introduction of third party monitoring	March, 2009	PMU	
6. Development of monitoring indicators for compliance and outcomes			
i. Perception surveys	At start, at mid-point & towards end of the project	PMU	User's perception of project performance
7. Increasing competition and mitigating collusion			
i. Finalizing contract sizes and qualification criteria based on market information	Start with the first contract	PMU	
ii. Business briefings for bidders	As required	PMU	PMU will organize road shows by engaging professional help as may be required for organizing such events.
iii. Disseminating details of the process for disqualification of bidders who engage in mis-representation/ fraudulent/ corrupt practices	As required	PMU	
8. Financial Management			
i. Project financing plans	Quarterly	PMU	
ii. Budgetary allocation	Yearly	PMU	
iii. Expenditure statements	Quarterly	PMU	
iv. Review of the central payment system for work related bills	March, 2009	PMU	

Appendix 1: Disclosure Policy, Strategy and Monitoring and Evaluation Arrangement

15. The OSRP disclosure strategy is based on the RTI Act both for on-demand disclosure and proactive or *suo moto* disclosure of information making maximum use of the OSRP website. This enhanced disclosure of information to the citizens is also expected to facilitate civil society oversight, to achieve greater adherence to transparency norms and quality of work during project implementation. To this end, the information will be maintained and provided in a user friendly manner that will maximize the utility of the information. The detailed disclosure requirements are based on the letter and spirit of Sections 4 and 26 of the Right to Information Act 2005 and the Orissa state's Right to Information Manual/Template. The following disclosure strategy will be adopted by the Orissa State Roads Project. The intent is to enhance the transparency of the decision making processes inside the project during the implementation phase, including those for procurement, financial management, and social and environmental safeguards and to comply with all the legal requirements under the Right to Information Act, 2005.

16. The Project Management Unit (PMU) of the OSRP will establish a separate website to publish information relating to the project in compliance with the Right to Information Act 2005 as per Section 4 of the Act for ***Suo Moto*** Disclosure. This website will be linked from the OWD website, the Orissa state government website and from the national RTI portal (www.rti.gov.in) section. Information published on the website will remain available online through out the project implementation period and for at least one year after the project has been completed.

17. Information on the website will be organized in such a manner as to facilitate relevance and access to all affected citizens.

18. The PMU will make available the following documents in the OSRP website promptly after their completion: (a) Project Appraisal Document, (b) mid-term review and completion reports, and (c) Quarterly Project Monitoring Reports.

19. The PMU will make available the following documents in the OSRP website promptly after their completion: (a) Environment and Social Assessment Reports and (b) Environment Management Plans, and (c) Resettlement Action Plans

20. The PMU will make all final audit reports publicly available promptly after their receipt, and all the formal responses from the government.

21. The PMU will publish on the OSRP website the following documents and update them regularly as needed:

- Annual procurement plans and schedules, promptly upon their finalization;
- Bidding documents and requests for proposals issued in accordance with the procurement provisions. In the case of requests for proposals (RFP), the relevant documents will only be made available after notification of award to the successful firm;
- All short listed consultants and, in cases of pre-qualification, lists of pre-qualified contractors and suppliers. This list will be updated as and when changes are required;
- Make publicly available and publish in the OSRP website information regarding the contract awards for all contracts for goods and works in accordance with the Bank's Guidelines;

- Summary of the evaluation of all bids and proposals for such proposed contracts promptly after the notification of the award to the successful bidder/consultant. Information in these summaries will be limited to:

    - list of bidders/consultants;

    - all bid prices and financial proposals as read out at public openings for bids and financial proposals;

    - bids and proposals declared non responsive (together with reason for such an assessment);

    - the name of winning bidder/consultant and the contract price; and

    - allow representatives of the end-users of the goods or works being procured to attend the public bid openings.

Monitoring and Reporting for RTI Compliance

22. Robust monitoring requires disaggregated indicators to capture the different aspects of disclosure. Monitoring implementation of *suo moto* disclosure is critical since the level and quality of this disclosure will directly influence the effectiveness of the disclosure policy. There are three complementary indicators that are currently under consideration in India for measuring the effectiveness of RTI disclosure that can be used to monitor progress of RTI for OSRP: (a) *Duty to Publish Index* measures the basic contents of the information that need to be disclosed under Section 4 of the RTI Act, and is a weighted percentage of the heads of information that have been disclosed, (b) *Affected Citizen Index* is a qualitative index based on the relevance and usefulness of the information disclosed to citizens affected by the activities of the government, (c) *Dissemination Index* measures the efforts taken to disseminate information to the public and familiarize the public with its availability.

Appendix 2: Relevant Sections of RTI Act

A. *Suo Moto* information to be published under Section 4 of RTI Act

23. Section 4(b): Publish within one hundred and twenty days from the enactment of this Act:

(i) the particulars of its organization, functions and duties;
(ii) the powers and duties of its officers and employees;
(iii) the procedure followed in the decision making process, including channels of supervision and accountability;
(iv) the norms set by it for the discharge of its functions;
(v) the rules, regulations, instructions, manuals and records, held by it or under its control or used by its employees for discharging its functions;
(vi) a statement of the categories of documents that are held by it or under its control;
(vii) the particulars of any arrangement that exists for consultation with, or representation by, the members of the public in relation to the formulation of its policy or implementation thereof;
(viii) a statement of the boards, councils, committees and other bodies consisting of two or more persons constituted as its part or for the purpose of its advice, and as to whether meetings of those boards, councils, committees and other bodies are open to the public, or the minutes of such meetings are accessible for public;
(ix) a directory of its officers and employees;
(x) the monthly remuneration received by each of its officers and employees, including the system of compensation as provided in its regulations;
(xi) the budget allocated to each of its agency, indicating the particulars of all plans, proposed expenditures and reports on disbursements made;
(xii) the manner of execution of subsidy programmes, including the amounts allocated and the details of beneficiaries of such programmes;
(xiii) particulars of recipients of concessions, permits or modernization granted by it;
(xiv) details in respect of the information, available to or held by it, reduced in an electronic form;
(xv) the particulars of facilities available to citizens for obtaining information, including the working hours of a library or reading room, if maintained for public use;
(xvi) the names, designations and other particulars of the Public Information Officers;
(xvii) such other information as may be prescribed; and thereafter update these publications every year.

24. Section 4(c): Publish all relevant facts while formulating important policies or announcing the decisions which affect public.

25. Section 4(d): Provide reasons for its administrative or quasi-judicial decisions to affected persons.

B. System and Procedure Requirements under Section 4 of the RTI Act

26. Section 4(1)(a): Maintain all records duly catalogued and indexed in a manner and the form which facilitates the right to information under this Act and ensure that all records that are

appropriate to be modernization are, within a reasonable time and subject to availability of resources, modernization and connected through a network all over the country on different systems so that access to such records is facilitated.

27. Section 4(2): It shall be a constant endeavor of every public authority to take steps in accordance with the requirements of clause (b) of sub-section (1) to provide as much information *suo moto* to the public at regular intervals through various means of communications, including internet, so that public have minimum resort to the use of this Act to obtain information.

28. Section 4(3): For the purposes of sub-section (1) every information shall be disseminated widely and in such form and manner which is easily accessible to the public.

29. Section 4(4): All materials shall be disseminated taking into consideration the cost effectiveness, local language and the most effective method of communication in that local area and the information should be easily accessible, to the extent possible in electronic format with the Central Public Information Officer or State Public Information Officer, as the case may be, available free or at such cost of the medium or the print cost price as may be prescribed.

C. Public Information Officer and Appellate Authority Appointments and Capacity Building Program Under Section 5 and Section 26 of the RTI Act.

30. Section 5(1): Every public authority shall, within one hundred days of the enactment of this Act, designate as many officers as the Central Public Information Officers or State Public Information Officers, as the case may be, in all administrative units or offices under it as may be necessary to provide information to persons requesting for the information under this Act.

31. Section 5(2): Without prejudice to the provisions of sub-section (1), every public authority shall designate an officer, within one hundred days of the enactment of this Act, at each sub-divisional level or other sub-district level as a Central Assistant Public Information Officer or a State Assistant Public Information Officer, as the case may be, to receive the applications for information or appeals under this Act for forwarding the same forthwith to the Central Public Information Officer or the State Public Information Officer or senior officer specified under sub-section (1) of section 19 or the Central Information Commission or the State Information Commission, as the case may be.

32. Section 26(1): The appropriate Government may, to the extent of availability of financial and other resources:

(a) develop and modernize educational programs to advance the understanding of the public, in particular of disadvantaged communities as to how to exercise the rights contemplated under this Act;
(b) encourage public authorities to participate in the development and modernization of programs referred to in clause (a) and to undertake such programs themselves;
(c) promote timely and effective dissemination of accurate information by public authorities about their activities; and

(d) train Central Public Information Officers or State Public Information Officers, as the case may be, of public authorities and produce relevant training materials for use by the public authorities themselves.

D. Reporting and Requirements under Section 25 of the RTI Act

33. Section 25(1): The Central Information Commission or State Information Commission, as the case may be, shall, as soon as practicable after the end of each year, prepare a report on the implementation of the provisions of this Act during that year and forward a copy thereof to the appropriate Government.

34. Section 25(2): Each Ministry or Department shall, in relation to the public authorities within their jurisdiction, collect and provide such information to the Central Information Commission or State Information Commission, as the case may be, as is required to prepare the report under this section and comply with the requirements concerning the furnishing of that information and keeping of records for the purposes of this section.

35. Section 25(2): Each report shall state in respect of the year to which the report relates:

(a) the number of requests made to each public authority;
(b) the number of decisions where applicants were not entitled to access to the documents pursuant to the requests, the provisions of this Act under which these decisions were made and the number of times such provisions were invoked;
(c) the number of appeals referred to the Central Information Commission or State Information Commission, as the case may be, for review, the nature of the appeals and the outcome of the appeals;
(d) particulars of any disciplinary action taken against any officer in respect of the administration of this Act;
(e) the amount of charges collected by each public authority under this Act;
(f) any facts which indicate an effort by the public authorities to administer and implement the spirit and intention of this Act;
(g) recommendations for reform, including recommendations in respect of the particular public authorities, for the development, improvement, organization, reform or amendment to this Act or other legislation or common law or any other matter relevant for operationalising the right to access information.

Annex 6 B: Supervision Strategy Matrix
INDIA: Orissa State Roads Project

The Supervision Strategy for the proposed OSRP is developed based on (i) the lessons learned from the India Health Sector DIR, which identified, among other things, weaknesses in Bank's supervision strategy and lack of field and independent verification of project activities early on, and reliance on borrower supplied information to conducted supervision. The Supervision Strategy also draws from the lessons learned by the Bank-financed studies on Value Engineer and Construction Industry in India. These studies highlighted weakness in quality and capacity for cost-effective construction and contract management. Finally, the Supervision Strategy links the key project risks identified in the Risk Identification Worksheet with the mitigation measures laid out in the Governance and Accountability Action Plan. The overall aim of the Supervision Strategy is to ensure the effective and timely implementation of mitigation measures to deter chances of corruption and fraud and ensure cost-effective project implementation and the achievement of the project's development outcome.

Procurement Activities: The total project cost is US$322.5 million and the IBRD loan is US$250 million. There will be a total of six ICB contracts with average contract value of US$37 million to be let out in two phases (three contracts each), and one NCB contract for bridge repair with contract value US$7 million to be let out in Phase 2. A number of technical assistance and consultant services and goods will be procured competitively to support civil works supervision, PPP Transaction Adviser, institutional development, and IT/ICT system implementation in OWD. All procurement will be handled centrally by the Project Management Unit (PMU) in the Orissa Works Department (OWD). There will not be decentralized procurement by field offices since the contract sizes are large and the road stretches traverse more than one field office.

Arrangements to Prevent Fraud and Corruption in Procurement: Orissa is the first state in India to articulate a comprehensive medium-term Anti-Corruption action plan, which calls for (a) establishment of internal vigilance units in departments, (b) systemic reforms in procurement and business process re-engineering, and (c) to strengthen citizen "voice" by providing information about their service delivery rights. A ***Governance and Accountability Action Plan (GAAP)*** has been prepared to implement Orissa's Anti-Corruption Action Plan in OWD, as well as to help OWD meet the requirements of India's Right to Information Act (RTI) of 2005 for greater transparency and accountability in public institutions. The main features of the GAAP are the following:

- Putting systems and procedures, including project-specific website, for effective compliance with on-demand requests for information and for *suo moto* disclosure as per the RTI Act.

- Business process re-engineering and analysis of corruption prone process, including process simplification, rationalization and improvement of systems, PWD codes and manuals, and a comprehensive analysis of corruption prone processes.

- Appointing a Chief Vigilance Officer (CVO) in OWD to strengthen preventive vigilance

- Third Party Monitoring by involving university students and professors from reputed local universities for monitoring qualify of design and construction.

- Strengthening Core Process in Procurement and Financial Management, including capacity development and reforms to improve OWD's procurement, contract and financial management practices, introducing e-procurement, new bidding document, database for costs and contractor performance, and introducing computerized financial management system.

- Monitoring and evaluation to assess compliance with the GAAP.

Supervision Methodology. The project supervision will be based on (i) physical verification by Bank task teams and Bank-hired consultants, (ii) sample cross-checking and verification of reports provided by the client and client-hired consultant supervision consultants, (iii) increase coverage of post-review contracts, (vi) close scrutiny of audit reports and Financial Management Reports, (v) thematic supervision on key topics and high risk areas, such as quality and procurement, and (vi) close follow up with the client on key issues highlighted from the various supervision activities.

Team Composition. The World Bank Supervision core team will comprise about six to eight specialists, covering highway engineer/quality of construction, social and environmental impact management, procurement, FM and audit, institutional/governance, and monitoring and evaluation. The Bank task team will be assisted by three Bank-hired consultants who will be stationed in Orissa for expanded period and will carry out close supervision of engineering/quality, environment, and social safeguards. Most of the task team will based in the Delhi Bank office staff, which will allow short visits by individual team members as may be needed. In addition, the Bank will hire international experts from time to time as needed to check on quality of construction and assess overall project implementation.

Frequency of Visits. The Bank team will visit Orissa and projects sites three times a year in the first two years and twice a year in the remaining years of project implementation. The Bank-hired consultants will spend at least about six months per year in Bhubaneswar and project sites. Thematic supervisions will take place as necessary. The supervision task team will develop, together with the PMU, check-lists to review the implementation of road works and environment and social safeguards in the field. The check-lists will ensure uniformity and standardization of the review process during physical review of activities in the field.

Supervision Budget. US$200,000 per year to cover Bank staff, consultants and travel expenses, including the three consultants that would be stationed in Orissa for extended amount of time.

Supervision Strategy, Sampling and Expected Outcome. The main supervision activities to be covered by the Bank and the client are provided in the Table 1 below, which also highlights a proposed sampling framework and expected outcome from the enhanced supervision.

Table1: Supervision Strategy Matrix

Client's role[8]	Bank's role	Expected outcomes
TECHNICAL and Quality ASPECTS		
- Supervision to be carried out by Construction Supervision Consultant (CSC) and will serve as the FIDIC Engineer. - OWD engineers to oversee the work of contractors and CSC as the client representatives in the field.	- The Bank hired consultant to assess the contractors' capacity, role of Joint Ventures contractors, including availability of lead JV firm, assess the supervision capacity by CSC and OWD field staff. - Visual inspection of 100% works by the Bank staff and Bank hired consultant. - Detailed investigation of 25% civil works carried out annually by Bank-hired consultant. -Third party quality check by University Engineering Students and their professors.	- Contractors fully deployed on time and have the required capacity. - Satisfactory implementation of the contracts. - Construction quality fully meets design specification. - Implementation issues and disputes resolved in time.
PROCUREMENT		
- GOO clearance process to be followed for all works, goods and TA contracts, including clearances by OWD and Finance Department. - PMU to use Bank's Standard Bidding Documents (SBD) for ICB and updated NCB model document. - OWD to create and maintain a database on contractors' performance. - PMU staff to attend training courses on (i) Bank procurement procedures, and (ii) contract administration. - PMU staff to regularly enhance their exposure and refresh their procurement capacity on an ongoing basis. - Experienced transaction advisor to provide support to PMU on PPPs.	- All identified civil works will be subject to prior review as per the agreed threshold for prior review contracts. - Some consultancy services and goods will be subject to post-review. - Review of contracts awarded by OWD , not subject to prior review by the Bank in terms of procurement arrangements defined in Annex 8 and as described in Procurement Plan shall be carried out on annual basis. The Bank shall cause to carry out such reviews either through the Bank team or Bank-hired consultants who will review up to 20 percent of contracts so awarded. Observations from such reviews shall be shared with the Borrower and lessons learnt will be implemented for future procurements.	- Bank/GOO procurement guidelines followed. - Open and transparent competitive procurement achieved. - Database on contractors' performance to be maintained and updated regularly and used for future decision making process.
FINANCIAL MANAGEMENT		
- Reconciliation of expenditure with the Treasury and Accountant General (AG) to be used as an essential control mechanism in the Project and to be regularly followed up with the implementing departments. - PMU to maintain a commitment/payments register centrally, tracking all contracts (works, consultant services, goods, materials, other NGO services etc). This will provide the project with information required on pending payments and help track project progress. - The CAG of India through its offices in	- Focus on the adequacy of the financial reporting arrangements, including timeliness and completeness of the Treasury financial reports, as the basis for disbursements from the Credit/Loan. - Desk reviews of external and performance audit reports. - To review commitment tracking system. - To review quarterly FM reports and audit reports and follow-up actions taken on such reports. - Participate in site visits as needed to review internal control procedures and	- Compliance with (i) all FM covenants, and (ii) State Financial Rules & Regulations. - Audit comments taken into consideration. - Financial progress closely[9] following physical progress.

[8] Includes NGO and consultants hired by the client
[9] Within 5% range

Client's role[8]	Bank's role	Expected outcomes
Orissa to conduct an annual audit of the operations of the Project; the audit report to be submitted to the Bank within 6 months of the close of each FY. - FM wing of PMU to scrutinize all claims of suppliers, contracts, consultants received from the field engineers, make payments, keep all the accounting records as per OWD system of accounting as per OPWD/CPWD Code, submit monthly accounts to AG, Orissa and submit financial reports to GOO and CAA&A.	practices.	
SOCIAL SAFEGUARDS		
- Supervision to be carried out by the Package Manager. - Supervision of R&R payment to be carried out by Nodal NGO client-hired. - Supervision to be carried out by the Social Management Cell (SMC) in PMU. - Monitoring by Rehabilitation and Periphery Advisory Committee. - an external agency (client hired) will undertake social audit on six-monthly basis.	- Supervision to be carried out by the Bank staff as part of supervision missions. - 100% visit of roads; random sample check on implementation of RAP, and consultation with PAPs. -Bank-hired social consultant to closely check and verify implementation of RAP in a sample of 25% of the projects.	- 100% of required regulatory clearances obtained by OWD/PMU and Contractors. - 100% compliance with Bank's social and environmental safeguards. – 100% implementation of the project's R&R framework and RAP. - 100% resolution of any complaints submitted through the redressal mechanism.
ENVIRONMENTAL SAFEGUARDS		
- Evaluation to be carried out by the Independent Environmental Committee (constituting of officials/experts from Department of Forests, Wildlife Wing and State Pollution Control Board) with the assistance of Environmental Management Cell (OWD/PMU) once in every 6 months. -Regular monitoring and supervision to be carried out by PMU and their Environment Advisor, focusing on forestry and wildlife.	- Supervision to be carried out by the Bank staff as part of regular supervision missions. -100% check of all roads; random sample check on implementation of EMP. - Bank-hired environmental consultant to closely check and verify implementation of EMP in a sample of 25% of the projects.	- 100% of required regulatory clearances obtained by OWD/PMU and Contractors. - 100% compliance with the Project's environmental and social safeguard policy.

Annex 7: Financial Management and Disbursement Arrangements
INDIA: Orissa State Roads Project

Country Issues

1. Improving public financial accountability has been a central part of the reform program in Orissa. A *State Financial Accountability Assessment* (SFAA) completed in 2004 concluded that the fiduciary risk in Orissa was significant, mainly as a result of weaknesses in the practice of financial management rather than from inadequacy of the rules, the framework for which is centrally-determined. Yet, these conclusions are not substantively different from the results from other jurisdictions in India.

2. Over the last two years, Orissa has made substantive progress in enhancing financial accountability in management of public funds, partly driven by the need to meet the fiscal targets prescribed under the Orissa Fiscal Responsibility and Budget Management Act (2005). While the turnaround in the deficit indicators have been largely attributed to the reforms in public enterprise restructuring, rightsizing of the bureaucracy, and revenue generation augmenting measures, the impact of the rigor brought into financial management cannot be undermined in the fiscal turnaround. The steps taken by Orissa to enhance accountability and transparency in public financial management include strict enforcement of expenditure controls, improvement in the quality of expenditure composition, increased verification/reconciliation of expenditures and receipts with the Auditor General (AG), regular review of compliance to audit paragraphs, ensuring timely submission of utilization certificates for centrally sponsored schemes, and updating the Budget at a Glance with more comprehensive financial related information.

3. The computerized Orissa Treasury Management System (OTMS) has been implemented in the entire state, covering 30 Treasuries, 8 Special Treasuries and 125 Sub-Treasuries from April 1, 2007. All Sub-Treasuries in these districts are now connected to the District Treasuries and the Directorate of Treasuries and Inspection at Bhubaneswar. This initiative has substantially enhanced the state's ability to produce timely and reliable monthly financial reports. Many of the steps taken in the areas of budget execution, monitoring and cash management have produced visible positive results, and will help in ensuring an improved project financial management arrangement for the proposed OSRP.

Lessons from Orissa Lending Portfolio Implementation

4. Based on the Bank's understanding of the weaknesses in the public financial management systems and lessons emerging from the experience with Bank's lending portfolio in Orissa, the following issues were examined further during the appraisal to assess their impact on the financial arrangements designed for this project:

- The weaknesses and shortcomings in the practice of financial management experienced at the state level are also reflected in the financial management arrangements at the 'project level'. While the 'ring fenced' parallel financial reporting systems that are often put in place at the project level to overcome the said weaknesses, help provide timely information on the project expenditures, issues of reliability of the financial information remain. Lack of in-built internal control measures for reconciliations with the State's own

accounts increases the exposure to risk that the expenditures reported may not be correct. This also impacts the quality of audit assurance that can be obtained from the AG reports.

- Similar to other projects in the India lending portfolio, slow disbursements is a concern. The delays are in part due to the dispersed nature of the project implementation arrangements, where the field level divisional units are the lead implementing agencies. The process of compilation of information on monthly spending and SOEs across field implementation units carried out in parallel to the state's own processes often results in delays in preparation of consolidated project financial progress reports as well as withdrawal claims for reimbursement from the Bank.

- GOO's existing accounting system concentrates mainly on bookkeeping and transactional control over expenditures and there is little evidence of the use of financial information in management decision making.

- Delays in payments to contractors for works have been noted. This is often attributed to delays in joint measurements of completed works and irregular submission of the bills by the contractors.

- Delays in providing funds for project implementation have been a standard feature of the Orissa portfolio. Although the state provides adequate funds for the project requirements in the budget, cash liquidity problems often result in less than adequate funds being put in the hands of the Department and project implementation units for implementation purposes.

- *Lack of financial statements and audit opinion on the same.* Project specific financial statements are not required to be prepared under the normal business requirements in the states. In this project, special efforts have been made to work with the State Finance Department to align budget for the project activities by project components/sub components. This should help accounting for and generating a financial report/statement (sources and uses of funds) using the state/ AG's accounting system on which the State AG would be able to provide an audit opinion. The TOR for external audit which includes providing an opinion on the financial statement has been forwarded to the office of the C&AG for their consent.

Table 1: Summary of Risk Assessment and Mitigation Measures

Risk	Remedial Risk Rating	Risk Mitigation Measures Incorporated into Project Design
Use of parallel project reporting systems, with no in-built internal control measures for reconciliation, increases the exposure to risk that the expenditures reported may not be correct or reliable.	M	Building the main project components as sub heads into the state's own budget classification will allow harmonization of the accounting and reporting processes for the project with the State's systems, avoid parallel accounting and reporting for the project and thereby increase the levels of fiduciary assurance by providing reliable information of actual spends.
The dispersed nature of project implementation arrangements	M	OWD has proposed to centralize all project related payments (works and establishment) at the PMU level and will use the

Risk	Remedial Risk Rating	Risk Mitigation Measures Incorporated into Project Design
invariably results in delays in compilation of financial information (and SOEs) required for preparation of withdrawal claims.		new technologies available by way of e-banking to make timely payments, on receipt of approved bills from the implementing divisions of OWD. In addition, the information on project related expenditures by project components obtained from the existing monthly financial reports prepared for the AG's Office will be used for purposes of preparation of monthly/quarterly interim unaudited financial reports.
Weak capacity leading to submission of incomplete documentation required for traditional SOE method of disbursement.	M	The project will use interim unaudited financial reports used for project reporting as supporting documentation for purposes of disbursement. Under this arrangement, the requirement for submitting additional documentation is minimal.
Delays in providing funds for project implementation have been a standard feature of the Orissa portfolio, leading to inefficiencies in project management.	M	Orissa has since overcome the cash constraints, as a result of increased tax revenues and increased transfers from central government. This is reflected in the fact that the state has not resorted to any overdrafts since 2004-05. While this remains an inherent risk, the probability of the same is not high given the current fiscal situation of the GOO.
Delays in submission of audit reports, leading to suspension of SOE based disbursements.	M	Efforts have been made to mainstream accounting into the state systems, to allow the project financial statements to be prepared from the AG's own financial reports. These measures will help to mitigate the risk of delays in submission of audit reports.
Overall Risk Rating	M	

H – High, S – Substantial, M – Modest, N – Negligible

Strengths & Weaknesses

5. OWD has implemented a Bank-financed project earlier and is thus familiar with the management of external funds, as well as utilization, accounting and reporting for externally aided project. OWD as a department of the Government of Orissa follows the financial rules and procedures laid down in the Orissa Public Works Department (OPWD) Code (for the delegation of authority, etc.) and Central Public Works Accounts Code (for accounting and reporting procedures). The ongoing Treasury computerization initiative has greatly enhanced the State's ability to prepare timely, accurate and reliable monthly financial reports. The Divisional Accountants, who have adequate experience with established OWD procedures, will be responsible for the financial management functions at the field units. OWD has posted two dedicated finance positions at the PMU: (a) FA-cum-Chief Accounts Officer from State Finance Department, and (b) Senior Divisional Accounts Officer from the Accountant General office.

Summary of Weaknesses and Action Plan

Table 2: Summary of Weaknesses and Action Plan

Weakness	Resolution
State Level	
Evidence from the external audit reports, identifying a large number of irregular transactions, suggests that the transactional controls are often not complied with and are circumvented.	A Handbook on Compliance to Audit Objections has been published by the Finance Department in December 2006 and has been circulated. Timely compliance of audit paras/draft paras has been given due importance and an apex committee under the chairmanship of Chief Secretary

Weakness	Resolution
	and review committee under the chairmanship of Additional Chief Secretary (Finance) and departmental monitoring committees formed to monitor progress. In June 2006, all departments were provided with a deadline of 5 September 2006 to ensure compliance on audit paras up to 2004-05. Data on pending audit paras, inspection reports and PAC paras provided indicates that there been a significant increase in disposal of audit paras in the second half of last year.
The Treasury does not exercise budgetary control while making payments. Treasuries do not have budget information at hand nor up-to-date data on expenditure previously incurred.	This problem has been addressed through the computerization initiative of Treasuries. The new computerized Treasury systems provide on-line information to the treasuries on cumulative expenditure against departmental budget
Application of the internal control framework results in many weaknesses in practice, due mainly to the failure to attach personal responsibility, or apply sanctions that are provided for in existing regulations.	Monthly financial reports of actual expenditures against allocations are being forwarded to the individual departments, thus seeking to increase the accountability of the departmental secretaries. Regular departmental reviews are being taken up to monitor the reconciliation of expenditures and receipts with AG Orissa and timely submission of accounts by the Treasuries to AG Orissa. Instructions have been issued to hold salaries of Forest & Engineering departments in the event of delays in submission of monthly accounts.
Project Level	
No separate internal audit system is in place	The internal audit function is de facto built into the staffing of the public works department, which has a Divisional Accountant attached to each field unit. The Divisional Accountants are employees of the AG deputed to the works departments and are specially trained in works accounting. While this established arrangement is seen as being by and large adequate, special provisions have been built into the GAAP to pilot third party monitoring processes as well as putting in systems in place to implement RTI.
Delays in payments to contractors for works have been noted.	OWD has proposed to centralize all project related payments (works and establishment) at the PMU level and will use the new technologies available by way of e-banking to make timely payments, on receipt of approved bills from the implementing divisions of OWD. Benchmarks will be established to monitor timeliness of payments and will be monitored carefully through implementation of the project.

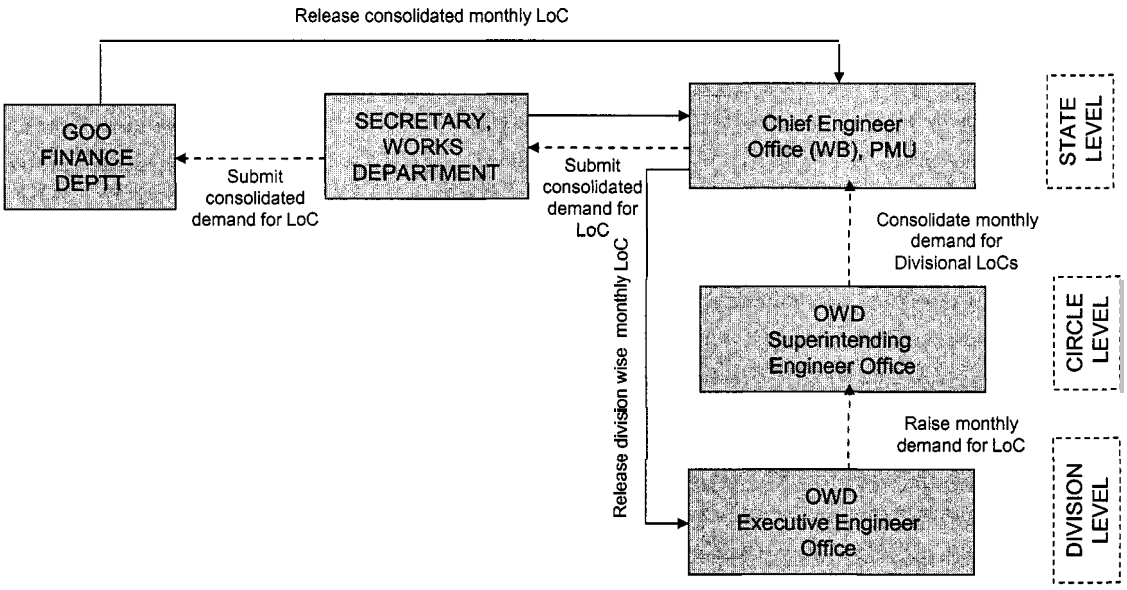
Financial Management Arrangements

6. ***Implementation Arrangements.*** The OWD will be the implementing agency for the project. A dedicated PMU has been established within OWD for the preparation of the project and will continue to be responsible for the planning and implementation of the project. The OWD will implement the Road Improvement Component through its field level divisions.

7. ***Budgeting.*** Budget at the state level would be approved by the state legislature. Budgeting for this project would be undertaken at the beginning of the financial year and in accordance with the overall financial plan agreed during the preparation of the project. OWD

divisions would provide inputs for this budgeting process. The project will be budgeted for as a separate line under Planned Demand for Grants (No. 07) in a manner that will allow for all project-related expenditures to be separately identified, accounted and reported in the consolidated Monthly Appropriation Report prepared by the Accountant General (AG) of Orissa. Details of expenditures by project components and sub components will be tracked at the scheme level and updated information available both at the AG as well as the departmental level.

8. ***Fund Flow***. The standard fund flow mechanisms at OWD will be followed to account for the project. Fund flows follow the Letter of Credit (LC) mechanism, with the Finance Department providing monthly LCs as per OWD's fund requirements. A LC is the Finance Department's authorization to the bankers to honor payments from each implementing unit up to the limit set in the LC. Under the LC system, the Drawing and Disbursement Officers have check drawing facility and the responsibility for the accounting remains with the department itself who sends monthly compiled accounts to the AG. The fund flow arrangements are summarized in the following flow chart:



9. ***Accounting Arrangement***. Accounting for project expenditures will be maintained on cash basis as per GOI system and the PWD accounts and codes. This requires the OWD to compile their accounts monthly, for submission to the AG. The field units close their books every month and submit the details to the AG by the 10th of the next month. The Monthly Compiled Accounts are comprehensive and provide substantial financial details of all the transactions at the Divisions for that month and cumulative expenditure on works. Classified Abstract provides consolidated expenditure up to Sub-Head and Objects and Works Abstracts gives details of work wise expenditure. The Classified abstracts provide details of expenditure against each budget head. The prevailing financial rules and regulations of GOO will apply to all project expenditures.

10. Key aspects of accounting under the project are as follows:

- All payments to contractors, consultants and suppliers are considered as expenditure, other transfers are considered as advances.
- Mobilization Advance can only be given on specific approval of the Government. Such advances are generally against bank guarantee and taken to expenditure at the time of payment. Subsequently, deductions are made from the running bills of the contractor and the net amount is then booked to expenditure
- The procedure for payment of bills of the contractors for works includes: (a) writing of Measurement Book (MB) by the Assistant Engineer/Junior Engineer; (b) Running Bill prepared by the Divisional Clerk and signed by the Executive Engineer (EE); (c) verification of Running Bill by Accounts Branch of the Division from financial angle; pre-audited and passed for payment, and (d) verification and passing of Running Bill by the EE.

11. ***Internal Control.*** GOO's Financial Rules and Regulations (FRR) provides the framework for procedural transaction control of individual items of expenditure and receipts. The FRR also provides detailed guidance on internal controls, including safeguarding of cash, control over inventories, segregation of duties and delegation of authority for approvals and operating bank accounts. Reconciliation of expenditure with the Treasury and AG is concurrent and would be an essential control mechanism in the Project and would be regularly followed up with the implementing departments. It was also agreed that the PMU will maintain a commitment/payments register centrally at the PMU, tracking all contracts (works, consultant services, goods, materials, other NGO services, etc). This will provide the project with information required on pending payments and help track project progress.

12. While the above arrangements will apply to a bulk of work related expenditures, the fund flow, accounting and reporting arrangements for other components of Resettlement Action Plan (RAP) and Tribal Development Plans (TDPs) etc cover payments related to rental allowances, transitional allowances, training allowances, economic rehabilitation grants and shifting allowances. An NGO engaged to assist the Project Affected Persons (PAP) will assist in preparing basic documentation related to land compensation and R&R assistance. Detailed PAP-wise files will be maintained, including micro plans (calculating total R&R assistance due to a PAP under various heads), identity cards, etc. These documents will be submitted to the Resettlement and Rehabilitation Officer (RRO) who will forward them to the Social Development Officer (SDO) in the PMU. The SDO in turn will forward the documents to the finance section of the PMU for issuance of 'account payee' checks. The check will be deposited by the PAP in a bank account opened for this purpose as per the procedures delineated in the R&R policy of the Government of Orissa. This will ensure that utilization of the fund is for the purposes intended, i.e. against productive goods/works/services, as specified in the micro-plans. Receipts for the assets and/or services and utilization certificates provided by the PAPs will be maintained by OWD and will be subject to statutory audit and departmental inspections.

13. ***Financial Reporting.*** In the above design of budgeting and accounting, the information on project related expenditures by project components obtained from the existing monthly financial reports prepared for the AG's Office would be used for purposes of preparation of monthly and quarterly interim unaudited financial reports. Activity level details of the expenditures will be captured at the project level in a manner that will allow the project management to monitor financial progress against the Annual Work Plans. For purposes of

disbursement, the total expenditures reported will be discounted for ineligible expenditures, such as the pro-rata charges, land acquisition and utility shifting expenditures (as identified by a separate budget line). Projection of expenditures for the next two quarters will help determine the value of withdrawal application. The Interim Financial Reports will also include a list of payments against contracts that are subject to the Bank's prior approval. The form and contents of these reports were discussed and agreed between the GOO and the Bank.

14. ***Disbursement.*** The table below shows disbursement categories and loan financing percentage.

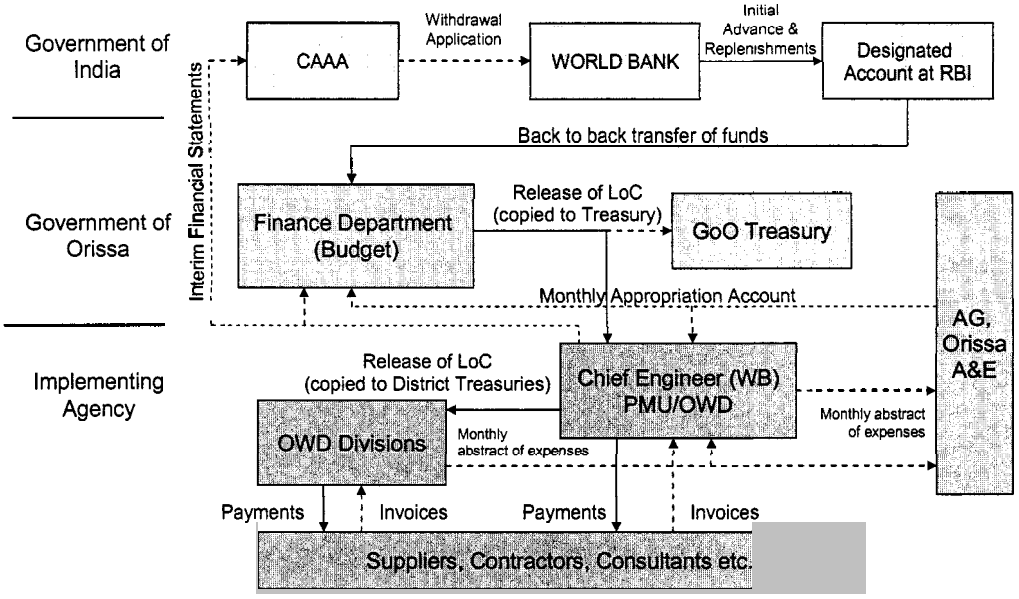
Expenditure Category	Amount US$ Million	Financing Percentage
Civil Works, Goods, Consultants' Services, Training, R&R Assistance and Incremental Operating Costs	243.375	80%
Refund of the Project Preparation Advance	3.000	Amount payable pursuant to Section 2.07 (a) of the General Conditions
Front End Fee	0.625	Amount payable pursuant to Section 2.03 of the Loan Agreement in accordance with Section 2.07(c) of the General Conditions
Premia for Interest Rate Cap and Interest Rate Collar	---	Amount payable pursuant to Section 2.07 (c) of the Loan Agreement in accordance with Section 4.05 (c) of the General Conditions
Total	250.000	

15. ***Disbursements and Designated Account.*** Project funds will be deposited in advance into the designated account maintained in US dollars. The designated account will be operated by the Controller of Aid, Accounts and Audit, GOI. Funds will be withdrawn from the designated account on the receipt of quarterly withdrawal applications from GOO and transferred to GOO following the standard Centre-State mechanism of Additional Central Assistance. Replenishments into the designated account will be based on interim unaudited financial reports and will be processed by Controller of Aid, Accounts and Audit (CAA&A) on a quarterly basis. The interim unaudited financial reports will provide information on expenditure made in the previous quarter and forecast for two subsequent quarters. Quarterly disbursements would be made based on these financial reports, providing funds for two subsequent quarters after adjustment for past disbursements.

16. ***Staffing.*** OWD has posted two dedicated finance positions at the PMU: (a) FA-cum-Chief Accounts Officer from State Finance Department and (b) Senior Divisional Accounts Officer deputed from Accountant General's Office. The Finance Wing of the PMU will scrutinize all claims of suppliers, contracts, consultants etc., received from the field engineers, make payments, keep all the accounting records as per OWD system of accounting as per OPWD/CPWD Code, submit monthly accounts to AG, Orissa and submit financial reports to

GOO and CAA&A. At the Division level, the Divisional Accounts officers will be responsible for the finance related functions.

Funds and Documentation Flow Diagram



17. ***Auditing.*** The CAG of India through its offices in Orissa will be the statutory auditor for the project. The CAG's office will conduct an annual audit of the operations of the Project. The audit report will be submitted to the Bank within six months of the close of each financial year. The Terms of Reference for the audit have been prepared in agreement with the Bank and have been sent to the CAG of India for their approval. The form of annual financial statements will be prepared by the OWD and will be agreed with the CAG of India. The following audit reports will be monitored in the Audit Reports Compliance System (ARCS):

Implementing Agency	Audit	Auditors
OWD, Government of Orissa	Annual financial statement	CAG of India, Orissa
DEA/GOI	Special Account	CAG of India, New Delhi

18. ***Financial Management Manual.*** These arrangements have been documented in a simple Project Financial Management Manual (PFMM) and include the fund flow, accounting and reporting, disbursement and auditing arrangements for each of the project components and for the project as a whole.

19. ***Supervision Plan*:** In the early stages, FM supervision activities will focus on the adequacy of the financial reporting arrangements, including the timeliness and completeness of the Treasury financial reports, as the basis for disbursements from the Credit/Loan. As the implementation moves forward, desk reviews of external and performance audit reports will be

conducted. Key FM fiduciary work includes: (i) review compliance with all FM covenants, (ii) review compliance with State Financial Rules and Regulations; (iii) review of commitment tracking system; (iv) review of quarterly financial management reports and audit reports and follow-up actions taken on such reports; and (v) participating in site visits as needed to review internal control procedures and practices. Based on the assessed risk, FM supervision plans will be prepared.

Annex 8: Procurement Arrangements

INDIA: Orissa State Roads Project

1. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated May 2004, revised October, 2006 (Procurement Guidelines); and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, revised October 2006 (Consultancy Guidelines) and the provisions stipulated in the Legal Agreement.

2. The various items under different expenditure categories are described in general below. For each contract to be financed by the Loan, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

3. ***Procurement of Works*** under the proposed project include the following:

(a) *Phase 1.* Three contracts are envisaged for widening and strengthening of 204 km of roads.

(b) *Phase 2.* Three contracts for widening and strengthening of 257 km of roads and one contract for repair of flood-damaged Bridge (150 meters).

4. The procurement will be done using the Bank's Standard Bidding Documents (SBD) for ICB and updated NCB model document.

5. ***Procurement of Goods*** for ISAP implementation support will include purchase of equipment, computers and software for Geographical Information Systems and e-Procurement, hand held GPS units, and automatic traffic counting systems. The procurement will be done using the Bank's SBD for all ICB and updated model NCB document as agreed with the GOI Task Force for use in India.

6. ***Selection of Consultants.*** Services of consultant firms will be required for producing detailed project reports, construction supervision and technical audits. In addition, for the PPP roads and ISAP implementation, a range of technical assistance and advisory services will be recruited. Short lists of consultants for services estimated to cost less than US$500,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. For all consultant procurement, the Bank's standard Request for Proposal (RFP) document and pertinent Form of Contract shall be used.

7. ***Operating Costs.*** The project will support various incremental costs for efficient and timely project implementation.

8. The ***bidding documents*** shall be drafted following the Bank's Standard Bidding Document. The following conditions must be met in order for the bidding process under NCB to be acceptable to the Bank:

(i) Only the model bidding documents for NCB agreed with the GOI Task Force (and as amended from time to time) shall be used for bidding;

(ii) Invitations to bid shall be advertised in at least one widely circulated national daily newspaper, at least 30 days prior to the deadline for the submission of bids;

(iii) No special preference will be accorded to any bidder either for price or for other terms and conditions when competing with foreign bidders, state-owned enterprises, small-scale enterprises or enterprises from any given State;

(iv) Except with the prior concurrence of the Bank, there shall be no negotiation of price with the bidders, even with the lowest evaluated bidder;

(v) Extension of bid validity shall not be allowed without the prior concurrence of the Bank (a) for the first request for extension if it is longer than four weeks; and (b) for all subsequent requests for extension irrespective of the period;

(vi) Re-bidding shall not be carried out without the prior concurrence of the Bank. The system of rejecting bids outside a pre-determined margin or "bracket" of prices shall not be used in the project;

(vii) Rate contracts entered into by Directorate General of Supplies and Disposals will not be acceptable as a substitute for NCB procedures. Such contracts will be acceptable however for any procurement under Shopping procedures; and

(viii) Two or three envelop system will not be used.

B. Assessment of the agency's capacity to implement procurement

9. For all works, the employer is the Chief Engineer, World Bank Projects, who also serves as the Project Director of the PMU, which will be in charge of the implementation of all project components. The PMU will be supported by a Project Management Consultancy (Construction Supervision Consultant) for monitoring and supervising the day-to-day implementation of the civil works. The procurement responsibilities and arrangements in the PMU are described in the following paragraphs.

10. ***Procurement Setup in the Project Management Unit of OSRP.*** All Procurement matters are finalized in accordance with the powers delegated in the OWD Code, as follows:

(i) Proposals costing up to Rs. 5 Million approved by the Executive Engineer.

(ii) Proposals costing up to Rs. 50 Million approved by the Chief Engineer.

(iii) Proposals beyond Rs. 50 Million to be approved by the Government in Works Department after obtaining recommendations of the Tender Committee constituted in Works Department with the following members:

a. Secretary, Works Department	....	Chairman
b. Financial Advisor, Works Department	....	Member
c. Representative of Law Department	....	Member
d. Representative of Finance Department	....	Member
e. Chief Engineer of Concerned proposal	....	Member

Besides, a Technical Evaluation Committee comprising of following members has been constituted by the OWD to assist the Tender Committee in evaluating the proposals for Works & Services.

a. Engineer-in-Chief (Civil), Orissa.	...	Chairman
b. Chief Engineer, World Bank Projects, Orissa	...	Member
c. Financial Advisor of PIU	...	Member
d. Two Executive Engineers of PIU	...	Member
e. Accounts Officer – I, O/o EIC (Civil), Orissa	...	Member convener

11. ***Procurement Set Up in the PMU.*** The following officers in the Engineering Cadre are engaged in the procurement activities relating to the project. These officers are dealing with the Procurements in PMU in addition to their normal responsibilities. The general absence of dedicated procurement cadre and recruitment of staff that is procurement proficient is consistent with the prevailing practice in the country. The OWD staff carries out the procurement function as part of their overall job responsibility, but, in the process, have acquired skills to understand procurement processes.

a. Chief Engineer (Approving authority)	1
b. Executive Engineer	1
c. Sr. Divisional Accounts Officer [Legal & Financial aspects]	1
d. Assistant Engineer	1
e. Junior Engineers	2

12. Additional help is taken from other Executive Engineers and sector experts in finalization of technical specifications and proposal evaluations.

13. ***Evaluation Committee for Selection of Consultants.*** The OWD have constituted a committee comprising of the following members for evaluation of technical and financial proposals of consultants being procured for Orissa State Road Project.

a. Engineer-in-Chief (Civil)	...	Chairman
b. Chief Engineer, World Bank Projects, Orissa	...	Member convener
c. Chief Engineer, R.D. & Q.P. Orissa	...	Member
d. Accounts Officer, O/o E.I.C. Civil, Orissa	...	Member

14. An assessment of the capacity of OWD to implement procurement actions for the project has been carried out, using the computerized Dynamic Risk Assessment Model. The assessment reviewed the organizational structure for implementing the project, the process of procurement and applicable codes as being followed in the procurement process, the staffing of the PMU, and the tiers as well as authority levels in the procurement decision process. An Action Plan was developed as output from the above Model, which was shared with OWD/ PMU and the action listed there-under, have been monitored on regular basis during preparation phase of the project. The latest updated Action Plan with status of agreed actions for risk mitigation and capacity building of PMU is placed at paragraph 19 below.

C. Risk and Mitigation Measures

15. The key procurement risks and mitigation measures have been identified and highlighted below.

16. *Lack of Dedicated Procurement Staff.* Since there is no dedicated Procurement Officers at OWD, the initial procurement actions are being carried out through the involvement of OWD engineers who have additional responsibilities. However, this arrangement needs to be strengthened with the induction of a few dedicated procurement officers, who would be responsible not only for executing the planned procurement activities but also for coordination and monitoring procurement progress at PMU, and for overseeing contract administration during the implementation phase.

17. *Capacity Building Measures.* The OWD staff working in the PMU has been associated with project preparation and is familiar with Bank procedures. The PMU staff dealing with procurement has also attended a training course on Bank procurement procedures at the Administrative Staff College of India (ASCI) in Hyderabad. During project implementation, the PMU is working out a training plan for more staff to enhance their exposure and refresh their procurement capacity on an ongoing basis.

18. In addition, as part of the institutional capacity building, OWD engineers that will be associated for the project implementation will undergo an orientation course on the essentials procurement (advertisement, document preparation, and bidding process and evaluation procedures) using Bank procedures as well as a course on Contract Administration. These courses may be designed and conducted in-house by training institutions at the request of OWD or PMU staff would be sent for the training to different institutions in India.

19. Action Plan for mitigation of procurement risk and to address concerns on the procurement capacity of OWD is provided below:

Table 1: Procurement Capacity Action Plan

Action	Due	Status/ Completed	Pending Action/ due on
Agree on appropriate dispute resolution provisions for contracts (at least for Bank financed ones, note that it is mandatory for ICB).	01/15/2007	Bank's SBDs/ Model documents for ICB and NCB will be used, which provides for this. Completed.	Nil

Agree on list of unacceptable NCB issues and on removal from documents to be used for Bank financed procurement.	01/15/2007	Same as above. Conditions agreed to already.	Nil
Arrange for training on procurement planning.	12/31/2006	This is being implemented and details of the staff that has undergone such training shall be provided to the Bank. Also a detailed list of training scheduled for the next year will be prepared and provided for information of the Bank.	Will be continuous exercise during the implementation phase.
Build a system for the agency to implement or for future project.	12/31/2008	This is being carried out under ISAP. Not yet due.	System to be developed by December 31, 2008.
Prepare acceptable sample bidding documents.	12/31/2006	Bank's SBDs/ Model documents for ICB and NCB will be used. Completed.	Nil

20. With the prescribed mitigation measures in place, the overall project risk for procurement is **Low to Medium**.

D. Procurement Plan

21. The OWD has developed a Procurement Plan for the first 18 months project implementation period and is the basis for the procurement methods to be used for procurement of works, goods and consultants. The Procurement Plan has been agreed between the GOO and the Bank during appraisal and is available at the OWD office, as well as the OWD website for OSRP. It will also be available in the project's database and in the Bank's external website. The Procurement Plan will be updated annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. The Procurement Plan establishes the thresholds for prior review by the Bank, which will also be reviewed during the implementation phase of the project to reflect changes in the capacity and risk assessment of PMU using the Dynamic Risk Assessment Model.

E. Frequency of Procurement Supervision

22. In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the PMU has recommended implementation support missions to the field every six months initially, and increased to every nine months or once a year during the latter part of the project implementation period. The missions will also carry out post reviews of procurement actions taken below the prior review threshold.

F. Procurement Arrangement for Phases 1 and 2

Procurement Goods, Works and non-consulting services

23. **Methods of Procurement:**

- ICB contracts, above US $ 10 million for works and US $ 200,000 for goods.
- NCB contracts, up to US $ 10 million for works and up to US $ 200,000 for goods.
- Limited Competitive Bidding/ Shopping, contracts up to US $ 20,000 for works and goods.
- Rate contracts of Director General of Supplies and Disposal (DGS&D) are also acceptable as one of the quotations for shopping procedures.
- Direct Contracting, proprietary items, such as spare parts, software, up to US $ 10,000 equivalent per contract meeting requirements stated in the Procurement Guidelines of the Bank and petty items costing up to US $ 1,000 per contract may be procured through Direct Contracting.

24. ***Prior Review Threshold.*** Procurement Decisions subject to Prior Review by the Bank as stated in Appendix 1 to the Procurement Guidelines

Table 2: Prior Review Threshold for Procurement of Goods and Works

Procurement Method	Prior Review Threshold	Remarks
ICB (Goods)	US $ 200,000	
NCB (Goods)	US $ 100,000	Only the first contract
ICB (Works)	US $ 10,000,000	
NCB (Works)	US $ 5,000,000	And the first contract irrespective of value
Direct Contracting	All contracts irrespective of value	

Table 3: Procurement Packages requiring Prior Review by the Bank

1	2	3	4	5	6	7	8	9
Ref. No.	**Contract (Description)**	**Estimated Cost of Contract In US $ M**	**Procurement Method**	**Pre-qualification (yes/no)**	**Domestic Preference (yes/no)**	**Review by Bank (Prior / Post)**	**Expected Bid-Opening Date**	**Comments**
CIVIL WORKS								
Phase 1 Contracts: Widening and Strengthening of 204 km of roads								
OSRP-CW-Y1-P01	Phase 1 - Package 1	28.06	ICB	No	No	Prior Review	Jan-08	
	[Bhawanipatna - Khariar - 68 Kms]							
OSRP -CW-Y1-P02	Phase 1 - Package 2	51.71	ICB	No	No	Prior Review	Jan-08	
	[Chandbali – Bhadrak- Anandpur - 95 Kms]							
OSRP-CW-Y1-P03	Phase 1 - Package 3	19.17	ICB	No	No	Prior Review	Jan-08	
	[Berhampur - Taptapani - 41 Kms]							
Phase 2 Contracts: Widening & Strengthening of 257 km of roads								
OSRP-CW-Y2-P01	Phase 2 - Package 1	31.34	ICB	No	No	Prior Review	Aug-08	
	[Taptapani -							

	Raipanka - 68 Kms]							
OSRP-CW-Y2-P02	Phase 2 - Package 2	43.35	ICB	No	No	Prior Review	Aug-08	
	[Raipanka - JK Pur - 83 Kms]							
OSRP-CW-Y2-P03	Phase 2 - Package 3	58.08	ICB	No	No	Prior Review	Sept-08	
	[Jagatpur - Chandbali - 106 Kms]							
OSRP-CW-Y2-P04	Phase 2 - Package 4	5.85	NCB (Design/ Build)	No	No	Prior Review	Sept-08	
	H.L. Bridge over R. Bansadhara near Gumuda on SH - 17							
			GOODS					
Orissa State Road Project-G5	Equipments for Asset Management	0.47	ICB / NCB [After ascertaining costs, which shall be known after report received from AMS Consultant]	No	No	Prior-Review / Post Review As the case may be for each package	Mar,2010	
ISAP GOODS	Equipment for implementation of ISAP	0.58	ICB / NCB [After ascertaining costs, which shall be known after report received from ISAP Consultant]	No	No	Prior-Review / Post Review As the case may be for each package	Mar, 2010	

Selection of Consultants

25. Methods of Procurement

The following methods of selection will be adopted depending upon size and complexity of assignment, as defined in the Consultancy Guidelines:

- Quality and Cost Based Selection (QCBS)
- Quality Based Selection (QBS)
- Selection under Fixed Budget (FBS)
- Least Cost Selection (LCS)
- Selection based on Consultant's Qualifications (CQS)
- Single Source Selection (SSS)

- Individuals

26. ***Prior Review Threshold.*** Selection decisions subject to Prior Review by Bank as stated in Appendix 1 to the Consultancy Guidelines.

Table 4: Prior Review Threshold for Consultant Selection

Selection Method	Prior Review Threshold
Competitive Methods (Firms)	US $ 200,000
Single Source (Firms)	All
Individual Consultants	US $ 50,000

27. Consultancy services estimated to cost above US$200,000 equivalent per contract for firms, US$50,000 per contract for individuals and single source selection of consultants for assignments estimated to cost above US$100,000 will be subject to prior review by the Bank.

28. Short list of consultants for services, estimated to cost less than US$500,000 equivalent per contract, may comprise entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

29. **Any Other Special Selection Arrangements:** [including advance procurement and retroactive financing, if applicable]

Financing the Operational Cost for the Project, such as:

i. Remuneration and Reimbursable Expenditures for Staff of the PMU and Contract Employees.
ii. Furnishing of Office Space and purchase of furniture for PMU staff

Table 5: Consultancy Assignments with Selection Methods and Time Schedule

1	2	3	4	5	6	7
Ref. No.	**Description of Assignment**	**Estimated Cost of Contract in US $M**	**Selection Method**	**Review by Bank (Prior / Post)**	**Expected/ Actual Proposals Submission**	**Comments**
OSRP-AMS	Establishment of Asset Management System	1.87	QCBS Lump Sum	Prior	Nov-08	
OSRP-PTA	PPP Transaction Advisor	0.87	QCBS Lump Sum	Prior	Nov-06	
OSRP- TA-2	PPP Transaction Advisor – Phase 2 Roads	1.45	QCBS Lump Sum	Prior	May-08	
	PPP Financial & Legal Specialists	0.1	QCBS Lump Sum	Prior	Mar-08	
OSRP-CS-P1	Construction Supervision for Phase 1 Roads	4.44	QCBS Time Based	Prior	Aug-07	

1	2	3	4	5	6	7
Ref. No.	**Description of Assignment**	**Estimated Cost of Contract in US $M**	**Selection Method**	**Review by Bank (Prior / Post)**	**Expected/ Actual Proposals Submission**	**Comments**
OSRP-CS-P2A	Construction Supervision for Phase 2 Roads	6.70	QCBS Time Based	Prior	Sep-08	
Env-Advisor	Environmental Specialist	0.08	CQS Time Based	Prior	Feb-08	
Soc-Advisor	Social Specialist	0.05	CQS Time Based	Prior	Feb-08	
Proc-Reforms	Revision of Codes and preparation of standard procurement Manuals of OWD	0.2	QCBS Lump Sum	Prior	Jan-08	
NGO - Phase 1	Engagement of NGO for R&R Implementation [Phase 1 Roads]					
	Nodal - NGO	0.04	CQS Lump Sum	Post-Review	Jan-08	
	NGO - Y1 - Pkg 1	0.03	Least Cost Lump Sum	Post-Review	Jan-08	
	NGO - Y1 - Pkg 2	0.03	Least Cost Lump Sum	Post-Review	Jan-08	
	NGO - Y1 - Pkg 3	0.03	Least Cost Lump Sum	Post-Review	Jan-08	
NGO - Phase 2	Engagement of NGO for R&R Implementation [2nd Year Roads]					
	NGO - Y2 - Pkg 1	0.03	Least Cost Lump Sum	Post-Review	Aug-08	
	NGO - Y2 - Pkg 2	0.03	Least Cost Lump Sum	Post-Review	Aug-08	
	NGO - Y2 - Pkg 3	0.03	Least Cost Lump Sum	Post-Review	Aug-08	
RS-IDP-S&FC	Road Sector Institutional Development, Planning, Safety and Financing Study	2.2	QCBS Lump Sum	Prior	Jun-08	
	IT/ICT Strategy & implementation Plan	0.1	individual	Post	Mar-08	
IT-ICT	Monitoring and Evaluation, IT, ICT and MIS	0.9	QCBS Lump Sum	Prior	Nov-08	
R-USER	Road User Satisfaction	0.3	QCBS	Prior	Jun-08	

1	2	3	4	5	6	7
Ref. No.	**Description of Assignment**	**Estimated Cost of Contract in US $M**	**Selection Method**	**Review by Bank (Prior / Post)**	**Expected/ Actual Proposals Submission**	**Comments**
	Survey		Lump Sum			
PPP-Engineer	Independent Engineer for PPP	1.0	QCBS Time Based	Prior	Jun-08	Start By Jan-08
	Feasibility Study and Preparation of DPR for additional Roads	1.0	QCBS Lump Sum	Prior	Feb-08	Start By Jan-08

G. E-Procurement

30. The PMU/ OWD has a website where it currently provides information on all ongoing bidding opportunities and the concerned authority inviting the bids, bid invitations, the name and estimated cost of each contract and the corresponding bid submission deadline. The current database allows generation of reports such as contracts awarded to date to a particular bidder, list bidders and details of the successful bidder for a contract, etc. Online publishing of bid documents will be mandatory for contracts above Rs. 1 million as per their Government Order (GO).

31. OWD plans to enhance the system through funds provided as a separate component of the project so that a complete e-Procurement system can be implemented across the state government departments. However, for the enhanced system to be acceptable for use in Bank e-Procurement, it shall firstly be reviewed and certified for compliance with the requirements as outlined in the document entitled "*E-Bidding Requirements for MDB Loans, Grants and Credits*" issued by Multilateral Development Banks.

Annex 9: Economic and Financial Analysis

INDIA: Orissa State Roads Project

1. The economic analysis has two parts: the first one deals with the main project roads to be financed under OSRP, and the second part deals with the high-level feasibility study carried out to determine the viability of possible PPP roads for inclusion in the Transaction Adviser assignment, which will be supported under the project.

Part 1: OSRP Roads

Summary of Benefits and Costs:

2. The proposed project aims to upgrade and widen the state's vital arterial state roads to 2-lanes to accelerate the overall economic growth as Orissa has untapped potential for development in mining, industry, tourism, ports sectors. The OWD with the help of a consultant has undertaken an economic feasibility study of about 461 km State Highways and Major District Roads. The evaluation assessed whether widening of these roads to 2-lanes is justifiable based on current traffic counts and road condition survey and assess what the consequent social and environment issues are. The evaluation was done using the Highway Development and Management Model (HDM-4), a globally accepted key analytical tool for economic analysis for highways with investment alternatives, which simulates life cycle conditions and costs and provides economic decision criteria for multiple road design and maintenance alternatives. The main project economic benefits are savings in vehicle operating costs, travel time costs, distance savings for bypasses, and maintenance costs resulting from the road improvements.

3. The cost-benefit analysis of the project indicates that the project economic benefits are satisfactory. The Net Present Value (NPV) of the widening road works is estimated at US$287 million at a 12 percent discount rate over a twenty year evaluation period. The Economic Rate of Return (ERR) is estimated at 25.1 percent. The following table presents the economic analysis summary.

Table1: Economic Analysis Summary

Benefits (US$ million)	509
Costs (US$ million)	222
Net Benefits (US$ million)	287
Economic Rate of Return (%)	25.1%

Main Assumptions:

4. The OWD has selected the three corridors to strengthen the highway infrastructure to accelerate socio-economic development in the State. These corridors are originating from National Highways and provide vital connections with faster mobility within State and out side State for communication, mining, industry, tourism, ports, etc.

5. The road inventory data were collected for width of pavement, width of shoulder, crust details etc. including the inventory and condition survey for structures. The road condition surveys were

conducted for roughness measurements by fifth wheel bump integrator and surface distress data were collected by visual condition. The traffic surveys on the roads have been carried out for selected 20 locations for Classified Volume Counts and 11 locations for Origin-Destination and Axle Loads studies. The classified volume counts on traffic have been brought to Annual Average Daily Traffic (AADT) using seasonal factor based on retail monthly sale of petrol, diesel and lubricants.

6. The Project Influence Area (PIA) has been divided into three PIAs, one for each corridor, for the purpose of estimating future traffic growth rates. The present investment environment in Orissa is expected to lead to optimal socio-economic growth in development of mining, industry, tourism, and ports. The economy of PIA districts are likely to be ahead of the State due to emerging major mineral based industries. The growth of Net State Domestic Product (NSDP) is expected to vary from 5.8 percent and 8.5 percent during next 20 years and NSDP in PIA is expected to vary from 6.3 percent to 9.0 percent during next 20 years. The growth pattern of registered vehicles in preceding five years has been accounted for traffic demand elasticity for the next 20 years. The estimated growth rates for the next 20 years vary from (i) 6.32 percent to 6.59 percent for Car- Jeep, (ii) 3.93 percent to 4.10 percent for Buses, (iii) 9.49 percent to 9.72 percent for Trucks, and (iv) 6.32 percent to 6.59 percent for two-wheelers.

7. Vehicle fleet characteristics and economic unit costs were defined for nine motorized vehicle types. The following table presents the vehicle fleet characteristics and economic unit costs.

Table 11: Motorized Vehicle Fleet Characteristics

	New Vehicle Cost (US$/vehicle)	New Tire Cost (US$/tire)	Fuel Cost (US$/liter)	Lubricant Cost (US$/liter)	Maintenance Labor Cost (US$/hour)
Motorcycle	769	11.50	0.58	1.73	0.43
Three Wheeler	2364	10.84	0.58	1.73	0.72
Car, Jeep, Taxi	8761	40.05	0.58	1.73	0.86
LCV, Van, Light Truck	11691	71.10	0.61	1.73	0.86
Medium Truck (2 axles)	14974	202.23	0.61	1.73	0.86
Heavy Truck (3 axles)	23067	202.23	0.61	1.73	0.86
Articulated Truck (5 axles)	25374	222.47	0.61	1.73	0.86
Small Bus (20 Passengers)	11500	67.05	0.61	1.73	0.86
Large Bus (40 Passengers)	19025	165.89	0.61	1.73	0.86

	Crew Cost (US$/hour)	Interest Rate (%)	Working Passenger Time (US$/hour)	Non-working Passenger Time (US$/hour)	Cargo Delay (US$/hour)
Motorcycle	0.00	14	0.55	0.14	0.00
Three Wheeler	0.00	14	0.69	0.17	0.00
Car, Jeep, Taxi	0.00	14	0.98	0.26	0.00
LCV, Van, Light Truck	0.78	14	0.00	0.00	0.17
Medium Truck (2 axles)	1.29	14	0.00	0.00	0.49
Heavy Truck (3 axles)	1.55	14	0.00	0.00	0.58
Articulated Truck (5 axles)	1.70	14	0.00	0.00	0.63
Small Bus (20 Passengers)	1.93	14	0.69	0.17	0.00
Large Bus (40 Passengers)	3.02	14	0.69	0.17	0.00

	Kilometers Driven per Year (km)	Hours Driven per Year (hr)	Service Life (years)	Gross Vehicle Weight (tons)	ESA Loading Factor
Motorcycle	10787	300	10	0.20	0.00
Three Wheeler	45000	2000	6	0.60	0.00
Car, Jeep, Taxi	32044	1200	10	1.47	0.10
LCV, Van, Light Truck	60000	2000	9	7.00	0.20
Medium Truck (2 axles)	85000	2300	9	16.20	4.60
Heavy Truck (3 axles)	80000	2200	10	25.00	3.80
Articulated Truck (5 axles)	77500	2100	8	32.00	3.80
Small Bus (20 Passengers)	60000	2000	9	7.00	0.20
Large Bus (40 Passengers)	90000	2250	8	9.20	0.50

8. The following table presents typical unit economic road user costs, in US$/vehicle-km, representing: (i) the without project scenario, characterized by single lane road in poor condition (8.0 IRI roughness), and (ii) the with project scenario, characterized by 2-lane road in good condition (2.0 IRI roughness).

Table 3: Typical Unit Road User Costs (US$ vehicle-km)

	Without Project Scenario			With Project Scenario		
	Vehicle Operating Costs	Travel Time Costs	Total Costs	Vehicle Operating Costs	Travel Time Costs	Total Costs
Motorcycle	0.031	0.013	0.044	0.026	0.009	0.035
Three Wheeler	0.061	0.040	0.102	0.052	0.022	0.074
Car, Jeep, Taxi	0.128	0.076	0.204	0.104	0.051	0.155
LCV, Van, Light Truck	0.193	0.005	0.198	0.153	0.003	0.156
Medium Truck (2 axles)	0.276	0.013	0.289	0.223	0.009	0.233
Heavy Truck (3 axles)	0.500	0.018	0.519	0.391	0.013	0.404
Articulated Truck (5 axles)	0.577	0.020	0.597	0.459	0.015	0.474
Small Bus (20 Passengers)	0.210	0.290	0.500	0.167	0.193	0.360
Large Bus (40 Passengers)	0.273	0.586	0.858	0.208	0.383	0.591

9. Design standards for the State Highway requirements have been adopted for providing the desirable level of service, safety and comfort to the vehicles using the facility. Design Standards given in IRC Standards, Codes, Guidelines and Special Publications besides Ministry of Road Transportation and Highways (MORTH) circulars and specifications as applicable to State Highways have been followed and also taking into consideration the inputs given by the OPWD Officials on the local conditions. The material to be used in the project work shall conform to MORTH Specifications for Road & Bridge Works 4th Rev. 2001. Geometric Design Standards as per IRC: 73-1980 "Geometric Design Standards for Rural (Non-urban) Highway" and IRC: SP-48 - 1998 shall be generally followed. The pavement design was based on the IRC: 37-1998 "Guidelines for the design of flexible pavements" and overlay design on flexible pavement was based on IRC:81-1997 "Benkelman Beam Deflection Technique". The typical pavement design for the project roads considers 300 mm of granular sub base, 250 mm of wet mix macadam base, 90 mm of dense bituminous macadam surface and 40 mm of bituminous concrete surface.

10. The unit costs of road per km of the different project alternatives have been derived on the basis of section specific estimates including cost of structures using MORTH data book for item rates. The material rates and labor rates have taken from market and Schedule of Rates-2006 issued by the OWD. The cost of various components of road works (strengthening, widening, raising, new construction etc.), bridge works (rehabilitation, widening, reconstruction of structurally poor and submersible structures), new construction in realignments and bypass(s), utility shifting, improvement of road junctions, road furniture, lay-bye(s), social and environment cost, supervision, quality control measures, PIU project offices, contingencies etc have also been considered. The table below presents the average unit cost of different road works.

Table 4: Average Unit Road Works Costs

Road Work	Cost (US$/km)
Overlay 40 mm BC	36,680
Strengthening with Overlay 250 WMM, 230 DBM, 40 BC	266,757
Reconstruction	350,548
Widening to 5.5m Carriageway with Hard Granular Shoulder	438,182
Widening to 5.5m Carriageway with Paved Shoulder	538,700
Widening to 7.0m Carriageway with Earth Shoulder	465,260
Widening to 7.0m Carriageway with Hard Granular Shoulder	475,493
Widening to 7.0m Carriageway with Paved Shoulder	593,464

BC=Bituminous Concrete, DBM=Double Bituminous Macadam
WMM=Wet Mixed Macadam

11. The table below presents the typical road work cost composition for the option of widening from 3.5m to 7.0m carriageway with 2.5m hard granular shoulders.

Table 5: Typical Road Work Cost Composition

Item	Percentage
Site Clearance	1.5%
Earthwork & Subgrade	9.8%
Granular Sub-base	27.1%
Wet Mix Macadam Base	14.8%
Bituminous Course	29.8%
Hard Shoulder	3.0%
Road Junction	1.0%
Drainage & Protective Work	0.5%
Road Apparatus	9.9%
Other	2.5%
Total	100.0%

Widening from 3.5m to 7.0m with 2.5m hard granular shoulders

12. The economic evaluation of project roads has been done for an analysis period of 20 years with discount rate of 12 percent and economic cost factor 0.9.

Road Improvement Program

13. The three project corridors are composed of six roads. The table below presents the length, and average width, traffic and roughness of the six roads. The average motorized traffic is 3,028 AADT and the average network roughness is 6.0 IRI.

Table 6: Basic Road Characteristics

C	Road or Corridor Name	SH/MDR	Length (km)	Width (m)	Motorized Traffic (AADT)	NMT Traffic (AADT)	Roughness (IRI)
1	**Jagatpur – Kendrapada – Chandbali –Bhadrak – Anandpur**		**201.0**	**5.0**	**4,569**	**2,411**	**5.6**
	a)Jagatpur-Kendrapada-Chandbali	SH-9A	99.0	4.5	5,304	2,834	5.9
	b)Chandbali–Bhadrak	SH-9	53.0	5.5	3,588	2,056	5.7
	c)Bhadrak–Anandapur	SH-53	49.0	4.5	4,144	1,941	5.0
2	**Khariar – Bhawanipatna**		**68.0**	**3.5**	**1485**	**978**	**7.0**
	a)Khariar–Bhawanipatna	SH-16	68.0	3.5	1,485	978	7.0
3	**Berhampur – Bangi Jn-Raygada**		**192.0**	**4.1**	**1,961**	**1,447**	**6.0**
	a)Berhampur-BangiJn.	SH-17	139.0	3.9	1,897	1,600	6.0
	b)BangiJn.–Rayagada	SH4	53.0	4.5	2,132	1,046	6.0
Total			**461.0**	**4.4**	**3,028**	**1,798**	**6.0**

14. The table below presents the average traffic composition of the project roads that shows that motorcycles account for 52 percent of the motorized traffic and bicycles account for 97 percent of non motorized traffic.

Table 7: Typical Traffic Composition (%)

Motorized Vehicles	
Motorcycle	51.7%
Three Wheeler	4.0%
Car, Jeep, Taxi	20.6%
LCV, Van, Light Truck	4.8%
Medium Truck (2axles)	10.3%
Heavy Truck (3axles)	2.7%
Articulated Truck (5axles)	0.5%
Small Bus (20Passengers)	1.9%
Large Bus (40Passengers)	3.4%
Non Motorized Vehicles	
Bicycle	96.8%
Rickshaw	1.5%
Animal Drawn	1.8%

15. The Economic evaluation has been carried out on the basis of incremental costs and benefits comparing the total net benefits for following five engineering alternatives with the "Do Minimum" alternative of doing only routine maintenance and reconstruction after the 10^{th}. year of evaluation period when the road is in very bad condition.

- Alt1: Widening to 5.5 m carriageway with 1.5 m hard granular shoulder on either side.
- Alt2: Widening to 5.5 m carriageway with 1.5 m paved shoulder on either side.
- Alt3: Widening to 7.0 m carriageway with 2.5 m earthen shoulder on either side.

- Alt4: Widening to 7.0 m carriageway with 2.5 m hard granular shoulder on either side.
- Alt5: Widening to 7.0 m carriageway with 1.5 m paved shoulder and 1.0m hard granular shoulder on either side.

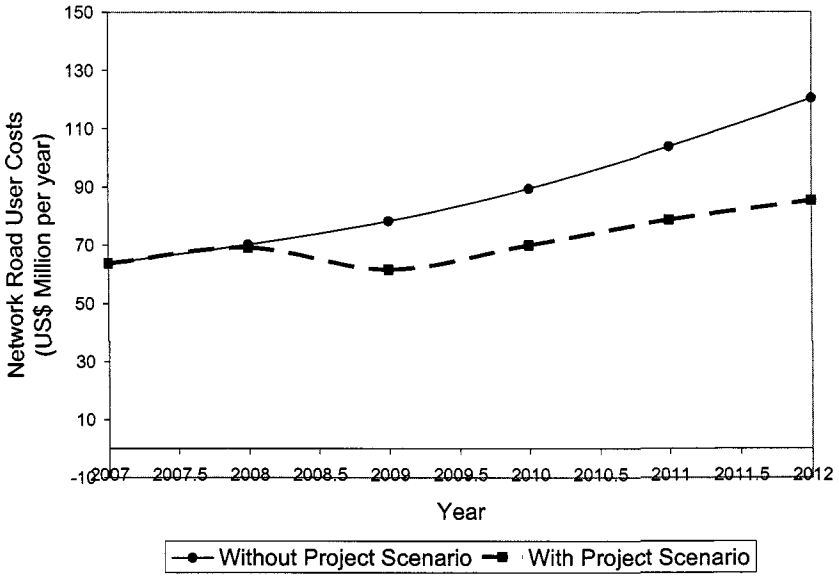
16. The six roads have been analyzed individually as well as the three individual corridors and as the project as a whole. The evaluation shows Alternative 4 (7.0m carriageway + 2.5m hard granular shoulders) has the highest Net Present Value (NPV). Hence, Alternative 4 may be considered globally as the most economically viable alternative for all roads yielding an overall Net Present Value (NPV) of US$289 million with an overall Economic Rate of Return (ERR) of 25.1 percent. The ERR of each of three corridors for Alternative 4 varies from 32.1 percent to 14.9 percent. The following table shows the economic evaluation summary of the analysis of Alternative 4, presenting the financial investment cost, NPV, ERR and ratio of NPV per investment cost for all roads.

Table 8: Economic Evaluation Summary

C	Road or Corridor Name	Financial Cost (US$ M)	NPV (US$ M)	ERR (%)	NPV/ Cost (#)
1	**Jagatpur - Kendrapada - Chandbali - Bhadrak – Anandpur**	**114.2**	**244.4**	**32.1%**	**2.1**
	a)Jagatpur-Kendrapada-Chandbali	59.9	109.5	31.1%	1.8
	b)Chandbali–Bhadrak	27.9	18.6	21.1%	0.7
	c)Bhadrak–Anandapur	26.4	116.3	41.7%	4.4
2	**Khariar - Bhawanipatna**	**26.7**	**23.2**	**22.3%**	**0.9**
	a)Khariar–Bhawanipatna	26.7	23.2	22.3%	0.9
3	**Berhampur – Bangi Jn-Raygada**	**104.1**	**19.5**	**14.9%**	**0.2**
	a)Berhampur-BangiJn.	70.3	16.1	15.4%	0.2
	b)BangiJn.–Rayagada	33.8	3.4	13.7%	0.1
Total		**245.0**	**287.0**	**25.1%**	**1.2**

17. The following chart show the estimated network road user costs, in Million US$ per year, with and without the project for the next five years. During this five year period, road user will save US$97 million. The current annual total network road user costs are US$64 million. Without the project in 2012 annual total network road user costs are estimated to be US$120 million, while with the project are estimated to be US$85 million, representing a 36 percent reduction on network road user costs. The current average network roughness is 6.0 IRI. Without the project in 2012 the average network roughness is estimated to be 11.2 IRI, while with the project is estimated to be 2.5 IRI.

Figure 1: Estimated Network Road User Costs, In Million US$ Per Year



Sensitivity Analysis of Critical Items:

18. The sensitivity analysis has been carried out by increasing costs by 20 percent, decreasing benefits by 20 percent and increasing costs by 20 percent plus decreasing benefits by 20 percent. Under a worst case scenario of increasing costs by 20 percent plus decreasing benefits by 20 percent, the project ERR is 19.1 percent. The following table presents the sensitivity analysis results.

Table 9: Economic Evaluation Sensitivity Analysis

C	Road Name or Corridor Name	Base ERR (%)	A- Costs +20% (%)	B- Benefits -20% (%)	A + B (%)
1	**Jagatpur - Kendrapada - Chandbali - Bhadrak - Anandpur**	**32.1%**	**28.6%**	**28.6%**	**25.2%**
	a)Jagatpur-Kendrapada-Chandbali	31.1%	27.4%	27.4%	24.0%
	b)Chandbali–Bhadrak	21.1%	18.0%	18.0%	15.2%
	c)Bhadrak–Anandapur	41.7%	37.6%	37.6%	33.9%
2	**Khariar - Bhawanipatna**	**22.3%**	**19.3%**	**19.3%**	**16.6%**
	a)Khariar–Bhawanipatna	22.3%	19.3%	19.3%	16.6%
3	**Berhampur – Bangi Jn - Raygada**	**14.9%**	**12.2%**	**12.2%**	**9.7%**
	a)Berhampur-BangiJn.	15.4%	12.8%	12.8%	10.3%
	b)BangiJn.–Rayagada	13.7%	11.0%	11.0%	8.5%
Total		**25.1%**	**22.0%**	**22.0%**	**19.1%**

19. The analysis of switching values of critical items indicates that to yield an overall project Net Present Value equal to zero, investment costs need to be multiplied by 2.37 or benefits multiplied by 0.42.

Part 2: PPP Roads: Summary of High-Level Financial Pre-Feasibility Screening

20. This section presents the results of a high level pre-feasibility screening analysis to select PWD road improvements on a PPP basis. The results were derived from a simple spreadsheet analysis and from the observations from a field trip to the four candidate PPP road projects. The candidate roads analyzed were selected after extensive consultations with OWD officials and based on a previous traffic count done by OWD's consultant. As a result, three roads were selected for further analysis as follows:

1. SH-10 – four-lane of an approximately 165 km of SH-10 from Rourkela (NH-23) to Sambalpur (NH-42);
2. Joda-Bamberi Road ("Expressway II") – 18 km widening of the existing two lane mining road to seven meters with 1.5 paved shoulder. It connects to the IDCO sponsored Palaspanga-Bamberi improvement currently under tender;
3. Koira-Rajamunda – 46 km widening of the existing two lane mining road to seven meters with 1.5 paved shoulder. Improvements of this road and rehabilitation of NH-23 will significantly reduce truck travel times from the KeonJhar mining district to processing and manufacturing plants and Paradeep port.

21. OWD has taken the initiative to replicate the methodology for PPP roads preparation followed in the Bank project, and have selected a fourth road (Dhamra-Do-Chaki) for this purpose.

22. The candidate projects are located in the mineral extraction, processing and metal manufacturing districts of Orissa, one of India's major industrial zones. Mining and manufacturing activities in the area are booming created by high domestic and East Asia regional demand (China, South Korea). Mining activity is forecasted to expand from 35 MT in 2005 to 55-60 MT by 2012[10] increasing truck traffic and exerting substantial pressure on the road network.

23. The road and rail network to deal with this growth is inadequate. PWD and National Highway roads in the mining area network are quickly losing ground to the onslaught of the mining trucks. State and National Highway roads in the area are rapidly deteriorating or are completely destroyed. Limited public funds to expand and maintain the network cannot keep up with the growth in truck traffic created by mining activity. As the analysis below demonstrates, PWD is right in placing a very high priority to attract private funds for the feasible PPP project candidate roads that are in the mining districts.

[10] Weekend 6/7 Business Standard.

Viable PPP Roads (at Conceptual Level)

24. The high level analysis suggested that SH-10, Joda-Bamberi and Koira-Rajamunda may be viable PPP projects. The table below shows the EIRR and Capital Contribution for the Base Case and other "stress test" assumptions such as Low tariff and Medium Cost. The purpose of the stress test was to evaluate the "robustness" of the PPP, or to relax the conservative consumptions for the candidate roads that were not viable in the Base Case. As a general rule, the candidate road was considered as a viable PPP if the EIRR was 20 percent or higher and the Capital Contribution did not exceed 40 percent under the Base Case assumptions. If the candidate did not achieve the required EIR under Base Case conditions, then input variables were relaxed, in a step-wise sequence, to determine what assumptions would make the road viable.

Table 10: EIRR and Capital Contribution for Base Case

Road	Cost	Tariff Rate	EIRR	Capital Contribution
SH-10	Base	Base	29.66	0
	Base	Low (50% of Base)	20.10	0
Joda-Bamberi	Base	Base	26.95	0
(18 km)	Base	Low (50% of Base)	14.54	40%
Koira-				0
Rajamunda	Base	Base	46.60	
(46 km)	Medium	Low (50% of Base)	18.89	0

25. Eliminating tolls for passenger cars and LCVs on the roads in the table had a negligible impact on the viability of these candidates as PPPs. The first two roads would lose 1 percent - 2 percent on their equity investment, but the EIRR remained well above the 20 percent hurdle rate. The impact was even less for Koira-Rajamunda, because of the very low level of passenger cars that use this mining road and the high toll revenue truck traffic.

SH-10

26. The results suggested that widening SH-10 to accommodate four lanes may be a robust PPP project. It could potentially provide investors with a 30 percent return on their equity. The project could also sustain a 50 percent drop in tariff rates and still be capable of achieving a 20 percent EIRR without a capital contribution.

Joda-Bamberi

27. The results suggested that this is a robust BOT project. The Base Case scenario had a high EIRR of 27 percent, which should attract investor attention. However, under the Low Tariff Rate scenario, this project would not be a viable as PPP even with a 40 percent capital contribution. This is due to the fact that Joda-Bamberi's traffic is almost exclusively used by the mining industry, thus it may not withstand a downturn in the mining industry, even with higher tariff rates. Therefore, extensive scenario modeling is being done for this road during the feasibility stage.

Koira-Rajamunda

28. The Koira-Rajamunda road appeared to be the most robust PPP candidate in the sample due to a large amount of mining activity in the area. Even with the conservative growth rates used in the Base Case analysis, Koria-Rajamunda would have a very high return of 48.60 percent, primarily due to toll revenue income generated by the higher paying mining trucks. Reducing the tariff rates by 50 percent for cars, light commercial vehicles and buses, but only by 25 percent for trucks, and increasing the cost of the road 20 percent would result in a 19.5 percent EIRR and viable PPP project.

Annex 10: Safeguard Policy Issues

INDIA: Orissa State Roads Project

Environment Management

1. ***Process.*** The Environment Assessment (EA) process for OSRP includes the following steps: (i) Environment Screening study to identify key environmental issues carried out in parallel with the engineering feasibility study project roads; (ii) EA along with corridor-specific EMP preparation, and (iii) Biodiversity Assessment Study (including preparation of a management plan) to further strengthen environmental assessment and management process for the project. These studies included an assessment of baseline conditions, analysis of alternative options, assessment of potential impacts, identification of mitigation measures and preparation of management plans. A concurrent independent review was conducted to confirm that the preparation has complied with all relevant GOI, GOO and World Bank requirements. The project has been designed and will be implemented in a manner that will ensure compliance with these plans.

2. ***Environmental Parameters Assessed.*** Key parameters assessed during screening and EA include - presence of sensitive natural habitats (Biosphere Reserve, National Parks, Sanctuaries, Wetlands, Reserved and Protected Forests) within the 10 km of the Project Influence Area; wildlife presence and crossings outside the designated protected areas; roadside plantation; water resources (rivers, streams, canals, springs, tube wells, hand pumps) and their use; water logging, flooding and drainage issues; physiographic conditions; soil resources including erosion prone areas; material sources and their requirement (earth, sand, aggregates); management and disposal of spoil materials, debris and scarified bitumen; baseline pollution levels for air, noise, soil and water; pre-dominant land use; cultural heritage sites; religious properties and; presence of sensitive receptors along the road such as schools, colleges and hospitals.

3. ***Results of Screening.*** The main findings from the screening study include: (i) likely adverse impacts on natural environment (particularly those related to wildlife sanctuaries, forests, wildlife, drainage, soil erosion and disposal of debris) need to be carefully assessed and mitigated; (ii) civil works will require large scale felling of roadside trees, which need to be suitably preserved to minimize the loss and compensated through appropriate plantation works including compensatory plantation; (iii) detailed assessment would be required for some of the roads that pass through or are located in close proximity to environmentally sensitive areas like Inter-tidal Zones, Sanctuaries, Wildlife Habitats, hilly terrain, and Reserved and Protected Forest Areas; and (iv) impacts on sensitive receptors like roadside schools, hospitals and religious properties need to be adequately assessed and mitigated under the project

4. ***Environmental Impacts.*** Due to the rich biodiversity and natural resources of the state, the project may have adverse environmental impacts on forests, roadside vegetation, wildlife, and some hill slopes. These impacts include: (i) direct/indirect impacts on forests and wildlife including pressure on the already fragmented wildlife habitats and movement zone restrictions; (ii) felling of large number of roadside trees; (iii) impacts on water resources used by the people such as ponds, river/streams, canals and hand pumps; and (iv) health and safety issues during construction and operation stages. The environmental impacts could also include some adverse

impacts on schools, hospitals and religious properties located along the existing right of way due to increased noise and air pollution during construction and operation stages of the project. Project interventions may cause undesirable impacts on the rich biodiversity found in adjoining areas as most project corridors traverse through or close to Reserved and Protected Forest Areas. Typical direct impacts that may adversely affect plants and animals include loss of habitat (e.g., bird nesting on the roadside trees and reptile habitat in some road-side vegetation areas and near water bodies located along to the road), pressure on already fragmented habitats, movement zone restrictions (12 elephant crossing sites have been identified apart from those involving movement of sloth bear, deer species, jackals, reptiles etc.), threat from increased risk of collision with vehicles and pollution of habitat zone and water sources from various activities. Some commonly encountered indirect impacts on such ecologically sensitive areas may include habitat degradation due to increased human access to ecologically sensitive areas, altered hydrology, overall ecological disequilibrium, biota contamination and transmission of diseases.

5. ***Key Environmental inputs to Project Design.*** Some specific design interventions to reduce environmental impacts that have been integrated into engineering design include:

- Reuse and disposal of construction debris in suitable pre-identified dumping areas in tune with the local condition to avoid land degradation and water pollution.
- Creation of high mounds using spoils for use during floods and other disasters along Anandpur-Bhadrak-Chandbali road, where entire pavement will be removed for new construction for the entire 92 km stretch.
- Minimization of tree loss through design modifications.
- Protection of some giant trees and green tunnel sections such as in Bhadrak-Chandbali and Taptapani-Rayagada road.
- Provision of underpasses (along with plantation up to a certain distance), reflective warning signage and guard rails along the road in areas where wildlife crossings occur. In all, about 50 underpasses including box culverts for small mammals and reptiles, 3 underpasses for elephants and 2 for sloth bear (Berhampur-Tapatapni) have been provided for maintaining wildlife movement connectivity.
- Trap drains for reptiles and amphibians.
- Relocation of Forest Check Gates to strengthen monitoring.
- Reduction in hill cutting to minimize loss of trees/vegetation and siltation such as in Taptapani-Rayagada road.
- Provision of various slope protection measures, including bio-engineering techniques on corridors where hill cutting will be required for widening and executing geometric improvements.
- Enhancement measures for religious properties, ponds and selected junctions.
- Providing amenities such as bus-bays, hand rails, lane markings, signage, reflectors, drains, etc. for the road users and roadside residents.

6. ***Tree Cutting, Tree Plantation, Biodiversity Management and Bio-engineering.*** The OWD/PMU will formalize an agreement with the Forest Department for a 'Action Plan' prior to start of civil works, which defines the roles, responsibilities and timeframe for: (a) cutting of trees; (b) preparation and execution of tree plantation strategy; (c) transplanting trees, shrubs and medicinal plants of ecological and economic value; (d) implementing biodiversity management

plan, and (e) undertaking bio-engineering tasks in hilly areas. The agreed action plan may also consider providing the OWD/PMU with the right to use contractors/other appointed agencies to perform afforestation, biodiversity and/or bio-engineering tasks in the event that the Forest Department is unable to undertake such work within the scheduled time frame.

7. ***Common Property Resources.*** Impacted community resources will be either relocated or re-built in as good or better condition, with local communities encouraged to commit to their maintenance. Enhancement plans have also been developed for improving aesthetics of selected religious properties and water sources.

8. ***Stakeholder Consultation.*** In accordance with applicable domestic regulations and the applicable Bank policies, public consultations at local (all along the project roads), district and state level were carried out. Consultations targeted the following stakeholders: shopkeepers, farmers and businessmen, local residents; project affected persons; local bodies like village Panchayats and municipalities; temple committees; truckers and local market associations; roadside communities; local NGOs; and selected government departments such as Public Works, Forests, Wildlife Wing, Irrigation, Agriculture, Horticulture, Mining, Tourism and Archeology. The consultation process carried out for the project included a range of formal and informal on-site discussions, interviews, focus group discussions and meetings.

9. The public consultations were designed in a way that: (i) affected people were included in the decision making process; (ii) links between communities and their natural resource base adjacent to project locations were explored; (iii) public awareness and information sharing on project alternatives, benefits and entitlements were promoted; and (iv) views on designs and solutions from the communities were solicited.

10. The main concerns raised by people living along project roads relate to: (i) drainage; (ii) accidents and road safety, (iii) disturbance to properties, employment sources and water sources; (iv) disposal of debris; (v) damage to ponds, other water sources, properties, trees and farmlands during construction and; (vi) resettlement. District level consultations were also carried out during the EA to obtain inputs to modify designs to minimize and/or mitigate potential negative impacts on people and environmental resources. Expert opinion was sought on specific issues related to forests, wildlife and environmental regulations. Outputs from this process have been integrated into the design where technically feasible. Follow up consultations were also carried out at sensitive locations to share information related to the final project design. The EA and EMP documents have been made public through the Bank's Public Information Center, OWD/PMU's website and in the districts affected by the Project (in public libraries, offices of the district collector etc.).

11. ***Statutory Clearances***. A summary of the key statutory clearances required for the project is provided in Table 1 below.

Table 1: Key Statutory Clearances

	Clearance Required for	Statute under which clearance is required	Statutory Authority
Clearances Required to be taken by OWD/PMU			
1	Forest clearance for felling of trees from the corridor of impact	Forest Conservation Act, 1980	Orissa State Forest Department; MOEF, Govt. of India
2	Environment Clearance/ NOC for the Project	EIA Notification, 2006 issued under EP Act, 1986	Orissa State Pollution Control Board; MOEF, Govt. of India
Clearances Required to be taken by the Contractor			
3	Hot mix plants, Crushers and Batch Mix Plants	Air (Prevention and Control of Pollution) Act, 1981 and Noise Pollution (Regulation and Control) Rules, 2000	Orissa State Pollution Control Board
4	Storage, handling and transport of hazardous materials	Hazardous Waste (Management and Handling) Rules, 1989 and Manufacturing, Storage and Import of Hazardous Chemicals Rules, 1989	Orissa State Pollution Control Board
5	Location/ layout of workers camp, equipment and storage yards	Environment Protection Act, 1986 and Manufacturing, Storage and Import of Hazardous Chemicals Rules, 1989	Orissa State Pollution Control Board
6	Quarries (in case of opening of new quarries)	Environment Protection Act, 1986	Dept. of Mining, Govt. of Orissa; Concerned District Administration
7	Discharges from Labor Camp	Water (Prevention and Control of Pollution) Act, 1974	Orissa State Pollution Control Board
8	Permission for withdrawal of groundwater for construction	Environment Protection Act, 1986	State Ground Water Board
9	Permission for sand mining from river bed	Environment Protection Act, 1986	Irrigation Department, Govt. of Orissa
10	Disposal of bituminous wastes, if any	Hazardous Waste (Management and Handling) Rules, 1989	Intimate local civic body to use local solid waste disposal site

12. ***EMP implementation***. For effective implementation, the Environmental Management Plan (EMP) has been appropriately integrated and cross-referenced in the design drawings, contract conditions and Bills of Quantities. The supervision requirements along with the reporting formats has also been specified in the corridor-specific EMPs.

13. ***Monitoring and Evaluation Mechanism.*** The corridor-specific EMPs provide monitoring and evaluation parameters and describe the institutional arrangements to facilitate the 'process' and 'progress' monitoring. A comprehensive evaluation report will be prepared by the Environment Management Cell at mid-term and end-term .An evaluation exercise (site-specific) will be carried out by an Independent Environmental Committee (constituting of officials/experts from Department of Forests, Wildlife Wing and State Pollution Control Board) with the assistance of Environmental Management Cell (OWD/PMU) once in every in every six months..

14. ***Staffing and Training for Environmental Management.*** Staffing arrangements for environment management in the project are given below.

15. At the headquarters, an Environment Management Cell has been created to handle all matters pertaining to environmental management in road projects, including activities related to project planning and preparation, supervision, monitoring, evaluation, reporting, documentation, training, and over-all co-ordination with concerned agencies. The staffing of this cell will be as follows:

(i) a Nodal Environment Officer (Executive Engineer level) who will deal with matters pertaining to integration of EA/EMPs into project design/contract documents; preparation of TORs (environmental aspects) for various studies; integrating environmental aspects in the IDS; co-ordination with various departments/agencies of Govt. of Orissa and other units of PMU and; over-all monitoring and supervision of environmental activities in the project.

(ii) a Nodal Forest Official who will deal with matters pertaining to regulatory clearances; transplantation of trees, shrubs and medicinal plants; planning, preparation and execution of plantation works including the required co-ordination for compensatory afforestation; biodiversity management (planning surveys, co-ordination, monitoring and documentation; plantation activities linked with livelihood support for affected people and roadside communities (such as medicinal plants) and; co-ordination with Department of Forests and Wildlife Wing, Government of Orissa.

(iii) Foresters and Range Officers: The Nodal Forest Official will be assisted by three Foresters and three Range Officers. Each team of one Forester and one Range Officer will be assigned three geographical zones (north, south and centre) of project operation or will focus on specific areas of expertise (forestry, wildlife and environmental regulations).

(iv) An Assistant Environment Officer (Assistant Engineer level) who will deal with matters pertaining to supervision and monitoring of environmental aspects related to construction management during project implementation and assist the Nodal Environment Officer in supervision, reporting documentation and data management.

(v) Environment Management Expert will be recruited from the market to assist the PMU/EMC in the implementation of the environment safeguards.

(vi) The EMC officials will be supported by an assistant for Data and Documentation Management on environmental aspects.

16. At the division level, an Assistant Engineer from the OWD division will be designated as the Environmental Officer, whose main responsibilities will include regular supervision, monitoring and co-ordination of environmental aspects related to pre-construction, construction and operation stages of the concerned sub-project. The Environmental Officer shall also be responsible for data collation at the field level.

17. Field Level: An independent "Engineer" along with a support team of Resident Engineers, Environmental Officers (one for each contract package) and other specialists will supervise the day-to-day implementation of the works in accordance environmental, health and safety management provisions set out in the respective contracts. The contractor will also include an environment and safety officer for each contract, who will be responsible for planning, executing and coordinating the implementation of the EMP as laid out in the contract documents.

18. ***Capacity Building for Environmental Management.*** A training plan has been prepared incorporating the project needs as well as the short and longer term capacity building needs of the OWD/PMU. The plan consists of a number of training modules specific to various target groups. The training will cover the basic principles and methods of environmental assessment; environment management and mitigation plans; implementation techniques; monitoring and reporting requirements; regulatory requirements and; other relevant environmental management related topics.

Social Impact Management

19. The project is aimed at increasing riding quality and vehicle speed, reducing vehicle operating costs and providing road safety. Thus the businesses and households in project areas will utilize efficient road infrastructure services. This will open up economic opportunities for the project area people, including vulnerable people among them, and help improve their socio and economic status.

20. ***Process.*** As part of project preparation, a comprehensive integrated Social Environmental Assessment (ISEA) was undertaken which included detailed Social Assessment (SA). As part of SA, specific social issues resulting from the proposed project interventions were identified and were used in screening and prioritization of roads from the core network for inclusion under the project. The SA included the assessment of the type and extent of impacts, both positive and negative, preparation of strip plans to establish the right of way (ROW) and extensive stakeholders' consultations. For each of the Packages of the first year roads, assessment also included census survey of adversely affected families, extent of land acquisition/appropriation, and establishing the extent of losses to structures coming within the corridor of impact. All these were plotted on the strip plans and the final designs were super imposed on these plans. This helped to delineate the Corridor of Ompact (COI) and also to change the design where ever possible to minimize adverse impacts on the local population. A separate assessment on tribal issues also formed part of the SA. The results of the SA helped to develop a resettlement and rehabilitation (R&R) entitlement framework and strategy for the development of indigenous peoples (referred as tribal). For each of the packages of the first year works, a Resettlement Action Plan (RAP) has been prepared which includes Tribal Development Plan (TDP). A separate Action Plan has been prepared to address HIV/AIDS issues in the project corridors. The preparation of management plans and their implementation will be integrated with the overall project cycle to ensure that the social aspects are systematically identified and addressed in all the packages as the process of implementation is under way.

21. ***Resettlement.*** The most important social safeguard issue associated with the proposed interventions relates to the involuntary resettlement. The project involves widening and strengthening of selected road stretches and in areas with population congestion, by passes has been planned. This applies to PPP roads also. Acquisition of private land and physical displacement are envisaged under the project. Encroachment of ROW is an important issue and the project intervention will result in displacement of a significant number of squatters and encroachers found within the ROW. The project, however, recognizes that not all encroachment/squatters are required to be disturbed and has therefore attempted to minimize the extent of displacement by confining the removal of squatters and encroachers within the COI, which is less than ROW at several places. In order to address the issue of involuntary

resettlement, the project has a well designed R&R entitlement framework, based on the state R&R policy (2006) to help those affected in their resettlement process and restore their livelihoods.

22. From the involuntary resettlement perspective, the core principle in planning and implementation of the project is to avoid, if not minimize adverse impacts of the project interventions and that people affected by the project interventions would be supported to mitigate their losses and help restore the loss of livelihood through compensating their losses and supporting in their resettlement through the provisions of the R&R entitlement framework of the project agreed with the Bank. During project implementation, efforts will continue to minimize the negative impacts of the project on the local people, including encroachers and squatters. The R&R framework agreed for the project (see the Table below) has been drawn from the provisions of the state level R&R policy. As part of preparing R&R entitlement framework, a gap analysis of the state R&R policy in relation to the Bank's OP 4.12 on involuntary resettlement was carried out. Additional measures required to meet these gaps were agreed by the Government and included in the R&R entitlement framework for the project.

Table 2: R&R Framework

Type of Loss	Unit of Entitlement	R&R Entitlement Framework
Agricultural land	Titleholder Family	(i) Compensation as per LA Act. (ii) A rehabilitation grant at Rs 50,000 per acre of un-irrigated and Rs. 100,000 per acre of irrigated land. (iii) If alternate land provided cost will be deducted from the compensation and the rehabilitation grant. (iv) Other Assistance: (a) at least three months notice in advance of crop harvest and (b) compensation for crop lost, if notice is not served in advance.
	Share cropper	An affected share cropper will get a sum equal to the unexpired lease period
Homestead (or non-agricultural land)	Titleholder	(i) Compensation as per LA Act for the loss of homestead land. (ii) If more than one-third of the structure is lost, such affected people will be categorized as 'displaced'. (iii) Those **affected but not displaced** will get compensation for the portion affected and permission to salvage construction material. (iv) Those **displaced** will get: ▪ Compensation for the structure at BSR without deducting depreciation ▪ Permission to salvage construction material. ▪ Alternate house site (1/10th of an acre in rural areas and 1/25th of an acre in urban areas) or cash equivalent of Rs.50,000. ▪ A house construction assistance of Rs 150,000. (v) Other assistance: (a) A maintenance allowance of Rs.2000 per month for a period of one year from the date of vacation; (b) An assistance of Rs 10,000 towards temporary shed; and (c) transportation allowance of Rs 2,000.
	Tenant/Lease holder	Only displaced tenant will get (a) a sum equal to two months rental in consideration of disruption caused, and (b) Transportation allowance of Rs. 2,000 towards shifting household materials.

Land under commercial use	Titleholder (owner and occupier)	(i) Compensation for the loss of land used for commercial purpose. (ii) For the structure affected compensation at BSR without deducting depreciation and permission to salvage construction material. (iii) If more than one-third of the structure is lost, the affected business/work place will be categorized as 'displaced'. (iv) Non displaced will get compensation for the affected land and for structure at BSR without depreciation. (v) Those displaced will get (a) An alternate site of 100 sq. mtr. or cash equivalent of Rs.10,000; (b) A construction assistance of Rs 25,000. (vi) And if alternate shop/work place is provided, the displaced will not get alternate site and construction assistance. (vii) Other assistance: (a) A transition allowance of Rs.2,000 after site vacation; and (b) A transportation allowance of Rs 1,000.
	Titleholder (absentee landlord)	(i) He/she will receive only compensation for both land and structure (ii) Permission to salvage materials from the demolished structure.
	Tenant/Lease holder	Only displaced tenant will get: (a) A sum equal to two months rental in consideration of disruption caused and (b) Transportation allowance of Rs. 1,000 towards shifting.
Other assets	Owner affected family	Loss of other assets will be compensated equivalent to the replacement value of the assets.
Encroachers (Agricultural land)	Family	If the public land is occupied for agril. purpose for the last three years, and if the affected person is dependent on this land for the livelihood and belongs to 'vulnerable' groups he/she will get assistance to take up self employment activities either by dovetailing government programs or providing an assistance of Rs 25,000 to take up Income Generation Activity.
Encroachers (Non-agricultural land)	Family	If encroached land is used for housing and/or commercial purpose and if the affected person loses more than one-third of the built up structure (including one's own portion) will be given the same R&R assistance (except compensation for the encroached land) that is available to those 'displaced' by losing privately owned land and structure.
Squatters (for homestead purpose)	Family	If the public land is occupied for homestead purpose for the last three years, and if the affected person has no other housing he/she will be categorized as 'displaced' and will get: ▪ Notice to remove the structure. ▪ Alternate housing from the government housing program or equivalent cash in lieu there of. ▪ If no housing is provided, pay compensation for the structure and an alternate house site or cash in lieu there of. ▪ A transportation assistance of Rs 2,000. ▪ A maintenance allowance of Rs 1,000 per month for six months.
Squatters (for commercial)	Family	If the public land is occupied for commercial purpose for the last three years, and has no other place he/she will be categorized as 'displaced' and will get: ▪ Notice to remove the structure. ▪ Alternate shopping place or equivalent cash in lieu there of. ▪ If no alternate shopping place is provided, pay compensation for the structure, permission to salvage construction material and an alternate site or cash in lieu there of. ▪ A transportation assistance of Rs 1,000. ▪ A maintenance allowance of Rs 2,000.
Mobile and ambulatory vendors	Vendor	Ambulatory vendors licensed for fixed locations will be considered as kiosks and each affected vendor will get a sum of Rs.5000 to relocate a kiosk and start business **NOTE:** Vendors in groups (of more than 50) will be considered for relocating in a commercial complex, if developed by the project.
Common infrastructure/ properties	Community	▪ Community properties will be replaced in consultation with the community ▪ Civic infrastructure would be replaced in consultation with the affected community and the District/Urban/Rural administration
Any Unforeseen Impact	Affected community/persons	Any unforeseen impact would be mitigated/enhance as per the Orissa Resettlement and Rehabilitation Policy 2006.

23. RAP prepared for the first year works include measures taken to minimize displacement and the mitigation measures to ensure that those affected are helped to improve or at least restore their livelihoods.

24. ***The indigenous peoples*** (referred as tribal) policy (OP 4.10) applies in this project not only to tribal people but also to other vulnerable groups. There are road stretches proposed under the project which pass through tribal areas. As part of ISEA, an assessment was carried out to identify and assess issues related to tribal groups *vis á vis* the proposed project activities. Specific consultations also helped to inform the tribal communities about the project interventions and expected benefits and to solicit their views on the proposed measures to help them benefit from the project. The assessment revealed that the project interventions are not expected to have any adverse impacts on the tribal communities. Those affected on individual basis will be supported under RAP (see the table below).

Table 3: Measures included in the RAP for ST families

Issues/Problems	Measures included in RAP
Loss of Agriculture land business place and shelter	▪ Land for land or compensation at replacement value ▪ Lump sum assistance for economic rehabilitation ▪ Training of local knowledge and marketability of local produce

25. The objectives of the TD Plan (TDP) are to ensure that potential benefits of the project are accessible to tribal groups and that any fresh sources of social and economic imbalances are prevented. The strategy, presented below, includes measures to help these communities to access project benefits, in terms of wage employment at par with others. The strategy also includes community development works based on the felt needs of the local tribal groups so that they access project benefits at par with others.

Table 4: Specific Strategies related to project affected Tribal

Issues & Problems	Strategy
Loss of Income	▪ Local Resource development through networking ▪ Skill up gradation through training ▪ Training for improving agricultural production ▪ Assist in value addition of tribal products through SHGs ▪ Involve NGOs in planning and implementing IG plans ▪ Skill formation efforts
Loss of employment and wagers trade/commerce	▪ Dovetail food for work program ▪ Impart new skills or built on existing ones ▪ Diversify livelihood sources ▪ Generate multiple skills in each family
Loss of Shelter	▪ Provide improved housing at new location ▪ Help in accessing government housing schemes ▪ Assist in house lay out and in use of construction material
Communication	▪ Develop communication strategy based on the needs of tribal groups ▪ Continue consultation with tribal groups together with need based consultation ▪ Prior information about changes in project activities
Loss of community facilities	▪ Provide alternative common facilities ▪ Develop community infrastructure in consultation with tribal groups

26. Based on the above strategy, TD plans have been prepared for each of the packages located in the tribal areas and proposed in the first year. These plans are included in each of the RAPs prepared so far.

27. **HIV/AIDS:** Orissa reports one of the lowest numbers of HIV cases in the country. This is primarily due to the traditional culture of the local people, lower surveillance data and lack of knowledge about HIV/AIDS in rural areas. Traditional culture together with the swathe social structure has hidden actual prevalence of HIV/AIDS scenario in the state. However, with the proposed improvement of roads, migrant workers, truckers, workers in the road side utilities and services and mobility of commercial sex workers will increase and hence chances of transmission of HIV/AIDS. OSRP is the first road project in the state where targeted intervention has been planned for skirmishing HIV/AIDS transmission. The strategy under the project is to prevent HIV/AIDS cases through increased awareness level about HIV/AIDS, referral services for medical care and treatment and safe sex. The strategy for implementation includes partnering with Orissa State AIDS Control Society (OSACS) and the NGOs working with it. A separate action plan has been prepared to prevent and minimize the incidence of HIV/AIDS resulting from the road development.

28. **Consultations** were carried out with a variety of project stakeholders at various levels - at the village, block and district levels. The stakeholders, with whom consultations were held included, road users and other project beneficiaries, peoples' representatives, local communities, women, scheduled castes and tribes and other vulnerable groups, affected households, project staff, government agencies, researchers, experts and NGOs and civil societies. These consultations were held in all the road stretches proposed to be included in the project together with specific consultations held in the first year packages. All these consultations have been adequately documented including video-graphs, photos and proceedings of the meetings.

29. The main messages emerging from these consultations are the importance of addressing issues related to alternate project alignments, compensating land and other assets required for the project, support to the affected encroachers and squatters and other vulnerable among the affected families in their resettlement; and providing adequate opportunities for the involvement of tribal and other vulnerable sections in planning and implementing mitigation measures and other development activities for the benefit of tribal and other vulnerable groups. Additional consultations were held on issues related to HIV/AIDS and measures required to contain its occurrence. Such consultations will continue during the project implementation period.

30. ***Disclosure.*** All social management plans including RAP, TDP and Social Assessment Report have been disclosed to public through district level public relation offices and at the project level. The R&R entitlement framework, TD strategy and Resettlement Plan. Tribal development plan have been translated into the local language and will be made available at the web site of the project and InfoShop, state/district project offices and offices of the District Collectors.

31. The **institutional arrangements** for implementing the social management plans (RAP, TDP and HIV/AIDS Plan) includes a Social and Environmental Cell within PMU which is responsible for overseeing the implementation of these plans by package level staff and

facilitating NGOs. A nodal NGO at the project level will focus specifically on the social management plans and will ensure adequate treatment of the issues related to losers of land, physical displaced people, affected encroachers and squatters, tribal development and HIV/AIDS. The state implementing agencies responsible for land acquisition and RAP implementation will also be involved in the planning and implementation of these plans. The costs and implementation arrangements have been mainstreamed into the project design and are described in the RAPs for each Package, Project Implementation Plan (PIP) and other project documents.

32. **Monitoring and Evaluation (M&E):** The Project will have both internal and external mechanisms to monitor implementation progress of social management plans. Internal monitoring will be done by the Package Manager and the facilitating NGO at the Package level and the Social and Environmental Unit of the PMU at the project level. An inbuilt mechanism (including Rehabilitation and Periphery Development Advisory Committee), envisaged in the state R&R policy will redress grievances for individual PAPs. Mid-term and end line evaluation of RAP for each Package will be done by this M&E agency.

Annex 11: Project Preparation and Supervision

INDIA: Orissa State Roads Project

	Planned	Acutal
PCN review	11/03/2005	11/03/2005
Initial PID to PIC		12/07/2005
Initial ISDS to PIC		12/08/2005
Appraisal	09/10/2007	11/20/2007
Negotiations	07/14/2008	07/14/2008
Board/RVP approval	09/09/2008	
Planned date of effectiveness	11/30/2008	
Planned date of mid-term review	11/30/2011	
Planned closing date	12/31/2014	

Key institutions responsible for preparation of the project:

Orissa Works Department
Government of India, Ministry of Finance

Bank staff and consultants who worked on the project included:

Name	Title	Unit
Binyam Reja	Sr. Transport Economist / TTL	SASDT
A.K. Swaminathan	Sr. Transport Specialist	SASDT
Gennady Pilch	Sr. Counsel	LEGES
Thao Le Nguyen	Sr. Finance Officer	LOAFC
Isabel Chatterton	Sr. Financial Specialist	SASDT
Manmohan Singh Bajaj	Sr. Procurement Specialist	SARPS
Manvinder Mamak	Sr. Financial Management Spec.	SARFM
Mohammad Hasan	Sr. Social Development Spec.	SASDS
Sanjay Srivastava	Sr. Environmental Specialist	SASDS
Naseer Ahmad Rana	Adviser	SARSQ
V.J. Ravishankar	Lead Economist/ State Coordinator	SASPR
Natalya Stankevich	Operations Analyst	SASDT
Neha Vyas	Environment Specialist	SASDS
N. S. Srinivas	Program Assistant	SASDO
Gizella Díaz	Program Assistant	SASDO
Ernst Huning	WB Consultant, Inst. Development	SASDT
Shivendra Kumar	WB Consultant, Governance	SARPS
Gautam Bastain	WB Consultant, RTI	SASDT
Sri Kumar Tadimalla	Sr. Public-Private Partnerships Specialist	SASDT

Bank funds expended to date on project preparation:

1. Bank resources: US$ 416,097.00
2. Trust funds: US$ 51,745.00
3. Total: US$ 467,838.00

Estimated Approval and Supervision costs:

1. Remaining costs to approval: US$ 25,000.00
2. Estimated annual supervision cost: US$200,000.00

Annex 12: Documents in the Project File

INDIA: Orissa State Roads Project

Independent Environmental Consultant, Dr. Abhash Panda, Review of Project Documents EIA/EMP (Berhampur to Taptapani) / Biodiversity Report for Year I, July 2007

Detailed Project Report Consultants (Consulting Engineers Group Ltd. Jaipur), Draft Final Environment Management Plan on OSRP Phase-I Taptapani – Rapanka (SH-17), July 2007.

--------- Environment Management Plan on OSRP Phas-I Aska-Bhanjanagar – 39 Kms., OSRP-CW-Y2-P01, July 2007.

--------- Consultancy Services for Feasibility Study and Detailed Project Preparation for Phase I Road for OSRP, Strategy and Action Plan for Prevention and Control of HIV/AIDS Transmission, July 2007.

--------- Consultancy Services for Feasibility Study and Detailed Project Preparation for Phase I Roads for OSRP, Social Assessment Report, June 2007.

--------- Consultancy Services for Feasibility Study and Detailed Project Preparation for Phase I Roads for OSRP, Standard Drawings for Highways, June 2007.

--------- Consultancy Services for Feasibility Study and Detailed Project Preparation for Phase I Roads for OSRP, Final Detail Engineering Report for Phase-I Roads (Bhadrak to Chandbali, SH9, 0 to 45 km), (Bhadrak to Anandpur, SH53, 0 to 50 Km), Drawing of Bridges and Culverts, June 2007.

--------- Consultancy Services for Feasibility Study and Detailed Project Preparation for Phase I Roads for OSRP, Bhadrak to Chandbali (SH9) from Km 0 to 45, Plan and Profile, June 2007.

--------- Consultancy Services for Feasibility Study and Detailed Project Preparation for Phase I Roads for OSRP, Bhadrak to Anandpur (SH53) from Km 0 to 50, Plan and Profile, June 2007.

--------- Draft Final Environment Management Plan on OSRP Phase I, Anandapur-Bhadrak (SH-53) & Bhadrak – Chandbali (SH-9), June 2007.

--------- Draft RAP Feasibility Study Chandbali-Bhadrak-Anandapur Road SH53 and SH9, June 2007.

--------- Draft Final Environment Management Plan, Bhawanipatana-Khariar Road (SH-16), June 2007.

--------- Draft RAP Feasibility Study Berhampur-Taptapani Road (SH17), June 2007.

--------- Draft RAP Feasibility Study Berhampur-Taptapani Road (SH17), May 2007.

--------- Draft RAP Feasibility Study Bhawanipatna-Khariar, May 2007.

--------- Draft RAP Feasibility Study Chandbali-Bhadrak-Anandpur, May 2007.

--------- Feasibility Study and Detailed Project Preparation for Phase-I Roads, Resettlement Action Plan Bhawanipatna – Khariar (SH-16), May 2007.

--------- Feasibility Study and Detailed Project Preparation for Phase-I Roads, Resettlement Action Plan Chandbali – Bhadrak – Anandpur, May 2007.

--------- Feasibility Study and Detailed Project Preparation for Phase-I Roads, Resettlement Action Plan Berhampur – Taptapani (Km 0.00 to 41.00), May 2007.

--------- Biodiversity Assessment and Management Plan Phase-I, April 2007.

--------- Network Analysis, Final Report, April 2007.

--------- Hydrology Report (Berhampur to Bangi Junction) (0.0 to 41.0), April 2007.

--------- Design Report of Culverts (Berhampur to Bangi Junction) (0.0 to 41.0), April 2007.

--------- Design Report of Bridges (Berhampur to Bangi Junction) (0.0 to 41.0), April 2007.

--------- Feasibility Study and Detailed Project Preparation for Phase – I: Year I Roads, Draft Final Environmental Assessment Report, April 2007
--------- Feasibility Study and Detailed Project Preparation for Phase – I: Year I Roads Draft Environment Management Plan Phase – I, Berhampur – Taptapani (SH-17), April 2007.
--------- Feasibility Study and Detailed Project Preparation for Phase – I: Year I Roads, Draft Final Environmental Assessment Report, January 2007.
--------- Final Feasibility Study Report, Volume 1, Main Report, November 2006.
--------- Final Feasibility Study Report, Volume 2, Appendices Chapter 2, 4, 6.1 and 6.2, November 2006.
--------- Final Feasibility Study Report, Volume 3, Appendices 6.3 to 6.4, Bridge Culvert Inventory and Condition Survey, November 2006.
--------- Final Feasibility Study Report, Volume 4, Appendix 6.5, BBD Survey Data Sheet, November 2006.
--------- Final Feasibility Study Report, Volume 5, Appendices to Chapter 7.1, Traffic Survey Data Analysis, November 2006.
--------- Final Feasibility Study Report, Volume 6, Appendices to Chapter 7.2, 7.3 and 7.4, November 2006.
--------- Final Feasibility Study Report, Volume 7, Appendices to Chapter 9, 10 and 11, November 2006.
--------- Feasibility Study and Detailed Project Preparation for Phase – I: Year I Roads, Environment Screening Report, June 2006.

Annex 13: Statement of Loans and Credits

INDIA: Orissa State Roads Project

			Original Amount in US$ Millions						Difference between expected and actual disbursements	
Project ID	FY	Purpose	IBRD	IDA	SF	GEF	Cancel.	Undisb.	Orig.	Frm. Rev'd
P093478	2009	Orissa Rural Livelihoods Project	0.00	82.35	0.00	0.00	0.00	81.99	0.00	0.00
P094360	2009	National VBD Control&Polio Eradication	0.00	521.00	0.00	0.00	0.00	518.38	0.00	0.00
P095114	2008	Rampur Hydropower Project	400.00	0.00	0.00	0.00	0.00	380.66	3.32	0.00
P101653	2008	Power System Development Project IV	600.00	0.00	0.00	0.00	0.00	600.00	95.83	0.00
P102547	2008	Elementary Education (SSA II)	0.00	600.00	0.00	0.00	0.00	589.76	0.00	0.00
P102737	2008	Bihar DPL	150.00	75.00	0.00	0.00	0.00	114.28	36.10	0.00
P105124	2008	HP DPL I	135.00	65.00	0.00	0.00	0.00	100.90	0.00	0.00
P083187	2007	Uttaranchal RWSS	0.00	120.00	0.00	0.00	0.00	120.90	18.52	0.00
P078539	2007	TB II	0.00	170.00	0.00	0.00	0.00	134.02	-26.63	0.00
P090768	2007	TN IAM WARM	335.00	150.00	0.00	0.00	0.00	459.36	45.41	0.00
P090764	2007	Bihar Rural Livelihoods Project	0.00	63.00	0.00	0.00	0.00	63.00	0.09	0.00
P090592	2007	Punjab Rural Water Supply & Sanitation	0.00	154.00	0.00	0.00	0.00	165.18	62.25	0.00
P090585	2007	Punjab State Roads Project	250.00	0.00	0.00	0.00	0.00	161.71	-39.39	0.00
P075060	2007	RCH II	0.00	360.00	0.00	0.00	0.00	340.30	80.35	0.00
P075174	2007	AP DPL III	150.00	75.00	0.00	0.00	0.00	77.71	-77.33	0.00
P078538	2007	Third National HIV/AIDS Control Project	0.00	250.00	0.00	0.00	0.00	224.89	51.67	0.00
P071160	2007	Karnataka Health Systems	0.00	141.83	0.00	0.00	0.00	117.70	-12.32	0.00
P096019	2007	HP State Roads Project	220.00	0.00	0.00	0.00	0.00	212.71	20.45	0.00
P099047	2007	Vocational Training India	0.00	280.00	0.00	0.00	0.00	259.12	-18.18	0.00
P100789	2007	AP Community Tank Management Project	94.50	94.50	0.00	0.00	0.00	186.92	-0.30	0.00
P102768	2007	Stren India's Rural Credit Coops	300.00	300.00	0.00	0.00	0.00	549.18	-75.00	0.00
P079708	2006	TN Empwr & Pov Reduction	0.00	120.00	0.00	0.00	0.00	111.29	13.80	0.00
P079675	2006	Karn Municipal Reform	216.00	0.00	0.00	0.00	0.00	187.05	32.72	0.00
P083780	2006	TN Urban III	300.00	0.00	0.00	0.00	0.00	219.22	69.97	0.00
P086414	2006	Power System Development Project III	400.00	0.00	0.00	0.00	0.00	29.89	-230.11	0.00
P092735	2006	NAIP	0.00	200.00	0.00	0.00	0.00	194.79	26.38	0.00
P093720	2006	Mid-Himalayan (HP) Watersheds	0.00	60.00	0.00	0.00	0.00	43.81	-0.54	0.00
P078832	2006	Karnataka Panchayats Strengthening Proj	0.00	120.00	0.00	0.00	0.00	96.99	-32.36	0.00
P094513	2005	India Tsunami ERC	0.00	465.00	0.00	0.00	0.00	418.15	391.03	0.00
P073370	2005	Madhya Pradesh Water Sector Restructurin	394.02	0.00	0.00	0.00	0.00	338.77	163.94	0.00
P073651	2005	DISEASE SURVEILLANCE	0.00	68.00	0.00	0.00	0.00	57.52	37.24	0.00
P075058	2005	TN HEALTH SYSTEMS	0.00	110.83	0.00	0.00	20.06	70.62	52.78	40.07
P077856	2005	Lucknow-Muzaffarpur National Highway	620.00	0.00	0.00	0.00	0.00	331.01	17.67	0.00
P084792	2005	Assam Agric Competitiveness	0.00	154.00	0.00	0.00	0.00	128.72	69.83	0.00
P084790	2005	MAHAR WSIP	325.00	0.00	0.00	0.00	0.00	274.27	96.27	0.00
P084632	2005	Hydrology II	104.98	0.00	0.00	0.00	0.00	89.34	63.26	22.02
P077977	2005	Rural Roads Project	99.50	300.00	0.00	0.00	0.00	156.96	49.70	0.00
P050655	2004	RAJASTHAN HEALTH SYSTEMS	0.00	89.00	0.00	0.00	0.00	53.11	39.15	0.00

		DEVELOPMENT								
P078550	2004	Uttar Wtrshed	0.00	69.62	0.00	0.00	0.00	50.02	0.16	0.00
P073776	2004	ALLAHABAD BYPASS	240.00	0.00	0.00	0.00	0.00	50.82	39.22	0.00
P082510	2004	Karnataka UWS Improvement Project	39.50	0.00	0.00	0.00	0.00	9.36	9.36	0.00
P073369	2004	MAHAR RWSS	0.00	181.00	0.00	0.00	0.00	0.36	-21.52	0.00
P067606	2003	UP ROADS	488.00	0.00	0.00	0.00	0.00	147.37	147.37	0.00
P071272	2003	AP RURAL POV REDUCTION	0.00	150.03	0.00	0.00	0.00	57.38	-31.29	0.00
P050649	2003	TN ROADS	348.00	0.00	0.00	0.00	0.00	136.09	97.76	0.00
P072123	2003	Tech/Engg Quality Improvement Project	0.00	250.00	0.00	0.00	40.11	6.98	5.68	-45.51
P073094	2003	AP Comm Forest Mgmt	0.00	108.00	0.00	0.00	0.00	29.52	7.44	0.00
P076467	2003	Chatt DRPP	0.00	112.56	0.00	0.00	20.06	63.67	60.77	0.00
P050653	2002	KARNATAKA RWSS II	0.00	151.60	0.00	0.00	15.04	30.18	16.20	0.00
P050668	2002	MUMBAI URBAN TRANSPORT PROJECT	463.00	79.00	0.00	0.00	0.00	329.25	315.12	0.00
P050647	2002	UP WSRP	0.00	149.20	0.00	0.00	40.11	93.92	101.87	0.00
P040610	2002	RAJ WSRP	0.00	140.00	0.00	0.00	25.84	51.82	36.53	0.00
P074018	2002	Gujarat Emergency Earthquake Reconstruct	0.00	442.80	0.00	0.00	115.24	85.86	116.66	-38.71
P069889	2002	MIZORAM ROADS	0.00	60.00	0.00	0.00	0.00	27.65	-2.75	0.00
P071033	2002	KARN Tank Mgmt	0.00	98.90	0.00	0.00	25.07	120.31	54.29	24.27
P072539	2002	KERALA STATE TRANSPORT	255.00	0.00	0.00	0.00	0.00	103.63	103.63	0.00
P067216	2001	KAR WSHD DEVELOPMENT	0.00	100.40	0.00	0.00	20.06	22.18	22.64	17.92
P055454	2001	KERALA RWSS	0.00	65.50	0.00	0.00	12.27	3.46	6.45	-5.39
P050657	2000	UP Health Systems Development Project	0.00	110.00	0.00	0.00	30.09	19.79	36.90	10.24
		Total:	6,927.50	7,457.12	0.00	0.00	363.95	9,699.80	2,148.06	24.91

INDIA
STATEMENT OF IFC's
Held and Disbursed Portfolio
In Millions of US Dollars

		Committed				**Disbursed**			
		IFC				**IFC**			
FY Approval	Company	Loan	Equity	Quasi	Partic.	Loan	Equity	Quasi	Partic.
2005	ADPCL	39.50	7.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	AHEL	0.00	5.08	0.00	0.00	0.00	5.08	0.00	0.00
2005	AP Paper Mills	35.00	5.00	0.00	0.00	25.00	5.00	0.00	0.00
2005	APIDC Biotech	0.00	4.00	0.00	0.00	0.00	2.01	0.00	0.00
2002	ATL	13.81	0.00	0.00	9.36	13.81	0.00	0.00	9.36
2003	ATL	1.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00
2005	ATL	9.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	Atul Ltd	16.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	BHF	10.30	0.00	10.30	0.00	10.30	0.00	10.30	0.00
2004	BILT	0.00	0.00	15.00	0.00	0.00	0.00	15.00	0.00
2001	BTVL	0.43	3.98	0.00	0.00	0.43	3.98	0.00	0.00
2003	Balrampur	10.52	0.00	0.00	0.00	10.52	0.00	0.00	0.00
2001	Basix Ltd.	0.00	0.98	0.00	0.00	0.00	0.98	0.00	0.00

2005	Bharat Biotech	0.00	0.00	4.50	0.00	0.00	0.00	3.30	0.00
1984	Bihar Sponge	5.70	0.00	0.00	0.00	5.70	0.00	0.00	0.00
2003	CCIL	1.50	0.00	0.00	0.00	0.59	0.00	0.00	0.00
2006	CCIL	7.00	2.00	0.00	12.40	7.00	2.00	0.00	12.40
1990	CESC	4.61	0.00	0.00	0.00	4.61	0.00	0.00	0.00
1992	CESC	6.55	0.00	0.00	14.59	6.55	0.00	0.00	14.59
2004	CGL	14.38	0.00	0.00	0.00	7.38	0.00	0.00	0.00
2004	CMScomputers	0.00	10.00	2.50	0.00	0.00	0.00	0.00	0.00
2002	COSMO	2.50	0.00	0.00	0.00	2.50	0.00	0.00	0.00
2005	COSMO	0.00	3.73	0.00	0.00	0.00	3.73	0.00	0.00
2006	Chennai Water	24.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	DQEL	0.00	1.50	1.50	0.00	0.00	1.50	1.50	0.00
2005	DSCL	30.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
2006	DSCL	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	Dabur	0.00	14.09	0.00	0.00	0.00	14.09	0.00	0.00
2003	Dewan	8.68	0.00	0.00	0.00	8.68	0.00	0.00	0.00
2006	Federal Bank	0.00	28.06	0.00	0.00	0.00	23.99	0.00	0.00
2001	GTF Fact	0.00	1.20	0.00	0.00	0.00	1.20	0.00	0.00
2006	GTF Fact	0.00	0.00	0.99	0.00	0.00	0.00	0.99	0.00
1994	GVK	0.00	4.83	0.00	0.00	0.00	4.83	0.00	0.00
2003	HDFC	100.00	0.00	0.00	100.00	100.00	0.00	0.00	100.00
1998	IAAF	0.00	0.47	0.00	0.00	0.00	0.30	0.00	0.00
2006	IAL	0.00	9.79	0.00	0.00	0.00	7.70	0.00	0.00
1998	IDFC	0.00	10.82	0.00	0.00	0.00	10.82	0.00	0.00
2005	IDFC	50.00	0.00	0.00	100.00	50.00	0.00	0.00	100.00
	IHDC	6.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	IHDC	7.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	Indecomm	0.00	2.57	0.00	0.00	0.00	2.57	0.00	0.00
1996	India Direct Fnd	0.00	1.10	0.00	0.00	0.00	0.66	0.00	0.00
2001	Indian Seamless	6.00	0.00	0.00	0.00	6.00	0.00	0.00	0.00
2006	JK Paper	15.00	7.62	0.00	0.00	0.00	7.38	0.00	0.00
2005	K Mahindra INDIA	22.00	0.00	0.00	0.00	22.00	0.00	0.00	0.00
2005	KPIT	11.00	2.50	0.00	0.00	8.00	2.50	0.00	0.00
2003	L&T	50.00	0.00	0.00	0.00	50.00	0.00	0.00	0.00
2006	LGB	14.21	4.82	0.00	0.00	0.00	4.82	0.00	0.00
2006	Lok Fund	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	MMFSL	7.89	0.00	7.51	0.00	7.89	0.00	7.51	0.00
2003	MSSL	0.00	2.29	0.00	0.00	0.00	2.20	0.00	0.00
2001	MahInfra	0.00	10.00	0.00	0.00	0.00	0.79	0.00	0.00
	Montalvo	0.00	3.00	0.00	0.00	0.00	1.08	0.00	0.00
1996	Moser Baer	0.00	0.82	0.00	0.00	0.00	0.82	0.00	0.00
1999	Moser Baer	0.00	8.74	0.00	0.00	0.00	8.74	0.00	0.00
2000	Moser Baer	12.75	10.54	0.00	0.00	12.75	10.54	0.00	0.00
	Nevis	0.00	4.00	0.00	0.00	0.00	4.00	0.00	0.00
2003	NewPath	0.00	9.31	0.00	0.00	0.00	8.31	0.00	0.00
2004	NewPath	0.00	2.79	0.00	0.00	0.00	2.49	0.00	0.00
2003	Niko Resources	24.44	0.00	0.00	0.00	24.44	0.00	0.00	0.00
2001	Orchid	0.00	0.73	0.00	0.00	0.00	0.73	0.00	0.00
1997	Owens Corning	5.92	0.00	0.00	0.00	5.92	0.00	0.00	0.00

2006	PSL Limited	15.00	4.74	0.00	0.00	0.00	4.54	0.00	0.00
2004	Powerlinks	72.98	0.00	0.00	0.00	64.16	0.00	0.00	0.00
2004	RAK India	20.00	0.00	0.00	0.00	20.00	0.00	0.00	0.00
1995	Rain Calcining	0.00	2.29	0.00	0.00	0.00	2.29	0.00	0.00
2004	Rain Calcining	10.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00
2005	Ramky	3.74	10.28	0.00	0.00	0.00	0.00	0.00	0.00
2005	Ruchi Soya	0.00	9.27	0.00	0.00	0.00	6.77	0.00	0.00
2001	SBI	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	SREI	3.21	0.00	0.00	0.00	3.21	0.00	0.00	0.00
2000	SREI	6.50	0.00	0.00	0.00	6.50	0.00	0.00	0.00
1995	Sara Fund	0.00	3.43	0.00	0.00	0.00	3.43	0.00	0.00
2004	SeaLion	4.40	0.00	0.00	0.00	4.40	0.00	0.00	0.00
2001	Spryance	0.00	1.86	0.00	0.00	0.00	1.86	0.00	0.00
2003	Spryance	0.00	0.93	0.00	0.00	0.00	0.93	0.00	0.00
2004	Sundaram Finance	42.93	0.00	0.00	0.00	42.93	0.00	0.00	0.00
2000	Sundaram Home	0.00	2.18	0.00	0.00	0.00	2.18	0.00	0.00
2002	Sundaram Home	6.71	0.00	0.00	0.00	6.71	0.00	0.00	0.00
1998	TCW/ICICI	0.00	0.80	0.00	0.00	0.00	0.80	0.00	0.00
2005	TISCO	100.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
2004	UPL	15.45	0.00	0.00	0.00	15.45	0.00	0.00	0.00
1996	United Riceland	5.63	0.00	0.00	0.00	5.63	0.00	0.00	0.00
2005	United Riceland	8.50	0.00	0.00	0.00	5.00	0.00	0.00	0.00
2002	Usha Martin	0.00	0.72	0.00	0.00	0.00	0.72	0.00	0.00
2001	Vysya Bank	0.00	3.66	0.00	0.00	0.00	3.66	0.00	0.00
2005	Vysya Bank	0.00	3.51	0.00	0.00	0.00	3.51	0.00	0.00
1997	WIV	0.00	0.37	0.00	0.00	0.00	0.37	0.00	0.00
1997	Walden-Mgt India	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
2006	iLabs Fund II	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total portfolio:	956.52	249.41	42.30	536.35	604.74	175.91	38.60	236.35

		Approvals Pending Commitment			
FY Approval	Company	Loan	Equity	Quasi	Partic.
2004	CGL	0.01	0.00	0.00	0.00
2000	APCL	0.01	0.00	0.00	0.00
2006	Atul Ltd	0.00	0.01	0.00	0.00
2001	Vysya Bank	0.00	0.00	0.00	0.00
2006	Federal Bank	0.01	0.00	0.00	0.00
2001	GI Wind Farms	0.01	0.00	0.00	0.00
2004	Ocean Sparkle	0.00	0.00	0.00	0.00
2005	Allain Duhangan	0.00	0.00	0.00	0.00
	Total pending commitment:	0.04	0.01	0.00	0.00

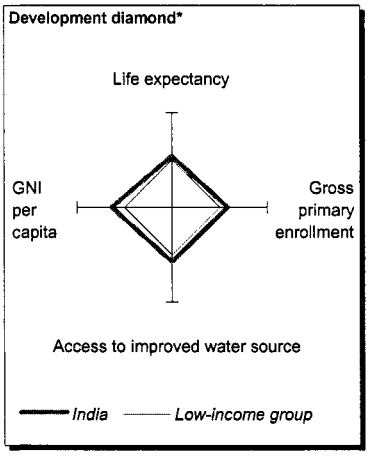
Annex 14: Country at a Glance

INDIA: Orissa State Roads Project

India at a glance

9/28/07

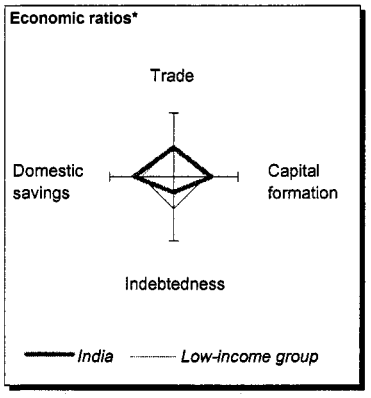
POVERTY and SOCIAL	India	South Asia	Low-income
2006			
Population, mid-year *(millions)*	1,109.8	1,493	2,403
GNI per capita *(Atlas method, US$)*	820	766	650
GNI *(Atlas method, US$ billions)*	910.0	1,143	1,562
Average annual growth, 2000-06			
Population *(%)*	1.5	1.7	1.9
Labor force *(%)*	1.9	2.1	2.3
Most recent estimate (latest year available, 2000-06)			
Poverty *(% of population below national poverty line)*	29	..	..
Urban population *(% of total population)*	29	29	30
Life expectancy at birth *(years)*	64	64	59
Infant mortality *(per 1,000 live births)*	56	62	75
Child malnutrition *(% of children under 5)*	..	..	..
Access to an improved water source *(% of population)*	86	84	75
Literacy *(% of population age 15+)*	61	58	61
Gross primary enrollment *(% of school-age population)*	119	110	102
Male	123	115	108
Female	116	105	96



KEY ECONOMIC RATIOS and LONG-TERM TRENDS

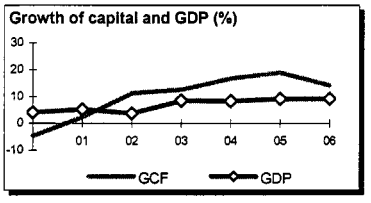
	1986	1996	2005	2006
GDP *(US$ billions)*	246.4	388.3	805.7	911.8
Gross capital formation/GDP	23.0	22.1	33.4	33.9
Exports of goods and services/GDP	5.3	10.5	20.3	23.0
Gross domestic savings/GDP	21.2	20.9	30.4	31.1
Gross national savings/GDP	21.6	23.2	32.7	33.5
Current account balance/GDP	-2.0	-1.3	-1.2	-1.1
Interest payments/GDP	0.7	1.0	0.8	..
Total debt/GDP	19.5	24.1	15.3	..
Total debt service/exports	32.5	22.2	12.5	..
Present value of debt/GDP	..	..	13.7	..
Present value of debt/exports	..	..	56.9	..

	1986-96	1996-06	2005	2006	2006-10
(average annual growth)					
GDP	5.5	6.4	9.2	9.2	..
GDP per capita	3.5	4.7	7.7	7.7	..
Exports of goods and services	11.8	13.4	5.9	8.6	..

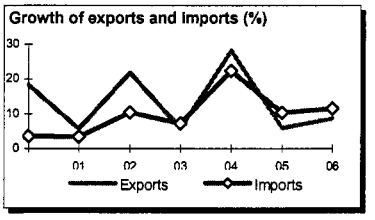


STRUCTURE of the ECONOMY

	1986	1996	2005	2006
(% of GDP)				
Agriculture	30.0	27.4	18.3	17.5
Industry	26.3	27.0	27.6	27.9
Manufacturing	16.4	17.5	16.0	16.3
Services	43.7	45.6	54.1	54.6
Household final consumption expenditure	66.9	68.4	58.3	57.6
General gov't final consumption expenditure	11.9	10.7	11.3	11.3
Imports of goods and services	7.1	11.7	23.3	25.8



	1986-96	1996-06	2005	2006
(average annual growth)				
Agriculture	3.7	2.3	6.0	2.7
Industry	6.2	6.4	9.6	10.6
Manufacturing	6.5	5.9	9.1	12.3
Services	6.6	8.2	9.8	11.2
Household final consumption expenditure	5.2	4.7	6.1	7.5
General gov't final consumption expenditure	4.0	5.3	9.8	9.0
Gross capital formation	7.0	9.1	18.8	14.2
Imports of goods and services	10.8	9.9	10.3	11.4



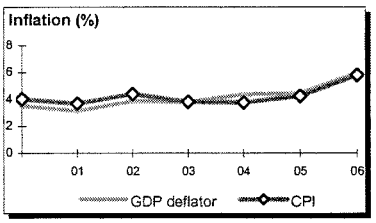
Note: 2006 data are preliminary estimates.

This table was produced from the Development Economics LDB database.

* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

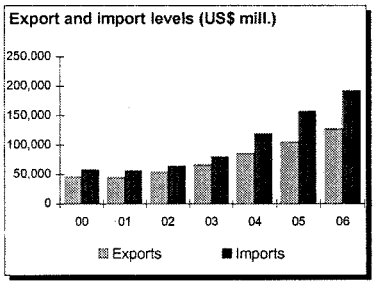
PRICES and GOVERNMENT FINANCE

	1986	1996	2005	2006
Domestic prices				
(% change)				
Consumer prices	8.7	9.0	4.2	5.8
Implicit GDP deflator	6.8	7.5	4.4	5.9
Government finance				
(% of GDP, includes current grants)				
Current revenue	19.6	17.5	19.7	21.6
Current budget balance	-2.3	-3.5	-3.1	-1.9
Overall surplus/deficit	-9.9	-6.4	-6.8	-6.5



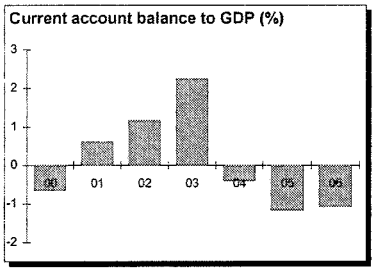
TRADE

	1986	1996	2005	2006
(US$ millions)				
Total exports (fob)	10,413	34,133	105,152	127,090
Marine products	414	1,129	1,589	1,744
Ores and minerals	476	1,172	6,164	7,033
Manufactures	6,564	24,613	72,563	82,818
Total imports (cif)	17,729	48,948	156,993	191,995
Food	1,028	1,214	2,767	3,291
Fuel and energy	2,371	10,036	43,963	57,074
Capital goods	4,914	9,922	37,666	52,944
Export price index *(2000=100)*	101	104	..	..
Import price index *(2000=100)*	119	115	..	..
Terms of trade *(2000=100)*	85	90	..	..



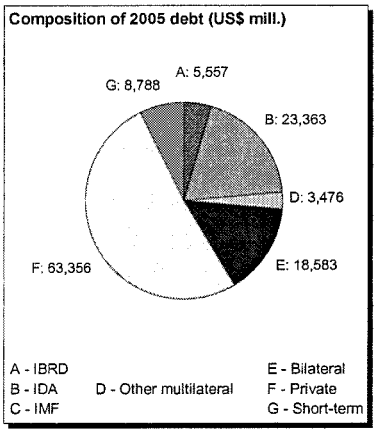
BALANCE of PAYMENTS

	1986	1996	2005	2006
(US$ millions)				
Exports of goods and services	13,630	41,607	166,556	208,420
Imports of goods and services	19,951	55,696	194,516	240,598
Resource balance	-6,321	-14,089	-27,960	-32,178
Net income	-977	-3,307	-5,510	-4,846
Net current transfers	2,327	12,367	24,102	27,195
Current account balance	-4,971	-5,029	-9,368	-9,829
Financing items (net)	4,397	10,847	23,582	45,164
Changes in net reserves	574	-5,818	-14,214	-35,335
Memo:				
Reserves including gold *(US$ millions)*	6,574	26,423	150,866	198,710
Conversion rate *(DEC, local/US$)*	12.8	35.5	44.3	45.2



EXTERNAL DEBT and RESOURCE FLOWS

	1986	1996	2005	2006
(US$ millions)				
Total debt outstanding and disbursed	48,124	93,466	123,123	..
IBRD	3,475	8,768	5,557	6,177
IDA	10,529	17,616	23,363	24,068
Total debt service	5,273	11,981	24,335	..
IBRD	469	1,514	417	597
IDA	152	364	809	841
Composition of net resource flows				
Official grants	595	589	1,060	..
Official creditors	1,404	184	1,421	..
Private creditors	2,793	-146	379	..
Foreign direct investment (net inflows)	118	2,426	6,598	..
Portfolio equity (net inflows)	0	3,958	12,152	..
World Bank program				
Commitments	1,790	1,725	1,592	208
Disbursements	1,297	1,592	2,130	1,787
Principal repayments	235	1,074	843	942
Net flows	1,062	518	1,288	845
Interest payments	386	804	384	496
Net transfers	676	-287	904	349



Note: This table was produced from the Development Economics LDB database. 9/28/07

Map section

IBRD 35867

INDIA

ORISSA STATE ROAD PROJECT

Sundargarh
Rourkela
Juda
Jharsuguda
Rajamunda
Koira
Bamben
Baripada
Keonjhar
Baleshwar
Sambalpur
Deogarh
Bargarh
Anandpur
Bhadrak
Sonapur
Bauda
Angul
Jaipur
Nuaparha
Balangir
Dhenkanal
Chandbali
Kendrapara
Cuttack
Phulabani
Bhubaneshwar
Jagatsinghpur
Khariar
Nayagarh
Puri
Bhawanipatna
Ganjam
Berhampur
Chhatrapur
Nabarangapur
Rayagada
Parlakimidi
Koraput
Malkangiri

SUNDARGARH
JHARSUGUDA
SAMBALPUR
DEOGARH
KEONJHAR
MAYURBHANJ
BALESHWAR
BARGARH
ANGUL
SONAPUR
DHENKANAL
BHADRAK
JAIPUR
BAUDA
KENDRAPARA
NUAPARHA
BALANGIR
CUTTACK
PHULABANI
NAYAGARH
KHORDHA
JAGATSINGHPUR
PURI
KALAHANDI
GANJAM
NABARANGAPUR
RAYAGADA
GAJAPATI
KORAPUT
MALKANGIRI

Mahanadi R.
Tel R.
Brahmani R.
Baitarani R.
Vansadhara R.
Indravati R.

Bay of Bengal

PROJECT ROADS
PPP ROADS
EXISTING NATIONAL HIGHWAYS
STATE HIGHWAYS
MAJOR DISTRICT ROADS
SELECTED TOWNS
DISTRICT CAPITALS
STATE CAPITAL
DISTRICT BOUNDARIES
STATE BOUNDARY

0 20 40 60 KILOMETERS
0 20 40 MILES

82° 84° 86° 22° 20° 18°

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JANUARY 2008