I. Project Context

Country Context

1. Assam is one of the poorer states of India, located in its isolated North-East (NE) region. Assam’s per capita income (US$604) is about 40 percent below the national average (US$1033). About 40 percent of its population is below the official poverty line compared to the national average of 32 percent. The State has seen its Gross Domestic Product (GDP) falling from parity with the rest of India in the 1970s to less than 60 percent today. 87 percent (out of 31 million) of its population lives in rural areas and depends mainly on agriculture for its livelihood. In the last five years, the growth of the agriculture sector, which accounts for a third of the state’s income, was about 1.5 percent, compared to the all India average of 3.1 percent. Similarly, industrial growth averaged 3.6 percent, which is less than half the all India average of 8.5 percent during the same period. The state accounts for 15 percent of the country’s crude oil production and a sixth of the world’s tea production. It possesses 320 million tons of coal reserves and has high potential for growth in the hydropower, agriculture, tourism, and forestry sectors. However, this potential remains largely untapped due to its inadequate road infrastructure and market access.

2. Assam is also a “gateway to the landlocked NE region”. Thus, its road network has significant strategic importance for the integration of the lagging NE region with the country’s economy and facilitation of the Southeast Asian trade and transportation. The NE states also face the same development challenges as Assam. As a special priority, the Government of India (GOI) has been earmarking 10 percent of its plan funds for the development of the NE states.

3. Assam’s fiscal and economic situation has started to improve since 2004, when the Government of Assam (GOA) formulated the “Assam Development Strategy”. The implementation of the strategy has helped the state contain its large fiscal and revenue deficits and accelerate its GSDP growth rate from 2.5 percent (1991-2001) to 5.2 percent (2001-2010). Yet, Assam is struggling to diversify its industry and to increase agricultural productivity. Both the Assam Development Strategy and the Northeast Region Vision 2020 underscore the need to improve road infrastructure and connectivity to achieve their objectives of poverty reduction and promotion of economic growth through harnessing the state’s and region’s natural resources. As evidence from other India road projects suggests, road improvements lead to many benefits, including reduction of travel costs and time, creation of additional employment opportunities, increase in agricultural production and income, support for industrial growth, improved access to markets, health and educational services, better prices for agricultural produce, as well as integration of the scattered population in the State’s economy.

II. Sectoral and Institutional Context
Assam Road Sector Context

4. Assam’s road infrastructure is underdeveloped and is in poor condition. Excluding the primary network of National Highways (NH, 2,814 km) which are managed by GOI, the Assam state road network of 38,141 km is classified into secondary roads (State Highways, SH, 3,134 km; and Major District Roads, MDR, 4,413 km) and tertiary roads (Rural Roads 30,544 km). Secondary and tertiary roads are managed by the State’s Public Works Department (PWD). Due to years of inadequate investment and lack of maintenance, about 60 percent of the network is in poor condition. Most roads have poor riding quality, weak pavements, and inadequate capacity. There are over 3,000 timber bridges in dilapidated condition which need urgent replacement. Only about four percent of the secondary roads are double lane and 20 percent are still unpaved. The freight charges in Assam are about 30 percent higher compared to other states due to its poor road network.

5. The poor condition of Assam’s road network is mainly due to inadequate funds, neglect of maintenance, and inefficient use of the funds.
   • Inadequate funds. Average annual allocation for the road sector has been about 6 percent of the total GOA's budget over the last five years (US $330 million out of US $5.8 billion). The state, due to its meager financial resources, depends heavily on GOI funds for road development. On average, only about 40 percent of the required funds are available annually for road maintenance.
   • Neglect of maintenance. The sector is replete with a long history of build—neglect—rebuild of roads. Maintenance is not adequately institutionalized in the PWD system—there is no clear policy on how to plan, fund, and implement maintenance.
   • Inefficient use of the funds. Most government-funded road programs are construction driven and focus on building infrastructure without a carefully designed policy and institutional framework to ensure value for money, effective delivery, and sustainability of the built infrastructure. Very little efforts have been made to use modern road industry practices, which could allow for delivery of the same infrastructure in a faster and cost-effective manner. There is a strong fragmentation of resources due to multiple programs having different objectives. Investment decisions give little importance to economic priorities—neither the planning tools nor the required database are yet available. Project preparation and implementation capacities are limited both in public and private sector. The road engineering practices and business procedures are largely outdated.
   • In summary, GOA needs adequate funds, well-defined policies, modern engineering and business procedures, and effective institutions to improve its road sector; the project will support these needs.

Road Sector Investment Needs

6. Assam’s secondary roads, the focus of this operation, have been suffering from consistent under-funding. During the last decade both the NHs and rural roads have received lot of attention and increased funding in Assam as in other Indian states. However, secondary roads have lacked the same level of attention. Of the total capital budget of US $1.7 billion for PWD in the last five years about 86 percent is allocated for rural roads (under PMGSY), leaving only around 14 percent for the secondary roads. As per PWD estimates, even after accounting for GOI financial support for secondary roads under special GOI programs, the state requires about US $2.7 billion to improve its remaining 4,800 km of secondary road network.

7. The poor condition of secondary roads is constraining the benefits of the investments in primary and tertiary roads. As per evidence from Bank projects, despite having access to good rural roads, farmers are unable to access major markets due to the poor condition of secondary roads leading to those markets. Similarly, the road users within the area of influence of the improved NH network, who are first required to travel on secondary roads leading to the NH network, are also affected, as are the road users in the NE region who are required to transit through secondary roads.

Road Sector Management

8. Weak sector management has further aggravated the impact of sector underfunding. PWD needs substantial enhancements and revisions in its traditional way of doing business to improve its performance and institutional effectiveness. PWD’s original institutional structure and business procedures were primarily evolved for small works and force-account methods. In today’s context, these have become out-dated and inefficient. For example, PWD continues to maintain an in-house equipment pool to lease equipment to contractors and 8,000 maintenance gang labors with low productivity. Progressively, PWD has also become construction oriented to cope with the high demands for road construction, albeit with limited capacities.

9. GOA has demonstrated strong commitment to modernize its road sector management with a number of initiatives already underway. GOA has recognized the need to re-orient the department from primarily a construction focus to a modern road agency with sound policies, planning, engineering practices, business processes, and asset management. It has made a good beginning in 2002 by putting in place a Road Policy, and subsequently in 2005 by adopting an Institutional Strengthening Action Plan (ISAP) using the Bank support under ARIASP and AACP. These have led to the establishment of a Road Board, e-procurement, road sector rehabilitation and resettlement policy, computerization and standardization of PWD’s business procedures, innovative bridge designs, introduction of annual maintenance plans and performance based maintenance contracts, and increased funding for maintenance.

10. Despite these improvements, there are a number of priority areas in which there is scope for further improvement. Recognizing this, GOA has recently prepared a Road Sector Modernization Program (RSMP) to undertake the following enhancements/initiatives to be supported under the project:
   (a) Strengthening of road sector policy framework. GOA has already initiated the process to establish a long term road sector policy that emphasizes sustainable management of the road assets, efficient delivery and coordination of various road programs, and use of modern road engineering and business procedures. GOA also intends to elevate the status of the Board to an apex body consisting of major stakeholders to provide overall policy direction and oversight to the road sector development specifically on investment decisions, asset management, coordination of various road sector programs, and management of the Road Fund established in 2002.
   (b) Effective asset management including adequate maintenance funding. GOA is committed to scaling up the recently introduced system of annual maintenance plans and performance based maintenance contracts to the entire state road network. GOA is currently considering several options to mobilize additional funds for maintenance, including dedicating a portion of the existing entry tax and motor vehicle registration fees to the Road Fund.
   (c) Improved strategic planning and rational investment decisions. PWD has started to establish a strategic core road network (CRN), containing strategic corridors to support regional and international integration and to develop an Asset Management System (AMS) to plan and prioritize both capital investments and maintenance works.
   (d) Building Human Resources Capacity in both public and private sectors. PWD has started to prepare a professional development plan for the entire organization to improve the current skill levels.

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III. **Project Development Objectives**

The project development objective is to enhance the road connectivity of Assam by assisting the Public Works Road Department to improve and effectively manage its road network.

IV. **Project Description**

**Component Name**
- Road Improvement: This component will support improvement of priority sections of the secondary roads to improve state connectivity and facilitate regional integration.
- Road Sector Modernization and Performance Enhancement:
  - Road Safety Management

V. **Financing (in USD Million)**

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<th>For Loans/Credits/Others</th>
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VI. **Implementation**

12. Arrangements at the state level: The project will be implemented by PWRD mostly using its existing structures through support from various GOA departments including transport, police, revenue, forest, and district collectors and local offices. A Chief Engineer PWRD (ARIASP) Office will be responsible for the implementation of this project under the overall guidance of the Commissioner PWRD and a High Level Project Steering Committee. The CE office has designated units for engineering designs, procurement, contract management, social, environmental, financial management, computerization, institutional development, and road safety. A Project Management Consultant (PMC) as well as individual resource persons will be employed to assist the CE ARIASP Office to effectively implement the project. PWRD is preparing an Operational Manual containing detailed implementation arrangements. All procurement will be undertaken by the CE ARIASP Office as per the Operations Manual.

13. GOA has established a Road Reforms and Modernization Task Force (RRM-TF) to implement RSMP (Component 2). The Chief Engineer (Roads) Office will be responsible for operationalization of AMS and implementation of performance-based maintenance contracts through PWRD field divisions. A multi-disciplinary Working Group headed by Commissioner PWRD, with representatives from the transport, police, health, and education departments, will be responsible for implementing the road safety component.

14. Arrangements at Project Districts: PWRD’s state road divisions in each district will be responsible for implementation of all project related activities in their respective districts, including land acquisition and forest clearances, operationalization of AMS, and road safety related activities.

VII. **Safeguard Policies (including public consultation)**

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VIII. **Contact point**

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