Report and Recommendation of the President to the Board of Directors

Project Number: 37143
June 2011

Proposed Multitranche Financing Facility and Administration of Technical Assistance Grant
India: North Eastern State Roads Investment Program

Asian Development Bank
CURRENCY EQUIVALENTS  
(as of 18 May 2011)

Currency Unit  –  Indian rupee/s (Re/Rs)

Re1.00  =  $0.02214  
$1.00  =  Rs45.16  

ABBREVIATIONS

ADB  –  Asian Development Bank  
EIRR  –  economic internal rate of return  
IEE  –  initial environmental examination  
LIBOR  –  London interbank offered rate  
MDONER  –  Ministry of Development of North Eastern Region  
MFF  –  multitranche financing facility  
NER  –  northeastern region  
PWD  –  public works department  
SARDP-NE  –  Special Accelerated Road Development Program in the North Eastern Region  
TA  –  technical assistance

NOTES

(i)  The fiscal year (FY) of the Government of India begins on 1 April and ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year starts, e.g., FY2011 begins on 1 April 2011 and ends on 31 March 2012.  

(ii)  In this report, "$" refers to US dollars.

Vice-President  X. Zhao, Operations 1  
Director General  S. Rahman, South Asia Department (SARD)  
Director  S. Widowati, Transport and Communications, SARD  
Team leader  H. Iwasaki, Principal Portfolio Management Specialist, SARD  
Team members  V. S. Rekha, Principal Counsel, SARD  
T. Suzuki, Transport Specialist, SARD  
L. M. Tai, Transport Specialist, SARD  
F. Tornieri, Senior Social Development Specialist, SARD  
H. Yamaguchi, Principal Transport Specialist, SARD  
K. Yangzom, Environment Specialist, SARD  
Peer reviewers  M. Alam, Principal Portfolio Management Specialist, SERD

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**PROJECT AT A GLANCE**

1. **Project Name:** MFF - North Eastern State Roads Investment Program
2. **Project Number:** 37143-013
3. **Country:** India
4. **Department/Division:** South Asia Department/Transport and Communications Division

5. **Sector Classification:**

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Primary</th>
<th>Subsectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport, and information and communication technology</td>
<td></td>
<td>Road transport</td>
</tr>
</tbody>
</table>

6. **Thematic Classification:**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Primary</th>
<th>Subthemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic growth</td>
<td></td>
<td>Promoting economic efficiency and enabling business environment</td>
</tr>
<tr>
<td>Capacity development</td>
<td></td>
<td>Organizational development</td>
</tr>
</tbody>
</table>

6a. **Climate Change Impact**

No Climate Change Indicator available.

6b. **Gender Mainstreaming**

| Gender equity theme (GEN)                    |         |
| Effective gender mainstreaming (EGM)        |         |
| Some gender benefits (SGB)                  |         |
| No gender elements (NGE)                    |         |

7. **Targeting Classification:**

<table>
<thead>
<tr>
<th>General Intervention</th>
<th>Targeted Intervention</th>
<th>Geographic dimensions of inclusive growth</th>
<th>Millennium development goals</th>
<th>Income poverty at household level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td></td>
<td>Low</td>
</tr>
</tbody>
</table>

8. **Location Impact:**

| National | Low |
| Rural    | High |
| Urban    | Low  |

9. **Project Risk Categorization:** Complex

10. **Safeguards Categorization:**

- Environment - B
- Indigenous People – B
- Involuntary Resettlement – A

11. **ADB Financing:**

<table>
<thead>
<tr>
<th>Sovereign/Nonsovereign</th>
<th>Modality</th>
<th>Source</th>
<th>Amount ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sovereign</td>
<td>MFF-Facility (Loan)</td>
<td>Ordinary capital resources</td>
<td>200.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>200.0</td>
</tr>
</tbody>
</table>

12. **Cofinancing:**

No Cofinancing available.

13. **Counterpart Financing:**

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount ($ Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>98.2</td>
</tr>
<tr>
<td>Total</td>
<td>98.2</td>
</tr>
</tbody>
</table>

14. **Aid Effectiveness:**

- Parallel project implementation unit: No
- Program-based approach: No
I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed multitranche financing facility (MFF) to India for the North Eastern State Roads Investment Program. The report also describes proposed administration of technical assistance (TA) for Capacity Building for North Eastern State Roads Sector, and if the Board approves the proposed MFF, I, acting under the authority delegated to me by the Board, will approve the TA.

2. The investment program will (i) improve about 430 kilometers (km) of priority roads in six states (Assam, Manipur, Meghalaya, Mizoram, Sikkim, and Tripura) in the northeastern region (NER) of India, and (ii) provide capacity building support to the executing agencies: the Ministry of Development of North Eastern Region (MDONER) and the state public works departments (PWDs) or its equivalent in the six project states. The investment program will target the secondary road network and aim to enhance the performance of state roads sector in NER through investment project implementation and dedicated capacity building measures. The improved secondary road network will provide important linkage between the primary and tertiary road networks in the region, for which there are ongoing national programs for improvement.

II. THE INVESTMENT PROGRAM

A. Rationale

3. NER forms a distinct geographical unit, representing about 8% of the country’s geographic area. It has a population of about 39 million (about 4% of the country’s population). Approximately 98% of NER’s borders are with other countries—Bangladesh, Bhutan, the People’s Republic of China, Myanmar, and Nepal. Its connection with the rest of the country is only through a narrow land corridor. Except in Assam, NER has predominantly hilly to mountainous terrain and very high rainfall (among the highest in the world), which frequently results in landslides and floods.

4. Recognizing the need for accelerated development, the Government of India places special focus on the development of NER in its five-year plans, mainly through central funding of development activities in the region. Over the last two decades the government has required 10% of the budgets of central ministries and departments to be allocated for NER, and created a funding mechanism for pooling the unspent allocated central funds for further assistance to the region. However, the recent growth performance of these states has not been encouraging. The government’s Eleventh Five Year Plan, 2007–2012 states that “while development efforts over the years have made some impact (as reflected in some of the human development indicators, which are comparable with the rest of the country), the region is deficit in physical infrastructure which has a multiplier effect on economic development.”

5. The government created a dedicated ministry—MDONER—to coordinate and give impetus to the various central development efforts. MDONER responsibilities include dealing with matters relating to the planning, execution, and monitoring of development schemes and

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1 The design and monitoring framework is in Appendix 1.
projects in the region including those for roads and administering the non-lapsable central pool of resources.

6. With the limited exception of the highest class roads (mostly national highways maintained by central organizations\(^5\)), the NER road network needs substantial improvement, through its expansion and improvement of individual road sections. The latter will be by way of widening the existing roadway, strengthening pavements, improving road geometry, raising embankments, and providing permanent structures at river-crossings. The capacity of the state PWDs, which maintain the secondary road network, needs substantial strengthening, and their staff needs exposure to modern project management and asset management practices, which is currently lacking due to limited private sector involvement in road infrastructure development.

7. With renewed recognition that inadequate roads and bridges supporting road transport, the region’s single most dominant transport mode, are the major constraints on development efforts, the government started a national investment program to improve road connectivity to remote places in the region. The Special Accelerated Road Development Program in the North Eastern Region (SARDP-NE) is to improve higher class roads including national highways and state roads in the region, and provide connectivity to the state capitals and district headquarters in NER by developing two-lane national highways and improving state roads.\(^6\)

8. The present investment program was developed in parallel with SARDP-NE and is complementary to it. While SARDP-NE focuses on improving higher class roads, the investment program is developed to improve intrastate connectivity, mainly to district headquarters and other places of administrative and economic importance in the individual states, and to enhance capacity of state PWDs to manage their road assets.

9. Lessons from the past and ongoing state road projects in India have been reflected in the design of the investment program. The design of individual road improvement subprojects is kept simple using a small number of large civil works contracts, which are to be supervised by consultants. To enhance the capacity of the executing agencies, a series of technical assistance, both for project preparation and capacity building, have been provided.\(^7\) These have allowed PWD staff to be exposed to best practices in project preparation, and road asset management. The large-size contracts are expected to attract qualified and experienced contractors from outside NER. This will in turn help PWD staff gain exposure to modern project management practices.

10. The sector assessment provides more details on the road subsector in NER.\(^8\)

B. Impact and Outcome

11. The impact will be improved surface-transport connectivity in NER, which is expected to contribute to NER’s economic growth and poverty reduction. Improved surface-transport connectivity will facilitate delivery of various development schemes in other sectors. The outcome will be improved mobility and accessibility in the project areas in NER that will be measured in terms of traffic growth rates, cost of transport and travel time. The investment

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\(^{5}\) The Border Roads Organization and the National Highways Authority of India.

\(^{6}\) Approved in June 2006, and being implemented in two phases. Phase A of SARDP-NE is to improve about 4,100 km of national and state roads, of which 440 km roads have been completed by 2010.

\(^{7}\) In addition to the project preparatory technical assistance (footnote 2), the ADB provided capacity building technical assistance. ADB. 2005. Technical Assistance to India for Development of Road Agencies in the North Eastern States. Manila.

\(^{8}\) Sector Assessment (Summary): Road Transport (accessible from the list of linked documents in Appendix 2).
program will also contribute to improved transport connectivity to the rest of India, and eventually to neighboring countries, which will facilitate inward investment in NER.

C. Outputs

12. The outputs include (i) about 430 km of priority state road sections in six states in NER reconstructed or upgraded; and (ii) business process and staff skills of the state PWDs improved through the provision of institutional development and capacity building support in planning and project management, road asset management, road safety, and operation and maintenance financing.

D. Investment and Financing Plans

13. The investment program is estimated to cost $298.2 million equivalent inclusive of civil works, consulting services, equipment, incremental costs, land acquisition and resettlement, taxes, duties, and interest and other charges on the loan during construction (Table 1).

14. The government has requested an MFF of up to $200 million from the ordinary capital resources of the Asian Development Bank (ADB) to help finance a part of the investment program. The MFF is considered to be an appropriate modality for financing this investment program as it allows phased implementation of individual subprojects by the six project states with different levels of project management capacity and exposure to large scale infrastructure development. The MFF will consist of two tranches, subject to the government's submission of related periodic financing requests, execution of the related loan and project agreements for each tranche, and fulfillment of terms, conditions, and undertakings set forth in the framework financing agreement.  

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Base Cost</strong>b</td>
<td></td>
</tr>
<tr>
<td>1. Investment componentc</td>
<td>238.3</td>
</tr>
<tr>
<td>2. Project management and capacity development componentd</td>
<td>1.1</td>
</tr>
<tr>
<td>Subtotal (A)</td>
<td>239.4</td>
</tr>
<tr>
<td><strong>B. Contingencies</strong>e</td>
<td>41.4</td>
</tr>
<tr>
<td><strong>C. Financing Charges During Implementation</strong>f</td>
<td>17.4</td>
</tr>
<tr>
<td>Total (A+B+C)</td>
<td>298.2</td>
</tr>
</tbody>
</table>

* Includes taxes and duties of $25 million.
* Using prices as of the end of 2009.
* Includes resettlement and rehabilitation, civil works, equipment, and consultancy services for contract supervision.
* Includes consultancy services for project management, and government contribution in project management.
* Physical contingencies computed at 3%; price contingencies at 5% per annum.
* Includes interest and commitment charges. Interest during construction for ADB loans is computed at the 5-year forward London interbank offered rate plus a spread of 0.3%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

15. The loans under the MFF will finance civil works, equipment, consulting services, and other capacity building support. All of the provisions of the ordinary operations loan regulations

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9 Framework Financing Agreement and Periodic Financing Request for Project 1 (accessible from the list of linked documents in Appendix 2).
applicable to ADB’s London interbank offered rate (LIBOR)-based loans will apply to each loan, subject to modifications, if any, that may be included under any loan agreement. The government has the option to choose between eligible currencies and the interest rate regime for each loan. The specific terms of each loan will be based on the related periodic financing request with interest to be determined in accordance with ADB’s LIBOR-based lending facility. The government has provided ADB with (i) the reasons for its decision to borrow under ADB’s LIBOR-based lending facility based on these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on any communication or advice from ADB.

16. The first tranche of the MFF, for which a periodic financing request has been submitted, will be $74.8 million, and have a 25-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB’s LIBOR-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions set forth in the draft loan and project agreements.

17. The first tranche will finance civil works to improve 202 km state roads in three states, and consulting services for project management and construction supervision. The subprojects selected for the first tranche have generally higher readiness in terms of land acquisition, environmental clearance and consultant recruitment. It is expected that the rest of the civil works for 230 km road improvement and the related supervision consulting services will be financed in the second tranche.

18. The government will provide the proceeds of the loans under the MFF in local currency to MDONER and through MDONER to the state governments on a grant basis. The government will bear the foreign exchange risk on the loans. The financing plan is in Table 2.

<table>
<thead>
<tr>
<th>Source</th>
<th>Tranche 1</th>
<th>Tranche 2</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian Development Bank</td>
<td>74.8</td>
<td>125.2</td>
<td>200.0</td>
<td>67.1</td>
</tr>
<tr>
<td>Government and state governments a</td>
<td>34.7</td>
<td>63.5</td>
<td>98.2</td>
<td>32.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>109.5</strong></td>
<td><strong>188.7</strong></td>
<td><strong>298.2</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

a State governments will finance the cost of land acquisition, resettlement and rehabilitation, environmental mitigation, and post-construction maintenance.

Source: Asian Development Bank estimates.

E. Implementation Arrangements

19. The implementation arrangements are summarized in Table 3 and described in detail in the facility administration manual.

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation period</td>
<td>6 years (including pre-construction activities)</td>
</tr>
<tr>
<td>Estimated completion date</td>
<td>31 December 2016</td>
</tr>
</tbody>
</table>


11 Facility Administration Manual (accessible from the list of linked documents in Appendix 2).
Aspects | Arrangements
--- | ---
(i) Oversight body | National-level steering committee  
Chair: Secretary, MDONER  
Members: senior officials from the state governments; North Eastern Council; Planning Commission; Department of Economic Affairs (MOF); Department of Expenditure (MOF); Ministry of Road Transport and Highway; Ministry of Environment and Forests; Ministry of Home Affairs; and other related central ministries and agencies
(ii) Executing agency | National: MDONER  
State: Governments of Assam, Manipur, Meghalaya, Mizoram, Sikkim, and Tripura
(iii) Key implementing agencies | State PWDs of Assam, Manipur, Meghalaya, Mizoram, Sikkim, and Tripura
(iv) Implementation unit | Project implementation units have been established in each of the six state PWDs

| Procurement | International competitive bidding | Works: 3 contracts in tranche 1; 7 contracts in tranche 2 | $20 million–$30 million | Shopping | Goods: to be determined based on capacity development technical assistance recommendation | $1.4 million |
| Consulting services | Project management consultant: Quality- and cost-based selection (90:10) | 147 person-months national | $1.0 million |
| | CSCs: Quality- and cost-based selection (80:20) | 3 contracts under tranche 1:  
Assam CSC: 42 person-months international and 500 person-months national  
Meghalaya CSC: 42 person-months international and 420 person-months national  
Sikkim CSC: 42 person-months international and 358 person-months national | Assam CSC: $3.3 million  
Meghalaya CSC: $3.1 million  
Sikkim CSC: $2.8 million |

Retroactive financing and advance contracting | Consulting services, equipment, and civil works

Disbursements | The loan proceeds will be disbursed in accordance with ADB’s Loan Disbursement Handbook (2007, as amended from time to time) and detailed arrangements agreed between the government and ADB.

CSC = construction supervision consultants, MDONER = Ministry of Development of North Eastern Region, MOF = Ministry of Finance, PWD = Public Works Department.

### III. TECHNICAL ASSISTANCE

20. To facilitate institutional development and capacity building of the PWDs, TA for Capacity Building for North Eastern State Roads Sector will be attached to the MFF. TA of $1.2 million will be financed on a grant basis from the Japan Fund for Poverty Reduction. ADB will engage an international consulting firm using quality- and cost-based selection procedures with a quality–cost ratio of 90:10 in accordance with ADB’s Guidelines on the Use of Consultants (2010, as amended from time to time).  

21. The TA will strengthen state PWD road management by introducing modern road management practices; and facilitate the road management role of state PWDs by introducing more effective and efficient road management processes and systems, and establishing road maintenance funds.

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12 Terms of Reference for the Institutional Development and Capacity Building Consultants (accessible from the list of linked documents in Appendix 2).
22. The TA consultant will (i) review the diagnosed deficiencies and bottlenecks, and the actions set out in the institutional development and capacity building action plans prepared by the earlier project preparatory TA; (ii) assist the PWDs in implementing the institutional reforms under the investment program; (iii) assist the PWDs in establishing a human resource unit with the capability to assess PWD resource needs, to develop and manage training and skills development programs, and to disseminate findings and recommendations on further reforms and institutional improvements; and (iv) assist in establishing a road maintenance fund in NER states, where such arrangements are practical.

23. In addition to the attached capacity building TA, capacity building TA will be provided in parallel to assist the PWDs in implementing road asset management systems and in road safety. ADB’s assistance to the state PWDs for preconstruction activities will continue under the ongoing project preparatory TA and sector-wide capacity development TA to areas requiring specific attention such as procurement, financial management, social safeguards, and environmental impact management.

IV. DUE DILIGENCE

A. Technical

24. The improvement works will be carried out in accordance with the engineering design developed based on site condition surveys and field investigation. The engineering design has optimized the extent of physical alteration to the existing terrain so that minimal land will need to be acquired and disturbances to the existing slopes will be limited while meeting the projected traffic demand.

B. Economic and Financial

25. The approach used to evaluate the proposed investment program follows standard practice of comparing life-cycle road agency and user costs with and without the investment, using net present value with a 12% discount rate and economic internal rate of return (EIRR) as decision criteria. The Highway Development and Management Model (HDM-4) is used as the basis for the analysis. The analysis focuses on savings in transport costs. Value added from better transport links resulting in new industries and employment are not quantified in this analysis but are captured through benefits to generated traffic.

26. The EIRR for the roads evaluated varies from 15% to 31%. Options such as reducing the formation width were considered for the roads in hilly terrain where costs were higher than anticipated at the detailed design stage.

27. The following sensitivity test cases were examined: (i) construction costs increase by 20%; (ii) base benefits decrease by 20%; (iii) reduced traffic growth rate by 50%; (iv) no traffic is generated; and (v) a combination of (i) and (ii). The results show that the quantified economic benefits are robust to various sensitivity tests. The EIRR falls below 12% for three roads proposed for the second tranche for cases where growth rate reduction, no generated traffic, or the combination of benefit reduction and cost increase occurs (cases iii-v). Although the EIRR is

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15 ADB. 2009. Technical Assistance to India for Capacity Development to Enhance Project Readiness and Results Monitoring for Transport Projects. Manila (TA 7252-IND, financed by the Japan Special Fund).
less than 12% for these cases, it is not far below and the probability of occurrence of these cases is small.\footnote{16}

C. Governance

28. **Financial management.** The funds flow from MDONER to the state governments will follow the pattern of grants-in-aid under the centrally sponsored schemes of the Government of India, and its relevant financial rules will apply. This includes requirements such as providing audited utilization certificates for each fund release from MDONER to the state governments. In addition, to ensure timely release of the central grant, and exclusive state use for the purpose of the investment program, MDONER will require that the central grant be kept in a separate bank account in each state for ready access by the project implementation unit. For disbursement of loan proceeds under the facility, reimbursement procedures will be used.

29. **Procurement.** Civil works are packaged into large contracts to attract qualified contractors and will be procured using international competitive bidding procedures. Construction supervision consultants will help the project implementation units with contract administration. The project management consultant will help MDONER with overall project management. For procurement of civil works and recruitment of consultants, MDONER and the state governments will be required to submit for ADB’s prior approval draft documents and reports related to civil works procurement and consultant recruitment, as required by the relevant ADB guidelines.

30. **Anticorruption.** ADB’s Anticorruption Policy (1998, as amended to date) was explained to and discussed with the Government of India and the state governments. The specific policy requirements and supplementary measures are described in the facility administration manual (footnote 11).

D. Poverty and Social

31. **NER states are among the poorest states in the country in terms of per capita income, economic growth, and human and social development indicators.** The Planning Commission estimates that more than 30% (13.2 million) of NER’s population live below the poverty line. An estimated 4.8 million live adjacent (within 10 km) to the project roads. Of these, an estimated 1.6 million living below the poverty line will be among the direct beneficiaries.

32. Improved roads will result in shorter travel distances and travel times, and lower transportation costs. This will in turn enable reliable access to social services, particularly health care and educational facilities. Other positive outcomes will be increased social, educational, and health status of women and children; and improved preconditions for safe motherhood. The investment program will improve links between village communities and urban centers, and will provide opportunities for employment and wider marketing of agricultural and other indigenous products. Reliable and efficient transportation will reduce wastage, particularly of agricultural produce and perishables.\footnote{17}

1. **Gender**

33. Women in the northeastern states are largely involved in household work, cultivation, and other farming activities. Traditional gender division of labor can be challenged by

\footnote{16}{Economic Analysis (accessible from the list of linked documents in Appendix 2).}
\footnote{17}{Summary Poverty Reduction and Social Strategy (accessible from the list of linked documents in Appendix 2).}
proactively ensuring women’s involvement in road construction, rehabilitation, and maintenance in a culturally sensitive manner. The investment program will generate an estimated 3 million person-days of employment. Areas identified for potential involvement of women include support services to construction camps and bioengineering. In this respect, the project implementation units will encourage civil works contractors to (i) engage women workers as wage laborers depending on their skills, (ii) assign bioengineering works for road rehabilitation and maintenance to women to the extent possible, and (iii) ensure equal wages for equal work between men and women. The construction supervision consultant will monitor the civil works contractors. The investment program will also provide benefits to women in terms of reduced travel times, lower fares and charges, and easier access to various social services.

2. HIV/AIDS

34. The National AIDS Control Organization (NACO) of the Ministry of Health and Family Welfare estimates that there are 53,112 HIV infections in the seven states of NER in 2009. Manipur, with a population of 2.1 million and an estimated 26,773 cases, has the highest concentration of HIV infections in the northeast region, followed by Assam with an estimated 14,244 cases. Manipur is close to Myanmar and the Golden Triangle and is a major transit route for drug smuggling and usage. National statistics show that while injecting drug users and men having sex with men are the most vulnerable groups to HIV infections, an alarming trend in the northeast region is the growing number of HIV infections among female sex workers.

35. The State AIDS Prevention and Control Society (SACS) of each state is tasked to implement the programs of the NACO at the local level. Specifically, the SACS are mandated to provide medical and health services, public awareness raising projects and social sector services, and monitoring. Following the Third National AIDS Control Project (NACP-III), the government has set up the District AIDS Prevention and Control Unit to provide more targeted interventions to high risk groups and an integrated and augmented system of prevention, care and support, and treatment at the district level. Based on existing initiatives, and through iterative discussions with NACO, ADB is convinced that mitigating measures are in place to address all health and social risks and impacts associated with infrastructure development in the project area.

E. Safeguards

1. Involuntary Resettlement

36. The investment program was developed with a view to minimize the need for land acquisition and involuntary resettlement. Where possible, construction activities will take place within the existing rights-of-way. Resettlement plans were prepared for the four roads in project 1 to address land acquisition and resettlement impacts. A total of 1,453 households will be affected, out of which 275 will have a partial impact on their commercial structures, 802 will lose a portion of their residential structure, and 119 will have a partial impact on their residential-commercial structures; the rest would either lose a strip of agricultural land or open land. The displaced households will be entitled to compensation for the loss of land and structures at

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18 Bioengineering is the use of vegetation and terracing, and the construction of efficient drainage systems to stabilize road embankments and slopes. Bioengineering also includes tree planting with deep-rooted species, which will reduce the risk of shallow slides and debris flow.


20 Resettlement Plans (accessible from the list of linked documents in Appendix 2).
replacement cost, shifting cost, and other income restoration assistance. Resettlement for project 1 is estimated to cost about $4 million. In accordance with a resettlement framework prepared for the investment program, each state will prepare a resettlement plan for each subproject in subsequent tranches and submit it to ADB for approval.

2. Indigenous Peoples

37. In NER, the scheduled tribe population constitutes 27% of the total population. More than 100 tribal groups reside in NER. In Meghalaya and Mizoram, the majority of the population is tribal, while in the remaining states the tribal population is not distinctive in the sense that they are inherently integrated with the dominant population of the state. Tribal groups in the subproject areas freely interact with the outside community. These groups have nuclear families and are open to new ideas like family planning and formal education. Social impact assessments confirm that the socioeconomic impacts due to the subprojects will not be comparatively different for these people when compared with the remainder of the population. Combined indigenous peoples plans and resettlement plans were prepared for the road improvement under project 1. Adequate compensation provisions are made to mitigate adverse impacts on indigenous peoples. An indigenous peoples planning framework was prepared for the investment program and for subsequent tranches. In accordance with the framework, if any significant impacts on indigenous people are identified in the subprojects in subsequent tranches, the relevant state will prepare an indigenous peoples plan and submit it to ADB for approval.

3. Environmental Impacts

38. Project 1 is classified as environmental category B. Initial environmental examinations (IEEs) were prepared to address the impacts. Although the project roads pass through reserve forest, vegetation density along the project roads is moderate and not endangered. Therefore, the IEEs indicate no major adverse environmental impacts. However, the IEEs will be updated based on detailed design and prior to commencement of civil works; the environmental management plans will be included in the civil works contract. The investment program involves improvement and reconstruction of existing state highways and district roads on existing alignments and within available rights-of-way, with minor land acquisition.

39. The IEEs find that environmental impacts associated with the upgrading and improvement of the project roads will occur mainly during construction. However, since most of the roads are located in hilly areas, landslides could occur during construction and operation. The other important issue related to construction is the disposal of spoil materials from earth work. Contractors will need to be monitored to ensure that spoil materials are not disposed of in forested areas, nearby water bodies, agriculture land, and on the down-slope side of roads without adequate protection. These impacts are manageable and can be mitigated by implementing the mitigation measures recommended in the IEEs. The IEEs confirm that none of the project roads are located in environmentally and ecologically sensitive areas. An environmental assessment and review framework was prepared for the investment program and subsequent tranches.

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21 Resettlement Framework (accessible from the list of linked documents in Appendix 2).
22 Indigenous Peoples Planning Framework (accessible from the list of linked documents in Appendix 2).
23 Initial Environmental Examinations (accessible from the list of linked documents in Appendix 2).
24 Environmental Assessment and Review Framework (accessible from the list of linked documents in Appendix 2).
F. Risks and Mitigating Measures

40. The integrated benefits and impacts are expected to outweigh the costs. Major risks and mitigating measures are summarized in Table 4.

<table>
<thead>
<tr>
<th>Risks</th>
<th>Mitigating Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate postinvestment road maintenance</td>
<td>Establishment of a road asset management system in each of the project states</td>
</tr>
<tr>
<td></td>
<td>Capacity-building support to the state PWDs under the institutional development and capacity building plan, with assistance from the capacity building TA</td>
</tr>
<tr>
<td>Delay in start of civil works due to delay in preconstruction activities</td>
<td>Preconstruction actions by the state executing agencies have been assisted under a series of ADB TA projects</td>
</tr>
<tr>
<td>Lack of interest by the contracting industry in the civil works</td>
<td>Use of larger contract packages</td>
</tr>
<tr>
<td></td>
<td>Phased implementation of civil works</td>
</tr>
<tr>
<td>Disruption to civil works due to landslides and floods caused by high rainfall</td>
<td>Improvement works optimized to limit physical alteration to the existing terrain</td>
</tr>
</tbody>
</table>

ADB = Asian Development Bank, PWD = public works department, TA = technical assistance.

V. ASSURANCES

41. The Government of India and the state governments have assured ADB that implementation of the investment program will conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the facility administration manual (footnote 11) and loan documents.

42. The Government of India and the state governments have given ADB certain undertakings for the MFF, which are set forth in the framework financing agreement (footnote 9). Specific covenants agreed by the national and the state governments with respect to individual tranches under the MFF are set forth in the loan agreement and project agreements for the respective tranches.

VI. RECOMMENDATION

43. I am satisfied that the proposed multitranche financing facility would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the provision of loans under the multitranche financing facility in an aggregate principal amount not exceeding $200,000,000 to India for the North Eastern State Roads Investment Program from ADB’s ordinary capital resources, with interest to be determined in accordance with ADB’s London interbank offered rate (LIBOR)-based lending facility, and such other terms and conditions as are substantially in accordance with those set forth in the framework financing agreement presented to the Board.

Haruhiko Kuroda
President

30 June 2011
## DESIGN AND MONITORING FRAMEWORK FOR THE INVESTMENT PROGRAM

<table>
<thead>
<tr>
<th>Design Summary</th>
<th>Performance Targets and Indicators with Baselines</th>
<th>Data Sources and Reporting Mechanisms</th>
<th>Assumptions and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impact</strong></td>
<td>Number of district headquarters connected by two-lane national highways and improved state roads increased from 51 to 85 by 2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postimplementation measurement by the executing agencies assisted by the project management consultant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postimplementation measurement by the executing agencies assisted by the project management consultant</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Data collection by the executing agencies assisted by the project management consultant and construction supervision consultants</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>National road statistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improved surface transport connectivity in NER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Assumptions</strong></td>
<td>Special Accelerated Road Development Program in the North Eastern Region (phase A) to progress as programmed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Security situation remains stable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>By 2016: Actual growth rates of traffic on the project and connector roads surpass the assumed growth rates (average annual growth is to be at least 9%)</td>
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<tr>
<td></td>
<td>By 2016: Travel time on the project roads reduced by 20%-40%</td>
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<tr>
<td>Improved mobility and accessibility in the project areas</td>
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<td></td>
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<tr>
<td></td>
<td>By 2016: Vehicle operating cost on the project roads reduced by 50% for three-axle trucks, and by 20% for passenger buses at completion</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Assumptions</strong></td>
<td>Project states to allocate sufficient maintenance budget.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sustainable mechanisms in place for funding the required road maintenance works.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Project roads are maintained with IRI below 5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transport service providers are available and provide better services on the project roads.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>By 2016: Approximately 430 km of state roads (state highways and district roads) reconstructed or rehabilitated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Reconstructed and rehabilitated state roads</td>
<td>Executing agency progress reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADB review missions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Improved business process and staff skills of PWDs</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Information technology-based procedures are established within the PWDs for planning and project management purposes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road safety program with coordinated engineering, enforcement, and education components in place</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risks</strong></td>
<td>Participation of qualified civil works contractors and consultants deterred due to security concerns.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequent turnover of PWD staff for project implementation.</td>
<td></td>
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</tr>
</tbody>
</table>
**Design Summary**

Sustained funding for road operation and maintenance established and in place

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### Activities with Milestones

#### (i) Pre-Loan Effectiveness Activity

1.1 Establishment of project management unit within MDONER and project implementation units within individual state PWDs by loan appraisal

1.2 Contracting of the project management consultant and construction supervision consultants to be substantially completed by November 2011

1.3 Procurement of civil works under tranche 1 substantially completed by December 2011

1.4 Tranche 1 loan effectiveness expected in March 2012

#### (ii) Investment Component

2.1 Civil works under tranche 1 awarded in January 2012

2.2 Civil works under tranche 1 completed by January 2015

2.3 Civil works under the investment program expected to be completed by the end of 2015

2.4 Defects notification period of civil works contract under the investment program to end by the end of 2016

2.5 State PWDs to take over the completed roads and start maintenance

#### (iii) Project Management and Capacity Development Component

3.1 Rolling out of road asset management system and project management system completed by March 2010 (under ADB TA 7134)

3.2 Performance Monitoring System for the investment program established within 3 months of effectiveness of Tranche 1 loan

3.3 Road safety program in place and initiated within 12 months of the effectiveness of Tranche 1 loan (with the assistance of the capacity building consultant under the ongoing cluster TA)

3.4 NER state government decision on road maintenance funding mechanism within 36 months of effectiveness of Tranche 1 loan (with the assistance of the IDCB consultant under the attached TA)

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### Inputs

#### ADB: $200 million (ordinary capital resources loan)

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil Works</td>
<td>148.4</td>
</tr>
<tr>
<td>Construction Supervision</td>
<td>19.1</td>
</tr>
<tr>
<td>Equipment</td>
<td>1.4</td>
</tr>
<tr>
<td>Project Management</td>
<td>1.0</td>
</tr>
<tr>
<td>Contingencies</td>
<td>30.1</td>
</tr>
</tbody>
</table>

#### Government: $98.2 million

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right of Way and Social and Environmental Measures</td>
<td>6.0</td>
</tr>
<tr>
<td>Civil Works</td>
<td>55.8</td>
</tr>
<tr>
<td>Road Maintenance</td>
<td>6.1</td>
</tr>
<tr>
<td>Project Implementation Unit</td>
<td>1.4</td>
</tr>
<tr>
<td>Project Management Unit</td>
<td>0.2</td>
</tr>
<tr>
<td>Contingencies</td>
<td>11.3</td>
</tr>
<tr>
<td>Financing Charges during Implementation</td>
<td>17.4</td>
</tr>
</tbody>
</table>

#### Japan Fund for Poverty Reduction: $1.2 million

(TA attached to the MFF)

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultants</td>
<td>0.86</td>
</tr>
<tr>
<td>Remuneration - International</td>
<td>0.06</td>
</tr>
<tr>
<td>- National</td>
<td>0.03</td>
</tr>
<tr>
<td>Travel</td>
<td>0.03</td>
</tr>
<tr>
<td>Reports and Communications</td>
<td>0.03</td>
</tr>
<tr>
<td>Workshop and Seminars</td>
<td>0.10</td>
</tr>
<tr>
<td>Surveys</td>
<td>0.12</td>
</tr>
<tr>
<td>Contingencies</td>
<td></td>
</tr>
</tbody>
</table>

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AD = Asian Development Bank, IDCB = institutional development and capacity building, IRI = international roughness index, MDONER = Ministry of Development of North Eastern Region, MFF = multitranche financing facility, NER = northeastern region, PWD = public works department, TA = technical assistance.

LIST OF LINKED DOCUMENTS

1. Framework Financing Agreement and Periodic Financing Request for Project 1
2. Sector Assessment (Summary): Road Transport
3. Facility Administration Manual
4. Contribution to the ADB Results Framework
5. Development Coordination
6. Economic and Financial Analysis
7. Country Economic Indicators
8. Summary Poverty Reduction and Social Strategy
9. Initial Environmental Examination: AS-11
10. Initial Environmental Examination: AS-37C
11. Initial Environmental Examination: MLN1
12. Initial Environmental Examination: SK01
13. Initial Environmental Examination: SK02
14. Environmental Assessment and Review Framework
15. Resettlement Plan: AS-37C
16. Resettlement Plan: MLN1
17. Resettlement Plan: SK01
18. Resettlement Plan: SK02
19. Resettlement Framework
20. Indigenous Peoples Planning Framework
21. Risk Assessment and Risk Management Plan
22. Outline Terms of Reference for Technical Assistance Consultants