

## **OUTLINE TERMS OF REFERENCE FOR DESIGN AND PROJECT MANAGEMENT CONSULTANT**

### **A. Introduction**

1. The North Eastern State Roads Investment Program (NESRIP) is currently under preparation to (i) improve about 1,300 km of priority road sections in the eight north eastern states in India, and (ii) provide capacity building support to the Ministry of Development of North Eastern Region (MDONER) and the state public works departments in implementing road improvement as well as developing a capability in road management, road safety, and environmental and social assessment. Feasibility study carried out under a project preparatory technical assistance (PPTA) for NESRIP<sup>1</sup> identified about 1,100 km of key state road sections for improvement, and developed implementation arrangements for the road improvement as well as the capacity building support. The Design and Project Management Consultant (DPMC) will be engaged prior to effectiveness of the NESRIP to (i) carry out detailed design and safeguard documentation, and preparation of bidding documents for all identified roads (about 1,100 km), (ii) assist in procurement of the Tranche 1 civil works (about 330 km in four states), and (iii) conduct feasibility study and prioritization of additional subprojects for inclusion in NESRIP.

### **B. Scope of Services**

#### **1. Detailed Design, Safeguard Documentation, and Bidding Documents**

2. The services to be provided for the identified project roads (including associated drainage and bridge structures) will include, but not be limited to, the following:

##### **a. Standard Bidding Document with Maintenance Requirement**

3. It is proposed that all the civil works contracts will have a 5-year road maintenance component. The proposed implementation modality of this component is a combination of extended warranty contracts and performance-based maintenance contracts, under which defects falling under contractor's responsibility are defined together with the time allowed for the contractor to remove such defects. The consultant will develop contract conditions and related technical specifications for a civil works contract with a 5-year performance-based maintenance component. The contract conditions will be developed for use in the ADB' Standard Bidding Document for procurement of works (SBD), which will be adopted by all participating states for implementation of subprojects under NESRIP. The consultant will carrying out the following:

- (i) Review existing bidding documents with post-construction maintenance requirements that have been used in India and other countries;
- (ii) Review recommendation by the ADTA consultant on the provisions to be included in the maintenance part of the standard bidding document;
- (iii) Develop a draft of contract conditions and related technical specifications and consult it with the state IAs, MDONER and ADB by conducting a workshop;
- (iv) Finalize the contract conditions and related technical specifications for NESRIP incorporating lessons learned from past experience in India and other developing countries and feedback obtained at the above workshop.

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<sup>1</sup> TA 4378-IND: Preparing the North Eastern State Roads Project

## **b. Engineering**

4. NESRIP is proposed to be implemented in three phases. Accordingly the consultant will prepare detailed project reports (DPRs) and corresponding bidding documents for all identified roads in three phases (about 330 km for Tranche 1, about 360 km for Tranche 2, and about 390 km for Tranche 3). The consultant will carry out the following:

- (i) Road and bridge inspections to identify likely works need and detailed investigation planning;
- (ii) Traffic surveys to identify traffic volumes and characteristics for further identification of design volumes and the ESAL for pavement design;
- (iii) Topographic surveys along the road and at bridge sites;
- (iv) Subgrade and pavement investigations;
- (v) Construction material and geotechnical investigations (including bridge foundation investigations);
- (vi) Design of road and bridges in accordance with relevant IRC standards;
- (vii) Preparation of detailed cost estimates;
- (viii) Preparation of detailed Bill of Quantities (BOQ);
- (ix) Preparation of detailed project reports (DPRs) and bidding documents including drawings, specifications, BOQ and contract documents for each civil works contract.

## **c. Environmental**

5. The consultant will carry out the environmental assessment of the roads that have not been assessed during the NESRIP PPTA study, in accordance with the ADB's Environment Policy, Government of India (GOI) and state requirements and the agreed Environmental Assessment Review Framework (EARF), and prepare initial environmental examination (IEE) reports or environmental impact assessment (EIA) reports, if deemed necessary. The consultant will also review the environmental reports that were prepared by the NESRIP PPTA consultant, and, if found necessary, make necessary modifications. Based on the environmental reports prepared for the subprojects, the consultant will develop an environmental management plan (EMP) for inclusion in the bidding document for each individual contract.

## **d. Social, Resettlement, and Land Acquisition**

6. The consultant will review resettlement planning documents prepared by the NESRIP PPTA consultant and update these documents by conducting field survey and verification. Additionally the consultant will prepare Initial Poverty and Social Analysis (IPSA), Resettlement Plan (RP) as per the agreed Resettlement Framework (RF), and Indigenous People Development Plan (IPDP) as per the Indigenous People Development Framework (IPDF) for subprojects in Tranches 2 and 3 and for each additional subproject. The consultant will also be responsible for preparation of Land Acquisition Plan (LAP), if required.

## **e. Impact Monitoring**

7. The consultant will develop an implementation plan of impact monitoring under NESRIP to operationalize the monitoring mechanisms proposed in the design and monitoring framework in Appendix 1, and carry out baseline surveys for the Tranche 1 subprojects. For these purposes, the consultant will:

- (i) Prepare a draft of an impact monitoring implementation plan that details out study methodology, approach, schedule and staff mobilization plan, in consultation with the state governments;
- (ii) Carry out baseline surveys for the Tranche 1 subprojects to collect data necessary to derive performance indicators in the design and monitoring framework; and
- (iii) Based on the field experience of the above baseline surveys, refine and finalize the impact monitoring implementation plan.

## **2. General Assistance in Preconstruction Activities**

8. The Consultant will perform the work, but not necessarily limited to the following:
- (i) Assist the state PWDs in setting up and operationalizing their Project Implementation Units (PIUs);
  - (ii) Assist the PIU in carrying out their pre-construction tasks (especially those relating to land acquisition, resettlement and environmental monitoring);
  - (iii) Develop a draft of NESRIP operations manual in consultation with MDONER, state governments, and ADB;
  - (iv) Monitor PIU operations and report them to MDONER; and
  - (v) Handover the project implementation to the PMC and CSC consultants once they are engaged under NESRIP.

## **3. Assistance in Contractor Procurement**

9. As a continuation of the task under para 4 (ix), the Consultant will assist PIUs in the procurement process of the Tranche I civil works contracts. This will include (i) providing clarifications at pre-bid meetings about contract conditions and technical specifications, and (ii) evaluation of the bids. These will be done on behalf of the state governments and with the involvement of the states and MDONER representatives.

## **4. Assistance in Consultant Recruitment**

10. The Consultant will assist MDONER and PIUs in recruiting the Construction Supervision Consultants (CSCs) to be financed under the ensuing loans under NESRIP. For this purpose the consultant will carry out the following:

- (i) Refine contract packages, terms of reference, and qualifications of CSCs developed during NESRIP to suit the actual timing of procurement of civil works;
- (ii) Develop a standard request for proposals (RFP) document to be used by all participating states in NESRIP based on ADB's Standard Request Proposals for Loans for the Selection of Consultants by providing particular details to the ADB RFP document; Finalize the RFP for CSC(s) to be recruited for supervision of Tranche 1 civil works contracts after incorporating comments; and
- (iii) Prepare technical evaluation reports for CSC(s) to be recruited for supervision of Tranche 1 civil works contracts.

## **5. Screening and Finalization of Feasibility Study of Additional Subprojects**

11. The consultants will select potential project roads in consultation with the coordinating committee by doing the following:

- (i) Review feasibility studies recently completed or under way in the NE states.
- (ii) Review surveys and data (e.g., traffic and roughness) relating to the long list of possible candidate road improvements proposed by State Governments (about 720 km).
- (iii) Identify about 200–300 km roads for possible inclusion to NESRIP, taking into account traffic volume, pavement conditions, safety, resettlement and environmental considerations, implementation efficiency and the costs and benefits of the improvements. The list will be considered by MDONER, state governments, ADB, and the consultants at a workshop.
- (iv) Update and finalize the feasibility study for the screened roads, with supplementary survey as required, including preliminary engineering study, economic assessment, environmental assessment, and social and resettlement studies

## C. Time Schedule, Staff Requirements, and Reports

### 1. Time Schedule and Staff Requirements

12. The assignment is expected to commence four weeks after the signing of the contract. The consulting service will be completed in 10 months from February 2007 to November 2007.

13. The DPMC team will include (i) 16 person month international input by a Team Leader/Project Management Specialist cum Senior Highway Engineer (9 person months), a Transport Economist (2 person months), Impact Monitoring Specialist (2 person months) and a Contract/Procurement Specialist (3 person months), and (ii) approximately 270 person month domestic input by a team consisting of Highway Engineers, Road and Bridge Design Engineers, Surveyors, Geotechnical Engineers, Traffic Engineers, Environmental Specialists, Social Development Specialists, Resettlement Specialists, and Contracts Engineers, as well as associated technical support staff.

14. The consultants will be recruited in accordance with ADB's *Guidelines for the Use of Consultants*. They will have experience and qualifications in road feasibility studies, road rehabilitation/reconstruction, pavement design, geotechnical and material investigations, bridge and drainage structure design, project management, contract documents and specifications preparation and performance-based road maintenance. They will also have experience in social assessment, resettlement and rehabilitation, environmental impact assessment and environmental impact management.

### 2. Outputs and Reporting

15. The following reports and documents will be prepared and submitted to MDONER, state PWDs concerned (in the case of state-specific documents such as DPRs and bidding documents), and ADB for review:

No.	Title	Comments/Reference to TOR	Draft Final Reports	Final Reports
1	Inception Report	Brief review and confirmation of work plan; identification of issues that may affect work schedule		Month 1

2	Standard Bidding Document (contract conditions and technical specifications for maintenance component)	Tasks listed under para 3	Month 2	Month 4
3	DPRs and Bidding Documents for Tranche 1 subprojects	Tasks listed under para 4	Month 4	Month 5
4	DPRs and Bidding Documents for Tranche 2 subprojects	Tasks listed under para 4	Month 5	Month 6
5	DPRs and Bidding Documents for Tranche 3 subprojects	Tasks listed under para 4	Month 7	Month 8
6	IEE reports for unassessed subprojects in Tranches 2 and 3	Tasks listed under para 5	Concurrently with DPR	Concurrently with DPR
7	Environment Management Plans	Tasks listed under para 5	Concurrently with DPR	Concurrently with DPR
8	Updated RPs for Tranche 1 subprojects	Tasks listed under para 6	Month 5	Month 6
9	IPSA, and RPs, IPDPs and Land Acquisition Plans, if required, for unassessed subprojects in Tranches 2 and 3	Tasks listed under para 6	Within 1 month of submission of corresponding DPRs	1 month after submission of draft
10	Impact Monitoring Implementation Plan	Tasks listed under para 7 (i) and (iii)	Month 3	Month 9
11	Baseline Survey Report for Tranche 1 subprojects	Tasks listed under para 7 (ii)	Month 7	Month 9
12	NESRIP Operations Manual	Tasks listed under para 8 (iii)	Month 3	Month 5
13	Bid evaluation report for Tranche 1 civil works contracts	Tasks listed under para 9	As required	As required
14	RFP for CSC	Tasks listed under para 10 (ii)	Month 4	Month 5
15	Technical Evaluation Reports on CSC Proposals for Tranche 1	Tasks listed under para 10 (iii)	As required	As required
16	Feasibility Study Report on Additional Subprojects	Tasks listed under para 11	Month 7	Month 9
17	TA Progress Reports	A TA Progress report will be a brief summary report on the progress of preparation of above listed reports and related TA activities		Monthly

16. To facilitate preparation of the outputs in the previous para, workshops will be conducted during the TA implementation as follows:

- (i) Workshop at Month 3 to discuss draft conditions and technical specifications for the standard bidding document with provisions for post-construction maintenance (report 2 draft ), project impact monitoring (report 10 draft), and project implementation under NESRIP (report 12 draft);

- (ii) Workshop at Month 5 to discuss contract administration under the final conditions and technical specifications of the standard bidding document (report 2 final), project implementation following the NESRIP Operations Manual (report 12 final), and recruitment of CSCs under NESRIP (report 14 final); and
- (iii) Workshop at Month 8 to discuss the feasibility and prioritization of additional subprojects, impact monitoring, and overall implementation of the NESRIP (reports 6, 7, 8, 9, 10, 11, and 16).

### **3. Services and Facilities to be provided by the Government**

17. MDONER and the state governments, as applicable, will provide the consultant with the following:

- (i) Office space including furniture and utilities;
- (ii) Access to data, records and other information required to perform the assigned tasks; and
- (iii) Counterpart staff and engineers to work with the DPMC team.