

MADHYA PRADESH RURAL ROAD DEVELOPMENT AUTHORITY

(An Agency of Govt. of M.P. Panchayat & Rural Development Department)

Block- 2, Vth Floor, ParyawasBhawan, Arera Hill's Jail Road, Bhopal-462011

Terms of Reference

For

Project Management Consultancy (PMC) Services

1. Introduction:

The Govt. of Madhya Pradesh (India) has applied for the financial assistance from the World Bank to upgrade 10,000 km rural roads of gravel standards constructed under CMGSY to bituminous surface standards and construction of 3,000 km new road to provide alternate connectivity and improve network quality to villages of high economy potential.

2. Project Scope and size – The total project cost is US \$ 500 million. The project seeks to;

- (i) upgrade 10,000 Km of rural roads of gravel road standards constructed under CMGSY to bituminous standards to improve network quality and connectivity (US \$ 370 Million).
- (ii) construct new rural roads to provide alternate connectivity to villages of high economic potential (US \$107 Million).
- (iii) institutional strengthening (US \$ 23 million) which includes improvement of e-based project management system, Road Accident Data Management System, modernization of maintenance and skill development .

3. Implementation [arrangement](#):

The Madhya Pradesh Rural Road Development Authority (MPRRDA) hereinafter called the Client is the implementing agency for the project. A dedicated Project Management Unit (PMU) has been established in MPRRDA headquarters, headed by a Project Director and supported by other staff. PMU is responsible to implement the project with the support of about 87 Project Implementation Units (PIU). The project is proposed to be implemented in three phases- up-gradation of 10,000 KM gravel road into two phases – 5000 KM in each phase and construction of 3000 KM new roads in third phase.

MPRRDA is now proposes to engage a Project Management Consultant ([PMC](#)), hereafter called 'Consultant' to assist it to effectively implement and administer the project focusing on both, the quality and timely implementation of various project components. The consultant is essentially to provide high quality management and implementation support (through a small team of experts) by working as an integral part of the PMU. It has [tobe](#) recognized that the Consultant will generally not have a direct role to implement the project, except that is required in delivering the TOR.

The consultant will be selected in accordance with the procedures set out in the World Bank's [Guidelines](#): Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers (Jan 2011 – updated in July 2014)

4. Objectives and Scope of the Consultancy Services

The objective of the services is to, provide high quality professional advice and management and implementation support to the Client to effectively implement the Project. In order to achieve this objective the consultant would carry out the following broad scope.

- (i) Ensure compliance to loan and project agreements and its covenants with a view to achieve agreed-upon project monitoring indicators in stipulated time frame. The consultant will be required to work in close co-ordination with the PMU.
- (ii) Ensure consistency and compliance with the agreed World Bank procedures and on achieving the key results to be achieved during project implementation.
- (iii) Efficiently manage the project through assistance to the PIUs of the Client such that each and every activity of the project is completed in agreed timeline, within budgeted cost frame and in full compliance with the World Bank guidelines and applicable Client's acts, rules and regulations. Provide support to the PIU in management and administration of the Contract Agreements with the civil contractors engaged for various components under the project.
- (iv) Assist the Client in preparation of bidding documents, updating cost estimates, bid invitations and bid evaluations. The PMC is also required to assist the PMU and PIUs in implementing, managing and monitoring Project activities, assess reasons for delay and identify means for improvement, review reasonability of the proposals prepared by the Design Consultants.
- (v) Provide training to the PIU staff in project formulation, management, monitoring and evaluation, financial, road safety and environmental management aspects and community participatory approaches of the Project. PMC will be fully associated with PMU in implementation of project works.
- (vi) Assist PMU in monitoring the services of other consultants working in the project; reviewing their reports and provide feedback to the PMU.

5. Implementation Mechanism

The Client has Project Implementation Units in all 51 Districts of the State. The PIU is headed by a General Manager (GM) with other Technical and Accounts support staff who have long experience of construction of rural roads and cross drainage structures under PMGSY including ADB assisted road projects. At headquarters, MPRRDA is headed by a Chief Executive Officer (a senior IAS Officer) and supported by an Engineer-in-Chief, six Chief General Managers, General Managers, Financial Controller and other staff. For implementation of this project an Engineer-in-Chief has been designated as Project Director.

6. Detailed Scope of the Consultancy Services:

The PMC shall be responsible for effectively leading and taking initiative to manage, execute and implement the project. The quality of Project Management should adhere to the highest standards of the road construction industry in general and the requirements of the project set in the various project documents. The scope of the PMC services shall also involve design to a limited extent and assisting PMU and PIUs to ensure project completion within agreed timeline and cost frame. The overall scope of PMC services shall be as indicated herein but not limited thereto.

(a) Preparation stage of Project;

- (i) acquaint with all the work done and reports/ documents prepared for this project prior to PMC's placement.
- (ii) documenting, on soft and hard media, work done and expenditure made prior to PMC placement for ready reckoning for future recourse e.g. implementation completion reports.
- (iii) assist PIUs in site readiness for the civil works.
- (iv) assist PIUs for other activities required for preparation/ implementation of the project.
- (v) assist PMU in preparing papers/ documents/ presentations for Loan negotiation.

(b) Design and DPR

PMC shall carry out design review and DPR reviews observing the best engineering practices, Client's rules and regulations, IRC publications, Indian Bureau of Standards. Design review and DPRs shall have to cater to site requirements, construction amenability and least life cycle cost aspects.

- (i) Assist in the review process of DPRs of all phases and, advice/ assist PMU on actions required on reviews done.
- (ii) Assist the client in reviewing and finalizing of designs and DPR While reviewing the DPR, ensure it addresses the social, environmental and road safety issues.

(c) Procurement:

The PMC will be responsible for assisting the Client in preparation of Procurement Plan (PP), co ordination of procurement of civil works, goods, and consultants under the project and ensuring that procurement is carried out in compliance with the procedures/ project scheduling/ procurement plan agreed with the WB.

The PMC shall also assist in the quality assurance of (i) the preparation of bidding documents as per the agreed standards with the WB, (ii) invitation process, (iii) pre-bid, pre-proposal conferences; (iv) contract agreement documentation.

(d) Review of project related environmental and social impact assessment issues.

- i. Review the environmental impact assessment carried out for the project road improvement works to ensure ;
 - a. compliance with the Environmental and Social Management Framework and terms of reference;
 - b. that environmental impact assessments have been prepared as required by World Bank and GOMP requirements;
 - c. that adequate and appropriate mitigation and monitoring measures have been included in the environmental management plans for individual project road;
 - d. that all appropriate measures have been included in the project design and contract documents for minimizing and mitigating environmental impacts; and
 - e. that all necessary environmental clearances and permits have been identified and procured by the contractors.
- ii. Review the poverty and social impact assessments carried out on the project road improvement works in the light of World Bank guidelines and GOMP requirements;

- iii Ensure that adequate consultation has been carried out with local stakeholders in the influenced area of each project road design to minimize and mitigate any adverse social impacts.
- iv assess compliance with the terms of reference, World Bank and GOMP requirements, and the agreed resettlement frame work and IPDP for the project.

(e) Safeguards Monitoring

- i. Assist the PIU in ensuring that the environmental safeguarding measures incorporated in the Contract documents, environmental management’s plans and resettlement plans are being implemented by the PIUs, construction supervision consultants and contractors.
- ii. Undertake checking through field visits on sample basis how the grievances of the citizens and communities if any, were addressed by the PIUs for compliance of the social safeguards and implementation of environmental management plans.

(f) Road Safety Management:

Assist the Client in implementing various activities under the Road Safety component. Client will engage a supervision quality control consultant with a Road Safety Specialist who will be responsible for compliance of all Road Safety related issues during construction. PMC will assist the Client in implementation of approved recommendations of consultant.

(g) Users’ Satisfaction Survey (RUSS): the PMC shall design a user satisfaction survey instrument and carryout an unbiased survey before the start, at mid-term and towards the end of the project, segregated by various social groups including gender.

7. Training and Capacity building

7.1 PMC will,

- i assist Client in establishing a training and capacity building plan covering various categories of staff and its implementation.
- ii assist Client in implementing various measures to build capacity of the local construction industry.
- iii assist Client in organizing training of personal in various aspect of road safety.
- iv assist Client in effectively implementation of various training programs using local and national training institutions, facilitate other knowledge transfer and capacity building activities like workshops and study tours in various states in the country and abroad to expose MPRRDA staff to national and international engineering & asset management activities.
- v support the Client in identifying the equipment and instruments required to improve their overall office infrastructure for surveys and investigations, quality assurance, project preparation and implementation, computing capacity and introducing new technologies.
- vi support the Client in procurement of the equipment and instruments
- vii assist Client to strengthen the MPRRDA Central laboratory.

8. Assist the PIUs in preparation of Supporting Documentation for the Project.

- i. Assist the PIU in preparing documentation / various progress reports to be submitted to World Bank and MPRRDA and also required for Bank missions in connection to the Project. This documentation would include details of the scope of the road improvement works, costs, environmental examination, social impact and resettlement impacts if any.

- ii. Any other reasonable assistance that may be required by the Client during the course of the implementation of the project that could be accommodated by the PMC without deploying additional manpower and incurring additional costs.

9. Reporting Requirements and deliverables

The PMC will have to establish its main office in Bhopal. The selected Consultant will make arrangement for furnished accommodation for the office of the Team Leader and all associated staff stationed in Bhopal as well as for his at-site staff. The Consultant should also make his own arrangements for equipment, photocopiers, communication facilities like telephones, web connections, facsimiles, and vehicles for transportation of office staff, etc. Items of office use which are of permanent in nature shall be purchased by consultant and will be reimbursed by the Client and shall be handed over to Client at the end of PMC contract period

The maintenance, repairs, consumables in using these items shall be the responsibility of Consultant.

The PMC services will be carried out for implementation period of 3 years. The Consultant shall submit the inception report no later than 4 weeks after signing the PMC contract. The inception Report details the deployment of the personnel and the approximate time of their mobilization-which is coordinated with the project implementation plan. The Consultant will no later than the 10th of each month, submit a summary report of the progress of all ongoing sub-projects and consultancies and recommendations on how to deal with problematic issues. As part of the MPR, PMC must also file quarterly Progress Monitoring Report (PMR) and an update of the project cost incorporating awarded costs, actual expenditures at completion and estimated completion costs of each project activity. The targets and approximate duration of various tasks/deliverables of PMC consultancy are scheduled below:

The following are the key deliverables to be submitted by consultant.

- (1) Inception report/s.
- (2) Documentation of all works done related to project prior to placement of PMC, in hard and soft copy.
- (3) The user satisfaction survey documents and final reports.
- (4) Papers/ documentation /presentation for loan negotiation.
- (5) Action required reports after reviewing DPR.
- (6) Monthly / Quarterly progress report on quality assurance of all works.
- (7) Monthly progress report containing Physical and Financial progress of each work.
- (8) Notes, Reports, Presentation and minutes of meetings with WB mission and road safety related works.
- (9) Performance reports of completed works of Rural roads, Notes/reports required for any approval from WB.
- (10) Mid-term review report.
- (11) Complete documentation of project completion or completion of the PMC assignment- whichever is earlier.
- (12) Final report of project completion containing details of each work and consultancy services and goods & equipments purchased under the project

Reports shall be submitted in Two (2) hard copies in English and a Electronic copy in CD form.

10. Consultant's Team

The services of the PMC are expected to provide the required management support to achieve the planned outputs. Consultants are encouraged to propose a staffing plan and mobilization plan that best suits the needs of the project. 113 (approx) person months of key professionals are anticipated to be required for this assignment over a three year period. Consultants shall make the provision accordingly as proposed below in their financial proposals.

The team of the PMC key personnel and tentative inputs will be as follows:

- (i) Team Leader cum Senior Highway Engineer –Regular input 36 months.
- (ii) Senior Quality cum Material Expert – Intermittent 18 person month.
- (iii) Social/gender& community participation Expert – Intermittent 9 person months.
- (iv) Environment Expert– Intermittent 12 person months.
- (v) Road Safety Expert –Intermittent 20 person months.
- (vi) IT-ICT Manager -Intermittent 6 person months.
- (vii) Financial Expert – Intermittent 9 person months.
- (viii) Training expert – Intermittent 3 person months

11. The experience and qualifications of the key personnel would be as under:

- i. **Team Leader cum senior highway engineer**– The candidate should have a postgraduate degree in Civil Engineering (Highway/Transportation/Geotechnical). The person will be a senior highway engineer with minimum 15 years experience, including at least 10 years relevant experience in similar projects. The incumbent must have at least 2 years of experience as Team Leader / Resident Engineer and work experience of 5 years in projects funded by international financing institutions. Thorough experience on design, procurement and management of major highway projects is essential. Knowledge of international 'best practices' and modern highway construction technology is important. The candidate must have proven record as Team Leader for preparation and implementation of a large project or as project manager for several projects concurrently.
- ii **Senior Quality cum Material Expert** -The candidate will be at least a Post Graduate in civil Engineering and preferably with post graduate qualification in Highway/Geo-technical Engineering. He should have minimum 15 years of relevant professional experience, out of which, he should have worked for at least 5 years as Material Engineer/Geo-technical Engineer in Highway construction projects. He should have handled at least 2 similar highway projects costing not less than US\$ 50 Million as Material Engineer/ Geo-technical Engineer. The candidate must be familiar with properties of road construction materials, technical specifications and procedures of all kind of material tests and testing equipment and should have past experience in working on road projects running on expansive soils. He should have experience of working as material engineer on similar projects in developing countries. The candidate should have demonstrated capability of monitoring, organization set up and layout of the various contractor's field laboratories, monitoring the mobilization of the testing equipment to ensure that the laboratories are adequately equipped and capable of performing all the specified testing requirements of the contracts, and monitoring that the setting up of the various contractor's rock crushers and bituminous mixing plants to ensure that the specified requirements for such equipment are fully met. The candidate should have at least five years of experience in flexible pavement and bituminous mix designs, and three years of experience in rigid pavement and concrete mix designs. The candidate should be familiar with establishing Quality Assurance Programs in highway projects. Knowledge of pavement design is essential.

- iii **Social & community participation Expert**– The candidate should have Masters or equivalent qualification in social science or in related disciplines with minimum 10 years experience out of which at least 5 years experience of working as social/resettlement expert for major civil engineering projects. The person should desirably have experience of working as social expert for major road project(s). The candidate must have worked as social/resettlement expert for at least one World Bank/ ADB funded project. Experience in supervising & monitoring the implementation of the resettlement action plans is required. Familiarity with local language will be advantageous and will give additional weightage.
- iv **Environmental Expert** – The person should have Masters degree or equivalent in environmental science/ engineering with minimum 10 years of experience of which at least 5 years on environmental impact assessment of related development projects. The candidate must have full knowledge of the World Bank's guidelines procedures and operational policies/directives. Experiences of working as environmental expert for at least one World Bank/ ADB funded project are essential. The candidate must have the experience of preparing environmental management plans and supervising & monitoring implementation of the plans. Knowledge of local language will be advantageous and will give additional weightage.
- v **Road Safety Expert** – Road Safety Expert/Auditor will be at least a Graduate in Civil Engineering and preferable postgraduate qualification in Traffic Management and Road Safety. He should have at least 8 years experience in road safety engineering, including conducting road safety audits on different types of roads, identification and treatment of blackspots, development and implementation of road safety programs, road safety monitoring and evaluation. Completed road safety audit training will be an advantage. Must have demonstrated knowledge of engineering road safety majors proven effective in India, specially targeting vulnerable road users. Must have knowledge of proper placement and use of signs, pavement markings, roadside hardware, and human factors. Experiences with road safety engineering on hilly roads will be an advantage. Must have all-round knowledge of other aspects of road safety, e.g., road safety education, safe way to school programs, and involvement of NGOs.
- vi **IT-ICT Manager** - He shall be a B.Tech/B.E. graduate with specialization in Computer Science, Information Technology, information Systems or the equivalent. He shall be fully knowledgeable in current IT hardware and software matters as well as ICT communications /connectivity matters, particularly as relevant to technical and business information management requirements in the public sector context in India. He shall have extensive professional experience (at least 10 years) and adequate professional skill in the implementation, operation and management of IT and ICT assets and facilities and in the facilitation of IT -based activity monitoring systems for program management purposes, preferably in public sector contexts,
- vii **Financial Expert** - He shall possess a CA or MBA degree (or equivalent) in Finance. He must have a minimum of 10 Years of Experience, including at least 3 years in international-standard roles / responsibilities, and at least 5 years in the financial analysis field. He shall be conversant on infrastructure project finance and able to carry out financial modeling and analysis. He shall have sound previous experience in performing financial analysis and planning functions and activities in India's public sector, preferably in relation to large-scale infrastructure investment and/or infrastructure asset management financing, matters .

VIII –Training specialist – Should be a civil engineering graduate with MBA. He should have experience in organizing trainings, workshops, preparing training material. He should be capable of assessing training requirements and effective implementation of various training programs using local and national training institutions, facilitate other knowledge transfer and capacity building activities like workshops and study tours in various states in the country and abroad to expose MPRRDA staff to national and international engineering & asset management activities.

During the implementation of the project, the Team would need to be supplemented with other support staff from time to time to provide support in accomplishment of various assignments indicated above.

12. Inputs by the MPRRDA

The Consultant will work as part of the PMU and Client will provide access to the required information and other assistance as required to effectively undertake the assignment. This includes access to the consultant to the office of MPRRDA and PIU office, access to field laboratories, record and documents relevant to the project, other surveys and investigation facilities available with the Client.