

LAO PEOPLE'S DEMOCRATIC RESPUBLIC

PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

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Ministry of Public Works and Transport

Department of Inspection

**Term of Reference (ToR) and
Scope of Service for Technical Auditor**

1. Background:

The World Bank has been engaged in the transport sector in Lao PDR for two decades, during which significant achievement has been made including institutional strengthening, road maintenance fund, road management system. However, the sector still faces huge challenges in supporting the implementation of the 7th Five-Years National Socioeconomic Development Plan (NSED). Transport sector strategic plan for the next five years has been established, with long list of identified needs. While several regional road links have been built and 78% of paved national road is in good condition, less than 42% of local road network serving large segment of the population is in good condition. Even though Road Maintenance has grown steadily, the road network still suffers from shortage of funding for maintenance.

Given scarce resources, it is crucial for the sector to strategically prioritize the needs. Being a land-locked country with growing economic development in the region in the past recent years, Lao PDR is facing an increasing demand for transport, not only for road sector, but also for other modes of transport and logistics. Given scarce public funds and competing needs in the social sectors, the challenge is on how the sector will prioritize its needs and improve its sector management efficiency. To this end, it is crucial for MPWT to enhance its quality assurance system.

The Ministry of Public Works and Transport (MPWT) of Lao PDR has received financing support from World Bank and the Nordic Development Fund (NDF) to implement Lao Road Sector Project 2 (LRSP2) (March 2017-August 2022), which will support MPWT strengthen its capacity at both central and local levels to manage local road improvement and maintenance. The WB has approved a credit of approximately USD 25 million, and NDF a grant for a Technical Assistance (TA) program amounting to EUR 5 million and a loan not exceeding EUR 6 million to finance the LRSP2. In addition, the Road Maintenance Funds (RMF) will contribute approximately USD 7 million, and the 6 participating provinces also will contribute around USD 3 million to the Project. The European Investment Bank (EIB) has also expressed interest to provide financing support to the implementation of the road local road development program designed under LRSP2.

See detail of DLI in the PAD of LRSP2.

The Project Development Objective (“PDO”) is to strengthen maintenance systems to improve reliable road connectivity in Lao PDR, and to provide immediate and effective response in case of an Eligible Crisis or Emergency.

LRSP2 consists of four components: (1) Climate Resilient Road Maintenance, (2) Institutional Strengthening, (3) Project Management Support, and (4) Emergency Response. This consultancy falls under component 2, specifically Sub-component 2.2.1 – Strengthening Internal Control. The Project will finance periodic maintenance and routine maintenance works in six provinces (Phongsaly, Houaphan, Oudomxay, Xiengkhouang, Xayabouly and Bolikhamsay).

The project also financed routine maintenance under component 1.2. Disbursement Linked Indicator (DLI) based financing is introduced in order to support GoL’s aims to move towards results based road asset management. The routine maintenance program will include a total of 2,856 km cumulatively maintained over the life of the project, broken into incrementally increasing annual targets of kilometers of road maintained in good and fair condition. The average cost per kilometer of routine maintenance is estimated at US\$1,200 per km. Thus, the total cost of the routine maintenance program over the life of the project is approximately US\$13 million. GoL will finance US\$10 million, i.e. around 77 percent of the total cost (RMF US\$7 million and the six participating provinces US\$3 million), and IDA will cover the remaining US\$3 million i.e. around 23 percent of the cost. The DLI Value is calculated by the total length of the road receiving routine maintenance each year, multiplied by the average of SDR 212 per km (US\$295.5 equivalent). Contingency is included across the DLI values (See Annex 1B for details). This is a scalable DLI, which allows flexibility of disbursement if the annual targets (Table 4) have been partially met. The achievement of targets will be verified at the end of each 12-month period and payments made subject to works being monitored with digitized road maps, photo/video confirmation of the before and after condition, contract information, and maintenance history and expenditure details. The Integrated Road Asset Management System (IRAM) for local roads, which will be further developed and operationalized during the first two years of the project implementation, will be used for the monitoring from the third year onwards.

The project implementation period started since March 2017 the closing date is 31 August 2022.

2. Objective of consultancy services

MPWT would like to hire an individual consultant to carry out (i) technical audits of civil works financed under LRSP II, (ii) verification of Disbursement Linked Indicator (DLI) , conduct procurement review of sample contracts, review safeguard compliant, review traffic safety aspect of the road improvement and maintenance. The consultant shall express an independent opinion on technical performance of the LRSP 2 including whether or not funds have been used in accordance with the agreements with due attention to the economy and only for the purposes for which financing is provided, whilst to provide findings, comment and recommendations on

See detail of DLI in the PAD of LRSP2.

noncompliance, if any, and on internal assurance and internal control mechanisms, including management oversight, and quality assurance and internal controls that come to attention during the course of the audit in order to make recommendations for improvement; and to report on the adequacy of quality control and recommendation to improve the matter.

3. Scope of technical Audit

The consultant will carry out the following tasks:

Audit of General Management:

- Examine the division of tasks among the various actors involved in the Project execution and assess their management capacity.
- Evaluate the system for Contract management, including: the quality of information furnished by the system and possibilities for cost savings.
- Evaluate the existing monitoring/ oversight system and determine if the project management at central and provincial levels performed adequate oversight functions and provide adequate guidance and support to supervisory personnel.
- Evaluate if supervisory personnel are given adequate resources and powers to execute their responsibilities.
- Review quality assurance mechanism including monitoring system at central and local levels and make recommendation to improve its gap.
- Examine the filing system and documentation, particularly in respect of Contract documents management.
- Assess the procurement capacity of DoR and DPWTs.

Audit of Works Execution:

- Provide a simplified and quantified description of the audited road works executed under LRSP2.
- Verify the conformance of the work and their costs with the planned program, settled in the Contracts.
- Verify the procurement of sample road works contracts.
- Verify the achievement of Disbursement Linked Indicators (DLI) as specified in the PAD and in accordance with the verification protocol set forth in the Project Operational Manual (POM).
- Assess traffic safety measures addressed under road improvement and maintenance contracts.
- Assess the quality of the works, the conformance with standard specification in the contracts, the work plan and Project objectives, and whether the Contract terms are

See detail of DLI in the PAD of LRSP2.

respected by parties. The works quality should be determined through visual examination, measurements and laboratory tests if necessary.

- Verify that the Contractor executes the works also taking into account the environmental protection issues and in compliance with Environmental Management Plan (EMP) attached to the Contract.
- Verify if the design was adequate with view to local conditions and availability of materials.
- Verify the unit prices of the invoices, in comparison with the Contracts, as well as the actual works implemented.
- Verify good record keeping DoR, DPWTs, Project team on sites, Technical Supervisor and Contractors, for example: work site notebooks, work site reports, work orders, justification of eventual amendments, as well as minutes of preliminary and final works acceptance, etc.
- Verify the necessary expertise have been sought by the consultant and/or contractor and utilized in good time to resolve problems of technical issues.
- Verify the timing of works execution of completed and ongoing works, in relation to the Contract timing. Prepare a summary table for each Contract analyzed indicating the type of works, the total cost and the delays, if any. In the case of delays observed at the work site, analyze the measures taken to make up time, as well as the application of penalties. Analyze if necessary any cost overruns, by type of work, amount of Contract.

Audit of planning and selection processes

- Review and determine if project evaluation carried out based on RMS, Maintenance Procedures, ProMMS led to a better and effective selection of projects and maintenance treatments
- Review and determine if the technical standards applied are relevant and effective for the purposes at the various tiers of the road network.
- Review and determine if maintenance contracts have been prepared according to local or internationally recognized standards, and that the description and quantity of works accurately reflect reality in the field.
- Review and determine if the climate resilience aspects have been incorporated into the planning and budgeting process of road maintenance.

Audit of works supervision

- Confirm an adequacy of road works supervision and quality control provided by supervision consultant, DoR and DPWTs , ensuring that road works are in conformance with the contracts and the supervision works with the terms of contracts.

See detail of DLI in the PAD of LRSP2.

- Confirm that all invoices, authorizations, justifications and variation orders, payment, reception certificates, etc., are available and properly filed. Confirm that payments are made in conformance with the terms of the Contract and within the agreed limits.
- Confirm that the road works are complied with the social and environmental management frameworks.
- Assess the Construction Supervision Manual and training program in the inspection and reporting procedures, delivered by the Technical Supervisor to its Resident Supervisors.

Capacity development

- Conduct workshops at each end of visit whereby issues found and measures to address them will be explained to participating representatives of contractors, supervision consultants and project managers.

Procurement review:

The consultant will conduct procurement review of 20% of procurement packages each year.

For each of the above points of the audit, the Consultant will not only verify the existence or non-existence of a problem, but will make recommendations which will support the Client to improve its procedures and achieve its desired performance. At the end of annual technical audit, the Consultant will also conduct a training workshop and present his findings and recommendations in order to improve the entire process of the roads improvement and maintenance, including design, civil works implementation and supervision stages. The target audience of such a workshop is the representatives of the Client, Supervision Consultant, Civil Works Contractors and design consultants.

If for any reason the audit has not been conducted in accordance with above this should be stated in the audit report with an indication of alternative standards or procedures followed.

The consultant will report to the Department of Inspection (DOI) and Department of Road (DOR). The Director of Internal Control Division of DOI, and Director of Road Administration Division (RAD) of DOR will facilitate the communications with the concerned institutions and officials within MPWT and DPWTs.

4. Qualification's requirement:

- At least Bachelor degree in civil engineering or related field, master or higher degree are highly desirable.
- At least 20 years of experience on the road sector industry and 10 year of experience on institutional strengthening.
- At least 10 years of experience on road construction and maintenance planning, design , implementation and monitoring, , preparation of bidding documents and supervision of contracts.

See detail of DLI in the PAD of LRSP2.

- At least 10 years of experience on handling procurement including procurement of road works is an advantage.
- Fluency in spoken and written in English.
- Regional relevant experience.

The consultant will work closely with the department of inspection and department of roads within MPWT.

5. Consultant's input

The audit should cover period starting from 1 June 2018 to 31 August 2022

Consultant's input to carry the assignment is approximately 20 person months over the above period.

For year 1, the consultant may spend **three-person months** spreading over the year to carry out the following tasks:

- (i) Review the quality assurance currently applied at MPWT and DPWT and prepare a proposed quality assurance mechanism. Prepare guidelines for the quality assurance and internal technical audit.
- (ii) Verification of the achievement of DLI indicators.
- (iii) Conduct procurement review.
- (iv) Conduct consultation workshop on the result of the technical audit, result of the quality assurance system review, proposed quality assurance, and technical audit guidelines.
- (v) Provide training of the above to DoR, DoI, and DPWT, with approximately 45 people.
- (vi) Follow up the implementation of the recommendations after six months of the first audit.

For year 2, 3, 4 and 5, the consultant may carry out, biannually, the technical audit of road works in 6 provinces under LRSP2, and follow up the implementation of the quality assurance system, technical audit guidelines and conduct a workshop to present the result of which. The consultant will have three weeks mission two times in each year.

6. Services Provided by The Client:

See detail of DLI in the PAD of LRSP2.

MPWT will assign counterparts from the Inspection Department and Roads Department to facilitate and provide easy access to all files, data, and possibility to meet with concerned Government staffs for a satisfactory and timely execution of the services.

MPWT shall provide office space in MPWT. All operating costs in these and others aspects are to be covered by the financial proposal for the services, as outlined in the final agree budget.

The consultants will be provided with unrestricted access at all reasonable time to all records and documents, including books of account, legal agreements, minutes of meetings, bank record, invoices and contracts, etc and all employees of the Ministry. All employees of the project implementing agency, whose activities involve or maybe reflected in the annual financial statements, shall fully cooperate with the Auditor. The consultants will have a right of access to banks and depositories, consultants, contractors and other persons or firms engaged by the project. Provision will be made at the Department of Inspection to accommodate staff members of the consultant firm who will be provided with access to photocopying facilities.

Deliverables:

The consultant will prepare and submit the following reports: 1) Inception Report; 2) The technical Audit Reports for each year, to be delivered within three months after debriefing workshops, and 3) completion report. In addition, the consultant will arrange consultation workshops and training on the technical audit guidelines and quality assurance. The detail of work as bellows:

1. Inception Report shall be submitted to the MPWT no later than **three weeks** after the commencement date,
2. Draft Final Reports for technical audit shall be submitted no later than **four weeks** after the debriefing workshops carried out for each biannual audit.
3. Final Technical Audit Reports shall be submitted to the MPWT not later than **one months** after receiving MPWT, NDF, EIB and WB comments on the draft audit reports.

The highlights of the draft technical audit report will be presented to the MPWT for discussion in a wrap up meeting. The consultant shall provide background paper for the review in good time before the meeting. After these discussions and comments from the client the Consultant shall submit the final report for review and comments to MPWT, NDF, WB and EIB (ten hard copies and one electronic copy). After necessary amendments to the report, if any, the consultant shall submit the same number of final report English languages, **within two weeks** after receiving the final comments from the client. The final technical audit report shall include the auditor's Management Letter inclusive of MPWT's responses to issues raised by the auditor.

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7. Payment:

The contract is “Lump Sum Payments” on individual contract basis. The Consultants shall be respected of all taxies, duties and levies in Lao PDR in relation to the services according to the Contract. Office consumables necessary for the services will be provided in the contract. Cost for accommodation, local and international travel during the services will be included in the reimbursables in the Contract (per diems, travel allowances). International travel will be paid on basis of Economy class.