**Project Name**: Road Maintenance Program (Phase 2)

<table>
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<th>Region</th>
<th>EAST ASIA AND PACIFIC</th>
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<td>Sector</td>
<td>Roads and highways (97%); Central government administration (3%)</td>
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<td>Project ID</td>
<td>P083543</td>
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<tr>
<td>Borrower(s)</td>
<td>LAO PEOPLE'S DEMOCRATIC REPUBLIC</td>
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**Implementing Agency**
- Ministry of Finance
- Lao People's Democratic Republic

- Ministry of Communication, Transport, Post and Construction
- Lanexang Avenue
- P.O. Box 4467
- Lao People's Democratic Republic

**Environment Category**: [ ] A [X] B [ ] C [ ] FI [ ] TBD (to be determined)

**Safeguard Classification**: [ ] S1 [X] S2 [ ] S3 [ ] SF [ ] TBD (to be determined)

**Date PID Prepared**: June 4, 2004

**Date of Appraisal Authorization**: May 17, 2004

**Date of Board Approval**: June 29, 2004

1. **Country and Sector Background**
   The World Bank has nearly ten years of partnership with Lao PDR in the transport sector. RMP-2 is the second and concluding phase of the Road Maintenance Program (an Adaptable Program Loan (APL)) which builds upon the initial Road Maintenance Project (RMP: Cr. 3481-LA; SDR 19.2 million), and follows a previous series of investment projects including the First, Second and Third Highway Improvement Projects (Cr. 2218; SDR 32.1 million; Cr. 2606; SDR 21.8 million; and Cr. 2943; SDR 34.6 million). All projects have been implemented satisfactorily, and the Government has requested continued IDA assistance.

   The Government has made a strong start towards achieving sustainable maintenance of the road system, as shown by the establishment of the Road Maintenance Fund (RMF) in 2001 and the successful implementation of three years of maintenance programs with support from the Road Maintenance Project. The RMP-1, supported by a parallel financed Second Lao-Swedish Road Sector Project (LSRSP-2), strengthened the technical and managerial capacity in the Ministry of Construction Transport, Post and Communications (MCTPC) and in selected provincial Departments of Construction Transport, Post and Communications (DCTPC). The approach to management and delivery of maintenance was established through three successive annual work programs for periodic and routine maintenance on the NRN and on the LRN in the selected Provinces, and the participation of the private sector through the development of national...
competitive contracting procedures and village-based contracts. The purpose of the RMF is to establish a steady and adequate domestic funding source for road maintenance based on the substantial recovery of costs from road users. The Government currently meets an estimated 45% of road maintenance needs, of which nearly one third is sourced from the RMF, mainly for national roads. The RMF is growing slowly and effort is now required to establish and achieve a sustainable level, and to develop its role for the local road network (provincial, district and rural roads). Steps have been taken to protect road assets by reducing the overloading of heavy vehicles but much more is needed for improving the safety and administration of road transport.

2. Objectives

The second phase of the Road Maintenance Program (RMP-2) will expand the operation of financing and management systems for the sustainable maintenance of the road networks to all 18 provinces/zones countrywide, based on the successful experience of initiation and piloting under the first phase, with the following development objectives:

(a) National and local road assets are preserved to provide sustainable improved travel and access for road users and communities in most areas countrywide; and

(b) Sustainable financing and management of roads is operational countrywide with improved institutional capacity at central and local levels in the public and private sectors.

In line with the main objective of the World Bank’s CAS, the proposed project will support rural and national infrastructure development, including maintenance of national highway networks. The second phase of the APL will continue to assist with the long-term development of an effective road management system at the central and provincial levels for the maintenance of both the national and local road networks. The proposed grant activities will complement a US$22.65 million IDA credit and other cofinancing for goods and services with a results-oriented capacity-enhancement program which aims to achieve a sustainable maintenance management and financial management systems for the entire network.

3. Rationale for Bank Involvement

Rationale: GoL has performed well on RMP-1 and has requested to proceed with Phase 2. The development objectives for RMP-1 have been substantially met, and all three trigger criteria for the second phase have been substantially met, i.e.: (i) financial resources allocated for road maintenance exceed 35% of needs on NRN and LRN (achieved 45% in FY03); (ii) the third maintenance AWP (MP-3) prioritized using the new Road Management System (RMS) (delayed but will achieve for the MP-4 in FY04/05); and (iii) disbursements from IDA Credit are greater than 60% (79% in March 2004). Under their ‘one country, one system’ policy, MCTPC is relying on IDA to lead the support on the road maintenance initiative to be followed by other donors.

Development and conservation of the road network is crucial to the national and regional integration of this land-locked country. A series of investment projects in the 1990s, along with other donors, focused on rehabilitating about 3,000 km of the arterial road network and bridges, with an investment of about $600 million which absorbed about half of the government’s public investment plan and over 5 percent of GDP. The three IDA Highway Improvement projects have been implemented satisfactorily, ending in 2003. Despite this improvement to the national
network (NRN), much of the 24,000 km network remains under developed, with just 22% paved and 45% all-weather.

The 8-year two phase Road Maintenance Program marks a major shift in focus, arising from the Government’s “Strategic Directions for Development of the Road Sector” of June 2000, from investment to one of preservation and sustainable management of the road assets. It aims to help establish a maintenance culture in the country at both national and local levels, including the capacity and tools for management, and the capacity for delivering services through the private sector.

The first phase (Road Maintenance Project, RMP-1: Cr. 3481-LA; SDR 19.2 million) focused on initiation of the road management system, establishing a national cost-recovery-based financing mechanism and road management programming tools, implementing three annual programs of competitively sourced periodic maintenance contracts on the National Road Network (NRN), piloting maintenance contracts on the Local Road Network, establishing village-based area contracts for routine maintenance, initiating effective vehicle loading control, establishing vehicle weight control facilities, and strengthening institutional capacity at the national level and selectively at the local level in four Provinces (Luangprabang, Luangnamtha, Champassack and Savannakhet). Partnership was key – Nordic (NDF) cofinancing for the technical assistance aspects of RMP-1, and Swedish (Sida) financing of a parallel project (LSRSP-2) which led on the local road aspects and expanded the coverage to seven Provinces (of 19). The second phase is intended to fine-tune the systems and extend them to cover the management of both National and Local road networks over the whole country.

The Road Maintenance Fund (RMF) established in 2001 has grown steadily but slowly with only one increase in the low initial fuel levy and over-reliance on road tolls – the current revenues of estimated $2.5 m in 2003/04 constitute only 15% of the $16 m estimated annual road preservation needs, and the 6-fold increase in fuel levy (to about 3.5 c/L) needed to reach the full target by 2009 is challenging to GoL. The Government, with foreign assistance, currently meets an estimated 45% of road maintenance needs, however counterpart funds are very limited, often causing delays, so greater leveraging of the Fund is a favored option under RMP-2. There is pressure to release more of the funds for rehabilitation, currently limited to less than 20 percent of RMF or RMP.

Funding for local roads (provincial, district and rural roads) is particularly scarce, and an improved mechanism for sharing and distributing funds needs to be developed and piloted under RMP-2. The new local road management model developed under the parallel LSRSP-2 is being reviewed before expanding its use to national coverage. This will focus on clarifying the roles of Provincial District and village levels in managing rural infrastructure, which will be coordinated with the parallel IDA projects Provincial and Rural Infrastructure (proposed) and Poverty Reduction. Poverty impacts will derive from improved all-weather access and increased local employment. Considerable effort will be needed to strengthen the technical and managerial capacity in all the provincial Departments (DCTPC) to implement the preparation, procurement and supervision of works. In road transport, a significant reduction in incidence of overloading on heavy vehicles from over 90% to about 32% was made with targeted enforcement, now
training will be needed for operation of the pending new weighing stations. Much more is needed for improving the safety and administration of road transport.

4. Description

Component A. PRESERVATION OF THE ROAD NETWORKS (US$60.7 million)

Adopting a programmatic approach, this will support a slice of four Annual Work Programs (AWPs) for periodic maintenance and routine maintenance on the National Road network countrywide and on selected parts of the Local Road network in all Provinces/Zones countrywide, and strengthen the quality of implementation. In a shift of focus based on economic and social analysis of needs, the Phase 2 program would devote nearly half the resources (48%) to maintenance of local roads, with particular emphasis on Provincial roads (30%) due to the poor condition of that network, and will contribute to substantial improvements in the quality of access to all districts, especially the 47 poorest districts.

A.1 National roads: Support for the periodic maintenance and rehabilitation program at an average level of US$6.4 million/yr (estimated to be about 45 percent of the sustainable level of about US$15 million/year), by supplementing the resources of the Road Maintenance Fund (RMF) which is recovering an increasing portion of costs from road users, and resources from other donors. All routine maintenance will be financed by counterpart funding, largely through the RMF, and all implemented through the private sector and mainly village-based.

A.2 Local Roads: Support for the periodic maintenance and rehabilitation of about 30% of the provincial road network at an average level of US$4.10 million/yr with costs shared by local government, RMF and external funding. There is the potential for additional external donor support for the District and rural road networks in the near future.

A.3 Implementation Support: Assistance to central and provincial departments for improving the quality of implementation of the road preservation programs, including strengthened supervision of technical aspects and monitoring of safeguards aspects, especially at the provincial level.

Component B. CAPACITY BUILDING (US$10.1 million):

This will support the strengthening of capacity of the transport sector in two core business functions (management and financing of the road infrastructure, and management of road transport and safety), as well as the general institutional capacity at both national and sub-national levels, through:

B.1 Road Management and Financing - the establishment and operation of appropriate procedures at central and provincial levels for planning, budgeting and implementing maintenance work programs on: a) National roads and bridges; b) Local roads and bridges (provincial, district and rural roads); and c) Support for scaling up the RMF to a sustainable level of cost recovery and determining appropriate cost-sharing arrangements at the local level.

B.2 Road Transport Management and Safety - Improvements to road transport administration procedures and systems, expanding the heavy transport management program (HTMP) of overloading control through the operation of new weight control
facilities built under RMP1, and development and implementation of a program of road safety improvements.

B.3 Institutional Capacity Building – Strengthening the capacity and performance of MCTPC and provincial DCTPCs’s through: a) Improvements to the organization and business processes, for upgrading key business functions including safeguards and strengthening organizational functions, and for effective operation under a decentralized structure; b) Human Resource Development, including results-oriented learning and training programs; c) Information technology and communications, for upgrading the computerization of central and provincial offices; d) Facilities, for provision of basic office facilities and transport to support operations at district level; e) Strengthening of the private sector, including construction and transport industries, and consultant capacity; and f) Environmental and Social Safeguards Capacity, enhancing baseline information on construction resources, community right-of-way, and related activities.

Component C. PROJECT ADMINISTRATION (US$0.85 million)
This will support efficient administration of the Program through:

C.1 Project Monitoring - Strengthening project management, reporting, monitoring of project impacts and safeguards, and preparation of future sector programs.
C.2 Incremental operating costs – Modest budget support for project-related activities at central and provincial levels.
C.3 Auditing - Financial and technical audits to ensure quality of project implementation.

The project scope of approximately US$71.7 million is slightly larger than the originally planned scope of US$70 million because of the inclusion of all the local road network and thus a larger apparent share by the government. The IDA allocation of US$22.65 million available for the second phase is less than the US$35 million planned. Other financing has been tentatively planned to meet the financing gap, but this would also be eliminated if the RMF targets for road user cost recovery are fully met.

5. Financing
Source: ($m.)
BORROWER/RECIPIENT 26.7
INTERNATIONAL DEVELOPMENT ASSOCIATION 22.7
ASIAN DEVELOPMENT BANK 1.0
JAPAN: MINISTRY OF FINANCE - PHRD GRANTS 4.8
NORDIC DEVELOPMENT FUND 9.7
SWEDEN: SWEDISH INTERNATIONAL DEVELOPMENT COOPERATION AGENCY (Sida) 5.8
Total 71.7

6. Implementation
The unit responsible for overall financial management functions will remain the same, which is Disbursement Division within Department of Road. The current FM system will be continued with minor modification in reporting system, arrangement of audit and accounting procedures to
be up to acceptable standards. This system was assessed to be adequate in the first phase of the project and it has been gradually improved during implementation. Currently, it is functioning well. Since the division was established to handle all foreign fund financial activities in the road sector and the system was unified to capture records of all foreign fund projects in a single database, this would benefit for sector financial statements and audit if the client wish to move the sector agenda along.

As for funds flow, there would be two Special Accounts similar to the current project; one for MTCPC to cover eligible share of project expenditures other than RMF activities and the other for Road Maintenance Fund (RMF) secretariat. The proposed funds flow arrangements are presented in the attached chart.

7. Sustainability
The basic objective of the RMP-2 is to enhance the long-term sustainability framework for maintaining the NRN and LRN through the following initiatives:

   a) Maintain a sustainable revenue source for preserving road assets;
   b) Continue to promote participation of main stakeholders in project design, implementation and operations to ensure ownership of project objectives;
   c) Improve MCTPC/DCTPC practices and restructure them according to their responsibilities;
   d) Promote road maintenance activities that are economically, financially and environmentally viable;
   e) Enforce key regulations on road transport operations which affect the pavement life;
   f) Promote road users' participation both in the management and financing of the sector; and
   g) Improve the capability of the local construction and consulting industry.

RMP-2 will support the continued efficient operation of the Road Maintenance Fund which, over time, would generate sufficient revenue to cover the full cost of preserving the road network in Lao PDR, by 2010. Moreover, the Road Management System will be further enhanced and strengthened within the existing sub-systems.

8. Lessons Learned from Past Operations in the Country/Sector
Project Implementation is mainstreamed in MCTPC. Coordinated by DOR through the Project Monitoring Division, this organization of functions enables improvement of monitoring and reporting, avoidance of duplication, fostering donors’ coordination and opportunities for the staff’s career growth and professional development. The RMP-2 project will be implemented by the MCTPC’s departments with all the functions incorporated into MCTPC.

Technical Audits are an effective instrument for enhancing quality. Timely and independent professional opinion will be provided by auditors during implementation to allow for MCTPC to identify and resolve any issues early in the life of the project. The auditor has the mandate to comment on technical issues, the implementing agency’s procedures, as well as the Bank’s contribution and effectiveness during implementation.

Continued contracting with the local private construction industry. Previous projects contributed to the commercialization of all MCTPC construction and maintenance enterprises
(SOEs) and to the introduction of competition-based procurement. RMP-1 established a long-term development strategy and supported its implementation and will continue to do so with this project.

**Allocation for emergency maintenance.** Lao PDR is frequently affected by heavy rains that cause land and road slides. The project includes financing emergency (about 15% of the planned routine maintenance) and routine maintenance works on the maintainable sections of the NRN and LRN through the RMF and the consolidated budget.

**Role of the provincial authorities.** The Governors play a relevant role in the management of the provincial branches of central agencies. While the DCTPCs are official branches of the central MCTPC, they work under the day-to-day guidance of the Governor's office. In addition, the role of the provinces has increased in recent years due to the decentralization/devolution policy promoted by the Government. This implies that the implementation of a common strategy and system for the maintenance of the NRN and LRN under RMP-2 will continue to require substantial consultations and knowledge sharing.

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

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<th>Safeguard Policies Triggered by the Project</th>
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<td>Projects on International Waterways (OP/BP/GP 7.50)</td>
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10. **List of Factual Technical Documents**


*Prioritization of Works on Local Roads,* MCTPC DOR, April 2002.

11. **Contact point**

Contact: William D. O. Paterson
Title: Lead Highway Engineer

*By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas*
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