PROJECT INFORMATION DOCUMENT (PID)
CONCEPT STAGE

Project Name | LIFELINE ROAD NETWORK IMPROVEMENT PROJECT
Region | EUROPE AND CENTRAL ASIA
Sector | Rural and Inter-Urban Roads and Highways (100%)
Project ID | P126782
Borrower(s) | REPUBLIC OF ARMENIA
Implementing Agency | Ministry of Transportation and Communication
28 Nalbandyan Street
Armenia
0010
Tel: (374-10) 563-391 Fax: (374-10) 560-528
minister@mts.am
Environment Category | [ ] A [X] B [ ] C [ ] FI [ ] TBD (to be determined)
Date PID Prepared | July 25, 2011
Estimated Date of Appraisal Authorization | May 2, 2012
Estimated Date of Board Approval | October 2, 2012

Key development issues and rationale for Bank involvement

1. **Investment in productive infrastructure in rural areas is a high priority for Government of Armenia.** Agriculture represents about 20 percent of GDP in Armenia and supports 340,000 rural farmers. Access to markets is a challenge, with losses resulting from the inability to bring crops to market in time amounting to 70 to 80 percent of the total harvest in some communities. With the exception of Yerevan, the population lives mainly in small towns or in rural areas, often separated by sparsely populated mountainous areas, and therefore depends very much on road transport for its livelihood. According to the 2004 World Bank report ‘Rural Infrastructure in Armenia: Addressing Gaps in Service Delivery’, the poor condition of rural roads resulted in significant losses of produce in 42 percent of rural communities, with some 24 percent of communities reporting output losses of 30 percent or more. There is therefore an urgent need to address road infrastructure bottlenecks at the rural level.

2. **Poor resource allocation to maintenance and poor management of the road assets have directly contributed to the current condition of the Armenia road network.** Only 39 percent of the country’s road network of 7,704 km is in good or fair condition, thus 61 percent of the network requires expensive rehabilitation works and transport costs are high. Road condition has substantially deteriorated over the past ten years mainly because of the historic pattern of underinvestment and little routine maintenance, resulting in a significant maintenance backlog. Road maintenance funding is limited and necessary routine and periodic maintenance activities
are not done on time. Without a robust maintenance regime, these pavements will deteriorate even faster.

3. **The proposed approach builds on the success of the Lifeline Road Improvement Project, with the objective to strengthen further sustainability and efficiency.** The ongoing Lifeline Road Improvement Project (LRIP) responded to the financial and economic crisis of 2008-2009 by generating employment in rural areas through the improvement and rehabilitation of high priority road sections with designs that also increased local employment levels. The review of experience and additional analysis undertaken by the team identified the potential to implement a more efficient design and construction solutions to improve efficiency in managing the Lifeline Road Network. Funding of routine maintenance is too low and periodic maintenance is non-existent, resulting in additional, faster deterioration of road assets. Such approach increases the overall cost of managing roads assets and the current pace of improvement may not be sufficient, as as the improved sections will deteriorate in the absence of maintenance, before the rest of the network is improved. Such findings are supported by a World Bank study on the financing of the road sector\(^1\) and by the Asia Development Bank’s recent Transport Sector Master Plan. The limited financial resources, currently allocated to the rehabilitation of short segments of roads without improving the overall quality of the network, needs to be applied to larger portions of the network with stronger emphasis on improving network-wide levels of service.

4. **An approach focusing on improving the overall quality of the lifeline road network would now be more appropriate for Armenia.** In addition to adopting appropriate levels of service, there is an urgent need for adequate allocation of resources to maintenance and improved management of lifeline road assets. Additional resources, including from other potential donors and international financial institutions, may be required to bridge the investment gap in the lifeline road network. Significant savings can be made by transferring construction risk to the contractor over a longer period of time and focusing on the delivery of services through Output and Performance-based Road Contracting (OPRC). This more efficient way of managing road assets results in roads in better condition, reduces public spending over the long run, and improves industry standards by encouraging more innovation and modern techniques/equipment to be used for the rehabilitation and maintenance of the road network.

5. **The proposed project is fully consistent with the Bank’s Country Partnership Strategy (CPS) for Armenia covering the period 2009—2012.** The CPS envisages Bank support to investments in priority sectors determined by the government—including investments to address the infrastructure deficit—and thereby assist Armenia to achieve its objectives of recovery and sustainable growth. It emphasizes that “the road network is of particular importance for a landlocked country with partly closed borders. Investment and operating costs are high, and strategic interests indicate investments in both transit corridors as well as in rural or lifeline roads”. Accordingly, the proposed project is included in Results Area 5 “Strengthening knowledge and competitiveness” under the Strategic Objective 2 “Strengthening Competitiveness for Post-Crisis Growth”. Furthermore, the strategy for roads is based on sound asset management principles that will ensure the longer term sustainability of planned investments at the national and local levels.

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\(^1\) Improving the sustainability of road management and financing in Armenia (2011)
Proposed objective(s)

6. The Project Development Objective is to upgrade Lifeline Roads in selected regions, create local employment in road construction, and improve access to markets.

7. The key results expected from the implementation of the project are:
   - Reduction of travel time on Lifeline roads in selected areas
   - Increase the percentage of Lifeline roads in good or fair condition in selected areas

Preliminary description

8. The proposed project will be either a Specific Investment Loan (SIL) or a Program for Results (P4R) lending. The decision to prepare the project as a P4R will be taken following the assessment of the feasibility and scope during project preparation. The proposed loan amount is $40 million out of a total $50 million project. Additional contributions from other IFIs to the program (possibly including European Investment Bank and Asian Development Bank) will be discussed during project preparation.

9. The proposed components for the project would include:

   a. **Component 1: Lifeline Road Network Improvement (about US$45 million):** This component will improve about 400-500 km of Lifeline roads in 2-3 regions that are strategic for agricultural development and improved access. This would be implemented through performance-based contracts where the contractors would be responsible for all road works (including rehabilitation, routine, periodic and winter maintenance) required to ensure that the selected network of roads and bridges are kept at defined levels of service for the duration of the contracts. This component will also include road safety improvements for pedestrians (such as sidewalks, shoulders and crossings in all villages) and road users (such as road signs and shoulders). Project preparation will include the prioritization of areas, assessment of the Lifeline road network, and preparation of bidding documents.

   b. **Component 2: Technical Assistance (about US$5 million):** This component will include studies and training programs to improve the capacity of the Ministry of Transport and Communication (MOTC), the Armenian Road Directorate (ARD), and the Project Implementation Unit (PIU) to prepare, procure and monitor performance based contracts. The component will also include activities to develop the capacity of local consultants and contractors. The studies will support sector reform necessary to ensure the sustainability of the sector, including institutional arrangements and financing of the sector. The component will also include follow-up activities to enhance further road safety audits and improvement programs at the national level. This component could also include the expansion of vehicle overloading control and could provide funds to prepare detailed designs for other parts of the Lifeline road network, and other needs considered essential for strengthening the MOTC and its agencies. The detailed activities will be defined and finalized during project preparation.
Safeguard policies that might apply

1. **Environmental**: The proposed project triggers OP/BP 4.01 Environmental Assessment. Provided that no construction on new road alignments will be financed and the likely negative impacts of civil works on the environment are modest, the project has initially been classified as environmental Category B. An Environmental and Social Management Framework (ESMF) will be developed to guide contractors on the scope and type of the required site-specific environmental management planning, which would be performed as contractors identify specific activities for rehabilitating and maintaining the Lifeline road network.

2. **Social**: The proposed project will trigger “OP/BP 4.12 Involuntary Resettlement” as some minor land acquisition may be required. Based on the experience of the on-going Lifeline road improvement project, the road improvements will include the provision of sidewalks, drainage, etc, with good engineering standards and will require a minimum road cross-section of 10 meters. It is possible that not all roads may have an encumbrance free cross-section. Thus, the project may encounter some minor land acquisition and resettlement impacts. In order to mitigate the potential minor land acquisition related impacts, a Resettlement Policy Framework (RPF) will be prepared by the Government, which will provide guidance on how to undertake the assessment of land acquisition and related impacts during screening and design preparation and propose mitigation measures. The project is expected to have positive social impacts in the form of improving access to markets, nearby towns, and provide opportunities for temporary employment through the contractors.

**Tentative financing**

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<td>International Bank for Reconstruction and Development</td>
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<tr>
<td><strong>Total</strong></td>
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**Contact point**

Contact: Vickram Cuttaree  
Title: Senior Infrastructure Economist  
Tel: (202) 473-1876  
Email: vcuttaree@worldbank.org