I. Project Context

A. Country Context

1. Despite a substantial recovery from the global economic crisis in 2008/09, economic growth and local employment in Armenia remain low. Armenia suffered severe economic contraction in 2009 following the global economic crisis, making it one of the hardest hit countries in the Europe and Central Asia region. Real GDP declined by about 14.6 percent in 2009 and this was mainly driven by the shrinkage of the construction sector, which had previously been the major source of growth. The economy resumed growth in 2010 and has maintained a modest recovery path. The growth rate was 2.1 percent in 2010, 4.6 percent in 2011, and 6.6 percent (on an annual basis) for the second quarter of 2012. The growth rates remain low in contrast to the double-digit growth rates in the years preceding the crisis. The recession also had a major impact on local employment, causing many job losses, reduction in hours of work, and declining earnings. This consequently disrupted the poverty reduction momentum of Armenia and increased poverty for the first time since the late 1990s.

2. Rural population and female-headed households were particularly impacted by the crisis. At the height of the recession, about 42 percent of Armenian households reported suffering the negative consequences of the global economic crisis. Towards the end of 2010 there were still 40 percent of rural households who had experienced job losses, reduction in wages and a decline in agricultural business. In rural areas, the poverty headcount increased from 28 percent of the population in 2008 to 36 percent in 2010, compared to 26 percent in Yerevan. Poverty rate for female-headed households increased from 35.3 percent in 2008 to 53 percent in 2010.

3. The Armenian Government reacted positively to the economic crisis by initiating a recovery strategy to address the rural infrastructure deficit and local unemployment. To mitigate the impact of the global economic crisis, the Government initiated a strategy to improve rural infrastructure and boost the economy in rural communities by improving connectivity to markets and generating local employment. Post-recession economic growth has shifted towards a more broad-based approach, whereby all sectors shall contribute to the economy; the agricultural sector is seen as one of the key contributors to the recovery, especially in rural areas. The Family Benefit Program, a means-tested social assistance program, helped contain poverty during the 2008-10 period. Recovery in 2012 is being driven by a few sectors, including manufacturing and mining, agriculture, and construction.

4. Trade facilitation and connecting local production to markets remains paramount in reducing rural poverty and promoting economic growth. The agricultural sector represents about 20 percent of the country’s GDP and involves around 335,000 households. Trade from rural areas is less-than-optimal due to restricted connectivity to markets as a result of roads in very poor condition. This has hindered trade facilitation for rural farmers, resulting in substantial crop losses for some communities due to an inability to get them to market in time. It is vital that rural infrastructure is improved and maintained to promote agricultural trade, thus stimulating economic growth and local employment for the future.

II. Sectoral and Institutional Context

5. Armenia has distinctive economic and geographic features that pose considerable transport challenges. Armenia is a landlocked country in a strategically important location of the South Caucasus in Eurasia. The country shares its border with four countries: Georgia, Iran, Azerbaijan and Turkey. However, only two of these borders are open: the southern border with Iran and the northern border with Georgia. The western border with Turkey and eastern border with Azerbaijan are closed since the early 1990s as a result of the Nagorno-Karabakh conflict. In addition, Armenia has very challenging topography and weather conditions – the country is very mountainous and experiences very low winter temperature, heavy snowfall and high intensity rainfall. The combination of all of these factors results in high transport costs and expensive infrastructure maintenance and development.

6. The total length of the road network is 7,704 km, excluding urban roads, with less than half being in good or fair condition. Most of the road network in Armenia was built in the 1960s and 1970s. The percentage of paved roads, at 93 percent, is high compared to other developing countries, but in line with most European countries. The majority of republican and local roads have deteriorated since independence and only 48 percent of the total road network and 60 percent of main roads (interstate and republican) are in good or fair condition. The road network density of Armenia is about 2.6 km per thousand persons and 279 km per square km, which is very low compared to other countries in the region.
reflecting in part the difficulties to provide basic access to the rural population.

7. Armenia’s railway network is relatively small but plays an important role in the economy. Armenian Railways was established in 1992 as a closed joint-stock company. The railway transports mainly cereals, oil and oil products, cement and chemical and mineral fertilizers. Traffic has decreased 10 times since independence in 1991, primarily due to the closing of Armenia’s borders with Azerbaijan and Turkey. About 30,000 containers are imported annually through Georgia’s port of Poti on the Black Sea, with the railway carrying 30 percent of the traffic. However, the Armenian railway is facing competition from the trucking industry, improving road network and decline of some industries. Since 2008, a subsidiary of Russian Railways has been operating Armenia’s railway.

8. Air transportation has not improved significantly in recent years and remain constrained by regulatory and commercial practices. The three main airports are Zvartnots (Yerevan), Shirak and Erebuni. Armenian International Airports manages and maintains the airports in Zvartnots and Shirak under a 30-year concession. Although Zvartnots airport is an illustration of a public-private partnership that brought investment in a new terminal and operations of the airport, there is scope to improve regulatory and commercial practices. Air services operate under an investment agreement with Armavia, a private Armenian carrier that has exclusive rights for 10 years to all domestic and international routes.

9. About 64 percent of the population lives in urban areas, which increased the pressure on public transportation. Since 2002, most bus lines in Yerevan and other major cities have been franchised to private operators on a per route basis under 3-4 year concessions. The demand for public transport has changed dramatically in recent years with the introduction of minibuses and a decline in large bus, trolleybus and metro services. The poor integration of public transport network penalizes transfers from one mode of transport to another. However, the Yerevan municipal government has developed the passenger transport and traffic management plans and the Asian Development Bank (ADB) is currently engaged in urban transport in Armenia.

10. In 2008, the Government launched the Lifeline Road Development Program, introducing the concept of Lifeline Roads. The objective of the program was to stimulate economic growth and contribute to poverty reduction by improving a selected number of lifeline roads. The Government defined a lifeline network, comprised of about 4,000 km, mainly of main republican roads and around 2,250 km local roads that were reclassified into republican roads in 2008. The lifeline road concept identifies a priority network ensuring at least one access road to all 960 communities in Armenia. Around 58 percent of these roads carry traffic higher than 300 vehicles per day and 20 percent carry traffic higher than 1,000 vehicles per day. As a result of the program, the republican road network more than doubled in length between 2008 and 2009.

11. The purpose of the World Bank financed Lifeline Road Improvement Project (LRIP) was to upgrade lifeline roads in selected regions, create local employment in road construction and improve access to markets. The roads were selected from a list of high priority lifeline road sections defined by the Government. The design of the Project was also a response to the emergency economic situation resulting from the recent crisis to improve about 430 km of lifeline roads, out of 4,000 km. Two additional financings were approved in 2009 and 2010 and the Project has had a positive impact on rural communities. By 2011-2012, as a result of the road improvements, reduction in journey times for road users using the lifeline roads rehabilitated under the Project has reached 36.8 percent; and 33,647 person-months of local jobs were created. The LRIP is rehabilitating about 11 percent of the lifeline network and has proven the importance of lifeline roads to the local population and the economic gains which can be made from improved connectivity.

12. Despite visible improvement since 2008, the majority of Armenia’s Lifeline Road Network (LRN) remains in poor condition and there is still an important investment backlog. Since 2008, more than 811 km of lifeline roads have been rehabilitated, mainly by the State budget and the World Bank financing. However, about 50 percent of lifeline roads are still in poor condition. As a result, the degraded part of the LRN causes high transport costs and journey times for road users, thus restricting the connectivity to key markets such as agriculture, and important services such as health and education, and negatively affects the country’s competitiveness. This situation has occurred due to a historic pattern of underinvestment and deferred maintenance, resulting in a considerable maintenance backlog. Deferred maintenance leads to a future burden of more expensive rehabilitation and road reconstruction, which increases overall transport costs in the long run.

13. Moving towards Road Asset Management would improve the sustainability of public investment in lifeline roads. International best practice shows that road maintenance and network improvements can be more efficiently implemented by determining priorities through the use of a Road Asset Management System (RAMS). The Ministry of Transport and Communications (MOTC) and the Armenian Road Directorate (ARD) have access to software, such as HDM, to support decision making and budget planning, but its use is limited due to the absence of a single database for the lifeline road network and updated information on the network. There is scope to improve the management of Armenia’s LRN using RAMS, hereby prioritizing spending through the proper monitoring, planning and programming of maintenance and rehabilitation works. This type of system reduces less productive expenditures and redirects funds to higher priority projects, which yield greater economic return. A modernized road asset management system ensures that initial public investments are more efficiently spend and helps prevent underfunding and deferred maintenance because it takes into consideration life-cycle cost of the lifeline roads.

14. Multi-year routine maintenance contracts are in effect but with limited risk transferred to the contractor. During the implementation of the ongoing LRIP there has been continuing progress with multi-year maintenance contracts. Armenia is now using 5-year performance-based contracts (PBC) for all routine maintenance but payments are determined on a yearly basis. Such limitation prevents an effective transfer of risk to the contractor, who is unlikely to invest in new equipment without more certainty on future payment. There is scope to improve the efficiency of these contracts further by providing multi-annual PBCs incorporating rehabilitation and maintenance, thus transferring construction risk to the private sector for a longer duration, and encouraging more innovation and investments in modern equipment.

15. Simple and low cost maintenance contracts could be implemented to ensure routine maintenance and some risk transfer. There is not a single model to ensure more efficient maintenance contracts for the whole network and low cost solutions are particularly needed in the context of limited resources. Small performance-based maintenance of roads could be added to rehabilitation contracts, allowing the transfer of risks to the contractor responsible for rehabilitation at a minimal additional cost. Some innovative approaches, such as routine maintenance by micro-enterprises, have been successfully implemented in Latin American and adapted to Africa and South Asia in recent years. The use of micro-enterprises for routine maintenance can ensure that basic routine maintenance, involving grass cutting and culvert cleaning, is performed at a very minimal cost, which would be appealing for roads under the maintenance responsibility of Marzes. Such approach can also increase entrepreneurship, community involvement and ownership of lifeline roads.
16. Armenian women have the potential to play a strong role in the local economy and are currently facing constraints to mobility and access to markets and social services. Women traditionally travel by foot in rural areas and would particularly benefit from road safety features such as continuous sidewalks and street crossings. Specific activities, such as the provision of inclusive income generation opportunities to women, especially in terms of short-term employment in basic construction activities, could be envisaged. Consultations in a few villages in Armenia confirmed the interest from women to participate in basic routine maintenance and to provide additional services, such as food, to workers on construction or maintenance sites.

17. The application of these modern principles would require strengthening the institutional capacity of the MoTC, the ARD, and local contractors. At government level, there is scope to improve the financing and management of the LRN through sector reform and training of ARD staff in modernized road asset management practices. Furthermore, there is scope to increase the capacity of the Road Data Collection and Analysis Department (RDCAD) within the ARD to collect additional road data for the Lifeline Road Network. The institutional capacity of the local contracting industry could be strengthened through pilot multi-annual PBC projects, which transfers construction risk to the contractor for a long period of time, thus providing incentives to train staff in using innovative techniques and equipment.

18. Positive steps were taken in 2009 on Road Safety, with the creation of the National Road Safety Council and the adoption of a five-year action plan. In August 2009, the Government of Armenia adopted a Decree approving the National Road Safety Strategy of Armenia (Strategy) and Five Years Action Plan (Action Plan), which included the establishment of a National Road Safety Council of Armenia (NRSC), supported by a Secretariat. The main objective of the NRSC was to implement the Action Plan and to reduce the number of road crash fatalities in the country by 30 percent within five years. Subsequent actions have largely focused on Action Plan implementation, principally through a grant from the Bank-administered Global Road Safety Facility, and under the LRIP. However, there is scope to improve coordination of activities, strengthen capacity in road safety design within ARD and support programs approved for the coming years.

19. The rationale for the World Bank’s involvement is to build on the success of the ongoing LRIP, which rehabilitated a large proportion of the lifeline road network. The proposed Lifeline Road Network Improvement Project (LRNIP) will build on this success through the additional improvement and maintenance of the lifeline road network in key agriculture areas and other areas of growth potential. Furthermore, the LRNIP will strengthen MoTC and ARD capacity in road asset management, which will support more efficient public expenditure. Finally, the LRNIP will provide the tools to strengthen the sector financial sustainability and pilot more efficient contracts focusing on road maintenance and implement road safety activities.

20. The Bank engagement will also complement the activities of other International Financial Institutions (IFI), including the Asian Development Bank (ADB), and the European Investment Bank (EIB). An important topic discussed as part of the sector dialogue is the sustainability of the road sector. To this end, a roadmap for sustainability of the road sector was agreed with MoTC and discussed with other donors. While the Bank engagement is focused on the lifeline road network, the Asian Development Bank is supporting the North-South Corridor, and the European Investment Bank is expected to be more involved in the financing of inter-state roads. Close cooperation with EIB will be ensured in order to link the two project road sections as much as possible. Other operations under preparation, such as the Bank prepared Development Policy Loan (DPL) series will complement the project technical assistance and support sector reforms to increase the financing of maintenance.

III. Project Development Objectives
The Project Development Objective is to improve access of rural communities to markets and services through upgrading of selected lifeline roads, and to strengthen the capacity of the Ministry of Transport and Communication to manage the lifeline road network.

IV. Project Description
Component Name
Lifeline road improvement
Project Management and Institutional Strengthening

V. Financing (in USD Million)

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VI. Implementation
21. The Project will be implemented by the MoTC, which has been the implementing organization for the ongoing Bank financed LRIP. It will be assisted by the Transport Project Implementation Unit (TPIU) in the management of the Project. The project will use qualified international consultants for civil works supervision, as well as technical auditors. The draft Project Operational Manual (POM) describes the institutional and implementation arrangement in details.

22. The TPIU will also be responsible for the implementation of the financial management (FM) function of the project including planning and budgeting, accounting, financial reporting, external auditing, funds flow, and internal controls. TPIU is successfully implementing LRIP project, and the proposed LRNIP is largely built on the strong implementation experience and structure of the LRIP. No significant weaknesses were identified at TPIU. Prior to the project implementation the TPIU will update the current Financial Management Manual to reflect LRNIP specific activities and controls.

VII. Safeguard Policies (including public consultation)

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