

## CASE STUDY

# How to Improve Road and Water Systems



*Better coordination and accountability are helping to improve road and water systems in Armenia.*

## Overview

The Government of Armenia requested assistance from its development partners in improving its extensive yet underfunded road and water networks. Glaring at the time was the mismatch between financial resources and public sector management of infrastructure, posing negative effects to the economy, and the people's quality of life.

The Asian Development Bank (ADB) heeded the call, and rolled out a program that aimed to improve coordination and accountability mechanisms, focused on financial and physical sustainability of Armenia's road and water sectors. Such improvements led to better delivery of services in road and water sectors.

ADB adopted the "One ADB Approach," applying a multidisciplinary and multisector analysis of the problem at hand. The approach resulted in multiagency solutions and clear division of responsibilities, fostering joint reinforcement of common development targets and accountability for delivering shared goals.

The program introduced reforms in the road and water sectors, particularly by imposing a more integrated approach that promotes efficiency and accountability in the management system.

## Project snapshot

<b>Dates</b>	<ul style="list-style-type: none"> <li>• <b>August 2014:</b> Approval</li> <li>• <b>December 2014:</b> Start Date</li> <li>• <b>December 2015:</b> Closing Date</li> </ul>
<b>Cost</b>	<ul style="list-style-type: none"> <li>• <b>\$900,000:</b> Technical Assistance Grant</li> <li>• <b>\$49 million:</b> Loan</li> </ul>
<b>Institutions and Stakeholders</b>	<p><b>Executing agency</b></p> <ul style="list-style-type: none"> <li>• Ministry of Finance</li> </ul> <p><b>Implementing agency</b></p> <ul style="list-style-type: none"> <li>• Foreign Financing Project Management Center</li> </ul> <p><b>Others</b></p> <ul style="list-style-type: none"> <li>• European Union, GIZ, KfW, International Monetary Fund, and the World Bank</li> </ul>

## Context

Armenia, a landlocked country in the Caucasus, has an extensive yet underfunded road and water network. Its 7,700-kilometer (km) road network is mostly substandard due to the government's lack of capacity and investment. The poorly maintained roads equate to less access to basic social services that affect the economic conditions of the locals. Inaccessible potable water, meanwhile, compound the health and economic problems.

Prior to the implementation of the project, data on road network maintained by local communities were not available, making it difficult to monitor public and private service providers. While there have been signs of improvements, the system still needed upgrading to better serve Armenia's local communities.

Clearly, the road and water sectors of Armenia must change to help improve service delivery, and eventually facilitate the country's economic growth.



Armenia's extensive road network has been at risk, mainly due to lack of funding and limited capacity of concerned government agencies.

## Challenge

### Insufficient data

There was a lack of information on road conditions, compounded by a large number of road managers. Unavailable were data that could have helped in coming up with sound sector decisions, including assessing the effectiveness of public and private sector providers maintaining infrastructure assets in local communities.

### Unclear roles

The Ministry of Transport and Communications (MOTC) performed too many roles in the sector— policy and strategy making, roads management, contractor management, and regulator. Concerned government agencies also had competing solutions, hampering the decision making process and affecting their delivery of services.

Armenia was also missing an independent regulator to enforce good practices. This means local communities had to bear the brunt. If left unaddressed, the regional imbalances in terms of access to economic opportunities and social services would have persisted.

### Lack of mandate

Government agencies lacked the legislated mandate to extend water services to those outside the grid. This prevented regular updates to the service standards for water supply and wastewater services.

### Limited capacity

The State Committee for Water Economy (SCWE), although very capable, did not have the capacity for long-term investment planning and managing, and monitoring future PPP projects. SCWE-approved water tariffs were too low to cover operational expenses or any water loss reduction strategies. The

government covered the worsening losses for water companies, effectively subsidizing all users regardless of income.



Most of Armenia's water systems are poorly maintained, leaving many communities in rural and peri-urban areas disconnected from the water supply grid.

## Solutions

### Enhanced management systems

A road council was established to enable informed and efficient management of the sector. The ADB project team worked together with tier Armenian sector counterparts to conduct stakeholder and issue mapping exercises, which helped in developing a common understanding of issues.

There was also a biministerial group that brought together MOTC and the Ministry of Territorial Administration to represent roads management and policy at the central and local government levels, respectively.

### More effective strategies and processes

Between MOF and MOTC, consolidation of the capital expenditures, operational expenses, and expenditures for the road sector took effect at the community level. Transparency and accountability were upheld in the water sector by requiring complete financial reports from water sector operators.

### Improved regulatory frameworks

The functions of MOTC in regulating state, republic, and local roads were clarified. A streamlined user feedback and grievance redress system was adopted, which includes online and telephone hotlines. This has enabled road and water users to air their concerns to decision makers while also getting accurate and reliable information.

## Strengthened monitoring systems

A set of key performance indicators and targets were jointly developed by MOF and MOTC, which became the basis of future results-based budget negotiations. An innovative road asset management system (RAMS) was adopted, including a road video inventory.

## Numbers and facts

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7,700 km of republic, interstate, and local roads - 3,500 km of which are managed by the central government while the others are administrative regions and local communities.

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21% of their annual income is what water operators get from government subsidies and bilateral assistance. The financial loss has been pegged to \$75 million as of 2013, which is already 0.75% of the Gross Domestic Product.

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1,500 km of all interstate and republic roads and 100% of the rehabilitated roads in Armenia was covered by a video inventory.

## Results



An enhanced management system is instrumental in paving the way for better roads and improved water access in Armenia.

The main impact was on the improved results-based road and water sectors management in Armenia. The following are the specific gains from the program:

- government's approval of the water and sanitation strategy with financing plan;
- government's approval of the road maintenance strategy with financing plan;
- adoption of new Key Performance Indicators for the road sector;
- policy statements on both water and road sectors;
- improved RAMS through the use of new tools, including a video inventory that documented the 7,042 km road network (some were not recorded due to security reasons);
- approval of the inclusion of practice-based component in training for internal auditors;
- establishment of MOTC and SCWE internal audit committees; and
- development of risk-based audit plans.

Overall, the program produced outputs and outcome as planned. It also set the stage for the development of other ADB programs in Armenia that are to be implemented until 2018.

## Lessons

Collaboration is key.

Longer-term infrastructure solutions required an integrated multidisciplinary and multisectoral approach. Shared goals were fostered through a clear division of responsibilities, while encouraging joint accountability.

Challenge the system.

Stronger public management systems in both infrastructure sectors improve service delivery. The project gave public management tools a "reality check" by local sector counterparts as well as by ADB's Armenian Resident Mission. Improvements came after identifying what works and what does not work in the current system.

"One ADB Approach" works.

ADB delivered better development results with the "One ADB Approach." This approach enabled the team to work together with six Armenian government ministries and seven development partners to come up with sustainable and comprehensive mechanisms in maintaining the road and water network in Armenia. The approach was fully embraced by the Armenian government, to the point that it even requested a second run of the program scheduled from 2016 to 2017.

## Resources

Related links

- Armenia Sustainable Infrastructure Full Case Study

- Armenia Sustainable Infrastructure Technical Assistance Report
- Final Consultant's Report
- Report and Recommendation of the President to the Board of Directors
- Infrastructure Sustainability Support Program

### Yesim Elhan-Kayalar

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Yesim Elhan-Kayalar has over 25 years of work experience in development agencies, private sector, and academia in 27 countries. She has worked at regional, national and local levels to create long-term development solutions in energy, public management, transport, and water sectors. Prior to her current post as the ADB Country Director in Georgia, Elhan-Kayalar led ADB's public management and governance portfolio in 10 central and west Asia countries. Elhan-Kayalar was the Program Team Leader for Armenia Infrastructure Sustainability Support Program. The innovative program model has since been replicated in other sectors and countries.

Follow Yesim Elhan-Kayalar on 

### Matthew Hodge

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Matthew Hodge is an economist at ADB's Central and West Asia Regional Department. He has over 15 years experience in public financial management, financial sector, and regulatory reforms, including 10 years working in developing countries. Hodge supported the development of the infrastructure sustainability support program and, given its success, is now leading a second phase of the program in Armenia.

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Last updated: June 2016