

Millennium Challenge Compact with Armenia Executive Summary

I. Introduction

A small, landlocked country in the Caucasus region, Armenia is struggling to recover from the severe economic setbacks caused by the collapse of the Soviet Union in the early 1990s. In 1994, Armenia adopted a comprehensive stabilization and reform program that transformed it into a liberal market economy and launched a period of uninterrupted growth that saw its GDP increase at an average annual rate of 8% over the next decade. Today, the per-capita GDP of Armenia's 3.2 million inhabitants is estimated at \$1,100. Economic growth to date has disproportionately benefited inhabitants of the capital, Yerevan, and the rural poverty rate remains above 30%. More than one million Armenians, or about 35% of the population, live in rural areas and are dependant on semi-subsistence agriculture. These farmers are operating on small, fragmented parcels of land and are constrained by poor infrastructure and an underdeveloped agricultural economy.

The \$235 million Millennium Challenge Compact with the Republic of Armenia is focused on the reduction of rural poverty through a sustainable increase in the economic performance of the agricultural sector. The Program to be funded under the Compact will advance this goal through a five-year program of strategic investments in rural roads, irrigation infrastructure and technical assistance, and financial support to water supply entities, farmers, and commercial agribusinesses (the "Program").

II. Program Overview and Budget

To transform the economic performance of Armenia's agricultural sector and reduce rural poverty, the Program will undertake a Rural Road Rehabilitation Project and an Irrigated Agriculture Project.

A. Rural Road Rehabilitation Project (\$67 million): This project will rehabilitate up to 943 km of rural roads, or 35% of the government-proposed lifeline road network. When complete, the lifeline network will ensure that every rural community has essential road access to markets, social services and the main road/interstate network. In addition, funding will be provided to the Armenian Road Directorate for a technical audit of the ongoing maintenance contracts and for a road maintenance strategic plan.

B. Irrigated Agriculture Project (\$146 million): This project includes two activities:

- The **Infrastructure Activity** (\$113 million) will rehabilitate up to 21 targeted irrigation infrastructure schemes across the country, expanding the total area under irrigated production and improving the overall efficiency of sourcing and delivery of water to farmers.
- The **Water-to-Market Activity** (\$33 million) will build the management capacities of the local and national water supply entities and support the transition to higher-value agricultural systems of some 60,000 farmers by providing technical and rural credit assistance. This will ensure the sustainable management of the improved irrigation infrastructure and enable the emergence of profitable farming operations.

The following table outlines the MCA contribution to the Program by year and category.

Description	Timeline					TOTAL
	CY1	CY2	CY3	CY4	CY5	
	(\$US Mil)					
Rural Road Rehabilitation Project	0.89	18.32	23.32	14.16	10.40	67.10
Irrigated Agriculture Project	8.24	37.24	41.23	34.20	24.77	145.67
Program Administration and Audits	2.06	4.12	4.69	3.81	3.11	17.79
Monitoring and Evaluation	1.44	0.92	0.95	0.97	0.81	5.08
TOTAL¹	12.63	60.61	70.20	53.13	39.09	235.65

III. Impact

The Program will directly impact approximately 750,000 people, or 75% of the rural population, increasing their annual income by an estimated \$36 million in 2010 and over \$113 million in 2015. This corresponds to agricultural value-added gains of 4% and 11% over the same periods. By 2013, the rural poverty rate is projected to fall by 5 percentage points as a result of the Program. Continued reductions in rural poverty are expected with a sustained transformation of the agricultural sector.

The Rural Road Rehabilitation Project will reduce transport costs for the greater rural community, including farmers and processors, by an estimated \$20 million annually beginning five years after material project benefits are realized. The principal beneficiaries of this project will be approximately 360,000 rural Armenians living in 265 communities connected by the portion of the road network to be rehabilitated with MCC funds.

The Irrigated Agriculture Project will benefit approximately 250,000 farmer households, 34% of which are headed by women. The Infrastructure Activity improvements will extend irrigation to an additional 46,000 hectares (114,000 acres) of new and recovered farmland, expanding the total area under irrigated production by more than 40%. Technical support provided under the Water-to-Market Activity will enable over 60,000 participating farmers to increase their average net incomes by approximately 25% through the adoption of improved on-farm water management techniques and the cultivation of higher-value agriculture. The Water-to-Market Activity will also boost the development of small- and medium-sized agribusinesses by expanding rural access to credit and providing training in post-harvest processing and marketing.

IV. Program Management

The GOA will create a legal entity, MCA-Armenia, to manage and oversee the Program. MCA-Armenia will consist of a Governing Council and a Management Unit. The Governing Council, responsible for making key strategic and management decisions, will be chaired by the Prime Minister and include voting representatives from both government and civil society. The

¹ Total amounts may not sum due to rounding

Management Unit will include technical experts and be responsible for the day-to-day management of the Program.

Project implementation will be carried out by three separate entities reporting to the Management Unit. The Rural Road Rehabilitation Project will be implemented by the Armenian Road Directorate, and the Infrastructure Activity of the Irrigated Agriculture Project will be implemented by the Irrigation Project Implementation Unit previously established by the World Bank. Implementation of the Water-to-Market Activity of the Irrigated Agriculture Project will be contracted out to a private firm or non-governmental organization (“NGO”).

A third-party non-government entity will be engaged to provide fiscal agent services to MCA-Armenia, including funds control, disbursement documentation and management, cash management and accounting. The fiscal agent will have sole signatory authority to authorize re-disbursements from the MCA-Armenia bank account into which MCC funds will be disbursed.

The World Bank procurement guidelines – modified as necessary to conform to MCC policies – will be used for procurement of the works, goods and consulting services needed under the Program. MCC will review and approve procurement plans on a periodic basis, as well as quarterly reports of all completed procurement actions. Independent auditors will also audit the procurement activity quarterly for compliance with MCC requirements.

V. Assessment

A. Economic Analysis

The projects included in the Program represent sound investments that will alleviate key constraints to economic growth and poverty reduction in rural Armenia. Economic rates of return (“ERRs”) were calculated for each infrastructure investment and technical assistance activity to select the highest return projects. These returns, which were modeled by the GOA’s transaction team and reviewed by MCC, quantify the expected incremental increase in income from each individual activity. For the Rural Road Rehabilitation Project, savings in transport costs were estimated. For the Irrigated Agriculture Project, quantified benefits include additional income from newly irrigated land, the increase in high value-added crop cultivation, higher yields, lower production costs, and energy and water savings. The economic rates of return of each of the activities were compared to a benchmark of 12.5%, the average real growth rate for the past three years. The overall economic rate of return of the Compact is estimated at 25%.

Scenario	Key underlying assumptions	Project ERR	ERR for the Armenia Compact
Base case	Base traffic estimates and cost estimates	Roads - 26%	25%
	Base benefit and cost estimates	Irrigation - 25%	
Low return case 1	Cost increase of 30%	Roads - 21%	20%
		Irrigation - 20%	
Low return case 2	Current traffic is only 50% of estimated value	Roads - 18%	18%
	Benefits are delayed by two years	Irrigation -18%	

B. Consultative Process

The GOA based its Program proposal on a comprehensive consultative process that was initiated in 2003 for the development of its Poverty Reduction Strategy Paper (“PRSP”). The opportunity to apply for MCC funding led to further review and dissemination of the PRSP through electronic and printed media. In the initial priority-setting stage, the GOA engaged a broad cross-section of civil society – including rural community members, NGOs, and the private sector – through public meetings and regional roundtables focused specifically on MCA proposal development. The NGO community contributed substantially to the proposal development and due diligence processes by electing its own representatives to participate in meetings of the inter-governmental board of trustees (“Board of Trustees”).

Issues raised will continue to be addressed through an ongoing consultative process that incorporates feedback mechanisms reaching out to stakeholders, particularly those involved in irrigation, agriculture, rural road, policy development and advocacy, and groups that specialize in monitoring and evaluation. In order to provide an Internet-based resource and information portal, MCA-Armenia maintains an interactive website that provides up-to-date information on the Program, all meeting minutes, a forum page on which to post and debate issues related to proposal development and implementation, and an e-mail address for sending inquiries and concerns.

To ensure meaningful stakeholder participation in Compact implementation, the MCA-Armenia Governing Council will include five voting representatives of civil society. These representatives will be appointed by a Stakeholders’ Committee consisting of eight to twelve individuals who represent Water User Associations (“WUAs”), farmer groups, NGOs involved in the PRSP and MCA consultative processes, and regional stakeholder committees. The Stakeholders’ Committee will also consult with the chairman of the Board of Trustees on its views and recommendations regarding the performance and progress of the Program, project and sub-project activities, components of the Implementation Plan, procurement, and financial management. The minutes of these meetings and discussions will be posted on the MCA-Armenia website.

C. Government Commitment and Effectiveness

The GOA has exhibited a high degree of commitment to the Program, and will take the following measures to ensure the effectiveness of the MCA investment:

- Adopting into legislation policies that will ensure the sustainability of the infrastructure investments, including user fee-based cost recovery mechanisms for irrigation systems and assigning maintenance responsibilities of the lifeline network to the Armenian Road Directorate.
- Developing and implementing a plan to restructure the Water Supply Agency and transferring certain operations and maintenance responsibilities to developing federations of WUAs.
- Identifying and contributing to financing for the rehabilitation of the rest of the lifeline network, in addition to the roads rehabilitated with MCC funding.
- Meeting the co-financing requirements of the WUAs for tertiary canals consistent with the ongoing World Bank Irrigation Development Project.

D. Sustainability

Currently, the GOA expends approximately \$9 million per year for routine maintenance on the entire road network. As rehabilitation of the lifeline network proceeds, the GOA will commit additional resources for future financing of routine maintenance on the lifeline network. The Rural Road Rehabilitation Project will further help to institutionalize performance-based contracts, which were instituted by the Armenian Road Directorate in 2005.

The management of Armenia's irrigation network has recently been decentralized to 53 WUAs, and the GOA has enhanced water management efficiency by merging responsibilities for irrigation and drainage. The Irrigated Agriculture Project will benefit from an extensive Water-to-Market Activity that will provide technical and organizational support to ensure WUAs and federations of WUAs have systems to effectively manage and finance their operations. In addition, credit organizations will receive training and capital to expand financing opportunities to WUA member farmers and enterprises. The resulting transition to more profitable operations by member farmers will enhance the financial sustainability of the irrigation system, as will the replacement of pumping systems with more energy-efficient gravity irrigation and the increased capacity of the WUAs to finance themselves through member contributions.

E. Environmental and Social Impacts

The Program is unlikely to cause significant environmental, health, or safety hazards, and immitigable impacts on sensitive areas are not expected. The Rural Road Rehabilitation Project is classified as a "Category B" according to MCC guidelines, requiring environmental and social analyses due to potentially adverse site-specific environmental impacts. The Irrigated Agriculture Project is classified as a "Category A," requiring environmental and social impact assessments due to potentially adverse environmental impacts resulting from the construction of reservoirs, gravity schemes, and the Ararat Valley drainage scheme. A baseline study will be required for the Ararat Valley drainage scheme prior to initiating the required environmental and social impact assessment, and a land compensation framework may be required for certain reservoirs. Environmental management plans will be developed for both projects. The environmental benefits expected from the Irrigated Agriculture Project include reduced water losses through increased efficiency, improved energy conservation and more sustainable agricultural practices. After reviewing an initial environmental assessment, the Armenian Ministry of Nature Protection issued a positive evaluation of the overall Program, a prerequisite for further environmental assessment and project design.

F. Donor Coordination

The Program builds upon an extensive body of work by several international donors, particularly the World Bank, which produced much of the research upon which the Program is based. In transportation, the main donors have been the World Bank and the Lincy Foundation. The Rural Road Rehabilitation Project complements the rehabilitation and construction of larger roads, and serves as a catalyst for contributions of future donors to the completion of the lifeline network. In irrigation, the main donors have been the World Bank and the International Fund for Agricultural Development. Other significant donor projects include the USDA Marketing Assistance Project, the USAID Micro Enterprise Development Initiative, and the USAID Armenia Agribusiness Small and Medium Enterprise Market Development Project. The Irrigated Agriculture Project will work closely with and build on the contributions of these donors.

