

### ***Infrastructure Activity***

Given the devaluation of the US dollar against the Armenian Dram over the past 2 years and increased construction costs, it was clear that the USD 108 million budget for the Infrastructure Activity will be insufficient to complete all of the planned activities associated with this Project. As a result, MCA-Armenia, in consultation with MCC and the Government of Armenia, decided to develop a revised scope for the project to provide the optimal selection of components having the maximum impact on poverty reduction in rural communities of Armenia. The re-scoping process began in early March 2008 and, given the limited time available for final designs and construction works, was completed on September 30, 2008.

Two conceptual approaches were analyzed for re-scoping the Infrastructure Activity: (i) prioritizing regional irrigation schemes and identifying the most technically and economically efficient irrigation *schemes*; and (ii) prioritizing subcomponents and identifying the most technically and economically efficient *subcomponents*. After discussions and analysis of advantages and disadvantages of each approach the priority was given to the second approach.

### **Objectives**

Increase agricultural productivity, 15-20 % increase in yield, and ensure reliable irrigation water supply through improvement of the overall efficiency of sourcing and water delivery to member farmers. This will be done through the rehabilitation of below mentioned subcomponents under Infrastructure Activity of the Irrigated Agriculture Project.

### **Conversion of part or all of 7 schemes from pump to gravity systems**

Construction of gravity systems would eliminate operation of a number of pumping stations, which are in extremely poor technical condition and are not able to supply water efficiently. Construction/rehabilitation of the following 7 gravity systems was included in the re-scoped project:

Aygezard – Ararat marz,  
Shenik – Armavir marz,  
Halavar – Aragatsotn marz,  
Spitak – Lori marz,  
Mantash – Shirak marz,  
Vardenis – Gegharkunik marz,  
Meghri – Syunik marz

Construction activities are expected to start in the mid of 2009.

### **Construction or rehabilitation of up to 7 reservoirs**

Construction or rehabilitation of any reservoir was not technically and economically justified.

### **Rehabilitation of 6 main canals**

Up to 40 km of sections and hydro-technical structures on six main canals will be rehabilitated under the Project. Canals rehabilitation will reduce water losses in the main canals, increase irrigated lands, and improve water distribution in the irrigation system. The list of main canals to be included in the Project is the following:

Artashat – Ararat marz  
Low-Hrazdan, Armavir – Armavir marz

Talin – Armavir and Aragatsotn marzes  
Arzni-Shamiram – Aragatsotn and Kotayk marzes  
Shirak – Shirak marz

Construction started at the end of 2008 and will continue until 2011.

### **Renovation and resizing of 17 pumping stations**

Pumping stations to be renovated/rehabilitated in the marzes are the following:

Mkhchian I stage, Mkhchian II stage	Ararat
Burastan, Avshar-Aygevan, Noyakert, Baghramyan, Armash, Khor-Virap	
Ranchpar I stage, Ranchpar II stage	Armavir
Noyemberyan I stage, Achajur I	Tavush
Vorotan-2	Syunik
Saralanj, Dashtadem	Aragatsotn
Martunim, Zolakar	Gegharkunik

Renovation works in Vayots Dzor, Lori, Kotayk and Shirak marzes are not undertaken in the Project. Construction activities will start approximately in August 2009.

### **Rehabilitation of Ararat Valley Drainage System**

Prior to rehabilitation works environmental/hydrological baseline study of wetlands in the Ararat Valley has been conducted. Rehabilitation of drainage system includes removal of obstructions and provision of alternatives, cleaning and deepening of collector drains, rehabilitation of tube wells and artesian wells, limited amount of work on sub-surface drainage within 3 sub-regions - south-eastern, central and northwestern parts of Ararat Valley, while maintaining an optimally balanced ecosystem in the wetlands. Communities within Ararat and Armavir marzes will benefit from the activity. Rehabilitation works are anticipated to start in the February of 2010.

### **Rehabilitation of Tertiary Canals**

The next core activity is the Rehabilitation of Tertiary Canals, which will cover all marzes of Armenia. The activity implementation anticipates utilization of 15 percent beneficiary co-investment.

Pilot project for rehabilitation of tertiary canals in Griboyedov community of Armavir marz and Abovyan, Arevshat and Lanjazat communities in Ararat marz was accomplished in August 2008. Rehabilitation works for the rest applied communities will start on September 2009.