

## **Introduction of IWRM-FV project knowledge and results into curricula of Kyrgyz Agrarian University**

### **The Outcome**

The Kyrgyz Agrarian University (KAU) established a separate accredited course of study on integrated water resources management (IWRM). In 2009, the first batch of fifth year students in the Faculty of Melioration and Water Resources Management enrolled in course under two streams: 1) engineering systems in agriculture; and 2) melioration and reclamation. Students are required to complete 35 hours of academic course work plus an additional 35 hours of practical exercises.

The IWRM curriculum was developed by KAU faculty and is based on the knowledge and experience acquired through the *Integrated Water Resources Management in Fergana Valley (IWRM-FV)* project, which is funded by Swiss Development Cooperation and now in its fourth phase.

Using the same project outputs, KAU also developed a separate outreach program (Technology of Irrigation and Management of Water Organizations) for water professionals working at the Department of Water Resources and Water User Associations in the Fergana Valley. KAU faculty has the capacity to train up to 100 professionals per year.

### **The Planning-Outcome Link**

The KAU academic course and outreach program (the outcome) was based on outputs related to IWRM-FV project objective A: Pilot Areas and selected transboundary small rivers function according to IWRM principles; approaches are consolidated and ready to be promoted in other areas of the region; and objective B: Governments and donors follow the same principles concerning the roles and scope of IWRM institutions from WUA to basin level.

Specific outputs under these two objectives that led to the outcome are output A4: Documentation of IWRM tools and management practices tested in the pilot areas and preparation for dissemination; output A6: Development, implementation and monitoring of the impact of capacity Building and dissemination strategies and output B2: National policies and the legal framework for dissemination of the IWRM approaches are in place.

### **Documenting Outcomes**

In 1999, IWMI and the Scientific Information Center (SIC) of the Interstate Commission for Water Coordination (ICWC) jointly submitted a concept note to SDC on improving water management in Central Asia. The project concept and framework was developed and discussed in three meetings and workshops jointly between SDC, SIC-ICWC and IWMI. A full proposal was submitted to SDC in 2000. SDC approved an eight month inception phase

(Phase I) to study existing water management issues in the region, potential intervention sites and formulate an IWRM plan. In the subsequent phases (II to IV), IWMI partnered with SIC-ICWC in developing the IWRM conceptual framework, consolidating and generalizing IWRM principles and conducting capacity building, training and campaigns for wider dissemination.

As a result of the relationships established during the IWRM-FV project, the Ministry of Agriculture, Water and Processing Industry (MAWPI) issued a formal request to KAU to establish an IWRM program. In collaboration with IWMI researchers and IWRM-FV stakeholders, KAU faculty submitted a curriculum and materials to the MAWPI for approval and were granted a license for education activities and a license for training water professionals.

### **Significance and Magnitude**

There are currently over 1000 students enrolled in the KAU Faculty of Melioration and Water Resources Management. All fifth-year students will be required to take the IWRM course of study. Approximately 80-100 students graduate per year. In Kyrgyzstan, the Ministry of Agriculture, Water and Processing Industry employs approximately 80 percent of these graduates. Many of the remaining 20 percent are employed in neighboring states.

Faculty are finalizing an IWRM textbook. Because the book is in Russian and because it has been developed in the region by local faculty, it will be widely adopted throughout teaching institutions in the former Soviet republics.

The Fergana Valley includes portions of the Kyrgyz Republic, Tajikistan and Uzbekistan. To date, more than hundred Water Users Association have been established in pilot canal and transboundary small river areas: Because the KAU outreach program is aimed at district and provincial level water managers, IWRM principles will be widely disseminated throughout the Valley, an area covering 49,000 square miles across three countries with a population of 10.5 million people.

The outcome relates to the following CGIAR research goals:

- Improving policies and facilitating institutional innovation