



Photo Credit: Ikuru Kuwajima/IWMI



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Training the next generation of Central Asia's water professionals

A lack of qualified water professionals was severely hampering the development of modern water management in Central Asia. Researchers from the International Water Management Institute (IWMI) helped design one of the first university courses on integrated water resources management (IWRM) for Kyrgyzstan to help create a new generation of natural resource managers. To date, 150 students have completed the course.





KAU's IWRM students using modern technology in canal water management.

Photo Credit: Ikuru Kuwajima/IWMI

The post-communist era

Following the collapse of the Soviet Union in 1991, the massive collective farms and irrigation systems of Central Asia fell into ruin or became fragmented. Many farmers, who were used to the centralized Soviet system of water distribution, experienced considerable hardship and faced losing their livelihoods. Food security in the region was badly affected.

Introducing integrated water resources management to Central Asia

In 2001, IWMI began working in the Fergana Valley, spanning Uzbekistan, Tajikistan and Kyrgyzstan, to introduce IWRM for efficient and sustainable use of water for crops and people. The researchers quickly identified that one of the main challenges was the lack of qualified local water management specialists. Introducing IWRM to the curricula of local educational institutions was one key way to address this. Accordingly, in 2007, the Integrated Water Resources Management in Fergana Valley (IWRM-FV) project signed Memoranda on Mutual Understanding with several higher academic education institutions in the region.

Kyrgyzstan leads the way

The Kyrgyz Agrarian University (KAU) was the first educational institution to embrace IWRM as part of its curriculum. An IWRM course, accredited by IWMI and partners at the Scientific Information Center of the Interstate Coordination Water Commission of the Central Asia (SIC-ICWC), was developed by the Faculty of Melioration and Water Resources Management. In

2009, two courses featuring IWRM components were introduced to fifth-year students.

"The students gain an in-depth knowledge on the rational use of water in irrigated land, and the methods of increasing land and water resources productivity," explains Dr. Elena Drugaleva, Head of the Faculty of Melioration and Water Resources Management of KAU. Eight modules of the course were developed with material provided by IWMI and partners. "All the material was easy to understand and to adapt for course studies," says Drugaleva. "These IWMI-led projects truly link theory with action."

Drugaleva's students agree. Kurbular Ukueva, a final-year student says, "I learned how water resources management could be effective with the participation of public and private organizations. We also studied the use of modern technology in the management of the canal. I am very keen to continue my higher education in IWRM."

"I now know that high yields don't require a lot of water, just sufficient amounts to apply to crops," says fifth-year undergraduate student, Aida Eshmurat Kyzi, one of the 25% of students who are female. "In the future, I want to work in water resources management in the Kyrgyz Republic and would like to contribute towards introducing IWRM principles and raising water productivity in the country. I would also like to teach farmers how to achieve rational water resources management that helps to achieve high yields using modern technology."

KAU is equipped to train 100 water management professionals annually. The university is also responsible for disseminating the IWRM course to provincial institutions. Universities in the Osh, Naryn and Talas provinces have trained an additional 75 students.

Donors and partners

The Scientific Information Center of the Interstate Coordination Water Commission of the Central Asia (SIC ICWC) and SDC (Swiss Agency for Development and Cooperation).

For more information

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Reports

Report on the country component of IWRM-FV, phase IV:

http://www.sdc-water.ch/en/Home/SDC_s_water_projects/Global_Programme_Water_Initiatives_projects/WIs_projects_in_geographic_order/media/EE-IWRM-FV-annex.pdf

Report of the External Evaluation: IWRM-FV, phase IV:

http://www.sdc-water.ch/en/Home/SDC_s_water_projects/Global_Programme_Water_Initiatives_projects/WIs_projects_in_geographic_order/media/EE-IWRM-FV-draft.pdf