

“Systemic Approach” for the training of water sector specialists in Uzbekistan

The Swiss-Uzbek Skills Development Project (March 2015 until August 2018) contributes to further development of the VET system in Uzbekistan by introducing a systemic approach to cooperation among the Ministries responsible for the training, retraining and advanced training of specialists in the water sector. The systemic approach to cooperation comprises all activities within the cycle process “Demand-Training-Job Placement”.

Competences for cooperation of staff and managers of the Ministries involved have been developed in joint activities of the cycle process, especially while jointly developing:

- tools for labor-market-needs analysis,
- new standards, curricula and further training programs,
- regulations for running of Regional Competence Centres.

Commonly organized pilots for implementing jointly designed curricula and further training programs have had an impact on staff’s and managers’ competences and attitudes towards cooperation, and led to informal structures in the Ministries for synchronized work in the “Demand-Training-Job Placement” cycle. Next to this outcome an impressive number of outputs could be achieved within two and a half project years:

1. Labor-market-needs analysis in close cooperation with the relevant actors

The demand for specialists in the sphere of water management in Uzbekistan has been analyzed



Training of young specialists in exploitation of water reservoirs

with a labor-market-needs analysis tool worked out in cooperation of the Ministries of “Higher and Secondary Specialized Education”, “Agriculture and Water Resources Management”, “Employment and Labor Relations”, and “Housing and Communal Public Services”. Data on the demand of and supply for the labor market of water management had been gathered and analyzed from 132 facilities throughout Uzbekistan, including 10 regional departments, water reservoirs, main canals of irrigation systems, 5 higher educational institutions for training of specialists in the sphere of water

management and 87 vocational colleges for training of water management specialists.

The analysis showed that there was a great misbalance in all the regions between the demand for specialists and training of specialists in the sphere of water management. For instance, there is a need for 1890 specialists in construction of hydraulic engineering facilities while only 53 (3%) specialists were being trained at educational establishments.

Besides, there was a demand for 612 specialists in exploitation and utilization of irrigation and drainage machines and mechanisms while 1824 (298%) specialists were being trained. Misbalance between the indicators of the demand and training of specialists can also be noticed in the demand and supply of highly qualified specialists. Particularly, there is a demand for 347 specialists in hydro engineering construction while only 51 (15%) specialists are being trained in this area.



Students in a course for ameliorative technics

2. Revision of Educational standards and curricula

Educational standards and curricula had been revised and new developed for the 5 water management professions based on the analysis of the labor market and they were introduced to the educational process. Also two new professions “Technician-technologist for operation of public water supply utilities” and “Technician for exploitation of hydraulic engineering facilities and pumping stations” were included to the “Classifier of Professions, Specialties and Training Areas of Secondary Specialized, Vocational Education” according to the suggestion of the Ministry of Agriculture and Water Resources Management, Ministry of Housing and Communal Public Services, and Ministry of Higher and Secondary Specialized Education.

3. Foundation of training centers

Regional Training Centers for advanced training and retraining of water management specialists were founded at 16 vocational colleges in different regions of Uzbekistan, at the Center for advanced training and retraining of the personnel under the Tashkent Irrigation and Melioration Institute, and at the training center under Ministry of Housing and Communal Public Services. The Regional Training Centers were equipped with modern computer technology labs, “Automation of the pumping stations of water supply system”, “Water Conservation and Hydrometer”, “Identification of water consumption in irrigated lands”, “Water installation”, “Water treatment” laboratories, “Excavator Simulator” training rooms and “E- and Gas-Welding” workshops. 15 module packages, which meet the requirements of

International Labour Organization (ILO), were worked out for advanced training courses at Regional Training Centers. They cover the main competencies of the five water management professions.

A joint resolution “On Organizing of Professional Development Courses for Water Management Specialists at vocational Colleges” was adopted on March 1, 2016 by the Ministry of Higher and Secondary Specialized Education, the Ministry of Agriculture and Water Resources Management and the Ministry of Housing and Communal Public Services in order to implement the tasks on promoting the system of advanced training and training of specialists of the water sector. According to the joint resolution, the advanced training courses in the following directions were organized at vocational Colleges based Regional Competence Centres:



Advanced training on maintenance of water supply systems

- Meliorative Conditions Improvement and Monitoring of the Irrigated Lands;
- Exploitation of Pumping Stations, Irrigation and Drainage Wells;
- Exploitation of the Modern Meliorative Technics;
- Financial and Economic Issues of Water Management Organizations;
- Registration, Management and Rational Exploitation of Water Reservoirs;
- Exploitation of the water reservoirs;
- Cleaning and control of the quality of drinking water and sewage;
- Maintenance of water supply and sewerage systems.

Most important achievements

More than 4500 technicians, heads of water consumer associations, hydraulic engineers, operators of water management facilities and engineers studied at advanced training courses in newly founded centers.

The training framework for professions of the water sector is adopted and required specialists are trained both in the secondary specialized education system and the adult further education system.

Competences for cooperation of staff and managers of the Ministries involved have been developed in joint activities of the cycle process.

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