



## **The role and significance of IWRM in increasing the potential of the young specialists**

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Today there is no doubt that water resources in Central Asia are very limited, having economic value and showing a significant impact on virtually all kinds of social and economic development of the region and should be managed through a comprehensive package of measures in a single integrated approach.

Emomali Rakhmon, the president of our Republic, is the initiator of a number of important "water" UN General Assembly resolutions, two of which were dedicated to the International Decade for Action "Water for Life" (2005-2015) and the International Year of Water Cooperation (2013). Speaking on April, 12 this year at the 7th World Water Forum in Korea, he noted that today's global challenges and threats, including the financial and economic crisis, population growth, climate change, increase of frequency of the disasters, weather events, water shortages and as a result, the increasing levels of poverty, the increasing of communicable diseases, infant and maternal mortality, require the mobilization of international efforts. It is proposed to declare the Second International Decade under the slogan "Water for Sustainable Development" during the years 2015-2025. Undoubtedly, the implementation of the measures of the International Decade "Water for Life", and envisaged joint water conservation and protection measures in the future in Central Asia serve as the basis for further consolidation in the area of joint efforts at the local, national, regional and international levels to strengthen the measures to achieve the objectives in the field of water resources.

Tajikistan holds one of the leading places in the world on the water resources per capita, the country adopts about 60% of water resources in Central Asia. Despite the adequate supplies of water, today only about 57% of the locals have access to safe drinking water and 30% to improved sanitation. In addition, serious problems for the country are natural disasters related to the water. In a country, the territory of which is mountainous with difficult terrain for ninety-three per cent of the territory, the mudslides and floods annually cause great damage to the economy, and sometimes even lead to the loss of life. Poor infrastructure and the limited financial resources do not allow to fully combat these phenomena, as well as to master the available water resources in the interests of the national economy. It is important that these problems are common to other Central Asian countries, and the looming danger of a global water crisis makes it necessary to search for

collective actions and common regional development strategy. In this respect, an e-journal created by us is of great importance.

Development and management of water resources must be planned in an integrated manner, taking into account the needs of long-term and short-term planning, so they should incorporate environmental, economic and social factors, based on the principle of sustainability; it should take into account the needs of all users, and the need to prevent and reduce the risks associated with water and form an integral part of the planning process of socio-economic development. A necessary condition for the protection and management of regional water resources, reserves of which are small and are susceptible to the effects of external factors, the rational use of hydraulic structures and compliance with the required standards of water use is the high quality training and retraining of specialists at all levels.

Since 1958 our Tajik Technical University named after the member of the Academy of Sciences Osimi M. S. is preparing various experts with qualifications of Bachelor, Engineer and Master, including the specialty "Water supply and sanitation", "Integrated water resources management" providing the full-time and distance courses as well. The graduates of these specialties are in demand and work in the production department of water supply and sanitation, environmental protection department, at the treatment facilities, in the systems of urban public utilities, in the specialized constructive, design and commissioning organizations, and others. Experts graduated from the academic department of Water Supply and Drainage are engaged in the design and operation as well as in the construction of water and wastewater systems (sewage treatment plants, pumping stations, external and internal networks). Among our graduates there are CEOs of construction and maintenance organizations, the Deputy Director General and the Heads of Administration, chief engineers, and others, who work in all regions of the republic, as well as near and far abroad.

As a leader of this only one technical university in Tajikistan and in connection with an unprecedented ecological crisis in the history of the Aral Sea that escalated into a global environmental catastrophe, I believe the environmental training is one of the main results of our work and a sign of professionalism of future specialists. This mission involves a massive reorientation of world specialists with higher education, the essence of which should be to move from a simple transfer of knowledge and skills, that are no doubt necessary for the existence of modern society to the practical ability of our graduates to act and to live in a rapidly changing completely different conditions and participate in the planning of social development, learn to anticipate the consequences of actions taken, including the possible consequences in the sustainability of natural ecosystems and social structures. The e-journal on integrated management of the water resources in Central Asia plays an important role in this problem, and it is very good that the Kazakh-German University will provide the coordination, conducting a great job in the region to mobilize

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the youth of all the countries of Central Asia conducting joint activities with them as well as competitions and summer camps.

I look forward to a long and effective cooperation of all partners, regional and international scientists and experts on the pages of our journal.