



Knowledge - a key for partnership and sustainable development in Central Asia

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Knowledge is a key for sustaining current and enhancing future development of societies. Currently, development is based on knowledge and resilience, and is measured by knowledge adaptation capacities of the communities. Central Asian states have a great potential to become knowledge-based societies. High literacy levels, large number of knowledge-based sectors, strong traditions of knowledge production make countries of the region attractive from the point of knowledge development.

Since Independence Central Asian states are reforming their education and scientific spheres. Transformation of these sectors has changed landscape of knowledge management in the region. Moreover, last two decades countries of the region delinked from the common information and knowledge platforms of soviet times. Common scientific journals and academic networks for facilitation of knowledge exchange and scientific cooperation are rarely available. Moreover, language barriers seriously limit Central Asian scientists' access to the international knowledge platforms as well. Therefore, countries of Central Asia are not only land-locked they are becoming also double "knowledge locked".

Water resources play a key role for sustainable development of the region's countries. Lion's share of water resources is lost due to inefficient institutions and outdated infrastructure. Innovations in water sector and progress in water research in each country of the region could help to overcome contemporary water problems. Water is an important ingredient for development and security in the region. The transboundary nature of water resources management will require cooperation and coordination of both water policies and management aspects. Therefore, continuous knowledge sharing and scientific cooperation are pre-requisite for long-term cooperation.

The water resources management is diverse and a political process with plurality of actors, institutions and objectives of water management. So far, the water sector has been regarded as a net of irrigation and drainage canals with structures installed in them. The complex social and political processes with interaction of many different players have largely been ignored. As water management is a socio-political process with multiple actors interacting with diverse rules across complex decision-making domains, it requires a comprehensive and systematic approach on water management. The water management in post-Soviet Central Asia is becoming more a social and political process rather than a straightforward techno-technological issue. Therefore, coordination of the water sector

reforms in different countries will help to reduce competition for water at the regional level [1].

A significant difference between current approaches and the Soviet hydraulic mission lies in the inclusion and participation of the public into the processes of planning, implementation, monitoring and decision-making in water resources management. Even though governments support development of the institutions of water management such as WUAs¹, the interaction between state-owned water management organizations and water users' organizations are a challenge. Sustainable water management very much depends on how water users can shape everyday water management [2].

Water knowledge centers: universities, research organizations and training centers are available in each Central Asian country. The water agenda of each country is clearly formulated and a new generation of experts is trained accordingly. However, due to the "knowledge lock", water-professionals have limited access to new information and knowledge, which makes national education systems quite conservative, limited to the hydraulic mission aspects of the engineering training.

Differences at the transboundary level, un-coordinated national water policies may be further fueled because research and scientific cooperation in water field is limited to the internationally funded projects. Regular and continuous cooperation will help to alleviate differences and develop a common scientific platform for water cooperation in the region. Contemporary studies of transboundary water cooperation indicate that in 240 transboundary basins no water conflicts are registered in recent history [3, 4]. Riparian states were able to set up legal and institutional instruments for cooperation. Support of internationally funded projects, mediators and economic cooperation are key elements of successful transboundary cooperation. However, strong knowledge sharing and information exchange between riparian states are also among the key ingredients for cooperation [4].

Researchers and scientists are formulating water discourse in their countries, contributing to the water policy formulation. Current water policies are outcome of research-academia and practitioners. Policy makers are well linked in Central Asia with academia and constantly inquiring information and knowledge for their decision-making. Therefore, claims that Central Asia water policies are not knowledge based are true only to a limited extend. However, such consultations are irregular and not systematic.

Student and research exchanges with Western Universities are increasingly attractive, programs such as TEMPUS and IREX, ACCELS are in place to facilitate such processes. Currently, papers published in international journals with Central Asian authors increased many fold [5]. Focus of the research includes water management issues as well. The number of researchers from Central Asia working in international research organizations

¹ Water Users' Association

is increasing. The number of international research centers focused on Central Asia's water issues also increased. A wide range of knowledge products produced by western research centers and covering Central Asia's water aspects is available currently. However, knowledge produced by national centers of Central Asian states is rarely shared outside of national borders.

A key for future cooperation will be academic and knowledge exchange platforms at the regional level. Joint publishing and training are two important aspects of academic and knowledge exchange. Therefore, launching of scientific journal on "IWRM in Central Asia" both in Russian and in English is the right step towards strengthening the cooperation among Central Asian science and research communities. It is however, only a first step towards research and scientific exchange, true cooperation on developing and producing the knowledge.

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