

Large reservoirs and problems of their safety in Central Asian countries

T.K. Kamalov

State Enterprise «Gidrotekhekspertiza» under Gosvodnadzor
7 Navoi Str., Shaykhantakhur district, 100011, Tashkent
v-nadzor@sks.uz

The economic development in Central Asian states was accompanied by construction of large hydraulic structures and irrigation systems, a great number of in- and off-stream multi-purpose reservoirs with essential functions having very significant economic, social, and environmental effects. All these reasons, as well as the need to ensure safe operation of industrial and other facilities, and most importantly safety of the population living in the area of influence of these facilities determine the topicality of structures' safety.

Central Asia states are seriously concerned about decrease in degree of reliability and safety of large hydraulic structures, including the ones (more than 300) located primarily in transboundary watercourses providing water to about 90% of agricultural production, 40% of power generation, and overall stable functioning of other economic sectors, and most importantly, the safety of about 50% of the population in the region.

Operation of large dams for 40-50 years and more has resulted in sedimentation, aging of structures and equipment, which consequently reduced their reliability and technical capabilities. The current state of large and most important hydraulic structures, including those located in transboundary watercourses in Central Asia is at high risk of breakdown with severe consequences.

Effective state supervision of hydraulic structures safety is ensured by development of specific legislation and institutional framework of state supervision. In this regard, the Republic of Uzbekistan is the leader among Central Asian countries.

In order to ensure safety of dams located in transboundary watercourses, a regional project "Dam Safety in Central Asia: Capacity Building and Regional Cooperation" has been implemented since 2004 with the assistance of the UNECE and the financial support of the Government of Finland, as well as in close cooperation with the EC IFAS.

The project aims to improve national legislations, exchange of experience in dam safety and strengthen regional cooperation in this sphere. During the meeting of representatives of Central Asian countries on March 2-3, 2011 in Almaty (Kazakhstan), potential areas of cooperation to ensure safety of hydraulic structures in Central Asia were identified.