

## **Social and ecological aspects of the water resources management of the transboundary rivers of Central Asia**

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**Abstract** The Zeravshan River is a transboundary river whose water is mainly used for irrigation of agricultural lands of the Republic of Uzbekistan. Sufficiently rich hydropower resources in upstream of the Zeravshan River characterize the Republic of Tajikistan. Continuous monitoring of water resources condition is necessary for planning the development of this area taking into account hydropower production and irrigation needs. Water quality of Zeravshan River is currently one of the main problems in the relationship between the Republics of Uzbekistan and Tajikistan, and it frequently triggers conflict situations between the two countries. In most cases, the problem of water quality of the Zeravshan River is related to river pollution by wastewater of the Anzob Mountain-concentrating Industrial Complex (AMCC) in Tajikistan. In this paper results of research of chemical and bacteriological composition of the Zeravshan River waters are presented. The minimum impact of AMCC on quality of water of the river was experimentally established.

**Key words** transboundary; Central Asia; water reservoir; pollution; heavy metals; water quality