Quantitative estimation of human intervention on quality of waters of the Transboundary Rivers of the Central Asia

INOM NORMATOV AND PARVIZ NORMATOV

Tajik National University, inomnor@gmail.com

A close interdependence of the countries of the Central Asia in questions of use of water resources is caused by that the majority region waterways are transboundary. Almost 80 % of water resources of pool of Aral Sea Basin are formed in upstream of the rivers in territory of Kyrgyzstan and Tajikistan, and their prevailing part is used for needs of irrigation in downstream countries - in Kazakhstan, Turkmenistan and Uzbekistan where it is concentrated more than 83 % of the irrigated lands of region.

Water relations between Central Asia republics during the Soviet Union time were regulated by “Complex Use and Protection of Water Resources Schemes” in Amudarya and Syrdarya basins. However, in “Schemes” many important aspects of ecologic acquirements and sanitarian clears thrown into rivers and channels were not considered. Overusing basin water in irrigational lands planned as maximum use by “Scheme” resulted in exhausting water resources and appearing new problems: deterioration of ecological condition, sometimes leading to ecological disaster in river lowlands of Aral basin; great pollution of river water with pesticides, herbicides, other harmful elements and increasing of water mineralization.

Recently the problem of quality of water of the Transboundary Rivers of the Central Asia existing for many years with new coloring and sharpness rises from downstream countries. A problem mainly focused to the Zeravshan Transboundary River in basin which is Anzob Mountain-Concentrating Combine (AMCC) Anzob Mountain-Concentrating Combine (AMCC) - the mining enterprise for extraction and enrichment of complex mercury-antimony ores of the Dzhizhikrut deposit.

For definition influence of the Anzob mountain-metallurgical industrial complex on quality of the river Zeravshan River waters we were made sampling of water from the river in two points - on Fondarya and Pete is located accordingly before and after waste water dams of Mountain-Concentrating Combine. Comparison of results chemical analyses have shown about absence of the factor of pollution of the river Zeravshan by waste waters of industrial complex.