

***Mirzaei A.E. Garlyyeva A.***  
**WATER RESOURCES AND QUALITY IN CENTRAL ASIAN COUNTRIES**  
***Tutor: senior lecturer Tsimberova E.I.***  
*Department of General Hygiene*  
*Belarusian State Medical University, Minsk*

The living conditions as well as health-based quality of life in Central Asia depend heavily on water management of Kazakhstan together with Kyrgyzstan Uzbekistan Turkmenistan and Tajikistan. Due to its dry and partly dry climate this region heavily depends on two river systems which are the Syr Darya and Amu Darya alongside glacial meltwaters that originate in the high elevations of Kyrgyzstan and Tajikistan. Public health together with hygiene standards have suffered negative effects in the region because of water scarcity in combination with pollution and unequal clean water access.

Historical and geographical elements unique to Central Asia have formed the present patterns of water resource distribution as well as use. The Soviets built extensive irrigation projects which mainly served to develop cotton farming alongside agricultural priorities. Indeed, the agricultural systems directed notable amounts of water upstream from the Syr Darya and Amu Darya rivers which produced both operational inefficiencies and environmental disturbances while causing significant water loss. The Aral Sea crisis represents a devastating environmental outcome because massive water diversion while contracting the sea resulted in hazardous windblown dust storms which caused severe hygiene problems and respiratory conditions in the area.

The environmental state of water supply has suffered decline because of polluting agents from agriculture and industry together with untreated municipal sewage and wastewater. Large amounts of chemical fertilizers and pesticides are used across agricultural fields that make up most of the regional economy. Water sources destroyed by chemical runoff become unfit for human use because the substances penetrate river systems and groundwater systems which communities depend for daily hygiene activities. Water bodies suffer more degradation because industrial facilities send their untreated industrial waste into water resulting in population health risks.

Well-maintained water quality demonstrates deep effects on both hygiene and related practices. Lack of access to clean water allows waterborne diseases such as cholera dysentery and diarrhea to spread while they primarily infect children together with rural residents. Women along with girls face additional perils because school and healthcare facilities often lack appropriate sanitation services. When water remains unsafe for use it becomes impossible to practice basic hygiene thereby creating perpetual health conditions alongside poverty.

Different levels act for resolving water and hygiene issues across Central Asia. The national governments pursue modernization in water infrastructure through programs that create wastewater treatment facilities while promoting irrigation technologies which reduce water consumption. The Interstate Commission for Water Coordination (ICWC) operates as an organization which provides transboundary cooperation to manage water-sharing disputes between neighboring states. International organizations especially the United Nations and UNICEF collaborate with donors to establish financial programs that both enhance access to drinking water and deliver hygiene education.

A unified cooperation strategy becomes necessary to address the parallel issues between water resources and quality together with Central Asian hygiene requirements. The region can protect public health together with securing sustainable development for the future by prioritizing improved access to clean water and higher hygiene standards.