

New scientific approaches to regulation of the water-energy problems of the Central Asia Transboundary rivers basin

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The problem of the Transboundary river waters distribution due to global warming and demographic factors has a particular relevance and now existing settlement mechanisms belong to correction and change.. A good example of transborder water resources is the Central Asia Region. Depending on the formation and scattering of water, the Central Asia Region is divided to upstream and downstream rivers countries.

Upstream countries are characterized by a rich hydropower potential but the limited agricultural land are extremely interested in the energy aspect of water. In turn, the downstream countries with immense agricultural land are interested in the irrigation water aspect. This is where the diametrically opposed interests of upstream and downstream countries.

In the summer vegetation season the idle water discharges are carried for irrigation from reservoirs upstream countries. It often leads to a shortfall of water in reservoirs to generate electricity during the winter. In paper proposed a scientifically based mechanism to mitigate the situation. This is especially the introduction of effective methods irrigation - drip irrigation and the second transformation of idle discharges of water from reservoirs for the production of alternative energy source - hydrogen by electrolysis.

Another, but no less important issue of the Transboundary river basins is water quality. To control the quality of water the creation of the Interstate Coordination Water Quality Control Commission is proposed. The main function of which is to control the water quality of water crossing the borders of neighboring countries, across borders and the development of decision-making with respect to water polluting countries.