

Kyrgyzstan's views on how to manage the water resources formed on its territory are at variance with the provisions determined by the Aral Sea Saving Fund.

Follow us on [LinkedIn](#)

From the beginning of its independence, Kyrgyzstan begins to formulate a policy for the management of water resources located on its territory. In a complex tangle of cross-border problems and conflicts, the republic had to build a rather complicated "water diplomacy" with its neighbors. The most important step towards resolving cross-border issues was the signing of an agreement on the establishment of an Interstate Coordination Water Commission in 1992. This event marks the beginning of a new transboundary water management policy between Central Asian countries.

Water policy and diplomacy of the countries of post-Soviet Central Asia was based on the principles and mechanisms that were laid in the USSR. Soviet water resources management had a different mechanism and a center for making decisions on existing problems. However, at the same time, some accepted norms and mechanisms of water resources management of that time remain in force today.

In the days of the USSR, the Department of Regional Water Infrastructure, which solved the problems of dividing the water of the Syr Darya and Amu Darya rivers through the Ministry of Land Reclamation and Water Management of the USSR, dealt with the distribution of water resources between the Union republics. The competent state authority approved the system of limited water allocation (that is, quotas), which are applied to the present.^[1] One of the main omissions in the use of rivers flowing into the Aral Sea was the ill-conceived long-term consequences associated with the development of agriculture. Although in the 60s and 70s of the last century Soviet scientists considered the issue of turning the Siberian rivers Ob and Irtysh to supply and preserve the Aral Sea, they were not implemented due to a change in the political course of Perestroika. Other methods for the conservation of the Aral Sea were developed. At the same time, a single decision-making center for the distribution of water resources that existed in the USSR contributed to the fact that transboundary waters were considered as state property, for which no payment was needed.

The interstate reservoirs built in the Soviet period (Toktogul, Kairakkum, Chardarya, Nurek,

Charvak reservoirs) worked exclusively in the irrigation mode – they accumulated water in the autumn-winter period and dumped it in the spring-summer. The increasing use of rivers flowing into the Aral Sea for agricultural needs led to its gradual drying up, mineralization of the soil and the spread of harmful substances in Central Asia.^[2] Particles raised from the dry day of the Aral Sea began to contribute to the growth of desertification of the land. Moreover, salt particles were found on the glaciers that feed the Amu Darya and Syr Darya, thereby accelerating the process of their melting. The vanishing sea caused a decrease in the level of humidification of the Aral Sea climate. The maximum air temperature increased by 1-1.5 ° C in Central Asia, and the number of days with a temperature of about + 40 ° C also increased by 10-12. In some places the temperature + 49 ° C began to be fixed. As a result of the draining of the Aral Sea, the Asian cheetah, Turanian tiger, Ustyurt sheep, saigas and the Turkmen kulan disappeared. The Central Asian long-needle hedgehog, gazelle, Turkmen caracal, yellow heron, pink and curly pelicans, gray monitor lizard and other species were endangered. The drying sea also contributed to the emergence of serious diseases among the inhabitants of the Aral Sea region (diseases of the respiratory and digestive systems, cancer due to inhalation and ingestion of wind-blown salt, pesticides and dust, poor nutrition, and other factors).

An active anthropogenic factor influencing the reduction of the sea water level and eventually led to the fact that in 1979 maritime shipping ceased, and in 1984 the sea completely lost its commercial fishing value.

Google Timelapse: Satellite imagery of the drying of the Aral Sea by years

The answer to the deteriorating situation of the Aral Sea was the creation of the International Fund for Saving the Aral Sea (hereinafter the Fund) in 1993 in Tashkent on the basis of a decision by the heads of state of Central Asia. The primary objective of the Fund is financing and lending to actions, programs and projects to save the Aral Sea, ecological recovery of the Aral Sea and the Aral Sea basin, considering the interests of the states of the region. The founders of the fund are Kyrgyzstan, Kazakhstan, Tajikistan, Turkmenistan and Uzbekistan at the official level. The activities of the Fund are supported by such international influential organizations as the United Nations, the OSCE, the World Bank, the German Society for Technical Cooperation and others. All of them assist in reducing the negative consequences of draining the Aral Sea.

As it is known, the Central Asian region is densely populated in some places. Of all countries, the majority lives in Uzbekistan (about 45% of the total population of the region

or about 33.9 million people).^[3] The population density in the region depends on favorable agricultural conditions. At the same time, Uzbekistan consumes about 77% of the water resources that come from outside. Since the beginning of the 2000s, Uzbekistan has built about 30 different reservoirs on the way to the Aral Sea, which were used for agricultural purposes. This began to contribute to a more intensive drying of the Aral Sea. Hence, in view of the detailed mechanisms of the use and application of water resources, as well as the consequences associated with an increase in the need for fresh water, the life of communities living in the Aral Sea zone is deteriorating.

Water, as a rule, is not considered to be something of value; it is more valued as a free resource. 115.6 km³ of water resources are formed in the rivers of the Aral Sea basin, of which about 25.3% (29.3 km³) fall to Kyrgyzstan. The volume of water resources consumption in Kyrgyzstan is lower compared to its neighbors - 1321m³ per person per year (the maximum is approximately 4044m³ per person per year in Turkmenistan). In general, in the Aral Sea basin, 2524 m³ of water is used per capita, which is the largest among various regions of the planet.

The most acute problem of the distribution and use of transboundary water resources has been identified in the Aral Sea basin. The surface water resources of this basin are estimated at 116.5 km³ / year, 79.3 km³ (68%) are in the Amu Darya, and 37.2 km³ (32%) in the Syr Darya. The share of the Central Asian region in the formation of water resources is distributed as follows: Kazakhstan - 2.1%, Kyrgyzstan - 25.1%, Tajikistan - 43.4%, Turkmenistan - 1.2%, Uzbekistan - 9.6%, Afghanistan and Iran - 18.6%.

Meanwhile, the proportion of participation in the formation and use of transboundary water resources for Kyrgyzstan is as follows: 74% and 10.5% in the Syr Darya river basin, 2.0 and 0.3% in the Amu Darya river, respectively. From here we can see that there is a structural imbalance in the use and consumption of water resources by the countries of Central Asia, as well as covering costs for the use of water resources to the countries where they are formed.

Water Policy of Kyrgyzstan

Central Asia is rich in various useful natural resources. Kazakhstan, Uzbekistan and Turkmenistan have relatively large reserves of oil, gas and coal, and in the highlands of Tajikistan and Kyrgyzstan the bulk of the surface freshwater flow of the region is formed (which makes up more than 80% of the flow of the Aral Sea basin).



How are the water resources of the Aral basin formed? Source: cawater-info.net

Water today is underestimated and in the context of the unreasonable management of the conflict-generating resource, which Kyrgyzstan has not yet learned to use. For the republic, the main purpose of fresh water is energy, domestic and household needs. About 80% of water needs go to agriculture. Irrigated agriculture accounts for about 25% of the country's GDP. It is here that to a greater extent there are unjustified losses from the use of fresh water.^[4]

The policy of the Fund does not consider the hydropower interests of Kyrgyzstan.

Due to the fact that Kyrgyzstan has not yet developed an effective development strategy for the country, the policy in the field of water resources management has not been formed as a systematic and consistent one. In conditions of increasing domestic demand for fresh water, Kyrgyzstan was forced to share part of its resources in the framework of agreements with

the Aral Sea Rescue Fund. As we can understand, the ideas of Kyrgyzstan on how to manage the water resources formed on its territory were at variance with the provisions determined by the Fund.

Kyrgyzstan generally reflected its disagreement in statements that the Fund's policies did not consider Kyrgyzstan's hydropower interests. For example, if the republic needs water from reservoirs in the winter to increase hydropower capacity, then for Uzbekistan and Kazakhstan it is needed in the spring and summer, that is, during the irrigation season. The proposals of the Kyrgyz side on this issue, as a rule, were ignored by colleagues. This was the reason in 2009 (*and again in 2016 - approx.ed*) to freeze the participation of Kyrgyzstan in this organization. Unfortunately, such a step did not provoke a reaction from other member countries of the Fund. Moreover, such a decision of Bishkek was not even reflected in the official documents of the organization.[\[5\]](#)

The Ministry of Foreign Affairs of the Kyrgyz Republic has repeatedly stated that without the reform of this organization, participation of the Kyrgyz Republic in the Fund is not possible.[\[6\]](#) This certainly cast doubt on the credibility of the Fund itself. Kyrgyzstan is not satisfied that the main beneficiaries are Uzbekistan and Kazakhstan.

The Ministry of Foreign Affairs of the Kyrgyz Republic has repeatedly stated that without the reform of this organization, participation of the Kyrgyz Republic in the Fund is not seen as possible.

The countries located downstream of the Amu Darya and Syr Darya rivers, as a rule, do not participate in the reconstruction and technical support of hydrotechnical and water management facilities that somehow serve the interests of these states.

After the situation changed, in 2018[\[7\]](#) it was possible to hold meetings and steps were taken to involve Kyrgyzstan in the future work of the Fund and to unfreeze its participation in this organization. Kyrgyzstan has also noted that most of the water is spent on the needs of Uzbekistan and Kazakhstan. And only 12% of the water accumulated in the reservoirs goes to address domestic needs.



During the summit of the founders of the International Fund for Saving the Aral Sea in 2018 in Ashgabat.

Normative legal and international acts on saving the Aral Sea

Established in 1992, the Interstate Commission for Water Coordination^[8] immediately adopts the “Agreement on cooperation in the field of joint management of water resources from interstate water sources”. With the help of ICWC, a certain instrument of regional cooperation was created on the possibility of managing transboundary water resources. Based on the work of the ICWC, the member states developed and adopted a number of legal documents and based on them developed a program of action to address the drying up of the Aral Sea. The document determined the sovereign right to manage water resources. At the same time, the Soviet right to the general management of water resources by each country was preserved, as a result, it was not specified what the accepted international standards apply to: external or internal water resources. And then contradictions appeared between Kyrgyz national legislation, where the waters formed on the territory of the country were regarded as property of Kyrgyzstan and interstate legal norms, where Uzbekistan and Kazakhstan also had the right to use water resources (this, for example, is expressed in agreements, how much water and in which season, a republic may be discharged from a reservoir or let into neighboring countries).

As a rule, in Central Asia, water resources are used on the basis of feasibility studies that

were formulated back in the Soviet period and then went into the Nukus declaration, signed in 1995. By agreement, this document indicates the volumes of water resources that are made up of surface, underground and reused waste and collector-drainage waters (their total volume is about 133.64 km³) as a percentage are distributed as follows: Kazakhstan - 11.4% (15,29 km³), Kyrgyzstan - 3.97% (5.3 km³), Tajikistan - 10.69% (14.29 km³), Turkmenistan - 20.26% (27.07 km³), Uzbekistan - 53.64% (71.69 km³).

At the level of national legislation, the country's water resources are regulated by the Constitution, the Law "On the Interstate Use of Water Objects, Water Resources and Water Management Facilities of the Kyrgyz Republic" (2001) and the Law "On the Fundamentals of the Foreign Policy of the Kyrgyz Republic in the Use of Water Resources of the Rivers Forming in Kyrgyzstan and Following on the territory of neighboring states" (1997). These laws establish the provisions of state policy in the field of the use of water resources of rivers formed in Kyrgyzstan and flowing out of its borders. These two laws made it possible to define water as a resource of its own value, which caused negative perceptions from Uzbekistan and Kazakhstan, which regard incoming water as a free resource.

The problems of saving the Aral Sea as conditions for tension between countries

It should be noted that the problem of drying out the Aral Sea is not relevant for Kyrgyzstan and is not included in its political agenda. Kyrgyzstan is worried about the political, economic and environmental consequences of the drying up of the sea.

In addition, a conceptual problem in the political issue of preserving the Aral Sea is the traditional attitude to water as an endless resource, which has low value. As Mamatkanov D. M. and Bazhanova L. V. write: "According to international estimates, "Water has its economic value for all its competing uses and should be an economic product, "since it is the "free" water resources that lead to their merciless exploitation, exhaustion and environmental disasters ...".^[9] Moreover, the Kyrgyz political leadership did not have a definite national vision and strategy in water policy that would deal with transboundary water management issues. Unfortunately, the Kyrgyz political leadership has not yet learned to perceive the supplied water as a commodity, and on this basis, it is still a little uncomfortable to bill for its supply to neighbors.

The main organizational and managerial problem today remains the issue of joint management of the process of maintaining and restoring the Aral Sea. According to Sooronbay Jeenbekov, it is necessary to abolish the Fund's branches in all five countries in this matter. Instead, it is necessary to centralize the work by creating a single decision-making center (executive committee), where all participants in the process will be

represented. In addition, the President of Kyrgyzstan proposed to withdraw the Interstate Commission for Water Coordination and the Interstate Commission for Sustainable Development from the structure of the fund, and instead create more efficient bodies that will take into account, among other things, the republic's needs for hydropower.[\[10\]](#) It is obvious that the quota system for the distribution of water resources that remains and does not improve qualitatively, which ultimately serves as a basis for disagreement between countries on the issue of solving the Aral Sea problem.

Also, the management and organizational problem remains the mode of operation of the Toktogul reservoir. The uncoordinated schedule of water discharges in the autumn-winter and spring-summer periods leads to damage from the operation of the reservoir.[\[11\]](#) About half of the water of the Toktogul reservoir could be discharged in the winter, in order to provide additional electricity to the country.

Conclusion

The full restoration of the Aral Sea within the borders until 1960 is not possible in the near future. This will take about a hundred years (while restoration of the water area by 90% will require about 43 years) and the discharge of about 53 km³ of water resources into it.[\[12\]](#) To restore the full sea, it is necessary to reduce water consumption for irrigation, which takes about 90% of the withdrawn water. To maintain the so-called Small Aral Sea, about 5.3 km³ of water resources are required. In this case, in order to increase the discharge of water into the sea, it is necessary to improve the efficiency of agriculture.

Other important points are the economic calculations of the benefits that water, and hydraulic structures located in Kyrgyzstan bring for Kazakhstan and Uzbekistan. And in this regard, they can also take part in their maintenance.

Based on the benefits for the Kyrgyz side, alternatives from neighboring countries should be proposed that can offset the costs of resolving the Aral issue. The development of an effective economic mechanism or model for interstate water use within the framework of resolving the Aral Sea issue will allow each country to have a clearer position in transboundary water policy. The Republic needs to understand how it suffers from the complex damage from the drying of the Aral Sea. Based on its national interests, Kyrgyzstan, within the framework of soft diplomacy, needs to promote a new attitude to water, as a product that must be paid for. To this end, an appropriate legislative framework based on rigorous calculations should be worked out.

Joint coordinated work of states, finalization of national as well as international legislation

should become an important priority in resolving the Aral issue in the near future.

This material has been prepared as part of the Giving Voice, Driving Change – from the Borderland to the Steppes Project. The opinions expressed in the article do not reflect the position of the editorial board or donor.

[1] It is worth noting that until 2005 there was a mechanism for compensating Kyrgyzstan for the unhindered provision of water resources downstream in the summer. The agreement was signed in 1998. Under this agreement, Uzbekistan supplied gas at preferential rates to Kyrgyzstan, and Kazakhstan supplied fuel oil residue.

[2] If in 1960 the area of irrigated agricultural land due to the water flowing into the Aral Sea amounted to 5 million hectares, in 2010 it was already 8.2 million hectares

[3] As of January 2020 (source: The size of the resident population of Uzbekistan became known, January 27, 2020, Spunik. Uzbekistan <https://uz.sputniknews.ru/society/20200127/13306112/Stala-izvestna-chislennost-postoyannogo-naseleniya-Uzbekistana.html>)

[4] Only 77% of residents have access to clean drinking water in the country.

[5] Tatyana Zverintseva. The sea is never too much. The Aral Sea Rescue Fund fell into complete disrepair, Ferghana Information Agency, August 27, 2018, <https://www.fergananews.com/articles/10145>

[6] E. Usabaliev, THE QUESTION OF KYRGYZSTAN'S PARTICIPATION IN THE INTERNATIONAL RESOURCE FUND FOR THE ARAL AND SOME ASPECTS OF THE COUNTRY'S INFORMATION SECURITY, July 21, 2016, ANALYTICAL CENTER "PRUDENT SOLUTIONS" <https://www.policy.org-participation-Kyrgyzstan-in-international/>

[7] By this time, \$ 15 billion had been spent on the implementation of the three main programs of the Fund. In 2018, the President of Kyrgyzstan S. Jeenbekov criticized the activities of the Fund, where he also noted the non-transparency of the distribution of funds received in this organization (source, Azattyk). At this summit, the participants also tended to refer the Aral issue to international organizations for decision

[8] Further as ICWC

[9] Mamatkanov D. M. and Bazhanova L. V. TRANSBOUNDARY WATER RESOURCES OF CENTRAL ASIA AND PROBLEMS OF EFFECTIVE USE, Institute of Water Problems and Hydropower of the NAS of the Kyrgyz Republic, <http://ecogofond.kz/wp-content/uploads/2019/07/CA.D.236-Transgranichnye-vodnye-resursy-Centralnoj-Azii-i-problemy-jeffektivnogo-ispolzovaniya.pdf>

[10] Tatyana Zverintseva. The sea is never too much. The Aral Sea Rescue Fund fell into complete disrepair, Ferghana Information Agency, August 27, 2018, <https://www.fergananews.com/articles/10145>

[11] Mamatkanov D. M. and Bazhanova L. V. TRANSBOUNDARY WATER RESOURCES OF CENTRAL ASIA AND PROBLEMS OF EFFECTIVE USE, Institute of Water Problems and Hydropower of the NAS of the Kyrgyz Republic, <http://ecogofond.kz/wp-content/uploads/2019/07/CA.D.236-Transgranichnye-vodnye-resursy-Centralnoj-Azii-i-problemy-jeffektivnogo-ispolzovaniya.pdf>

[12] At present, about 11 km³ of water is discharged into the Aral Sea



If you have found a spelling error, please, notify us by selecting that text and pressing *Ctrl+Enter*.