

THE ALLOCATION OF WATER RESOURCES IN A TRANSBOUNDARY CONTEXT TO STRENGTHEN WATER COOPERATION BETWEEN EURASIAN COUNTRIES



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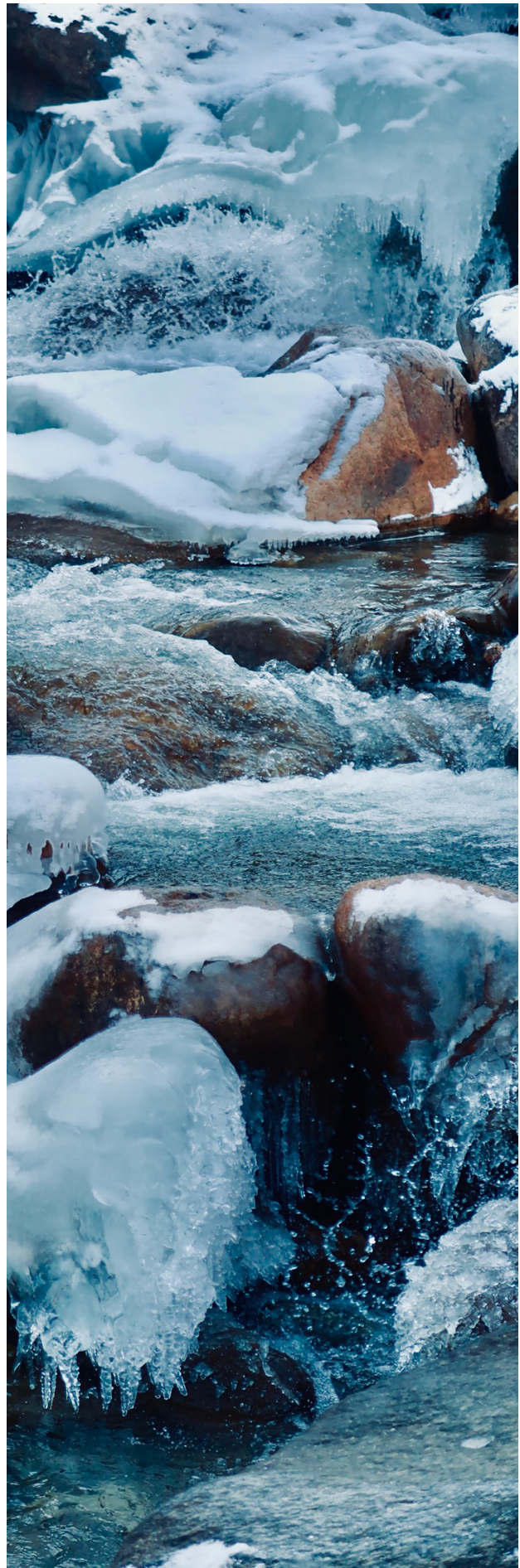
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FOREWORD

In modern conditions, the problem of transboundary water allocation is becoming increasingly relevant. It is caused by increasing competition for water resources between states, growing water scarcity, and increasing water usage. Its resolution is necessary to ensure the sustainable development of countries and regions, to prevent the risks of political tension and conflicts.

The establishment of a "Handbook on Transboundary Water Allocation" within the framework of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes will contribute to the achievement of this strategic goal. The decision to develop the Handbook was taken at the eighth session of the Meeting of the Parties to the Convention, held in Nur-Sultan (Kazakhstan) on 10-12 October 2018. A global expert group is working on the creation of the Handbook, summarizing international best practices in the field of transboundary water cooperation. The project "Sustainable Allocation of Water Resources in a Transboundary context", implemented with the financial support of the Government of the Republic of Kazakhstan within the framework of the Three-Year Program of the International Water Assessment Center (IWAC), is also intended to contribute to the formation of the Handbook.

The main results of this project are presented in this publication. It provides an overview of the current regional cooperation in transboundary river basins in Central Asia countries – Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Republic of Uzbekistan and the Islamic Republic of Afghanistan, the Islamic Republic of Iran, People's Republic of China, Mongolia and the Russian Federation (hereinafter referred to as the name of the state is abbreviated), a brief description of the legal and organizational framework for such cooperation and water allocation in the states of this region. It also considers existing problems of interaction and propose recommendations for their



improvement.

The publication was prepared by the group of experts, which included Murat Bekniyazov, Malik Burlibaev (Kazakhstan), Erkin Orolbaev (Kyrgyzstan), Jarash Pulatov (Tajikistan), Kurbanmurad Vismuradov, Batyr Mamedov (Turkmenistan), Vohidjon Ahmadjonov (Uzbekistan), Fazlullah Durrani (Afghanistan), Eisa Bozorgzadeh (Iran), Chen Huiping (China), Davaa Baasandorj (Mongolia), Valentina Dubinina (Russia) with the participation of international expert Peep Mardiste.

Serik Akhmetov and Zhanar Mautanova provided overall project management support on behalf of the International Water Assessment Center.

It is expected that the materials of the publication will be used in the preparation of the above-mentioned Handbook. It is intended to be a practical document for use by public officials at all levels, as well as relevant practitioners working in the field of integrated water resources management and management in transboundary river basins.

It is also assumed that the dissemination of this publication will draw more attention in the countries of the region to the issues of water resource allocation in a transboundary context and will contribute to strengthening cooperation in this area.





1. WATER ALLOCATION PRACTICES IN THE COUNTRIES OF THE REGION AND THE EXISTING LEGAL FRAMEWORK FOR TRANSBOUNDARY WATER COOPERATION

Currently, countries of the region under consideration – Afghanistan, China, Iran, Kazakhstan, Kyrgyzstan, Mongolia, Russia, Tajikistan, Turkmenistan and Uzbekistan have developed a legal framework for water cooperation in a transboundary context, which in most states is based on general principles of international law.

Russia (since 1993), Kazakhstan (since 2001), Uzbekistan (since 2007) and Turkmenistan (since 2012) are members of the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention). Uzbekistan is a party to the Convention on the Law of Non-Navigational Uses of International Watercourses (1997). Other states of the region, not being parties to water conventions, generally recognize the principles of water cooperation laid down in them.

The region has developed legal and contractual relations of a multilateral format, as well as cooperation on a bilateral basis. The multilateral format with regional agreements of a more general nature is used in the Central Asian countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan).

Bilateral agreements are widely distributed between neighboring states sharing one or more transboundary watercourses. In addition, agreements on specific watercourses are of the same nature when interacting on practical issues or industries.

As a rule, contractual and legal relations cover one or several transboundary basins between neighboring countries and extend to such sectors of the economy as agriculture, hydropower, water use in industrial production, and the municipal sector. These agreements may affect the protection of water resources, the quantity and quality of water, monitoring of water bodies and other areas.

The agreements stipulate many aspects of joint activities, including the exchange of operational information on the passage of floods, notification of emergency situations to the parties, joint research and surveys of transboundary river basins, exchange of information on best technologies, coordination of water withdrawal limits from transboundary water bodies, etc.





1.1 AFGHANISTAN

KABUL RIVER BASIN

It is located in the eastern part of Afghanistan in the Chatral River basin, which is one of the tributaries of the Indus River basin. The Kabul River basin has an area of 65,202 km² and is divided into 10 sub-basins, which include 14 provinces and the capital Kabul.

AMU DARYA RIVER BASIN

Its water resources are key to economic activity, environmental functioning and social well-being in northern Afghanistan and the basins of other riparian countries. The total area of the Panj-Amu Darya River basin is 95,946 km². The area of irrigated land located in it is 427,960 ha, rainfed agriculture occupies 1,018,174 ha. According to available data, in 1980, Afghanistan used about 5.0 km³ of water from the Amu Darya for irrigation purposes in northern Afghanistan – and this applies mainly to the Amu Darya itself, the basins of its tributaries (Kokcha and Kunduz) and along the Panj River, i.e.

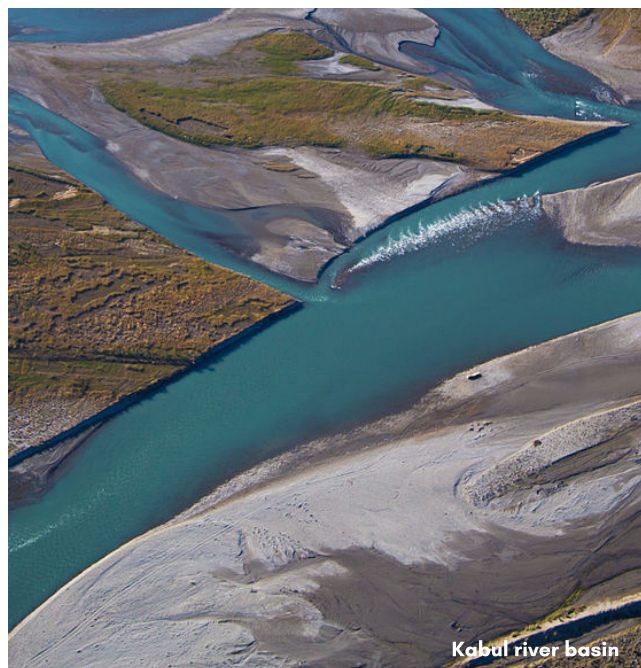
HARIRUD-MURGHAB RIVER BASIN

The Harirud-Murghab River basin, located in the western part of Afghanistan, is one of the most important basins with a total area of 77,604 km². It consists of four sub-basins: Bala Murghab, Kuskwa Kashan, Upper Harirud and Lower Harirud. The river flows westward within the country for 703 km until it crosses the border with Iran, forming the border between Turkmenistan and Iran, and then heads to the Karakum Desert. The basin is cross-border between three countries – Afghanistan, Iran and Turkmenistan. Only 2% of the territory of the Harirud River basin is occupied for irrigated land with a small water intake for this purpose. Between Afghanistan, Turkmenistan and Iran, there no greements signed, but Iran and Turkmenistan jointly built the Dostluk dam on the Harirud River.

HELMAND RIVER BASIN

It is one of the transboundary river basins of Afghanistan and covers 47% of the total area of the country. In 1973 Afghanistan and Iran signed an agreement on the Helmand river. In accordance with it, Afghanistan undertakes to provide Iran with an average river flow of 22 m³/s in an average water year. The additional flow that Afghanistan provides to Iran as an expression of goodwill and fraternal relations is another 4 m³/s.

In Afghanistan, much work needs to be done to assess the state of the environment along transboundary watercourses and rivers in order to guarantee the rational use and protection of shared water resources. It is necessary to assess the regimes of transboundary watercourses to take them into account when planning water resources, preserving and ensuring environmental sustainability. Huge investments are needed to manage water resources to reduce poverty and provide residents with access to food, safe water and electricity. It is necessary to take the initiative to issue forecasts, observations and warnings about floods and droughts for vulnerable populations. It is also important to establish effective activities to combat water disasters.





1.2 CHINA

China is not a party to global or regional treaties on transboundary waters, including the 1997 UN Convention on the Law of the Non-Navigational Uses of International Watercourses (UNWC) or the 1992 UNECE Convention on Transboundary Waters, but has many bilateral treaties relating to or related to transboundary waters.

To date, China has concluded more than 50 treaties or agreements related to shared transboundary water resources with neighboring countries such as Russia, Mongolia and Kazakhstan. However, less than half of these treaties or agreements mention or relate to the non-navigational use and allocation of transboundary water resources.

All these documents are based on a bilateral, rather than a basin-based approach. For those international watercourses that flow through the territory of more than two countries, there are no single agreements covering the entire length of such rivers. Examples are the Amur/Helongsiang and Heerlen Rivers in China, Russia and Mongolia; the Tyumen River between China, Russia and North Korea; and the Indus/Sikwan River between China, India and Pakistan; the Mekong River flows through China, Myanmar, Thailand, Cambodia, Laos and Vietnam.

THE MOST COMPREHENSIVE AND IMPORTANT ARE THE AGREEMENTS ON TRANSBOUNDARY WATERS:

- Agreement on the Protection and Use of Transboundary Waters between China and Mongolia, 1994;
- China-Kazakhstan Cooperation Agreement on the Use and Protection of Transboundary Rivers, 2001;
- Agreement on the Reasonable Use and Protection of Transboundary Waters between China and Russia, 2008;
- China-Kazakhstan Agreement on the Protection of Water Quality of Transboundary Rivers, 2011.

MEMORANDA OF UNDERSTANDING ON THE PROVISION OF HYDROLOGICAL INFORMATION.

Such documents are usually used to express consent between the parties in situations where they cannot enter into a legally binding agreement. For example, in 2008, two memoranda of understanding were signed that relate to the provision of hydrological information on the Brahmaputra River/Yaluzangbu during floods in China, India and Bangladesh.

CHINA AND RUSSIAN FEDERATION

Almost 80% of the Sino-Russian border runs through water bodies, and the two countries have a long history of diplomatic relations related to their shared waters. China-Russia cooperation continues to improve.

OVER THE PAST DECADE, CHINA HAS CONCLUDED THREE MAJOR TRANSBOUNDARY WATER TREATIES WITH RUSSIA, INCLUDING:

- Treaty on Good-Neighbourliness and Friendly Cooperation of 2001;
- Agreement on the Management System of the China-Russia Border of 2006;
- Agreement on the Reasonable Use and Protection of Transboundary Waters of 2008.

SINO-RUSSIAN TREATY OF GOOD NEIGHBORLINESS OF 2001

It marked a turning point in bilateral relations between the two countries and is the basis for growing cooperation. Article 19 of this document provides that "the Contracting Parties shall cooperate in the protection and improvement of the environment, the prevention of transboundary pollution, the equitable and reasonable use of water resources along border areas and the use of biological resources in the North Pacific and border river areas".

AGREEMENT ON THE MANAGEMENT SYSTEM OF THE CHINESE-RUSSIAN BORDER OF 2006

contains Chapter 4, "Transboundary waters", which includes 7 articles on general principles, navigation, fishing, protection of river banks, structures in or near rivers, and data exchange.

AGREEMENT ON THE REASONABLE USE AND PROTECTION OF TRANSBOUNDARY WATERS OF 2008

It is the most important between China and Russia in this area. It contains provisions on the scope of application, individual substantive and procedural rules, areas of cooperation, institutional arrangements, data exchange, dispute resolution, entry into force and duration of the treaty.



CHINA AND MONGOLIA

China and Mongolia have a large number of transboundary waters, including rivers, lakes and aquifers. Mongolia shares more than 200 transboundary waters with Russia and China. The Sino-Mongolian treaties cover a number of transboundary watercourses, including the Buir, Herlen, Bulgan, Khalkh rivers and 87 small lakes and rivers located near the border. Transboundary water resources shared with China include surface water bodies in the provinces of Dornod, Khovd and Bayan-Ulgii, as well as underground water resources in the provinces of Gobi-Altai, Umnugobi, Bayankhongor, Sukhbaatar and Dornogobi. China and Mongolia have very few disputes or disagreements about the use of transboundary

rivers. There are three treaties and agreements between the two countries that include provisions on the non-navigational use of transboundary waters:

TREATY ON COMMON BORDERS AND SETTLEMENT OF BORDER ISSUES OF 1988

It contains Part III, entitled "Border waters and the use of transboundary railways, other roads and means of communication", which includes provisions concerning the definition of border waters, navigation, water use and protection of natural watercourses, prevention of river flow changes, fishing and the obligation not to cause significant damage.

AGREEMENT ON THE PROTECTION AND USE OF TRANSBOUNDARY WATERS OF 1994

is the most important. It includes about 15 provisions related to the definition of transboundary waters, areas and measures of cooperation, conservation of ecosystems, fair and reasonable use of waters, the obligation not to cause harm, management of fish resources, elimination of any damage caused to water, life of aquatic animals and plants in the waters, the volume of annual water consumption, data exchange. The agreement provides for the establishment of an institutional mechanism (Joint Committee on Transboundary Waters) covering the basic principles set out in the UNWC framework document.

BORDER MANAGEMENT AGREEMENT OF 2010

contains a fourth chapter entitled "Use and protection of border waters". It is used as a supplement to the 1994 Agreement, which includes 6 articles on the protection of ecosystems, data exchange, navigation, fishing, protection of riverbanks, etc.

China adheres to the main approach to solving the problem of water allocation, which is international cooperation. There are three ways of doing this: concluding treaties on transboundary waters, creating institutional mechanisms to monitor the implementation of treaty obligations and maintaining daily communication between the two countries, as

well as solving problems that arise in special and individual cases.

China has recognized the principle of reasonable and equitable use of water resources in transboundary waters in most of its transboundary water treaties. But since this principle is very abstract, it needs to be fixed in practice or on a specific transboundary river. After all, the institutional mechanism and specific project agreements can play an important role in water allocation methodologies.

A successful example is the cooperation between China and Kazakhstan on the development of the You Yi/Dostyk joint hydroelectric complex on the Huoergosi/Khorgos River. In this project, both countries share water equally, which can also become a model for China's cooperation with other neighboring countries.



Herlen river



1.3 IRAN

Iran has extensive cooperation with its neighboring countries in the use of transboundary water resources, relying on historical ties and religious and cultural commonalities. The policy of Iran related to the transboundary rivers and shared water resources is based on the interaction and cooperation with neighboring countries within the framework of bilateral agreements.

HARIRUD TRANSBOUNDARY RIVER BASIN

Harirud Basin is a transboundary river basin shared among the three countries of Afghanistan, Iran and Turkmenistan. This river originates from the central highlands of Afghanistan (Hindu Kush), and after flowing along the Afghan-Iranian border, forms a part of the border between Iran and Turkmenistan. The area of Harirud Basin is 112,000 km², about 44% of which is located in Iran. The important Harirud River has attracted a significant population in and around Sarakhs since a long time ago, and has led to the development of agriculture in this region. Today, two large and historic cities of Mashhad and Sarakhs in Iran are located in the Harirud Basin. In view of the importance of the economy and culture of these cities, supply of water resources for them is considered as one of Iran's main national priorities.

Studies show the surface water inflows downstream of the Basin has decreased significantly in recent years compared to the historical period. The over-abstraction of groundwater resources and drilling of new wells in upstream, apart from the quantitative and qualitative degradation of the aquifer, have affected the Harirud River discharge. Therefore, the quantity and quality reduction of the Harirud River flow in recent years has made it necessary to establish a legal regime for allocating this vital water source in the region. One of the successful examples of joint cooperation in the operation of transboundary rivers is the construction and operation of the

Doosti/Dostluk Dam by two countries of Iran and Turkmenistan on the Harirud River. Iran and Turkmenistan signed an agreement on the construction and operation of the Doosti/Dostluk storage dam in 1999. Negotiations began in 1921 between Iran and the former Soviet Union and continued with Turkmenistan after its independence. Doosti/Dostluk Dam was operated in 2005 in accordance with the former and existing agreements between the two countries:

- AMITY TREATY BETWEEN IRAN AND FORMER SOVIET UNION (USSR) ON THE USE OF TRANSBOUNDARY RIVERS, INCLUDING HARIRUD, ON FEBRUARY 26, 1921
- AGREEMENT ON THE ALLOCATION OF THE TRANSBOUNDARY RIVERS FROM HARIRUD TO THE CASPIAN SEA ON FEBRUARY 20, 1926, WHICH MENTIONS THE CONSTRUCTION OF A DAM ON HARIRUD AT POLEKHATON LOCATION
- AGREEMENT BETWEEN IRAN AND FORMER SOVIET UNION ON THE HARIRUD RIVER ON MARCH 5, 1958 TO PREPARE A PRELIMINARY PLAN FOR THE EQUAL USE OF THE HARIRUD RIVER AND THE CONSTRUCTION OF A DAM
- AGREEMENT BETWEEN IRAN AND TURKMENISTAN ON CONSTRUCTION OF POLEKHATON (DOOSTI/DOSTLUK) DAM, NOVEMBER 1, 1991
- AGREEMENT BETWEEN IRAN AND TURKMENISTAN ON CONSTRUCTION AND OPERATION OF DOOSTI/DOSTLUK DAM (1999) AND DETERMINATION OF 50-50 SHARES OF WATER STORED BY THE DAM FOR THE TWO COUNTRIES
- AGREEMENT BETWEEN IRAN AND TURKMENISTAN AND ITS ANNEX ON LONG-TERM ECONOMIC, COMMERCIAL, SCIENTIFIC, TECHNICAL AND CULTURAL COOPERATION, APRIL 23, 2002

The purposes in constructing Doosti/Dostluk Dam with a 1,250 million m³ reservoir at a cost of 180 million USD was to collect and mitigate flood waters and protect the region's residents from water-related extreme events. In addition, it irrigates 25,000 ha of agricultural land on both sides of the Iran-Turkmenistan border and solves the problem of drinking water supply in Mashhad in Iran and Serakhs in Turkmenistan. Doosti/Dostluk Dam also prevents the riverine border of two countries from being displaced due to floods, and strengthens Iran-Turkmenistan relationships.

According to the previous 1958 and 1999 above-mentioned agreements, the water regulated by the dam should be distributed equally and the parties should receive about 410 million m³ of regulated water per year.

No bilateral or trilateral agreement has yet been signed with Afghanistan on the Harirud River. According to the 2018 Memorandum of Understanding between Iran and Afghanistan on the bilateral water issues, including the Harirud River, the two parties emphasize on the importance of the Harirud River as a transboundary river, and agreed to conduct technical and legal studies to prepare a cooperation plan for the integrated water resources management of the basin. Also they agreed to establish a joint technical working group for the implementation of the MoU. The two countries announced their readiness to conduct studies over the basin.



Doosti/Dostluk Common Dam
between Iran and Turkmenistan on Harirud River

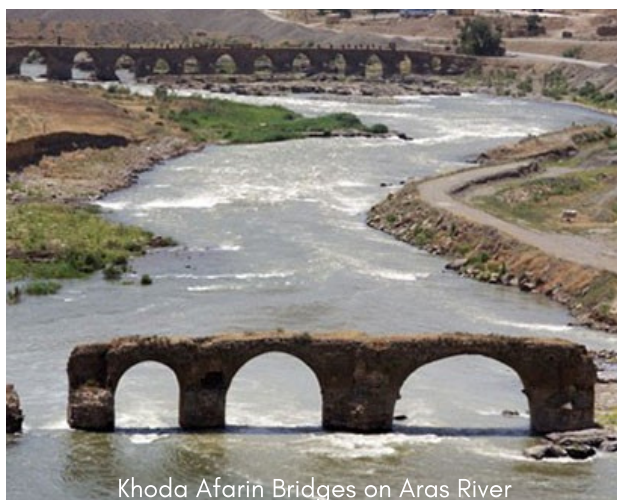
ARAS TRANSBOUNDARY RIVER BASIN

The Aras river basin has an area of 97,000 km². The river originates in the highlands located near the city of Erzurum in Turkey, then, forming part of the water borders of Turkey, Armenia, Iran, and Azerbaijan, it joins the Kura River in Azerbaijan, then flows into the Caspian Sea. Iran, Turkey, Armenia and Azerbaijan account for 39.3%, 24.5%, 23.2% and 12.9% of the Aras basin area, respectively.

The Treaty of Amity was signed between Iran and the former Soviet Union on February 26, 1921, stating that the two countries use rivers and shared waters on the basis of equal rights. An agreement was then signed in December 1954 to settle the border and financial issues between the parties, according to which the border line was determined to be the river median/center line. In order to improve good neighborliness and the need to supply water right of the Aras River riparian countries, the following three agreements on joint exploitation have been signed to date:

1. AGREEMENT BETWEEN IRAN AND THE FORMER SOVIET UNION (USSR) FOR THE JOINT UTILIZATION OF THE FRONTIER PARTS OF THE RIVERS ARAS AND ATRAK FOR IRRIGATION AND POWER GENERATION, DATED AUGUST 1957.

Article 1 states that "the parties hereto agree that the utilization of the above fifty percent right on the part of each will require separate and independent division and transmission of water and power in each party's territory, in accordance with the provisions of a general preliminary project prepared for the joint utilization of the rivers and mutually agreed upon. It has also been emphasized that "If the activities of one of the parties in utilizing its fifty percent of all resources are slower than those of the other, this fact shall not deprive that party of its right of utilizing its share". That is a clever prediction to protect the rights of both parties to exploit their shares over time.



Khoda Afarin Bridges on Aras River

2. AGREEMENT BETWEEN IRAN AND THE USSR ON JOINT CONSTRUCTION AND OPERATION OF ARAS DAM AND MIL AND MOGHAN DIVERSION DAMS, DATED JULY 1963.

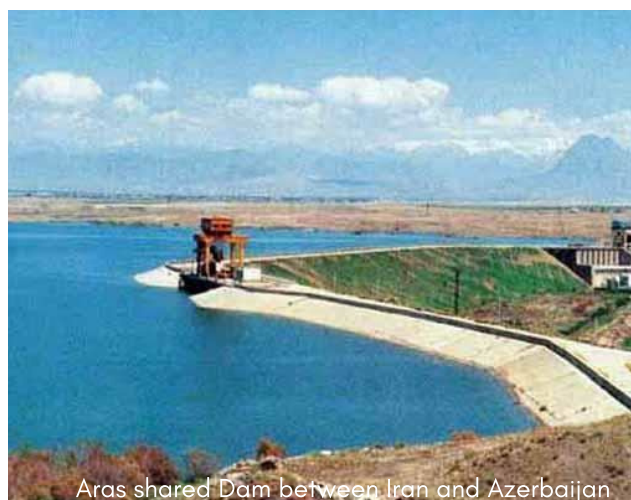
The latter agreement includes fourteen articles on the development of technical and economic cooperation. Under the agreement, Iran and the USSR agreed to cooperate, in particular, on the construction of a reservoir on the transboundary Aras River.

The Aras dam was operated in 1971 as the first joint project between Iran and the former Soviet Union on the Aras River. The water regulated by the Aras dam is diverted to irrigate the agricultural lands of the Mil and Mogan plains, located in Azerbaijan and Iran, respectively. The Aras dam has two separate hydroelectric power stations, both in Iran and Azerbaijan.

To apply the principle of water equality between the two countries, the Mil-Mogan dam was built in 1972. This dam and its adjacent structures are built symmetrically, which is a symbol of equality between the two sides in the use of the water of the Aras River.

TWO AGREEMENTS WERE SIGNED ON THE MANAGEMENT AND OPERATION OF JOINT WATER AND ENERGY FACILITIES OF THE TRANSBOUNDARY ARAS RIVER.

1) The 1963 Agreement between Iran and the USSR on the use of water and energy of the Aras River, the most important provisions of which include:



Aras shared Dam between Iran and Azerbaijan

- Completion of the dam and related structures within 6-7 years and preparation of technical and economic reports for water and energy sharing of the Aras transboundary river;
- Cost sharing for the study, design and construction of hydroelectric facilities on the Aras River in equal proportions for each of the two countries.

2) The 1973 Agreement between Iran and the USSR on the conditions, rules, management and operation of water and electricity supply facilities, as well as the use of water and energy resources of joint facilities built on the Aras river.

After the construction of the Aras and Mil-Mogan dams, the signed Protocol stipulated measures for the practical operation of the constructed facilities. Article 7 of the Protocol states that in order to coordinate action to tackle common problems related to the management, operation and maintenance of water bodies of Aras dam and Mil-Moghan Diversion Dam, and also for flood regulation and other measures taken to use water and energy resources of the Aras, a permanent joint Commission should be formed for exploitation of water-energy facilities on the river Aras on the basis of the principle of equality".

In accordance with Article 9, the permanent Commission for economic cooperation between Iran and the USSR took over the settlement of

disputes. To implement this article of the Protocol, the Commission has so far held 49 meetings (at first by the USSR and then by the Republic of Azerbaijan).

** No agreements have yet been signed between Iran and Turkey on the Aras River and its upstream tributaries.

HIRMAND/HELMAND TRANSBOUNDARY RIVER BASIN

The basin with an area of about 400,000 km² is located on the territories of Afghanistan, Iran and Pakistan. Of the total area of the basin, about 17% and 4% are located in Iran and Pakistan, respectively. The total population of this basin is 7.8 million people, of which 14% belongs to the Islamic Republic of Iran that suffers from severe water stress, and in recent years, migration from the Iranian side has been taken place, extensively.

This basin includes main rivers of the Hirmand/Helmand, Arghandab, Farah rod, Khash rod, Khuspas rod and Harut rod that eventually terminate to the triple Hamun International Wetlands and God-Zereh. Except the Hirmand/Helmand river there is no treaty or legal regime between Iran and Afghanistan regarding other rivers of the basin.

The Hirmand/Helmand Treaty was concluded in 1973 between Iran and Afghanistan and is considered as the basis of ongoing cooperation. In accordance with the Treaty, the total flow of the Hirmand/Helmand River in a normal water year at the hydrometric station in Dehrawud is equal to 5661 million cubic meters. The water right assigned to the Iranian side (for drinking and irrigation purposes) is about 820 million cubic meters per annum or the average flow rate of 26 cubic meters per second. According to the monthly allocation of Iran's water right set forth in the Treaty, the minimum and maximum water rights are 2.32 and 78.16 cubic meters per second in September and February, respectively. Unfortunately, the allocation of an environmental

flow for the protection of the Hamun International Wetlands was neglected in the 1973 Hirmand/Helmand Treaty. This issue is highlighted by the upstream developments in recent decades, which has led to the wetlands inflow reduction and the destruction of their ecosystem as well as increasing of sand and dust storms in the lower Helmand / Helmand basin, causing great health and social problems for people of both countries. The Hamun International Wetlands were registered as a biosphere reserve by UNESCO at the "4th World Congress of Biosphere Reserves" held in 2016 in Lima, Peru. The wetlands play a vital role in the region's ecosystem including climate change, wildlife sanctuary, rare species habitat, and local employment. In 1975, parts of the wetlands were registered in the Ramsar Convention as the wetlands of international importance, but unfortunately, the wetlands were included on the Ramsar Montreux Record of sites in danger in 1990 due to the threat of drying from reduced water flows.



House buried in the sand in Sistan region resulting from the Hamun wetland drying



Zahak City and irrigated lands in Iran next to the Hirmand River



The International Hamun Wetland in Iran, Sistan Region:
social and environmental impacts of the wetlands drying



Sand and dust storm in Sistan region (Iran and Afghanistan)
resulting from the Hamun wetlands drying





1.4 KAZAKHSTAN

The Republic of Kazakhstan is located in the lower reaches of most of the transboundary rivers that flow through its territory. Of the 8 main river basins of the country, 7 are transboundary with neighboring countries: Russia, China, and Central Asian states. About 45% of all surface water resources are formed by transboundary rivers.

In this regard, Kazakhstan attaches high priority to the issues of joint use and protection of transboundary water bodies with its neighbors. Water security of the country is among the priority policy directions, which is reflected in the "Strategy of Kazakhstan 2050: a new political course of the established State", "The Concept of transition to a "green economy"», "State Program of Water Resources Management of the Republic of Kazakhstan for 2020-2030" (a new version is being prepared) and in other strategic documents and programs. The basis of the national water legislation is the Water Code of the Republic of Kazakhstan and a number of legislative acts in the field of integrated management and protection of water resources of the country.

KAZAKHSTAN AND RUSSIA

Both countries, as parties to the Water Convention, concluded an intergovernmental Agreement on the Joint Use and Protection of Transboundary Water Bodies on September 7, 2010, which replaced the 1992 Agreement. In accordance with the new document, the parties recognize previously concluded agreements, agreements and decisions on the allocation of water resources of transboundary water bodies and decisions of the Kazakh-Russian Commission on the Joint Use and Protection of Transboundary Water Bodies. All agreements of different levels concluded in different years between administrative districts and basin organizations on certain transboundary rivers also have legal force. The entire negotiation process is based on the principles of international water law, and the national water legislation of the parties contributes to the

positive solution of all cross-border issues. The allocation of water resources in the basins of transboundary rivers is carried out in accordance with the agreements and the established practice of filling and working out reservoirs, the water content of the year and other factors.

For example, flow on the Maly Uzen/Saryozen river is subject to 50-50% division, and on the Bolshoy Uzen/Karaozen river - 55% for Kazakhstan and 45% for Russia. On the Ural/Zhaiyk river, the volume of transferred runoff from Russia to Kazakhstan is established in accordance with the "Protocol on the Joint Use and Protection of Transboundary Water Bodies, Coordination of Water Management Activities in the Ural River Basin" (1996)

In the years of 50%, 75% and 95% security, respectively, 7.8; 5.4 and 3.0 km³/year. On the Irtysh/Ertis river, the Rules of Operation of the Upper Irtysh cascade of reservoirs of 2002 apply. On the rivers Ishim/Yesil, Tobol, Kigach/Kigash - in accordance with the decisions taken within the framework of the Kazakh-Russian Commission on the Joint Use and Protection of Transboundary Water Bodies.

In order to establish long-term cooperation and resolve issues in the field of conservation of the ecosystem of the transboundary Ural river basin, Kazakhstan and Russia signed an Agreement between the Government of the Republic of Kazakhstan and the Government of the Russian Federation on the Conservation of the ecosystem of the transboundary Ural river Basin in 2016 that entered into force in 2017.



The Agreement is based on international legal documents and conventions of which these countries are members, as well as on previously signed bilateral agreements in the field of environmental protection, joint use and protection of transboundary water bodies. The Parties cooperate in the preparation of joint action plans and events to improve the ecosystem of the basin and prevent transboundary pollution of the Ural/Zhaiyk river, as well as to promote the use of new technologies for cooperation of research organizations and public associations in this area, the organization of activities to increase the forest cover of the river basin, the preparation of proposals for adaptation to climate change. Both parties also cooperate in the organization of measures to reduce the burden of pollution from point and diffuse sources, the exchange of information and the creation of a mechanism for taking joint measures to eliminate and reduce transboundary impacts in the event of emergencies. In order to coordinate and implement this Agreement, two parties established the Kazakh-Russian Commission for the Conservation of the Ecosystem of the transboundary Ural/Zhaiyk river Basin.

Within the framework of the work of the Kazakh-Russian Commission on the Joint Use and Protection of Transboundary Water Bodies in 2016-2018, joint studies on transboundary rivers were carried out with the support of the UNECE. An analysis was conducted of the natural and socio-economic conditions of the basin of the river Ural/Zhaiyk, hydrological, hydrochemical and hydrobiological conditions of the basin, studies of the impact of economic activities on annual runoff and seasonal allocation of runoff that the waterway and its major tributaries to assess the condition of landscapes in coastal zones.



Zhaiyk (Ural) river

KAZAKHSTAN AND CHINA

These states cooperate in the field of water relations on 24 transboundary rivers located in the basins of the Ertis (Black Irtysh – to Lake Zaisan), Ile and Emel rivers. The parties have concluded a number of agreements at various levels for their basins.

INTERGOVERNMENTAL DOCUMENTS:

- Agreement between the Government of the Republic of Kazakhstan and the Government of the People's Republic of China on Cooperation in the Use and Protection of Transboundary Rivers of 2001, which is the basis of interstate cooperation between the two countries in the field of water relations;
- On cooperation in the construction of the joint hydroelectric complex "Dostyk" on the Khorgos River from 2010;
- On the protection of Water Quality of Transboundary Rivers from 2011;
- On cooperation in the field of environmental protection of 2011;
- On the management and operation of the joint joint hydroelectric complex "Dostyk" on the Khorgos River from 2013.

INTERAGENCY AGREEMENTS:

- Agreement between the Ministry of Agriculture of the Republic of Kazakhstan and the Ministry of Water Resources of the People's Republic of China on Emergency Notification of Natural Disasters on Transboundary Rivers of 2005;
- Agreement on the development of research cooperation on Transboundary Rivers from 2006;
- Agreement between the Ministry of Environmental Protection of the Republic of

Kazakhstan and the Ministry of Water Resources of the People's Republic of China on the mutual exchange of hydrological and hydrochemical information (data) of border hydro posts of Major Transboundary Rivers of 2006;

- Procedure for emergency notification of the Kazakh and Chinese Parties with information in the event of natural disasters during floods and ice events on transboundary rivers from 2005;
- Order of exchange of hydrological and hydrochemical information (data) of border hydro posts of the main transboundary rivers of 2007.

AGREEMENTS AT THE LEVEL OF ADMINISTRATIVE DIVISIONS:

Only two transboundary rivers – Khorgos and Sumba– have bilateral agreements on water allocation between countries, which are concluded at the level of regional authorities. these include:

- Agreement on the Allocation and Use of the Waters of the Khorgos River of 2002;
- Agreement between representatives of the Raimbek district of the Almaty region of the Republic of Kazakhstan and representatives of the Jau Su County of the Ile-Kazakh Autonomous Region of the People's Republic of China on the Sumba and Kaishybulak rivers of 2004.

There are no relevant agreements for other rivers. At the same time, a number of rivers have already reached or are approaching the limit of withdrawal of runoff, which negatively affects the water supply of economic sectors and the state of natural objects in the basins.

DOCUMENTS OF THE KAZAKH-CHINESE JOINT COMMISSION:

- Memorandum between the parties of the Kazakhstan-China Joint Commission on the Use and Protection of Transboundary Rivers on emergency notification of the Parties on natural phenomena on Transboundary rivers (Almaty, October 19, 2004).

The Agreement on Cooperation in the Use and Protection of Transboundary Rivers of 2001 provides that the parties are guided by generally accepted principles and norms of international law. And act on the basis of the principles of mutual respect for independence, sovereignty and territorial integrity, non-interference in each other's internal affairs, equality and mutual benefit, peaceful coexistence, in the spirit of mutual understanding, mutual compliance and friendly consultations. And also-create the Kazakh-Chinese joint Commission on the use and protection of transboundary rivers, responsible for solving relevant issues on the implementation of this agreement.

Despite the fairly extensive legal framework for cooperation between the two countries created during the years of Kazakhstan's sovereignty, the issue of water allocation on the main transboundary rivers remains open to this day.

In 2015, a special working group was formed to prepare and agree on a new draft agreement on water allocation on transboundary rivers between the Republic of Kazakhstan and the People's Republic of China. Currently, the negotiation process is ongoing.

KAZAKHSTAN AND UZBEKISTAN

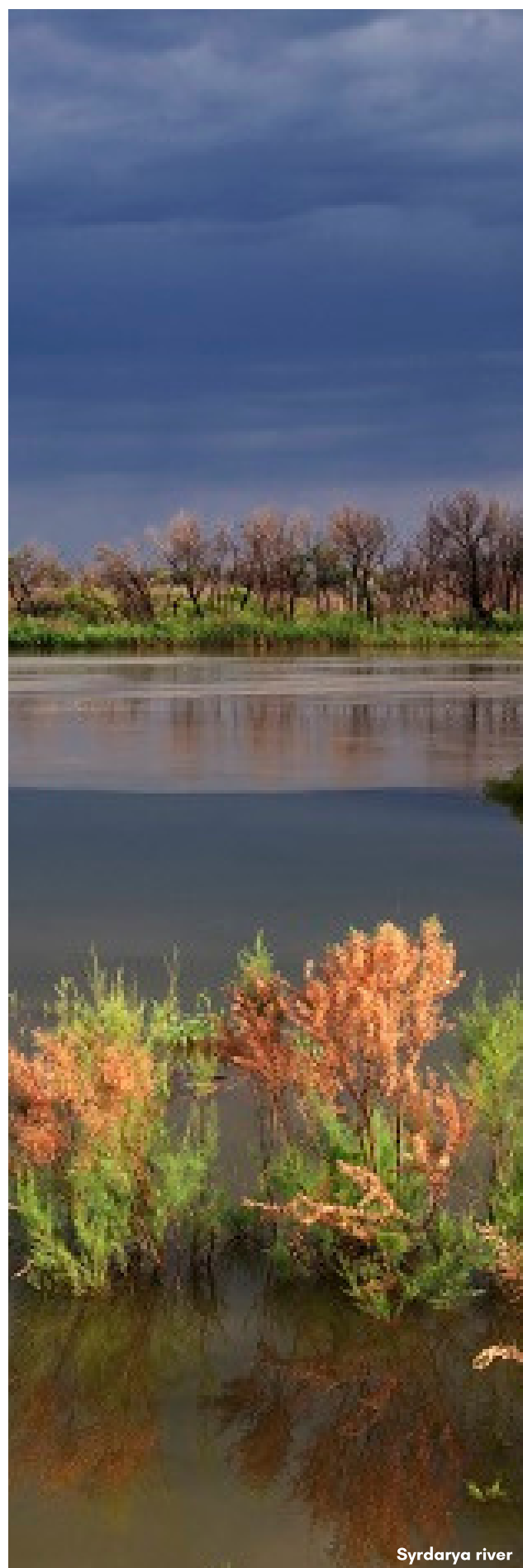
In the Syr Darya River basin, both countries cooperate in a multilateral format together with other states of the basin, and on a bilateral basis within the framework of a joint working group to develop proposals for deepening cooperation in all areas of water relations. It addresses



Zaysan lake

questions of joint use and allocation of water resources in the middle and lower reaches of the Syrdarya river: the concerted action to improve water security in its pool, ensuring the allocation of water in the interstate canal "Dostyk" in accordance with the water withdrawal limits established in ICWC, assisting in the maintenance, repair and other related works. They are also working on joint actions to ensure the required water releases from the Toktogul reservoir and the necessary water inflow to the Kairakkum/Bahri Tojik reservoir.

Issues of cooperation between Kazakhstan and Kyrgyzstan on the Shu (Chu) and Talas River basins are presented in the next section.



Syrdarya river



1.5 KYRGYZSTAN

The vast majority of surface water in Kyrgyzstan is formed on its territory, but no more than a quarter of the river flow is used annually for domestic water consumption. The rest of it goes to the territories of neighboring countries: Kazakhstan, Tajikistan, Uzbekistan, and China.

KYRGYZSTAN AND KAZAKHSTAN

The allocation of water resources of the Chu and Talas rivers between Kyrgyzstan and Kazakhstan is based on the principles adopted in Soviet times: in the Talas River basin – on a parity basis, in the Chu River basin, water resources are divided in the proportion of 58% for Kyrgyzstan and 42% for Kazakhstan.

IN 2000 THE "AGREEMENT BETWEEN THE GOVERNMENT OF THE KYRGYZ REPUBLIC AND THE GOVERNMENT OF THE REPUBLIC OF KAZAKHSTAN ON THE USE OF INTERSTATE WATER MANAGEMENT FACILITIES ON THE CHU AND TALAS RIVERS" WAS SIGNED.

In accordance with it, Kyrgyzstan, as the owner of these facilities, received the right to compensation by Kazakhstan for part of the necessary expenses to ensure their safe and reliable operation.

The Agreement established that the allocation of costs for the maintenance and reparation of water infrastructure for interstate use is made in proportion to the volume of water used. The Chu-Talas Water Commission, which was established in 2006, is responsible for coordinating and organizing the implementation of the 2000 Agreement. Soon, in the course of the activities of this commission, it became necessary to expand the list of water management facilities for interstate use on the Chu and Talas rivers. In these circumstances, the Commission is currently working to agree on a protocol to amend and supplement the 2000 Agreement.



Chu river

KYRGYZSTAN AND UZBEKISTAN

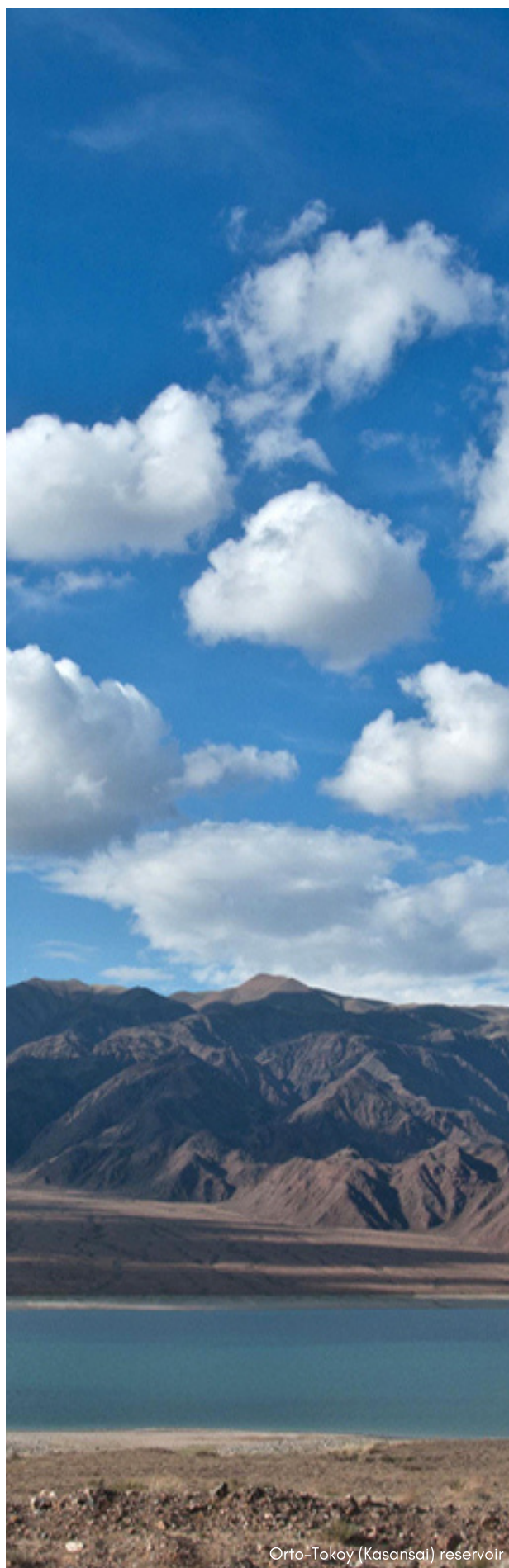
The experience of cooperation between Kyrgyzstan and Kazakhstan on the use of water resources of the Chu and Talas rivers was actively applied in resolving the issue of using the Orto-Tokoy (Kasansay) reservoir on the Kasansay River, which is located on the territory of Kyrgyzstan, but regulates water mainly for the needs of Uzbekistan.

IN OCTOBER 2017, AN AGREEMENT WAS SIGNED BETWEEN THE GOVERNMENT OF THE KYRGYZ REPUBLIC AND THE GOVERNMENT OF THE REPUBLIC OF UZBEKISTAN ON THE INTERSTATE USE OF THE ORTO-TOKOY (KASANSAY) RESERVOIR IN THE ALA-BUKA DISTRICT OF THE JALAL-ABAD REGION OF THE KYRGYZ REPUBLIC.

In accordance with it, the Kyrgyz side ensures the safety of water management facilities, operates, carries out maintenance and carries out water releases from this reservoir within the limits agreed by the parties. The Uzbek side takes an equity part in financing the costs of operation and maintenance of this facility and other agreed actions in proportion to the volume of water received. To implement the Agreement in 2019, a Commission has been established, acting on equal terms. It annually reviews and coordinates the costs of operation and maintenance of the Orto-Tokoy (Kasansay) reservoir.

KYRGYZSTAN AND TAJIKISTAN

Since 2007, Kyrgyzstan and Tajikistan have been working together to improve cooperation in the Isfara and Khoja-Bakirgan transboundary river basins. As a result, an Inter-Ministerial working group was formed, which meets periodically to discuss various issues related to cooperation in the basins of these rivers, and prepares a draft interstate framework agreement.



Orto-Tokoy (Kasansay) reservoir



1.6 MONGOLIA

The inland location of Mongolia and its relatively high altitude above sea level, combined with the arid climate, contribute to the formation of a specific hydrological regime of water bodies that are vulnerable to climate change.

MONGOLIA AND RUSSIA

TRANSBOUNDARY SELENGA RIVER BASIN

The Selenga River basin is located on the territory of two countries, Mongolia accounts for 299.0 thousand square kilometers (66.9%), Russia - 148.1 thousand square kilometers (33.1%). The main tributaries of this river are Orkhon, Egiin-Gol (in Mongolia), Uda, Chikoy, Khilok, and Jida (in Russia). The current ecological state of this transboundary basin is determined by the impact of large industrial centers and mining enterprises. However, the Selenga is the main tributary of Lake Baikal—an object of world natural heritage, so high environmental requirements are imposed on it, on production and treatment technologies. They limit the scope and nature of the use of natural resources, the development and implementation of appropriate measures, for the implementation of which additional material and financial resources are required.

For Russian-Mongolian relations in the field of environmental management and protection of the Selenga River, see section 1.7 below. For an overview of the agreements between China and Mongolia, see section 1.5.



Selenga river



1.7 RUSSIAN FEDERATION

The legal basis of regional water relations in Russia is bilateral and multilateral agreements that take into account the norms of international water law and the specifics of interstate relations in the region, national legal requirements, needs and interests of States.

The Russian Federation borders on land with fourteen states, of the total length of the border (60,933 km), 7,141 km runs along rivers, 475 km – on lakes and 38,807 km – on the seas. The total number of transboundary water bodies exceeds one thousand, of which 70 rivers are large and medium-sized (State Report, 2018). Currently, Russia has ten international agreements with neighboring states on the use and protection of transboundary waters, including bilateral ones with Finland, Estonia, Ukraine, Belarus, Azerbaijan, Kazakhstan, Mongolia, and China; trilateral – with Norway and Finland. Joint commissions have been established to organize work on the implementation of the agreements.

INTERNATIONAL AGREEMENTS ON THE USE OF TRANSBOUNDARY WATER BODIES:

- Agreement between the Government of the Russian Federation and the Government of the Republic of Kazakhstan on the Joint Use and Protection of Transboundary Water Bodies of 2010.

The Contracting parties recognize the commonality and unity of the water resources of transboundary water bodies, and cooperate in a spirit of equality and partnership in order to preserve, protect and restore these resources. In accordance with the principles of international law, they carry out the rational use and protection of transboundary water bodies and are responsible for ensuring that their activities do not cause damage to the transboundary water bodies of the State of the other party. States base their actions on the Convention on the Protection and Use of Transboundary Watercourses and International Lakes of 17 March 1992.

- Agreement between the Government of the Russian Federation and the Government of the Republic of Kazakhstan on the Conservation of the Ecosystem of the Transboundary Ural River Basin of 2016.

It regulates the activities of the parties to preserve the ecosystem of the transboundary Ural River basin (Zhaiyk). The document defines an "ecosystem" (ecological system) as an interconnected set of organisms and their habitat interacting as a single functional whole.

This agreement was developed for almost 20 years, of which about 10 years were spent on numerous negotiations between the parties, the rest of the time – on the coordination of issues related to the conservation of the ecosystem of the transboundary Ural River basin. In order to coordinate and implement the document, the parties create a Russian-Kazakh Commission.

- Agreement between the Government of the Russian Federation and the Government of Mongolia on the Protection and Use of Transboundary Waters, 1995.

It is based on the relevant provisions of the Treaty on Friendly Relations and Cooperation between the Russian Federation and Mongolia of January 20, 1993. It provides that the parties seek to develop cooperation in the field of protection and rational use of transboundary waters on the principles and norms of international law, guided by the principles of equal and mutually beneficial management of water resources of transboundary waters. The Agreement includes the term "ecological release", which defines the agreed amount of water resources needed to preserve the ecosystem of a given water body.

- Agreement between the Government of the Russian Federation and the Government of the People's Republic of China on the Rational Use and Protection of Transboundary Waters of 2008.

In accordance with it, the parties cooperate in the use and protection of transboundary waters, exchange of technologies in this area, ensure the maintenance of existing hydraulic and other structures on transboundary waters in proper technical condition, implement measures to stabilize riverbeds and prevent erosion.

They also cooperate in the field of hydrology, flood prevention and mitigation, monitor transboundary waters, inform each other, by prior agreement, about ongoing and planned water management activities on transboundary waters that can lead to significant transboundary impacts, and take the necessary measures to prevent, limit and reduce such impacts.

In addition, they work out and take joint actions to prevent and respond to emergencies, carry out joint scientific research, develop common standards and indicators for the quality of transboundary waters, and methods for monitoring them.



Ural (Zhayik) river



1.8 TAJIKISTAN

In the current political and economic relations of the countries of the region, the Government of the Republic of Tajikistan takes steps to protect its national interests, following the principles of good-neighborliness and the desire for cooperation. On water issues, the main interstate issue is water and energy.

Therefore, Tajikistan believes that in interstate relations, especially in the sphere of interstate use of water and energy resources, it is impossible to make unilateral decisions.

Although Tajikistan has not ratified international water conventions, it adheres to these principles in implementing its water policy in practice.

TAJIKISTAN AND AFGHANISTAN

The Central Asian countries have agreed to adhere to International Water Law on the basis of their cooperation schemes. The inherent commitment to the equitable and reasonable use of water resources with no significant harm implies recognition of the interests of Afghanistan along the Amu Darya River.

In 1958, The Governments of Afghanistan and the former Soviet Union signed an agreement concerning their borders along the Amu Darya, the second part of which is called "Rules for managing the use of border waters (or those located along the border) and main routes crossing the border line» among other things, it includes the term border (or along the border line) waters. These are the waters along which the border line runs in accordance with the Soviet-Afghan documents on the establishment of borders and re-establishment of borders from 1947–1948.

Further, in 1961 and 1964, agreements were signed between the same parties regarding hydraulic structures in general, and on the use of hydropower in the Amu Darya basin in particular. These international treaties between the former

USSR and the Kingdom of Afghanistan have not been changed or annulled since then. However, they do not consider the allocation of water between coastal States that share the water resources of the Amu Darya basin.

Numerous consultations have taken place between Tajikistan and Afghanistan in recent years. They included various issues, including integrated water resources management and planning in the Amu Darya basin and, in particular, the construction of hydro posts and measures to protect the banks of the Panj River. Despite the favorable atmosphere that prevailed during past meetings, good intentions were followed by few concrete actions.

On August 3, 2007, a Protocol was signed between the Minister of Energy and Water Resources of the Islamic Republic of Afghanistan and the Minister of Land Reclamation and Water Resources of the Republic of Tajikistan with reference to and on the basis of the 1958 Agreement between Afghanistan and the former USSR.

THE MAIN POINTS OF THIS PROTOCOL ARE:

- cooperation in planning and investment in the water sector; implementation and execution of works to protect the banks of the Amu Darya;
- supply and support technical research teams for water resource planning in the irrigation and hydropower sectors, including ensuring their safety;
- Assist in the restoration of past hydrological measuring stations along the Panj and Amu Darya Rivers and identify sites for the construction of new measuring stations.

Another Protocol was signed on July 14, 2010, between the Minister of Energy and Water Resources of the Islamic Republic of Afghanistan and the Minister of Land Reclamation and Water Resources of the Republic of Tajikistan with

reference to and on the basis of the 1958 Agreement between Afghanistan and the former USSR. The parties discussed and agreed on the exchange of Amu Darya water from either side to provide the population in need of drinking water in the amount of 150 liters/s, respectively.

A draft Memorandum of Understanding was also prepared in 2007 by representatives from Tajikistan and Afghanistan. Water relations of the Republic of Tajikistan with the Islamic Republic of Afghanistan are based on the Agreement on Cooperation on the development and Management of water Sources on the Panj and Amu Darya Rivers between the Governments of the Islamic Republic of Afghanistan and the Government of the Republic of Tajikistan", signed on October 25, 2010 in Kabul.

It is planned to expand cooperation in the issue of rational use of water resources of the rivers of the two countries, in particular for the production of electricity and irrigation of virgin lands, taking into account international rights and mutual interests. The planned actions aimed at effective and sustainable transboundary cooperation on water issues are as follows:

- improving hydro-meteorological knowledge base in Afghanistan and in the region;
- establishment of a formal strengthening mechanism;
- trust for the exchange of information on water policy between Afghanistan, its neighbours and the donor community;
- the concentration of support from the international community for the transition to a water strategy is greater at the regional level than at the national level;
- start of multilateral negotiations to increase confidence and establish an action plan for the establishment of a mechanism for transboundary water resources management and an intergovernmental scheme for



Amudarya river

ensuring the safety of water resources in river basins.

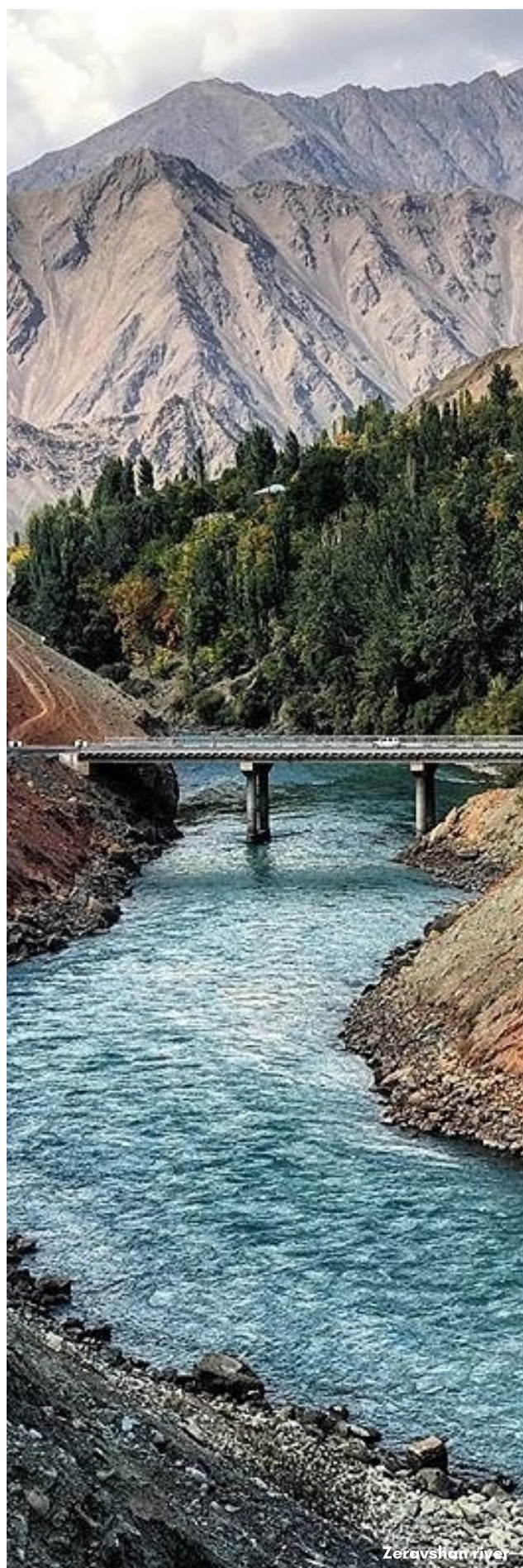
TAJIKISTAN AND UZBEKISTAN

Joint use and management of water resources at transboundary level on the basis of mutually beneficial cooperation and trust can become an incentive to intensify regional efforts to find solutions to one of the key strategic problems of Central Asia – ensuring rational water use.

The practice of joint use and management of water resources on the example of Tajikistan and Uzbekistan showed that joint coordinated actions and joint decisions taken by the state water management authorized bodies of the two countries contributed to improving the technical condition of the channels, eliminating water shortages in the lower reaches, increasing the water supply of irrigated land, the productivity of water and land resources, the construction of two hydroelectric power plants on the Zarafshan River in the territory of the Republic of Tajikistan, Uzbekistan's support for the completion of the Rogun hydroelectric power station and other important facilities of interstate significance is becoming a catalyst for regional efforts to ensure water security, reliability of operation of interstate water bodies and improvement of socio-economic conditions of the irrigation zone.

Development of water-energy relations of Tajikistan and Uzbekistan on joint construction of two hydropower plants on the river Zarafshan in the territory of the Republic of Tajikistan, the Uzbek heritage of the Rogun hydroelectric power station and other important interstate facilities is becoming a catalyst for regional efforts to achieve water security.

Issues of cooperation between Tajikistan and Kyrgyzstan are described in section 1.4.





1.9 TURKMENISTAN

In sustainable water use, legal regulation of the use of transboundary rivers is important for Turkmenistan. The country borders Kazakhstan, Uzbekistan, Iran and Afghanistan and uses water resources coming under agreed quotas mainly from four transboundary rivers: the Amu Darya, Tejen, Etrek and Murghab.

In 2012, Turkmenistan joined the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (before that, it joined the Ramsar Convention), which is very relevant for the country, almost 95% of which surface waters are currently formed outside its borders. After the collapse of the USSR, Turkmenistan was able to develop its own strategy for the use of its water resources. However, the management of the resources of transboundary rivers required the preservation of unity. And the leadership of the country, as in neighboring countries in the early 90s, showed an understanding of the impossibility of solving this problem separately.

As a result, joint water management organizations were formed and very important agreements were reached. The principles of water allocation were developed in the Soviet period and later enshrined in a number of documents. It is necessary to recognize the effectiveness of previously concluded intergovernmental agreements, bilateral and multilateral, on water problems, on their basis, the problems that have arisen are jointly solved and the management of transboundary water resources is successfully carried out. International institutional mechanisms in this area, in which Turkmenistan is involved, include: ICWC, EC IFAS, ICSD, the UN Regional Centre for preventive diplomacy in Central Asia and others.

Although the methods and principles of water allocation originally formed in the country were based on the above understanding, the practice of providing water for the needs of production and life activity prevails.

At the same time, the dominant requirements are for irrigation water for growing agricultural crops under state orders—cotton and wheat. This long-term practice of water allocation has led to a reduction in passes. At the same time, in recent years, there have been significant changes in the structure of crops with an increase in the area under cotton and a decrease in wheat crops.

In recent years, Turkmenistan has initiated a number of proposals in the water sector. Thus, under the chairmanship of Turkmenistan in IFAS, the development of a draft of the UN Special Program for the Aral Sea Basin was initiated in coordination with the founding states of IFAS. As seen by the main stakeholders of Turkmenistan, this Program should become a separate area of UN activity and consolidate the efforts of the founding states of IFAS, as well as other partners of the Fund.

After gaining independence, Turkmenistan recognized a number of normative and legal documents of the former USSR. Bilateral interstate agreements have also been signed between Turkmenistan and the Islamic Republic of Iran and between Turkmenistan and the Republic of Uzbekistan. The implementation of the agreements reached by the parties indicates a good elaboration of the mutual obligations set out in these agreements and the timeliness of the decisions taken (although in practice, in technical and organizational aspects, they are not implemented in all). When implementing specific urgent tasks on transboundary waters, Turkmenistan preferred to develop bilateral relations, which are characterized by greater detail, elaboration and responsibility for the implementation of the mutual obligations assumed.

According to the vision of those involved in solving water issues in the country, the more parties involved in the negotiation process, the more difficult and slower the process of harmonizing national interests and achieving mutual agreement. At the same time, it is

important to conclude an agreement on water issues with Afghanistan as soon as possible. The previous Afghan-Soviet treaties of 1947-1948, 1958, 1961 and 1964 mainly reflect the issues of establishing borders, as well as hydraulic structures, and creating water commissions. In accordance with these treaties, the allocation of water between coastal States that share the water resources of the Amu Darya River (as well as the Murghab River) is not considered.

TURKMENISTAN AND IRAN

Turkmenistan, as the legal successor of the former USSR in the territory of the Turkmen SSR, confirmed its obligations under the agreements on border rivers and waters between Iran and the USSR. These obligations are set out in the:

- Agreement between the USSR and Persia (old name of Iran) on the mutual use of frontier rivers and waters throughout the border from the river Geri-Rud (Tejen) to the Caspian Sea from February 20, 1926;
- Protocol to the Agreement between the USSR and Iran on the Settlement of Border and Financial Issues of December 2, 1954;
- Agreement between the Government of the USSR and the Shahinshah Government of Iran on the Regime of the Soviet-Iranian Border and on the Procedure for Settling Border Conflicts and Incidents, concluded in Moscow on May 14, 1957.;
- The Soviet-Iranian Agreement on the Araks and Atrak Border Rivers concluded in Tehran on August 11, 1957.;
- Agreement between the Government of the USSR and the Shahinshah Government of Iran on drawing up preliminary projects for the equal use of the border sections of the Araks and Atrak Rivers for Irrigation and Electricity Production, concluded in Tehran on March 5, 1958.

In the agreement of 20.02.1926 it is written: "All the water of the Geri Rud (Tejen) River, starting from the Pul-i-Khatun Bridge, downstream along the entire length of the border between the contracting parties, is divided into ten equal parts, of which three parts go to the use of Persia and seven parts to the use of the USSR."

The allocation of the annual flow of the Tejen River was changed in the proportion of fifty to fifty on the basis of the "Agreement between the Government of Turkmenistan and the Government of the Islamic Republic of Iran on the construction of the Dostluk reservoir dam" (dated 20.10.1999.).

The issues of water relations between Turkmenistan and Iran are also discussed in section 1.2



TURKMENISTAN AND UZBEKISTAN

In Soviet times, the allocation of Amu Darya water resources among the four Central Asian republics was based on the General Scheme for the Development of Water Resources in the Amu Darya basin. The division was approved by the decision of the Scientific and Technical Council of the Ministry of Water Resources of the former USSR No. 566 of March 12, 1987.

The share of surface water allocated to Turkmenistan (and Uzbekistan) under this decision was 42.27 km³. From the above

figures, it follows that Turkmenistan and Uzbekistan have equal (50% x 50%) shares of water runoff downstream from the Kerka junction. After the collapse of the USSR, both republics signed agreements on the basic principles of water allocation. These principles have been tested over time, and the experience of joint management of the Amu Darya River has been accumulated, in which the Interstate Water Coordination Commission (ICWC) has played a positive role. As a result, it was possible to prepare good ground for the conclusion in 1996 of an indefinite "Agreement between Turkmenistan and the Republic of Uzbekistan on cooperation in water management issues".

For several decades, the country, together with Uzbekistan, has been operating the large Tuyamuyun reservoir on the Amu Darya. This experience can serve as a clear example of cooperation at the cross-border level, including in the aspect of joint security of passes. An analysis of the actual situation in the field of water allocation among States over the past decades shows that there are no large deviations from the agreed limits, with the exception of 2000. Some excess water withdrawal to Turkmenistan and Uzbekistan in certain periods has always been discussed and agreed at ICWC meetings. Of interest in this agreement is the mechanism for the practical implementation of the clause on stopping the discharge of drainage water into the Amu Darya. Turkmenistan has fulfilled (partially) this point of the document by putting into operation a complex of structures under the general name "Turkmen Lake of the Golden Age", which is from an engineering point of view a solution to a whole complex of problems. It is also interesting to solve the issue of fair division of costs for the reconstruction and operation of interstate watercourses. The mentioned agreement uses the approach of "flow proportions", while domestic regulatory documents determine the amount of these costs on the principle of "length".

These examples are a good model for solving transboundary water problems. For Turkmenistan, it is very important to implement existing interstate agreements and other documents in the water sector due to the high cross-border nature of the country's water resources and the reduction of river flow in the region.

The Amu Darya River accounts for more than 90% of the total water supply to Turkmenistan, and the shortage of water resources in its water area will instantly affect all sectors of the country's economy. Therefore, in order to solve transboundary water management issues, it is important to strengthen cooperation with neighboring countries and participate in the ICWC, ensuring clear and coordinated management in it. In this regard, in order to further consolidate joint actions and strengthen the authority of the ICWC and its executive bodies, it is important to quickly complete the preparation of generalized proposals on the main areas of strengthening the ICWC's activities and mechanisms for their implementation. If an agreement on the use of water and energy resources of the Amu Darya basin is to be developed, the ICWC and the relevant energy authorities of Central Asia, with the participation of national water and energy departments, should establish annual access regimes from reservoirs of interstate significance and ensure their implementation. In view of the lack of water sharing arrangements with Afghanistan, it is important to accelerate the conclusion of bilateral agreements with this country.



Turkmen Lake of the Golden Age



1.10 UZBEKISTAN

The territory of Uzbekistan is located within the two river basins of Central Asia, the Amu Darya and Syr Darya, occupies their western and north-western parts, where the mountain systems of the Pamir-Alai and Tien Shan pass into the plains. This is due to the relatively small water content of the rivers of Uzbekistan compared to Tajikistan and Kyrgyzstan and the dependence on neighbors for guaranteed allocation of surface water, since only 11-12% of all water resources used in the country are formed on its territory.

The main water resources of Uzbekistan are surface runoff formed by the Amu Darya and Syr Darya rivers. Its limitations do not allow the full use of significant favorable land resources in irrigated agriculture. And it is the main source of food production and production of more than 90% of the gross agricultural output and employment of the rural population. The total irrigated area of the Republic is only 4.3 million hectares. For a year, on average, 51 billion m³ of water, including for agriculture – 46 billion m³ or 90% of the total volume of water are being used.

In February 2020, the Decree of the President of the Republic of Uzbekistan approved the "Concept of water management development of the Republic of Uzbekistan for 2020–2030". In terms of the development of interstate relations on the use of transboundary water resources in the region, it provides for the implementation of the following measures.

- continuation of active cooperation and interaction of the Republic of Uzbekistan with the countries of the Aral Sea basin and regional interstate water management organizations on the issues of joint use of water resources of the region and interstate water management facilities;
- development and implementation of mutually acceptable mechanisms for joint management of transboundary water resources in the region, which will ensure a

balance between the interests of the Central Asian countries;

- promotion of the norms and principles of the UN Water Conventions (1992 and 1997);
- creation of a joint monitoring mechanism and open data exchange for the implementation of existing legal agreements, including a program to improve water accounting at the level of the Syr Darya, Amu Darya and other transboundary rivers;
- promoting the development of a common position by the countries of the region regarding the construction of large hydraulic structures;
- study of the possibility of participating in co-financing of water management projects implemented by the parties, taking into account the interests of Uzbekistan and regional partners;
- establishing regular exchange of information on water use between the countries of the region;
- development of joint regional water management plans and identification of joint tasks for the future, including the development of measures for adaptation to climate change at the regional level and the exchange of experience in areas of mutual interest.

Water relations between Uzbekistan and neighboring countries are also discussed in Sections 1.4, 1.8, 1.9 and 1.11.



Syr Darya river



1.11 MULTILATERAL COOPERATION IN CENTRAL ASIA

The Aral Sea basin, which almost coincides with Central Asia, is located in the center of Eurasia. The basin covers the entire territory of Tajikistan, Uzbekistan, most of Turkmenistan, three regions of the Kyrgyz Republic (Osh, Jalalabad, Naryn), the southern and western part of Kazakhstan (three regions: Aktobe, Kyzylorda and Turkestan) and the northern part of Afghanistan and Iran.

The surface water resources of the Aral Sea basin are mainly concentrated in the basins of the two main rivers of the region – the Amu Darya and Syr Darya. Independent hydrographic basins (tending to the Amu Darya and Syr Darya rivers) form the Kashkadarya, Zaravshan, Murghab, Tejen, Chu, Talas rivers – which lost their connection with the main rivers many centuries ago. In general, the surface waters of the main rivers and their major tributaries in the Aral Sea basin are transboundary.

The Amu Darya is the largest river in Central Asia. Its length from the source of the Panj River is 2540 km, and the basin area is 309 thousand km². After the confluence of the Panj with the Vakhsh, the river is called the Amu Darya. In the middle reaches, three large right tributaries (Kafirnigan, Surkhandarya, Sherabad) and one left tributary (Kunduz) flow into it. The main flow of the Amu Darya is formed on the territory of Tajikistan and partly in Northern Afghanistan. Then the river flows along the border of Afghanistan with Uzbekistan, crosses Turkmenistan, and returns to Uzbekistan. Further, for about 1257 km, it does not receive a single tributary. The Amu Darya previously flowed into the Aral Sea, but in the 80s, as a result of large-scale water intake for irrigation, the flow into the sea completely stopped.

The Syr Darya, the second largest and longest river in Central Asia, is formed at the confluence of the Naryn and Karadarya rivers in the eastern part of the Ferghana Valley. From the source of the Naryn, its length is 3019 km, and the basin area is 219 thousand km². The flow of the Syr Darya is formed in the mountainous part of

Kyrgyzstan (74%), a small part of the upper reaches is located in China. The Syr Darya then crosses Uzbekistan and Tajikistan and flows into the Aral Sea in Kazakhstan. In the middle reaches, the Akhangaran, Chirchik and Keles Rivers flow into the Syr Darya.

In its lower reaches, the Syr Darya flows along the eastern and northern margins of the Kyzylkum sands. The last tributary is the Arys. At the mouth of the Syr Darya river forms a delta (near the city of Kazalinsk) with numerous channels, lakes and swamps. The estimation of the average annual flow of rivers according to hydrometric observations is characterized by the following values: for the rivers of the Syr Darya basin – 37.14 km³/year; for the rivers of the Amu Darya basin (including the drainless rivers of Afghanistan, Iran and Zarafshan) – 78.46 km³/year. Thus, the total average annual resources of surface (river) waters in the Aral Sea basin are 115.6 km³/year.

During the transitional period of the formation of the new independent States between the republics of Central Asia signed a special agreement aimed at preserving between them the former Soviet Union since relations in the areas of water and energy resources use. During this period, interstate organizations were created – ICWC, IC IFAS, ICSD, thanks to the activities of which the countries of this region have been living in peaceful coexistence for about 30 years.

In the above-mentioned agreements and "soft law" there is recognition of commonality and unity water resources of the region, the possession of the parties the same rights to use and responsibility for ensuring their rational use and protection, according with the fact that the Central Asian States recognize previously signed agreements, contracts and other regulations governing the relationship between them for water resources in the Aral sea basin, and take it to consistent implementation. In that difficult period, this was caused by the desire to ensure continuity in decisions and, of course, it was

justified. All the agreements adopted aimed at conflict-free resolution of water resources management in Central Asia in the post-Soviet period were the dictates of the times and are generally fulfilled their tasks at the transition stage.

But these documents were essentially political in nature, without affecting the economic side of the issue. Therefore, such a scheme of relationships could not remain unchanged for a long time.

The first legal regulation of water cooperation was fixed in the Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, Uzbekistan, Tajikistan and Turkmenistan on cooperation in joint management, use and protection of water resources from interstate sources" (from 18.02.1992, Almaty) concluded after only 1.5 months after the collapse of the USSR. This is one of the first regional agreements between the independent countries of Central Asia. Under this agreement, the Contracting Parties recognized:

- the need for a coordinated and organized solution of issues of joint water resources management in the Aral Sea basin;
- the indissoluble dependence and interrelation of the interests of all parties in solving the issues of joint use of water resources on the principles common to the entire region and fair regulation of their consumption;
- the existing structure and principles of allocation on the basis of existing regulatory documents on the allocation of water resources of interstate water sources.

BASED ON THIS, THE PARTIES HAVE COMMITTED TO:

- ensure strict compliance with the agreed procedure and established rules for the use and protection of water resources;
- prevent actions on its territory that affect the interests of other parties and can cause damage to them, lead to changes in the agreed values of water consumption and

pollution of water sources;

- jointly carry out work to solve environmental problems associated with the drying up of the Aral Sea, as well as set the volume of sanitary releases for each specific year, based on the water content of interstate sources.

It should be noted the extremely important role of this agreement in the development of water cooperation between the countries of the region in the post-Soviet period. Later, the principle of preserving water use conditions, developed back in 1984, was confirmed at the level of the heads of Central Asian states in the framework of the "Nukus Declaration" adopted at the UN International Conference on Sustainable Development of the Aral Sea Basin States (dated 20.09.1995, Nukus). This declaration states: "We agree that the Central Asian states recognize the previously signed and existing agreements, treaties and other normative acts regulating the relations between us on water resources in the Aral Sea basin, and accept them for unswerving implementation."

The later "Decision of the Interstate Council on the Problems of the Aral Sea Basin" (dated 19.04.1996, Kzyl-Orda), paragraph 8.3. also refers to this agreement: "Prior to the approval of the regional water strategy to be guided by the accepted principle of ICWC water allocation established by the "Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, Uzbekistan, Tajikistan and Turkmenistan on cooperation in joint management, use and protection of water resources from interstate sources" of 18.02.1992 city".

It should be taken into account that these documents regulate only aspects of interstate water relations. The relationship of aspects of international cooperation on water and energy issues set out in the joint "statement by the Heads of state of the Republic of Kazakhstan, the Kyrgyz Republic and the Republic of

Uzbekistan about use of water and energy resources» from 06.05.1996, Bishkek. In this statement, the leaders of these countries officially recognize "... previously signed and existing agreements, treaties regulating the use of water and energy resources and note the need to accelerate the development of a new water allocation strategy and economic management levers in this area."

Further significant contribution to the development of regional cooperation was due to the conclusion of the "Agreement between the Government of the Republic of Kazakhstan, the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on the use of water and energy resources of the Syrdarya River Basin" (dated 17.03.1998, Bishkek). Tajikistan joined this agreement on 17.06.1999. It provides for the provision of coordinated modes of operation of hydropower facilities and reservoirs of the Naryn-Syrdarya cascade, the implementation of water supply for irrigation needs. So far, this is the only agreement regulating the relationship of states on the use of water and energy resources in this basin, which is considered intermediate, designed for a certain period of time. Its adoption was caused by the need to generalize the previous practice of interaction between states, to specify the mechanisms and procedures for cooperation in the field of shared use of resources, as well as to unify the terms of future bilateral agreements in this area.

In the agreement, the parties considered it necessary to annually coordinate and make decisions on water release, electricity generation and transmission, as well as on compensation for energy losses on an equivalent basis. And they pledged not to take actions that violate the agreed regime of water use and energy supplies, as well as infringe on the rights of other parties to receive mutually agreed volumes of water, energy supplies and their transit through their territory.

The main essence of the agreement prescribed in article 4: "incremental cascade of Naryn-Syrdarya hydro-electric energy associated with the regime of water releases in the growing season and multi-year flow regulation in the Toktogul reservoir, in excess of the needs of the Kyrgyz Republic transferred to the Republic of Kazakhstan and the Republic of Uzbekistan equally. Its compensation is carried out by supplies to the Kyrgyz Republic in an equivalent amount of energy resources (coal, gas, heating oil, electricity), as well as other products (works, services) or in monetary terms, as agreed, to create the necessary annual and long-term water reserves in reservoirs for irrigation needs. When carrying out mutual settlements, a unified tariff policy for all types of energy resources and their transportation should be ensured."



Toktogul reservoir of the Naryn-Syrdarya cascade

ALSO OF FUNDAMENTAL IMPORTANCE IS ARTICLE 10, IN WHICH THE PARTIES AGREED TO JOINTLY CONSIDER THE FOLLOWING ISSUES:

- construction of new hydropower facilities and reservoirs or alternative sources in the region;
- the transition from the existing barter settlements by financial relations;
- development of pricing mechanisms based on a single tariff policy;
- ensuring safe operation of hydraulic structures located in the Syrdarya River basin;

- economical and rational use of water resources with the use of water-saving technologies and technical means of irrigation;
- reducing and stopping the discharge of contaminated water into the water sources of the Syrdarya River basin.

Attempts in 2006–2007 to develop intergovernmental agreements "On the use of water and energy resources of the Syrdarya River basin"; "On the use of water and energy resources of the Amu Darya River basin"; "On the formation and functioning of national, basin and regional databases for the integrated use and protection of water resources of the Aral Sea basin" ended with protocols of disagreements between the parties. On the instructions of the Interstate Council of the European Economic Community (at the level of heads of State) The EurAsEC Integration Committee established High-level Groups on the development of a coordinated mechanism for water and energy regulation in the Syrdarya and Amu Darya river basins (2006–2007). The results of the work on the development of the "Concept of effective use of water and energy resources of the Central Asian region" were also inconclusive.





2. ORGANIZATIONAL MECHANISMS OF WATER COOPERATION AND RECOMMENDATIONS FOR THEIR IMPROVEMENT



2.1. COOPERATION BETWEEN KAZAKHSTAN AND KYRGYZSTAN ON THE CHU AND TALAS RIVERS

In 2000, an Agreement was signed between the Government of the Kyrgyz Republic and the Government of the Republic of Kazakhstan on the use of interstate water management facilities on the Chu and Talas Rivers. The agreement states the intention of the parties to create permanent commissions to determine the mode of operation of the water infrastructure and the share of each party in financing activities for the operation and maintenance of the infrastructure.

In accordance with this document, the Commission of the Republic of Kazakhstan and the Kyrgyz Republic on the use of water management facilities for interstate use on the Chu and Talas Rivers was established. On July 26, 2006, the Commission was inaugurated in Bishkek. It operates in accordance with the "Regulation on the Commission", approved on July 26, 2006, and operates on the following principles:

- It is created on parity terms, consists of two parts on the basis of the principle of equal representation and works under the leadership of two co-chairs appointed by the Governments of the States;
- It exercises its powers in cooperation with the state bodies of both countries, local self-government bodies, public associations and citizens.
- The co-chairs and members of the commission have the same rights and responsibilities.

In its work, the commission is guided by previously approved documents on the interstate allocation of water resources in the Chu and Talas River basins, while preserving the principles and structure of water allocation contained in them, clarifies them if necessary and submits them for approval to the Governments of both states.

The commission holds its meetings (sessions)

alternately on the territory of Kazakhstan and Kyrgyzstan, takes decisions on the basis of consensus, and in case of disagreement on any issues, the parties hold additional consultations and consider these issues at the next meeting. The Commission may also engage experts on a temporary or permanent basis and establish temporary or permanent working groups.

THE MAIN TASKS OF THE COMMISSION ARE:

- coordination and organization of activities for the implementation of the 2000 Agreement;
- comprehensive assessment and forecasting of the state of transboundary water bodies and water management structures of interstate use;
- coordination of standards and procedures for water consumption and sanitation, measurement and accounting of water resources;
- coordination of water consumption limits, modes of operation of facilities for interstate use, conditions for adjusting these limits and modes, depending on the actual reserves of water resources and the needs of water users;
- coordination of conditions for equity participation in the financing of measures that ensure the regulatory level of security of interstate infrastructure;
- establishment of order and organization of joint actions in emergency situations, coordination of measures for safe passage of flood waters and control of floods and mudslides;
- organization of the exchange of hydrological forecasts, information on the current water situation and other relevant information;
- coordination and coordination of the implementation of programs for monitoring

water resources and water management facilities in the Chu and Talas River basins;

- organization of joint scientific research;
- design and other developments aimed at the development of water use in both transboundary basins.

In order to ensure the effective operation of the Commission, the Parties have formed a permanent Secretariat to prepare sessions of the commission, promptly resolve administrative and organizational issues, coordinate the activities of working groups, and strengthen interaction between projects implemented in the area of the agreement, including those funded by donors.



Chu and Talas river basin



2.2. COOPERATION BETWEEN UZBEKISTAN AND KYRGYZSTAN ON THE USE OF THE ORTO-TOKOY (KASANSAY) RESERVOIR

In order to implement the Agreement between the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan on the interstate use of the Orto-Tokoy (Kasansay) reservoir in the Ala-Buka district of the Jalal-Abad region of the Kyrgyz Republic dated October 6, 2017 in Tashkent, in accordance with Articles 10 and 17 of the Constitutional Law of the Kyrgyz Republic" On the Government of the Kyrgyz Republic", dated August 1, 2019. The Regulation on the Permanent Commission of the Kyrgyz Republic and the Republic of Uzbekistan on the Interstate use of the Orto-Tokoy (Kasansay) reservoir in the Ala-Buka district of the Jalal-Abad region of the Kyrgyz Republic was approved.

According to this provision, the commission is established on equal terms and works under the leadership of two co-chairs appointed by the Governments of both States. Such co-chairs are the heads of their water management organizations, the composition of the commission members is determined on the basis of the principle of equal representation. The main form of activity of the commission is meetings, which are held at least twice a year.

THE MAIN TASKS OF THE COMMISSION ARE:

- establishment of the operating mode of the Orto-Tokoy (Kasansay) reservoir;
- setting the water intake limit;
- determining the amount of necessary costs for the operation and maintenance of the Orto-Tokoy (Kasansay) reservoir;
- ensuring the use of the reservoir for its intended purpose;
- ensuring the annual allocation and allocation of the necessary financial resources from the Government of the Kyrgyz Republic and the Government of the Republic of Uzbekistan for the operation and maintenance of the Orto-Tokoy (Kasansay) reservoir in proportion to the volume of water received;
- adoption of joint actions in emergency situations, prevention, mitigation and elimination of their consequences,
- coordination of flood control measures and

control of floods, mudslides and other natural phenomena;

- maintenance of a joint account of water in the Orto-Tokoy (Kasansay) reservoir;
- consideration of other issues related to the activities of the Commission. The Commission annually reviews and coordinates the costs of operation and maintenance of the Orto-Tokoy (Kasansay) reservoir.

OPERATING AND MAINTENANCE COSTS INCLUDE:

- staff maintenance;
- repair and restoration works;
- other operating costs.

The scope of repair and restoration work is determined on the basis of defective acts drawn up by a working group of representatives of the Parties. The performance of repair and restoration works is made out by the acts of the working groups on acceptance. The costs of operation and maintenance are calculated on the basis of the regulatory acts of the Kyrgyz side. The parties finance the costs of operation and maintenance on a quarterly basis. The Uzbek side transfers funds on the basis of an invoice provided by the Kyrgyz side.

FUTURE WORK SHOULD BE FOCUSED ON:

- formation of a package of normative legal acts, technical standards and other documents that provide a stable legal and organizational basis for water management activities in transboundary basins;
- regulation of the direction of work of existing institutional structures—from the primary coordination of the management of water infrastructure for interstate use to the comprehensive regulation of the use and protection of water resources in transboundary basins;
- implementation of a set of measures for the formation of basin databases on the state and use of water resources and water management facilities for interstate use;

- consolidation of efforts to attract additional financial resources from national and external sources for water management and water protection needs;
- transition to long-term planning of water management and water protection activities.



Orto-Tokoy (Kasansay) reservoir



2.3. COOPERATION BETWEEN KYRGYZSTAN AND TAJIKISTAN ON THE USE OF WATER RESOURCES OF THE ISFARA AND KHOJA-BAKIRGAN RIVERS

Since 2007, Kyrgyzstan and Tajikistan are working together to improve cooperation in transboundary river basins between the countries. As a result of such cooperation, an inter-ministerial working group on the use of water resources of the Isfara and Khoja-Bakirgan rivers was formed, bringing together state leaders in the field of water resources, as well as heads of regional and district organizations involved in water resources management. The Working Group meets periodically to discuss various issues related to cooperation in transboundary river basins.

Water management organizations of the Batken region of Kyrgyzstan and the Sughd region of Tajikistan are creating a database system for river basins, defining tasks for the development of an integrated basin plan. Is the construction and rehabilitation of hydrological and meteorological stations. These sites are particularly important for gathering the information needed to develop a climate change adaptation strategy and study their impact on water availability.

The inter-ministerial working group is preparing a draft interstate framework agreement on the implementation of the agreements on the management of transboundary river basins. If adopted, it will become the legal basis for the establishment of a Joint Committee on River Basins. This initiative provides for the continuous participation of civil society organizations in joint administrative structures.

Cooperation between Tajikistan and Kyrgyzstan has a great prospect for the joint use of water resources, as currently a legal framework has been established between these countries, which includes about 70 interstate agreements, intergovernmental and interdepartmental documents. An interdepartmental working group has also been established to consider bilateral issues related to the use of water resources.

Tajikistan and Kyrgyzstan are the countries of the

upper reaches in the regional sense, here the interests of the republics coincide. At the same time, in the Isfara River basin, Tajikistan and Uzbekistan are the countries of the lower reaches, and Kyrgyzstan is the country of the upper reaches. Economic relations between the republics are developing in the spirit of good-neighborliness and cooperation.

THE MAIN CAUSES OF CONFLICTS THAT EXISTED IN THE PAST CENTURIES AND CONTINUE IN THE PRESENT IN THE BATKEN DISTRICT OF THE BATKEN REGION OF KYRGYZSTAN AND THE ISFARA DISTRICT OF THE SUGHD REGION OF TAJIKISTAN ARE:

- geographical factor (enclaves);
- high demographic growth and population density;
- lack of acreage and acute shortage of land plots for individual construction;
- access to pastures and use of forest resources;
- water scarcity;
- failure to comply with previously agreed arrangements for the allocation of water;
- outdated water infrastructure; existence of disputed territories.

One of the priorities for Tajikistan and Kyrgyzstan is hydropower, including the reasonable use of water and energy resources, the creation of a single energy market, the construction of power bridges, participation in the project CASA-1000, electricity exports to Afghanistan and Pakistan. Tajikistan and Kyrgyzstan has similar tasks in this area, but at the same time, they experience the same obstacles to their development.

Development of a common position and coordinated approaches to defend and promote common interests in the following issues of water and energy cooperation will allow the implementation of existing projects and bring Tajik-Kyrgyz relations to a higher level.



2.4 COOPERATION BETWEEN KAZAKHSTAN AND RUSSIA ON THE JOINT USE AND PROTECTION OF TRANSBOUNDARY WATER BODIES

Kazakh-Russian water relations are regulated by the Agreement between the Government of the Republic of Kazakhstan and the Government of the Russian Federation on the Joint Use and Protection of Transboundary Water Bodies of September 7, 2010, which replaced the 1992 agreement of the same name.

The Parties recognize previously concluded agreements and decisions on the allocation of water resources of transboundary water bodies, including irrigation systems, canals and water pipelines.

Decisions on these issues of the Kazakh-Russian Commission on the Joint Use and Protection of Transboundary Water Bodies, established in accordance with the 1992 Agreement, are also recognized. It defines the functions of the joint commission as follows:

- establishment of flow parameters in the agreed border lines of transboundary water bodies, ensuring their compliance by the parties;
- changes in water allocation parameters, based on jointly performed water management and economic calculations, when changing the water management situation in the basins of transboundary water bodies;
- consideration of water management on transboundary waters is planned to realization on territories of the States of the parties, capable of causing transboundary effects, as well as the joint assessment of the impact of planned activities on the environment.

The Commission is co-chaired by the Vice-Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan and the Deputy Head of the Federal Water Resources Agency of the Russian Federation.

Within the framework of the commission, six working groups on the protection and use of water resources of transboundary Ural/Zhaiyk river basins have been formed and are operating, Irtysh/Ertis, Ishim/Yesil, Tobol, Kigach/Kigash, Bolshoy Uzen/Karaozen and Maly Uzen/Saryozen. Meetings of the commission are held at least once, and working groups at least twice a year, alternately in the territories of the parties.

The Commission reviews the status and results of monitoring of transboundary water resources conducting joint inspections of economic activities of enterprises that affect the state of water resources, the passage of floods, the filling of reservoirs and the conditions of water supply to the population and sectors of the economy.

In 2016, in order to establish long-term cooperation and resolve issues in the field of conservation of the ecosystem of the transboundary Ural River basin, an Agreement was signed between the Government of the Republic of Kazakhstan and by the Government of the Russian Federation for the Conservation of the basin ecosystem cross-border Ural river. In order to coordinate and implement it, the parties established the Kazakh-Russian Commission for the Conservation of the Ecosystem of the transboundary Zhaiyk river basin (Ural).

It is advisable to specify the legal framework for cooperation on transboundary water bodies between Kazakhstan and Russia for the basins of transboundary rivers, since each of them has its own characteristics and problems, different situations on water intakes, industrial and agricultural development, population, and also different requirements for water to maintain aquatic ecosystems.

The activities of the Joint Kazakh-Russian Commission and its working groups are carried out within the framework of the above-mentioned Agreement between the countries on the joint use and protection of transboundary water

bodies and are regulated by joint protocols that address issues of cooperation on specific transboundary basins. In order to strengthen the operational control and implementation of the decisions of this Commission, it is advisable to strengthen the capacity of Basin Inspections, which are authorized to perform regulatory functions within a certain period of time. This can significantly improve the implementation of the decisions taken and increase the efficiency of the commission's work.

In the context of the increasing impact of anthropogenic factors and climate change on the quality and quantity of water resources, it may be necessary to conclude independent bilateral agreements on the most significant transboundary river basins: Ural/Zhaiyk, Irtysh/Ertis, Bolshoy and Maly Uzen.

The Kigach/Kigash River, which runs along the border between Kazakhstan and Russia, is a full-fledged transboundary watercourse, so it is necessary to develop and sign the relevant international agreement between Kazakhstan and Russia on the division of the Kigach water flow.



Zhayik/Ural river



2.5. COOPERATION BETWEEN KAZAKHSTAN AND CHINA ON THE USE AND PROTECTION OF TRANSBOUNDARY RIVERS

The basis of interstate cooperation in the field of water relations is the Agreement between the Government of the Republic of Kazakhstan and the Government of the People's Republic of China on cooperation in the use and protection of transboundary rivers of 2001. In accordance with it, the parties established the Kazakh-Chinese Joint Commission on the Use and Protection of Transboundary Rivers, responsible for resolving relevant issues on its implementation.

THE FOLLOWING WORKING GROUPS HAVE BEEN FORMED UNDER THIS COMMISSION:

- working group of experts of the Commission;
- the working group of experts responsible authorities of Kazakhstan and China on the implementation of the Plan of the main directions of technical work on water allocation in transboundary rivers;
- joint control Commission for water allocation of the Khorgos River;
- permanent water Commission on the use and watershed of the rivers Sumbe and Kasibulan.

The exchange of hydrological and hydrochemical data on the Ertis, Ile, and Tekes rivers is also part of the joint Commission's activities.

In the framework of the Agreement between the Government of Kazakhstan and the Government of China in the field of environmental protection (June 13, 2011) established the Kazakh-Chinese Commission on cooperation in the field of environmental protection. Five joint intergovernmental programmes have been approved to address priority issues:

- Programme of work on the study of the impact of climate change on water resources;
- Research program on changes in glacier resources and impacts on water resources;
- Program of work on the analysis of the ecological state of the Ile River delta and Lake Balkash;

- Programme of work to study the impact of human activities on the ecosystem of the Ili/Ile and Irtysh/Ertis river;
- Program of works on the study of water-saving technologies in irrigation.

These programs are implemented by joint working groups of specialists from the two countries in accordance with approved plans and methods.

Despite significant progress in the work of the joint Commissions and individual expert working groups, some issues remain to be resolved. In this regard, the key issues are pollution and water allocation on transboundary rivers.

The priority issue of cooperation between Kazakhstan and China is the conclusion of an intergovernmental agreement on water allocation on major transboundary rivers. In this regard, it is necessary to accelerate the negotiation process on the water allocation of transboundary rivers with the Chinese side. This is directly related to the trend of increasing water collection from cross-border rivers Irtysh and Ile in China due to the rapid growth of the population, development of industrial production, development of oil fields and the introduction of new irrigated land.

For the river basin of the Ile-Balkash basin, it is advisable to determine the independent status of Lake Balkash as a final reservoir of regional significance.





2.6. IRAN'S COOPERATION WITH NEIGHBORING COUNTRIES

JOINT IRANIAN-TURKMEN ADMINISTRATION FOR OPERATION OF THE DOOSTI/DOSTLUK JOINT STORAGE DAM

Doosti/Dostluk dam was built in accordance with the Agreement on cooperation between the government of Turkmenistan and the government of the Islamic Republic of Iran, signed on 20.10.1999 in Ashgabat. In connection with the commissioning of the Doosti/Dostluk reservoir dam, the "rules for joint operation of the Doosti/Dostluk reservoir on the Tejen (Harirud) river" were adopted. In accordance with these rules, the operation of the Doosti/Dostluk reservoir, which was built with the joint participation of both countries and which, respectively, belongs to both Turkmenistan and Iran, is carried out by the Joint Iranian-Turkmen administration. Joint operation of Doosti/Dostluk dam is based on the above "Rules" and which paves the way for joint implementation of all activities related to the filling and drawdown of the reservoir, with the pass of flood expenses, current and complex repairs and execution of other measures on the operation of complex reservoir.

The main goals of joint operation of the complex of hydraulic structures of the Doosti/Dostluk reservoir are:

- joint control of gates regulating water flow in the Doosti/Dostluk dam;
- joint supervision of water measuring equipment in all water outlets;
- joint supervision of the common water outlet in the lower reaches of the dam, as well as of hydraulic posts in the riverbed along the joint border of the two countries;
- joint monitoring of the status and reading of information of control and measuring equipment;
- joint preparation of defective certificates and implementation of current repairs of structures and equipment;
- joint topographic survey of the reservoir bowl;
- joint implementation of emergency recovery operations if necessary.

IRAN-AZERBAIJAN PERMANENT JOINT COMMISSION FOR THE OPERATION OF WATER AND ENERGY FACILITIES ON THE ARAS RIVER

In order to implement 1973 Agreement signed between Iran and the Soviet Union, the "Permanent Joint Commission for the Operation of Water and Energy Facilities on the Aras River" established and has had 49 meetings so far (first with the Soviet Union and then with the Republic of Azerbaijan).

THE MOST IMPORTANT ISSUES AND OUTPUTS OF THE MEETINGS CAN BE SUMMARIZED AS FOLLOWS:

- Planning for the real-time operation of Aras and Mil-Moghan Dams and determining the temporal allocation of water abstractions for the parties (which constitutes the main objective of the protocols);
- Discussion, exchange of views and make the necessary decisions for the construction of new hydrometric stations in key points of the Aras River all along the border;
- Cooperation in dredging the river channel, identifying the changes the ways to protect and maintain the riverbed and banks on both sides of the border;
- Coordination to make necessary decisions to preserve the stability of Aras Dam, and cooperation in balancing hydropower generated by Aras Dam so that the quotas of both parties are achieved regardless of the temporal distribution of power generation;
- Cooperation and decision-making on the maintenance of the dam hydromechanical equipment;
- Discussion and exchange of views on the instructions for the operation of Aras and Mil Moghan Dams;
- Decision making on the abstraction of the

dead storage of Aras Dam in critical situations up to 60 million cubic meters for each party;

- The possibility of using water stored by Arpachai Dam constructed on the Arpachai River to compensate for the Aras Dam deficits.

IRAN-AFGHANISTAN JOINT COMMITTEE OF HIRMAND/HELMAND WATER RIVER COMMISSIONERS

Supply of the water right of the Islamic Republic of Iran from the Hirmand/Helmand Transboundary River is followed up via the executive mechanism of the Joint Committee of Hirmand/Helmand Water River Commissioners. Provisions of Articles 7 and 8 of the Protocol No. 1 on the qualifications and missions of commissioners (annexed to the treaty dated on March 13, 1973) were drawn up between Iran and Afghanistan on the Hirmand/Helmand River water. Having followed up by the Islamic Republic of Iran, in 2004, the first meeting of the Joint Committee of Hirmand/Helmand River Commissioners was held in Tehran, and 21 joint meetings have been held alternately in Iran and Afghanistan so far. This committee is held with the aim of resolving issues arising out of the performance of the tasks assigned under the aforesaid treaty.

RECOMMENDATIONS FOR IRAN'S COOPERATION WITH NEIGHBORING COUNTRIES

Over the past years, there has been a close and continuous cooperation with the neighboring countries, and numerous meetings and field visits have been held through joint committees and commissions. Efforts have been made to direct water issues towards legal and technical negotiations and to prevent them from being politicized.

However, Iran needs to develop new bilateral or multilateral legal frameworks on water and environmental issues in some of its

transboundary basins. Such frameworks can refer to quadrilateral cooperation in the Aras basin (Iran, Turkey, Azerbaijan, and Armenia), tripartite cooperation in the Harirud Basin (Iran, Afghanistan and Turkmenistan), and bilateral cooperation with Afghanistan on the minimum environmental flow of the Hamun International Wetlands as well as in the field of sand and dust storms. It is obvious that, the new agreements do not violate the prior ones and are supposed to fill the existing legal gaps. Active bilateral and multilateral participation of neighboring countries can be an important step towards security and sustainable development in the region.

RECOMMENDATIONS FOR HARIRUD BASIN (SHARED WITH AFGHANISTAN AND TURKMENISTAN)

It is recommended to establish a legal regime for the Harirud River Basin based on the 2018 MoU, for sharing water on the basis of the principles of equitable and reasonable use and no significant harm in order to achieve sustainable development goals in the region.

In recent years, several changes have been taken place in the discharge regime of the Harirud River which will lead to significant social and environmental damage to the downstream countries, if it continues. Therefore, the establishment of an appropriate tripartite institutional framework for water resources management can also pave the way for improving the Basin conditions.

RECOMMENDATIONS FOR ARAS BASIN (SHARED WITH AZERBAIJAN AND ARMENIA)

The countries located downstream of the Aras River have devised effective institutional mechanisms for the equitable and reasonable use of the river water having concluded bilateral agreements which have worked well over the past decades. Nevertheless, the lack of a comprehensive legal regime for the Aras Basin is considered as one of the major challenges regarding the water and environmental concerns of this river. For example, while there is a bilateral agreement between Iran and Turkey on the Sarisoo River as one of the Aras tributaries, no

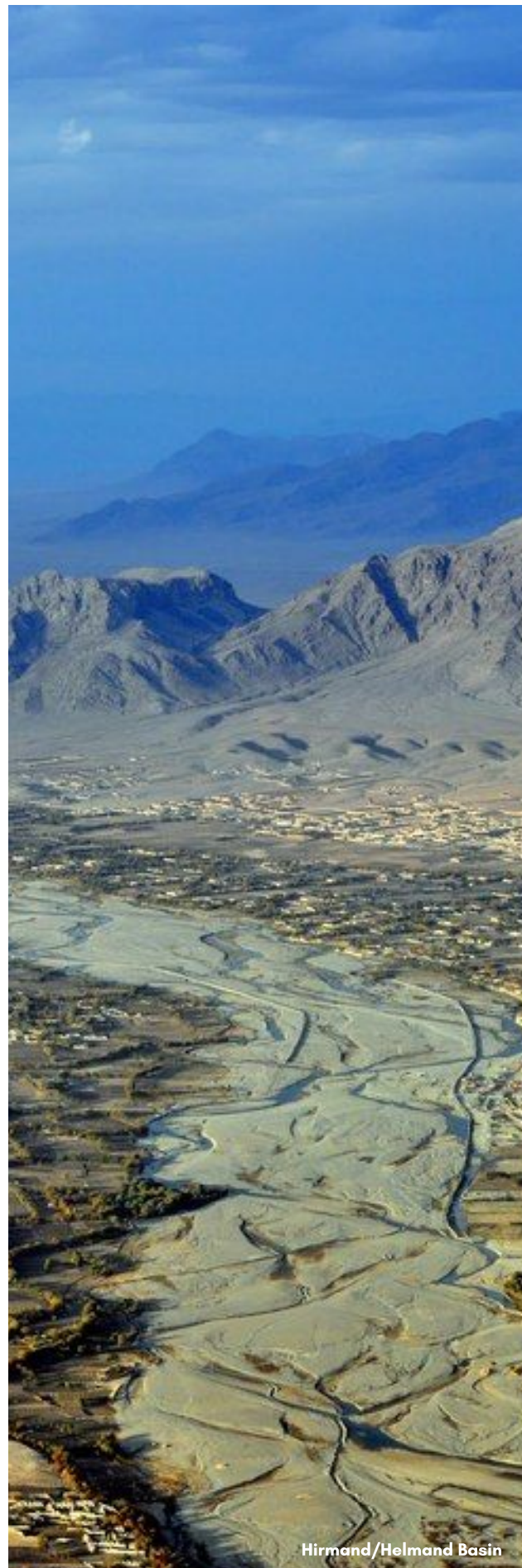
bilateral or multilateral agreement has been concluded on the Aras main tributary thus far.

Therefore, the Islamic Republic of Iran recommends a comprehensive legal regime for the Aras River is drawn up, and Aras Basin organization consisting of all upstream and downstream countries be established to achieve an all-inclusive and integrated management of water resources of this river. In this regard, the following is proposed:

- Design and implementation of a joint Decision Supporting System (DSS);
- Aras quantitative and qualitative online monitoring network;
- Flood Warning and Flow Forecasting Services.

RECOMMENDATIONS FOR HIRMAND/HELMAND BASIN (SHARED WITH AFGHANISTAN)

It seems that the structure of "Hirmand/Helmand River Water Commissioners" can be served as an appropriate mechanism to specify the environmental/ecological requirements of Hamuns, and the legal regime of other rivers flowing into the triple Hamuns. Besides, realistic goals to move towards reducing the problems caused by sand and dust storms can be set within the framework of a roadmap implemented in order to ensure the interests of the two countries.





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Aşgabat şäheri, 2018-nji ýylyň 30-njy janwary

СЕДАННИЕ ПРАВЛЕНИЯ МЕЖДУНАРОДНОГО ФОНДА СПАСЕНИЯ АРАЛЬСКОГО МОРЯ

г. Ашхабад 30 января 2018 г.

BOARD MEETING OF THE INTERNATIONAL FUND FOR SAVING THE ARAL SEA

30 January 2018 Ashgabat



**SERVING THE PEOPLE
OF CENTRAL ASIA**

2.7 ORGANIZATION FOR MULTILATERAL COOPERATION OF CENTRAL ASIAN COUNTRIES

A rather complex institutional system in interstate relations on transboundary water and environmental cooperation based on an international legal framework was born, developed and operates in Central Asia after the acquisition of the sovereignty by its states.

First of all, it is necessary to mention the five-sided platform of cooperation. This would not be possible without appropriate regional and basin organizational mechanisms and structures. The Central Asian region and the Aral Sea basin are significant in terms of the institutionalized and structured interaction of states.

In accordance with the Agreement between the Republic of Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan "On cooperation in joint management, use and protection of water resources from interstate sources", signed on 18 February 1992 in Almaty, the Interstate Commission for Water Coordination (ICWC) of Central Asia was created. On March 26, 1993, the ICWC and its executive bodies were included in the Interstate Council on the Problems of the Aral Sea, on April 9, 1999 - in the International Fund for Saving the Aral Sea (IFAS), and have the status of international organizations. In its activities, the ICWC is guided by bilateral and multilateral agreements of the founding states on the use of water resources of interstate sources, decisions of the IFAS Board and the regulation on the Commission itself, approved on September 18, 2008 in Almaty.

THE ORGANIZATIONAL STRUCTURE OF THE ICWC INCLUDES THE FOLLOWING EXECUTIVE BODIES:

- Basin water management associations "Amudarya" and "Syrdarya", located in the cities of Urgench and Tashkent (Uzbekistan). They regulate the use of water resources on the basis of the limits established by the ICWC and ensure the operation of water management facilities, interstate channels and other facilities on transboundary rivers.
- The Commission's Research and Information

Center is an analytical and informational body that works together with a network of scientific and project organizations from five Central Asian countries. The Center is located in Tashkent, and there are branches in three Central Asian states.

- Coordination and Meteorological Center created for the purpose of unification of meteorological support and promotion of automation of management at interstate objects and structures on transboundary rivers of the Aral Sea basin. The center is located in Bishkek (Kyrgyzstan).
- The ICWC Secretariat, which provides organization of the work of the commission, located in Dushanbe (Tajikistan).

In 1993, five heads of Central Asian countries have established the International Fund for Saving the Aral Sea (IFAS). It is a unique interstate mechanism that plays an important role as the only political platform where all five Central Asian countries are present (in contrast to the EEU and CSTO). For the international community, IFAS, as stated in the UN General Assembly resolution of December 11, 2008, represents a regional mechanism for cooperation in the Aral Sea basin as a whole.

Institutionally, the Fund includes three organizations operating quite independently of each other - the IFAS Executive Committee headed by its Board, the Interstate Water Coordination Commission (ICWC) and the Interstate Commission for Sustainable Development (ICSD), each of these structures with its own system of bodies.

The divisions of the committee and both commissions, their research centers and, in the case of ICWC, the Training Center also have the status of international organizations, with the same right to receive grants, subsidies and loans in foreign currency without paying taxes, and to conclude contracts with local and foreign specialists.

The President of IFAS is elected from among the heads of the founding states for a term established by the decision of their Council, which also takes decisions on the approval of the regulations on the Fund and determines the tasks of its bodies for the coming period. The President of IFAS manages the Fund, determines its foreign economic and international activities. It also creates the Executive Committee of IFAS, approves its regulations and, in agreement with the heads of Central Asian states, appoints its Chairman, forms the composition of the Management Board, the audit Commission and the Executive Committee itself.

The Board of IFAS and its Audit Commission operate on the basis of the basic scheme of management of this Fund, approved by the heads of Central Asian States on February 28, 1997 in Almaty. The Board is formed on the proposal of the governments of these countries and by the decision of the President of IFAS, and consists of one representative with the rank of Deputy Prime Minister from each state.

The Executive Committee is a permanent executive body of IFAS. It operates in accordance with the Regulation On "IFAS" and the Agreement between the governments of the Republic of Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Republic of Uzbekistan on the status of the International Fund for Saving the Aral Sea and its organizations approved by the heads of these countries on 9 April 1999 in Ashgabat, and the regulations approved by decision of the President of IFAS.

The Interstate Commission on Sustainable development (ICSD) was established in accordance with article 2 of the Agreement on joint actions on solution of problems of Aral sea and Aral, environmental rehabilitation and socio-economic development of the Aral region, signed in Kyzylorda 26 March 1993, is guided by the decisions of the heads of Central Asian States, the International Fund for Saving the Aral

Sea, the UN Conference on environment and development (Rio de Janeiro, 1992), as well as the regulation approved by the decision of the Interstate Commission on Sustainable Development No.3 (Almaty, October 18, 2000).

The Regional Hydrology Center (RHC) of the IFAS Executive Committee was established in 2002 by the Fund's Management Board. The main goal is to improve the system of hydrometeorological forecasting, environmental monitoring and data exchange between the national hydrometeorological services of the region. It carries out its activities in close cooperation with the World Meteorological Organization, the Interstate Council for Hydrometeorology of the CIS countries and other international organizations. Currently, the RHC is located in Almaty.

In a joint statement adopted in Almaty in 2009, the heads of the IFAS founding States expressed their readiness to further improve the organizational structure and legal framework of IFAS. It was supposed to increase the efficiency of its activities, ensure more active interaction with financial institutions and donors on the implementation of projects and programs related to solving the problems of the Aral Sea basin.

However, since 2016, the Kyrgyz Republic has decided to "freeze" its participation in the activities of IFAS. At the Summit of the Heads of the participating states in 2018, President of the Kyrgyz Republic Sooronbay Jeenbekov outlined the country's vision for a comprehensive reform of the IFAS and its bodies as follows: "At present, the Fund is characterized by contradictions in regulatory legal documents, an inefficient structure of executive bodies. There are no transparent mechanisms for reporting on the attracted capital. However, the locations of the Fund's statutory bodies are not balanced, and there is no rotation of their heads for a long time".

Currently, a regional working group has been

established within the framework of IFAS to improve its organizational structure. The work carried out by the IFAS Executive Committee in this direction revealed a number of shortcomings of this organization. Basically, they are as follows:

- The Agreement on the Status of IFAS and its organizations of 1999 introduced ICWC and ICSD and their subsidiary units into the system of the fund itself. However, it does not establish a hierarchy of their subordination and authority, nor does it regulate their relationships and reporting. This uncertainty of place, role and subordination has led to different interpretations of the entire structure of cooperation under the auspices of the fund. The provisions on these structures are not mutually linked and do not agree on a number of basic positions.
- The practice of regular rotation of its location also leads to a serious decrease in the efficiency of the IFAS Executive Committee. At the same time, a permanent location in one country may cause controversy due to the predominance of the interests of the State of location in the activities of a regional body.
- The established terms of rotation of the Executive Committee are not observed. In a number of cases, the concern of officials of the fund's structures regarding the uneven distribution of donor funds between the founding states, depending on the location of IFAS and its Executive Committee, was noted.
- The fund's financing system is also not working effectively enough. It imposes an excessive burden on host States, does not provide the necessary resources for the establishment of professional and effective secretariats, and leads to an almost complete dependence of activities at the regional level on the support of the international community.



RECOMMENDATIONS FOR REGIONAL COOPERATION IN CENTRAL ASIAN COUNTRIES

1. In the context of increasing pressure on water resources, there is a need to conclude new agreements that take into account the national and regional water and energy interests of the Central Asian countries. These agreements should be aimed at creating a Water and Energy Consortium in the Aral Sea basin. Such comprehensive agreements are designed to create a basis for sustainable cooperation between the Central Asian states, regulate water and energy relations and encourage the development of agreements in other areas of water resources management.

2. Countries should recognize that all water users need to work closely together to improve the implementation of IWRM principles. The main one is equal rights in the use of water resources for all water users – in the field of ecology, irrigation, energy, industry, fisheries, and municipal water supply.

3. It is necessary to develop and adopt an agreement between the Governments of the Republic of Kazakhstan, the Kyrgyz Republic, and the Republic of Tajikistan, Turkmenistan and the Republic of Uzbekistan "On strengthening the organizational structure of management, protection and rational use of water resources of interstate (transboundary) water bodies in the Aral Sea basin".

4. It is necessary to create a financial mechanism regulating the use of available energy and water resources, as close as possible to the agreed schedule of water consumption by partner countries.

5. The chairmanship of IFAS at the political level (at the level of the heads of the founding States or heads of Government of the founding States) should be established on a rotating basis, this will contribute to strengthening the commitment to regional cooperation. At the same time, it is advisable for the IFAS Executive Committee to have a permanent location, which will facilitate the task of strengthening its material and technical base and scientific potential, and increase the efficiency of the Fund itself and its organizational structures.

6. It is advisable to return to the issue of strengthening the IFAS board through the appointment of a representative of the founding State at the level of Deputy Prime Minister.

7. Important are the Basin Water Organization (BWO) support for:

- creation of reliable information support;
- development of methods for determining losses in riverbeds;
- strengthening the material and technical base;
- implementation of SCADA systems at BWO water intake facilities;
- reconstruction of obsolete and physically worn out head river water intake structures of the BWO;
- restore the lost weather stations and river gauging stations in river basins.

8. It is imperative that all countries focus on water conservation that corresponds to modern technically and economically achievable levels of water use.

9. It is also necessary to form public opinion and public participation in support of measures that affect the interests of the entire region.





3. CONCLUSION

An analysis of the existing cooperation in the allocation of transboundary water resources in the countries of Central Asia and in the basins of transboundary rivers within this region in Afghanistan, Iran, China, Mongolia and Russia allows us to draw the following conclusion.

Countries give priority to the issues of joint use and protection of transboundary water bodies with their neighbors, based on the norms of national legislation, international water law and pursuing goals that meet national interests, aimed at achieving a stable political situation in the region and mutually beneficial development of interstate water relations. In the formation and implementation of foreign water policy, these states adhere to the principles of striving for the settlement of any disputes and conflict situations related to water relations through negotiations, using peaceful methods of dispute resolution provided for by international law. These principles are enshrined in the relevant articles of the Water Codes of the Central Asian countries, Russia, the Water Laws of China and Mongolia.

COOPERATION IN THE ALLOCATION OF WATER RESOURCES IS CARRIED OUT IN VARIOUS DIRECTIONS:

- as part of the processes of accession of the countries of the region to global and international conventions and agreements;
- as part of the implementation of the concluded multilateral and bilateral agreements;
- through participation in the activities of interstate coordinating bodies;
- through direct bilateral and multilateral consultations on water resource allocation issues.

The exceptional importance of water resources and their allocation in the Central Asian region is illustrated by the example of the creation of legal and organizational mechanisms for regional water cooperation of five new

sovereign countries immediately after the collapse of the USSR. The first important step in this direction was to agree on the principle of preserving the previously existing quotas of national water consumption from transboundary watercourses. The agreement on this issue was recorded in the agreement only a month and a half after the acquisition of sovereignty by these republics. This decision has helped to prevent conflict situations over water allocation in subsequent years. Further development of multilateral cooperation was associated with the formation of interstate coordinating bodies – the Executive Committee of the International Fund for Saving the Aral Sea (IFAS), the Interstate Water Coordination Commission (ICWC) and the Interstate Commission for Sustainable Development (ICSD). The positive experience of these structures subsequently created the prerequisites for the adoption of a number of interstate agreements on water issues.

WATER COOPERATION IN THE REGION IS ALSO ACTIVELY DEVELOPING ON A BILATERAL BASIS IN ACCORDANCE WITH THE EXISTING AGREEMENTS:

- between the Governments of Kazakhstan and Russia on the joint use and protection of transboundary water bodies;
- between the Governments of Kazakhstan and China on cooperation in the use and protection of transboundary rivers;
- between Kazakhstan and Kyrgyzstan in the Chu and Talas river basins;
- between Kyrgyzstan and Uzbekistan on the Kasansai (Orto-Tokoy reservoir);
- between Turkmenistan and Iran on the Dostluk reservoir;
- between Turkmenistan and Uzbekistan on the Amvdarya River.

RELEVANT BILATERAL COMMISSIONS HAVE BEEN ESTABLISHED TO IMPLEMENT THESE AGREEMENTS IN ACCORDANCE WITH INTERAGENCY AGREEMENTS AT THE LEVEL OF WORKING GROUPS:

- between Kyrgyzstan and Tajikistan in the Isfara and Khoja-Bakirgan river basins;
- between Kazakhstan and Uzbekistan;
- between Afghanistan and Tajikistan.

Despite the existence of positive examples of both multilateral and bilateral cooperation in the allocation of water resources, the region has accumulated quite a lot of problems that were noted in the framework of the study of the UN Special Programme for the Economies of Central Asia about twenty years ago, which have not lost their relevance today.

When establishing a mutually agreed long-term order of water allocation, taking into account the needs of economic sectors, the needs of upstream and downstream states, the interests of the economy and the environment, these are:

- disagreements over ownership of water resources;
- disagreements regarding the principles and criteria of water allocation and the practiced scheme of water-for-energy exchange;
- lack of procedures and mechanisms for long-term interstate cooperation and related violations in the processes of approval and allocation of water consumption quotas.

When organizing interstate water management, these are:

- disagreements over the role of existing bodies, such as IFAS;
- lack of necessary interaction between the existing authorities;
- imperfection of the legal framework of interstate procedures for making agreed decisions;
- disagreements over ways to further improve the system of interstate cooperation bodies;
- lack of coordinated procedures to ensure the effective operation of intergovernmental bodies;
- disagreements over the attitude to water resources as a commodity and to the

application of the regime of paid water use in the practice of interstate water allocation.

The solution of these issues and the further development of both multilateral and bilateral cooperation on the allocation of water resources is impossible without a clear political will expressed by the countries of the region. The development of a regional strategy for the rational and efficient use of water resources could be a significant step in this direction.

The "Handbook for the Equitable and Sustainable Allocation of Water Resources in a Transboundary Context", developed under the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, could provide significant methodological assistance in the preparation of a Regional Strategy. At the same time, the existing experience of water cooperation in the region can be used in the preparation of the Handbook itself.

Taking this into account, the general recommendations for improving the allocation of water resources in the region are grouped according to the structure that is expected to be used in the preparation of the Handbook. In the field of improving the knowledge base:

- strengthening cooperation in the use of the regional information system on basin water resources;
- improvement of methods for assessing and predicting future water resource needs, taking into account climate change;
- implementation of a set of measures for the formation of basin databases on the state and use of water resources and water management facilities for interstate use.

When determining priorities, searching for alternatives to water allocation:

- implementation of an approach to the management of water, energy and land resources and useful functions of ecosystems, based on the idea of a system

of relationships (NEXUS approach), aimed at the efficiency sustainability of the use of these resources;

- the orientation of all the countries on measures for water conservation corresponding to modern technically and economically achievable levels of water use.

In the field of improving institutional and legal mechanisms:

- For the Aral Sea basin, existing water sharing cooperation structures are in need of a serious reforms to make them functional and guarantee the unconditional participation of all countries sharing water resources. For any regional agreement, the key is to establish an open dialogue and cooperation on water allocation issues. In this context, the participation of the energy sector is also necessary. At least, IFAS and the regional commissions-ICWC and ICSD should be reformed in order to better define their mandates, to coordinate work plans and avoid duplication. The establishment of international river basin commissions for the Amu Darya and Syr Darya, respectively, could be considered;
- It is also advisable for transboundary water allocation regimes to be based on bilateral or multilateral binding agreements between countries. Although many such agreements already exist, several modern agreements are still missing, for example, between Afghanistan and Iran, Afghanistan and Turkmenistan. For joint transboundary basins, it is recommended to establish permanent dialogue platforms, such as basin committees for joint water resources management;
- When planning new bilateral or multilateral water allocation agreements, it is recommended to use well-established principles of international water law, such as fair and reasonable use and the obligation not to cause significant damage. To this

- end, cooperation and membership in relevant international and regional conventions are recommended;

- to increase the chances of success, bilateral or multilateral agreements on water allocation should not only be declarative, but always include mechanisms for monitoring and control, as well as an effective implementation mechanism.

In the field of improving water allocation mechanisms:

- strengthening cooperation in the development and use of online water measurement devices at the borders of their transboundary rivers;
- gradual transition at the basin and regional levels within each country to an integrated (integrated) method of water management, focused on the equal participation of all industries and water users in this management;
- transition to long-term planning of water management and water protection activities.



