WATER SECURITY IN POLITICAL DISCOURSES OF CENTRAL ASIAN COUNTRIES: REVIEW AND UNDERSTANDING

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Abstract. The purpose of the work is to identify and analyse the understanding of water security in the countries of Central Asia (CA), as well as a description of the current state of the distribution of water resources. According to WHO and UNICEF forecasts (2019), 2.2 billion people already face freshwater shortages. The CA countries, having a common infrastructure built during the Soviet period, are currently facing an increase in population and climate change. Consequently, due to the interdependence one of the most important elements in maintaining political stability and economic growth in many countries and individual regions is the availability of water resources. The article analyses the official position of the leaders of the countries, gives a brief historiography of the development of water relations, and gives a brief description of the development of regional cooperation within the framework of SIC ICWC and IFAS, as well as neighbouring countries. The most important conclusion is that in order to ensure the sustainable development of the region, both bilateral and multilateral cooperation is needed, in particular for downstream countries, due to dependence on neighbouring countries.
Keywords: Central Asia, water resources management, regional cooperation, energy.

Аңдатпа. Жұмыстың мақсаты Орталық Азия (ОА) елдеріндегі су қауіпсіздігін түсінуді анықтау және талдау, сондай-ақ су ресурстарының таралуының қазіргі жағдайын сипаттау болып табылады. ДДҰ мен ЮНИСЕФ болжамдары бойынша (2019), қазірдің өзінде 2,2 миллиард адам тұщы су тапшылығын көріп отыр. Кеңес дәуірінде салынған ортақ инфрақұрылымы бар Орталық Азия елдері қазіргі уақытта халық санының өсуі мен климаттың өзгеруіне тап болып отыр. Сондықтан өзара тәуелділікке байланысты көптеген елдерде және белгілі бір аймақтарда саяси тұрақтылық пен экономикалық өсуді сақтаудың маңызды элементтерінің бірі су ресурстарының болуы болып табылады. Мақалада елдер басшыларының ресми ұстанымы талданады, су қатынастарының дамуының қысқаша тарихнамасы берілген, ICWC және IFAS SIC шеңберіндегі аймақтық ынтымақтастықтың дамуының қысқаша сипаттамасы берілген. Ең маңызды қорытынды, аймақтың тұрақты дамуын қамтамасыз ету үшін екіжақты да, көпжақты да ынтымақтастық қажет, атап айтқанда, көршілес елдерге тәуелді болғандықтан, төменгі ағындағы елдер үшін.
Түйін сөздер: Орталық Азия, су ресурстарын басқару, аймақтық ынтымақтастық, энергетика.

Аннотация. Целью работы является выявление и анализ понимания водной безопасности в странах Центральной Азии (ЦА), а также описание текущего состояния распределения водных ресурсов. Согласно прогнозам ВОЗ и ЮНИСЕФ (2019 г.) уже сейчас 2,2 миллиарда людей испытывают нехватку пресной воды. Страны ЦА, имеющие общую инфраструктуру, построенную еще в советское время, в настоящее время сталкиваются с увеличением численности населения и с изменением климата. Следовательно, в силу взаимозависимости одним из важнейших элементов поддержания политической стабильности и экономического роста во многих странах и отдельных регионах является наличие водных ресурсов. В статье проводится анализ официальной позиции лидеров стран, дается краткая историография развития водных взаимоотношений, дается краткое описание развития регионального сотрудничества в рамках НИЦ МКВК и МФСА, а также с сопредельными странами Важнейшим выводом является то, что в целях обеспечения устойчивого развития региона необходимо как двухстороннее, так и многостороннее сотрудничество, в частности, для стран низовья, ввиду зависимости от сопредельных стран.
Ключевые слова: Центральная Азия, управление водными ресурсами, региональное сотрудничество, энергетика.

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Introduction

Water availability, its reserves and rational use of Water Resources have somehow become the largest environmental problems in Central Asia. In addition to other things, the Soviet Union left the urban water supply infrastructure and irrigation systems for agricultural land.

The leaders of the newly formed States realized that water supply systems should be managed jointly after achieving independence and drawing State borders, since the interests of States in water supply issues were intertwined. In this sense, the Central Asian countries have begun to cooperate closely, as evidenced by a number of coordinated actions. As a result, statements on the drying up of the Aral Sea were adopted in 1991 in Tashkent with the participation of ministers of all five Central Asian states.

These declarations recently emphasized the "indissoluble dependence and interdependence of interests" of the republic, especially with regard to their joint use of the water resources of the Aral Sea basin.

The cooperation Agreement "Cooperation in the field of joint management of the use and protection of water resources of interstate sources" was signed by the Ministers of Water Resources of the region in Almaty later that year.

One of the points of the agreement was the creation of the Interstate Coordinating Water Commission. Water, in fact, has become the only environmental aspect that is most actively discussed at the regional level. Again, this is clearly motivated by regional interdependence, but there are other factors as well. First, the dry climate in most of the region. In such weather conditions, especially in summer, the use of water increases, including in agricultural conditions, for growing vegetables and grains, and also, importantly, for caring for livestock.

The problem is aggravated by the low level of understanding by the population of reasonable water use, which has existed and continues to exist. Secondly, the position of the countries regarding the flow of two major rivers — the Amu Darya and the Syr Darya. The downstream and upstream countries were clearly separated throughout the Soviet era, and this difference had an impact on how water resources were used on an interregional scale.

The water reserves accumulated in winter were used to irrigate agricultural land in the downstream countries in summer, because the upstream countries, Tajikistan and Kyrgyzstan, used less water in winter than in summer.

Winter electricity was provided "in exchange" to the upper reaches by Kazakhstan, Uzbekistan and Turkmenistan.

Such a system of shared water consumption also stopped working after the collapse of the USSR.

The winter shortage of electricity affects Tajikistan and Kyrgyzstan, and the summer shortage of water affects some areas of the countries located upstream.

Naturally, in order to satisfy common interests and restore the former balance in the region, this circumstance forces the heads of State to act together.

As a result, for the countries of Central Asia, as it was determined, water is the most important strategic resource, especially taking into account regional realities and established historical ties. At the same time, the republics have platforms organized in the early 1990s for joint discussions and settlements of water use issues. Nevertheless, it should be remembered that, despite the recognized widespread problem, interstate disputes over water use still take place. Tajikistan and Kyrgyzstan at one time decided to actively develop hydroelectric power, for which both states have great potential.

Since gaining independence, Tajikistan has begun construction of the Dashtijum and Rogun dams on the Panj and Vakhsh rivers, respectively. Currently, two Kambarata hydroelectric power plants are being built in Kyrgyzstan. For downstream countries, this development has some risks. During the reign of Islam Karimov, Uzbekistan was particularly concerned that the construction of the Rogun hydroelectric power plant would give Tajikistan greater control over the delivery of water, which could damage the water supply system for Uzbekistan's own agriculture.

However, the situation began to improve with the coming to power of Shavkat Mirziyoyev, who in many respects contributed to the establishment of relations with Emomali Rahmon, having managed to reach a compromise on many contentious issues. Regarding the Rogun HPP, Tashkent has ceased to openly express its dissatisfaction or, as noted in some sources, "managed to abandon the emotional component." Tashkent

added that further construction of the station should take into account the interests of Uzbekistan. The potential for establishing technical cooperation in the field of hydropower between Dushanbe and Tashkent was also noted.

The parties have started negotiations on the joint construction of two hydroelectric power plants near the Zarafshan River in Tajikistan.

The roadmap for the implementation of the agreements was previously drawn up by the government of Uzbekistan, but the project is designed to provide electricity to the regions of both states. On the other hand, upstream countries often express their indignation at the lack of payment for water that is stored throughout the winter and then delivered to downstream countries. The Kyrgyz Government discussed this and stressed the absence of any structures that could establish guidelines for the reimbursement of funds that upstream countries lose in winter.

In particular, this situation concerns the situation with Toktogul, Kirov, and Orto-Tokoy reservoirs in Kyrgyzstan, which are important sources of water for the border regions of Kazakhstan. In the past, Kyrgyzstan has periodically suspended the supply of water from its reservoirs. Kazakhstan allocates money for the operation of Kyrgyz reservoirs and exchanges it for electricity.

During the talks, Kazakhstan stresses the importance of a long-term approach to conflict resolution and the restoration of regional cooperation, calling on Kyrgyzstan to resume its participation in the Aral Sea Rescue Fund after Bishkek terminated it in 2015. The Kazakh side particularly mentions the idea of Nursultan Nazarbayev, who called for the formation of a Central Asian water and energy Consortium.

Environmentalists from Kazakhstan oppose the construction of a nuclear power plant in Uzbekistan and urge Tashkent to study potential dangers to the environment, especially for water bodies that may be contaminated with radioactive materials in the event of an accident. Both Kyrgyzstan and Uzbekistan had disagreements about the Kambarata HPP, but they were able to come to an understanding by deciding to implement the project jointly in order to preserve the importance of common interests.

As downstream countries with the highest level of economic development, Kazakhstan and Uzbekistan have different approaches to solving problems.

Currently, Uzbekistan pays special attention to bilateral cooperation with Tajikistan and Kyrgyzstan.

Tashkent's strategy has so far yielded more fruitful results. This is influenced by the political will of the new government of Tashkent, which was able to begin the process of resolving many controversial issues, which contributed to the formation of a more positive worldview. Now this is expressed in joint projects that can contribute to scientific and technological rapprochement with neighboring states. The participatory approach to which Kazakhstan is leaning, as noted earlier, has been around for a long time.

Materials and methods

The methodological basis of the study is based on the analysis of scientific articles, a review of historical data, statements by leaders of countries, as well as observation of the current situation in the Central Asian region. Analysis of the decision-making process based on agreements between countries in the field of water resources management. The article also highlights the method of studying and generalizing the experience of Kazakhstan, Russia, and China.

Overview of the current situation

This, however, could not contribute to the settlement of international issues.

States usually rely on bilateral discussions to resolve disputes; proposals from supranational organizations are ineffective in achieving the desired effect. At the regional level, countries currently cannot come to a common denominator, since economic development is still the main priority for each country individually, and water consumption problems are still recognized only in words as a regional problem.

This is happening despite a common understanding of the interconnectedness of water supply systems in border areas. Therefore, it is vital to study the situation with water use in each country separately in order to understand what common solution neighboring states may come to in the future.

Water resources in Kazakhstan is a problematic issue. Large-scale studies conducted by the Institute of Geography and Water Security of the Republic of Kazakhstan

show that the country's water resources suffer from many problems, including pollution and scarcity. Water scarcity, according to local experts, will triple by 2050 (Zheng, et. al. 2010, pp. 350-354). The main reasons are the deterioration of the water supply infrastructure and outdated methods of construction of water supply systems. The level of wear of irrigation systems is high, due to which a large amount of water is lost (Bekturganov, et. al. 2016, pp. 219). There are no water saving and water accounting technologies. As a result, water quality is declining, the process of salinization of irrigated areas and the rapid process of desertification are observed (Jiang, et. al. 2019, pp. 195-208).

There are also challenges in effectively allocating already limited water sources. In the country, 51% of the rural population and 87% of the urban population do not have access to clean drinking water (Liu, et. al. 2021, pp. 118209). In addition, agriculture accounts for almost half of the total water demand. It is also believed that Kazakhstan successfully supplies water to all sectors of the economy. However, in fact, the water availability of the country varies depending on the region, depending on the geographical location of the country. The most difficult area in terms of water supply is in the center, which is arider. In case of interruptions in water supply, rural settlements most remote from district centers are most vulnerable.

They received minimal supplies of water in the form of therapeutic tanks. In some regions of the country, only 19% of the population has access to centralized water supply systems, and the state of water supply in cities may deteriorate to the level of 60% (Zhupankhan, et. al. 2018, pp. 752-762). Since almost half of all water resources are created outside the country, the border regions depend on the spillways of the border States.

Therefore, according to the Food and Agriculture Organization of the United Nations (FAO. Rome, 2012), the Chu-Talas River basin in southern Kazakhstan receives a total of about 7 km3 of water from the land of Kyrgyzstan]. The Aral-Syrdarya basin in the east requires 33 km3, of which 27 km3 is supplied by Kyrgyzstan, 4 km3 by Uzbekistan, and 1 km3 by Tajikistan. 12 km3 of water, which is regulated by a bilateral agreement, is supplied by China to the Balkhash-Alakol basin in the west. More importantly, the Tobolsk-Turgai and Ural-Caspian basins in the north of the country receive 0.6 km3 and 8.6 km3 from the territory of Russia, respectively (Karatayev, et. al. 2017, pp. 63-70). For Kazakhstan, not only Central Asia, but also Russia and China play an important role in providing water.

Due to its access to external water sources, Kazakhstan is also subject to the environmental problems of its neighbors. The amount of water supplied to the rivers of Central Asia, which supply the territory of Kazakhstan with water, is decreasing as a result of the melting of glaciers, which was caused by an increase in annual temperatures in this area. Some areas of Kazakhstan are drying up as a result of climate change, which only increases the need for water.

The Drinking Water Program, adopted in 2002, was aimed at a comprehensive solution to problems with water access, but the results were unsatisfactory. The work on the program was carried out inefficiently, cases of embezzlement of funds allocated for the implementation of the program were identified. The technical component of the program was also at a low level, which only worsened the situation with the environment. After the termination of the drinking water program in 2011, you could also touch on the Ak-Bulak program (Tussupova, et. al. 2016, pp. 1115). The state program of regional development included "Ak-Bulak", which by 2020 provided for the provision of clean drinking water to 100% of the urban population and 85% of the rural population (Karatayev, et. al. 2017; Рабига, 2022). However, the program did not include any provisions for the development of new water infrastructure.

Despite the fact that the Ak-Bulak initiative is far from being completed, it can be argued that problems with the water supply will continue after its completion. The failure of official initiatives caused the participation of civil society and the non-governmental sector, which began to express concern about the need for civilian oversight of the implementation of state plans and projects aimed at overcoming the water crisis. For example, a non-profit angel independently monitors the progress of the drinking water program and estimates the damage at 250 million tenges (620 thousand US dollars) (Рабига, 2022).

In addition to the measures taken by government departments, the work of the non-governmental sector is being carried out in Kazakhstan, aimed at finding solutions to problems with water use in the country. NGOs

try to work with the public, for example by spreading awareness about water-related issues or advocating for the rights of communities that are more vulnerable to lack of drinking water.

Such organizations also try to act as a lobbying element in a situation where decisions made by the authorities do not take into account many natural factors. Numerous issues related to the Irtysh River in the north of the country are solved by ECOM. Members of the organization used judicial and export resources to challenge proposals for construction in the river basin. Svetlana Mogilyuk, an ECOM spokeswoman, stated during an expert seminar organized by IWPR (IWPR expert meeting, 2020) that the company cooperates with government organizations to identify important problems.

According to a study of the activities of environmental NGOs in Kazakhstan, only 8% of all environmental NGOs in Kazakhstan cooperate with government agencies (Abdymanapov, et. al. 2016, pp. 1033-1049). However, small NGOs rarely receive assistance from foreign founders. Small associations that function in rural areas are mentioned here. Due to the small volume of government orders, NGOs are trying to attract money from private sources.

As for water resources, Uzbekistan is in the most precarious position in Central Asia (Abdullaev, et. al. 2015, pp. 849-861). This nation is one of only two countries with a "double lock" in the world that does not allow its neighbors to have easy access to the ocean. Most of the country's water resources are extracted outside the country, primarily in Tajikistan and Kyrgyzstan. Due to the active development of hydropower on their land, neighbors who depended on them often entered into conflicts.

In this regard, the rhetoric of Uzbekistan regarding the construction of hydroelectric power plants in key river basins was negative. Also, the climate in the country is mostly arid, most of it is occupied by mountain ranges and desert zones. Droughts affect the Karakalpakstan region, and the Amu Darya and Syr Darya receive hundreds of tons of salt annually as a result of the disappearance of the Aral Sea (Tussupova, et. al. 2020, pp. 749). The first threat that this situation poses is for agriculture. Uzbekistan's economy is still heavily dependent on cotton, and acute water shortages and salinization problems pose serious economic threats.

However, the super-irrigation system, which loses from 30 to 60% of all water supplied for irrigation, exacerbates the problem. According to some estimates, the water shortage in the country is 12-13% of the required level (Jumanov, et. al. 2020, pp. 012150). This situation may worsen given the growing population of Uzbekistan and climate change, as a result, the demand for water will increase rapidly. On the other hand, Uzbekistan ranks high compared to countries such as Sudan and Israel in terms of total annual water consumption per capita, but it ranks 153rd out of 180 countries in terms of renewable water resources (Zeitoun, 2008). A significant amount of drinking water is lost.

In 2018, 469 million cubic meters of water were lost, which is 32% of the total volume of drinking water (Jumanov, et. al. 2020, pp. 012150). This leads to the conclusion that poor water management poses an additional danger in light of all the already existing natural climate problems, such as aridity, climate change, and population growth. At a meeting of IWPR experts (Abdymanapov, et. al. 2016, pp. 1033-1049) Azamat Azizov from the National University of Uzbekistan noted that the lack of water-saving technologies, infrastructure for reverse water supply, and the practice of reuse of secondary water resources, such as sewage and drainage water, is the main reason for unsatisfactory water resources management in the country. As a result, measures to replenish water resources are rarely used, and water resources are sometimes squandered lawlessly.

There is no need to say that there is an integrated approach to solving water issues in Uzbekistan. However, the state approaches the solution to such problems from different angles. First of all, Uzbekistan began by resolving disputes with Tajikistan and Kyrgyzstan, which is a consequence of the arrival of a new government. Views on the problem of water resources have changed, and if earlier Tashkent often expressed dissatisfaction with neighboring countries, now it has changed its direction to the imperfection of the internal water supply system. However, a bilateral strategy is only the first step toward solving widespread regional problems.

Shavkat Mirziyoyev proposed to implement a regional plan for the use of water resources in 2018 (The Tashkent Times, 2020). Unlike Kazakhstan, which vigorously advocates a regional water resources

management strategy, Uzbekistan is simultaneously building and strengthening cooperation with each of its neighbors.

International donor organizations, on the other hand, have increased their level of activity. The most problematic areas - Karakalpakstan, Syrdarya, and Samarkand - received a loan of US$ 239 million from the World Bank to improve the infrastructure and quality of water supply (The World Bank, 2020). In addition, Uzbekistan received $145 million from the Asian Development Bank until 2025 to modernize its water supply system in the western region of the country.

Most recently, the Asian Infrastructure Investment Bank (APIIB) allocated $385 million in funding (Smart Water Magazine, 2020), to achieve similar goals in the Bukhara region. The locations chosen by these projects to focus attention shows a positive trend; in the past, donors mainly supported initiatives in Ferghana and Andijan, according to a report by the International Institute for Water Resources Regulation. In terms of coverage of the country's problem regions, the strategy of international donors is now more balanced. Given the shortage of staff in the country, it will take some time to determine how effectively the allocated funds will be used and how significant the advisory contribution of the donors themselves will be.

According to numerous estimates, Kyrgyzstan is the richest in water resources of all Central Asian countries and the only country whose water resources are completely created on its own land. Lake water reserves amount to 1.745 billion cubic meters, groundwater - 13 billion cubic meters, and surface river runoff - about 50 billion cubic meters. In addition, there are 12 artificial reservoirs on the borders of the country, the total volume of which is more than 10 million cubic meters of water (FAO, 2012, Karatayev, at. al. 2017).

Results from upstream countries

At the same time, Kyrgyzstan consumes only 12% of its potential water reserves, and the rest goes to neighboring countries.

Kyrgyzstan loses a lot of water for the same reasons as Uzbekistan and Kazakhstan (Zhupankhan, et. al. 2018, pp. 752-762): the irrigation system is in poor condition, there are no water-saving technologies, and water resources are distributed inefficiently.

Another important problem is the pollution of river waters. The main reason is the dumping of waste from industrial and metallurgical enterprises, which is aggravated by the careless use of water resources.

There are no mechanisms for the collection, storage, and subsequent disposal of garbage in the country. Groundwater would be a better option because it is less susceptible to contamination, but the costs associated with creating a groundwater supply system, drilling wells, and installing pumps are prohibitively high. Despite the fact that 99% of urban residents and 85% of rural residents have access to water, HE argues that water pollution is a serious problem for the population (FAO. Rome, 2012; Azizullah, et. al. 2011, pp. 479-497). The likelihood of developing acute intestinal disorders increases with an abundant supply of drinking water and abundant environmental pollution.

Funds for the implementation of the program are allocated from foreign donors and credit organizations, completion is scheduled for 2024 (The World Bank, 2020). According to the persons involved in the implementation, the work is being carried out in stages, depending on financial receipts. The main focus of the program is on work in rural regions, restoration of water supply infrastructure, and development of new ones. The Government of the country and the partner groups responsible for the implementation of the program regularly report on successful results.

On the other hand, the question often arises whether the government has enough time to launch the program on schedule. The program's focus on the renewal and reconstruction of water supply infrastructure raises questions about their applicability since water pollution is still a serious problem. Deeper modifications are the focus of other programs. International partners involved in the implementation of water resources management projects are aware of the need to change the legal system and strengthen the administrative capabilities of local authorities.

For example, the World Bank-funded project "Integrated Water Resources Management" (Suhardiman, et. al. 2015, pp. 284-300) proposes to create a significant number of new regulations that will have to regulate how state institutions work in the republic and how platforms are created to coordinate the interests of all stakeholders, including NGOs and local communities. Local

NGOs emphasize the effectiveness of those responsible for the regulation of water resources in the UN. Speaking at an expert meeting sponsored by IWPR, Anara Choitonbaeva from the Kyrgyz Alliance for Water Supply and Sanitation (Abdymanapov, et. al. 2016, pp. 1033-1049) notes that some departments do not effectively monitor the implementation of drinking water rules, which prevents local authorities from planning their activities to ensure the sustainability of water supply systems.

She continued by saying that in this situation it is important to decentralize planning and create partnerships between local authorities, civil society, public finance, and business associations. Reforming the entire legal structure of the country's water sector requires strong political will and the right personnel. It is not yet known whether Kyrgyzstan will be able to carry out reforms and how much more money and time it will take for this.

The Administration of Tajikistan is proud of the abundance of water resources and their importance in the region. 56 cubic meters of water per kilometer are discharged into rivers annually. Glaciers play a significant role in this water supply, numbering approximately 10,000 people and covering an area of 8,500 square kilometers. Glaciers and snowfields of the republic store more than 400 cubic kilometers of water, which provides about 60% of the region's water resources.

In Tajikistan, where agriculture uses more than 90% of the country's water resources, water is the main economic force (Zhupankhan, et. al. 2018; FAO. Rome, 2012; Karatayev, et. al. 2017). Tajikistan is an upstream country with significant water reserves and water supply problems comparable to Kyrgyzstan. Currently, only half (51%) of the country's population has access to clean water.

The water supply infrastructure is outdated, sanitation conditions are poor in some urban and rural areas, and many human waste collection stations are not connected to sewage systems: sixty percent in urban areas and one percent in rural areas (Tussupova, et. al. 2016, pp. 1115). The situation is aggravated by the natural threats of mudflows, which cause not only the destruction of small settlements but also the destruction of water supply systems.

According to the World Bank, only 57% of urban and 31% of rural families have access to clean drinking water (The World Bank, 2020). Poor water quality has a negative impact on the physical safety of the population, causing intestinal and other diseases.

At the same time, in areas where access to water is provided, there are difficulties with a constant and uninterrupted supply of water. Due to several failures in the water supply system in Dushanbe, the water supply of the entire city is often disrupted.

While in urban areas water shortages can last for one day, in rural areas they can last for weeks when the water supply stops.

Due to the fact that outdated water supply systems are less resistant to low temperatures in winter, pipes in this case simply freeze. The method of measuring water consumption is also insufficiently developed. The current accounting system, as stated by Shamsiddin Jalalov, senior researcher at the Academy of Sciences (Jalalov, 2016, pp. 72), shows how much water is used daily, but does not classify houses based on how much water they use. Separate accounting for each category can balance water distribution and improve planning.

Since the institutional framework for water resources control is too complex, accountable authorities are unable to effectively and clearly define their respective powers. The need to coordinate with national and regional units while simultaneously performing dual functions for departments makes it difficult for them to communicate and hold each other accountable.

Water has long been a crucial component of contacts in foreign politics. Tajikistan took a proactive role in advancing the global agenda for water management. Based on the UN, the nation took part in the development of international programs including "Water for Life" and "Water for Sustainable Development" (Machado, et. al. 2019, pp. 302-321).

The main goal of such a policy was to draw the attention of the whole world to the internal problems of water resources management in Tajikistan since the country lacks the human and financial resources necessary to solve these problems. As a result, according to some estimates, the costs of providing the population of the republic with water amount to at least 2 billion US dollars. Numerous international donor groups have arrived in Tajikistan to help with the

implementation of initiatives to improve the water sector.

The main objectives of the programs of international organizations are to improve the infrastructure for water treatment and distribution in rural areas. However, issues such as inadequate work of institutions responsible for water resources management and human resources development are beyond the competence of donors. Residents of remote locations may receive greater priority as a result of their living conditions. On the other hand, it is also possible that donors are not confident in the success of supporting projects that somehow change the work of state institutions since the Tajik authorities can prevent such attempts. At the same time, the Government itself is not able to change the institutional framework on its own.

After the collapse of the USSR, the institutional framework for water resources management required immediate revision. The "Diagnostic Report of the UN SPECA Program on the Preparation of a Regional Strategy for the National and Efficient Use of Energy and Water Resources" from 2002 (Bishkek, 2002) states that all countries in the region have faced certain difficulties in reforming their national water management systems.

Currently, there are both legislative and advisory instruments for regional cooperation. There are many bilateral and trilateral agreements, many of which were concluded in the 1990s, in addition to basic regional agreements. According to Eric Sievers, who assessed the legal framework for the water industry in the region, there are almost thirty bilateral, trilateral, quadrilateral, regional, and CIS agreements in the Syr Darya alone (Sievers, et. al. 2001, pp. 356).

The statement that the existing system at that time would function in the field of water resources until new international agreements were developed and adopted can be considered as the first document in this area. It was adopted on October 12, 1991, by the Ministers of Water Resources of the five States of the region (Mosello, 2008, pp. 19). "The Agreement on Cooperation in the field of joint management of the use and protection of Water resources of interstate sources" (Rahaman, 2012, pp. 475-491) which was signed on February 18, 1992, is the most important regional agreement.

Discussion

Considering the agreement, an interstate coordination commission was created, the executive bodies of which were BWO "Amudarya" and BWO "Syrdarya". ICWC meetings were to be held quarterly. Not much time passed between the statement and the actual signing of the agreement, which indicates the manifestation of a political initiative and its implementation in a short time. In the past of international water law, the adoption of such an agreement, as a rule, took a very long time. For example, it took about 10 years to reach an agreement between India and Pakistan on the Indus River with the assistance of the IBRD, 30 years between India and Bangladesh on the Ganges River, and 40 years between Israel and Jordan on the Jordan River.

Despite the positive potential laid down by this agreement, certain articles of the document were not implemented at all. For example, according to article 1 of the agreement, the principle of equality in the use of water resources is proclaimed. However, Bishkek did not support this, declaring the water resources formed on the territory of Kyrgyzstan as its property. The implementation of a mechanism for Article 12's proposed economic and other liability for violations of the established regime and water use restrictions was also delayed. It should be highlighted that the agreement did not include any mechanisms for its implementation that would have taken into consideration the interests of each party, particularly the requirements of the states upstream in terms of fuel and energy resources and downstream in terms of water needs.

This document states: "... joint coordination of actions... It will mitigate and stabilize the environmental tensions that have arisen as a result of the depletion of water resources," without pointing out that cotton production and irrational irrigation policy were the direct causes of the environmental disaster in the Aral Sea. On March 26, 1993, the following important legislative act on water resources management was adopted in Kyzylorda.

In order to implement integrated water resources management in light of the Aral Sea crisis, additional ICWC structures were created: The Interstate Council on the Problems of the Aral Sea, the IGSA Executive Committee, and the International Fund for

Saving the Aral Sea. This is in accordance with the agreement "On joint actions to solve the problem of the Aral Sea and the Aral Sea region, improve the environment and ensure the socio-economic development of the Aral Sea region". According to the agreement, the countries of the region are responsible for "ensuring the supply of water to the Aral Sea in quantities that make it possible to maintain its reduced but stable water area at an environmentally acceptable level and, thus, preserve the sea as a natural object."

The Resolution of the Council of Ministers of the USSR of 1988 is entitled "On measures to radically improve the ecological and sanitary situation in the Aral Sea area, increase the efficiency of use and strengthen the protection of water and land resources in its basin." It establishes requirements for the minimum supply of water from the Amu Darya and Syr Darya deltas to the Aral Sea. According to the decree, the minimum inflow of water into the Aral Sea (including drainage waters) was 8.7 cubic km in 1990, 11 cubic km in 1995, 15 cubic km in 2000, and 20 cubic km in 2005.

Following this, on January 11, 1994, a "Program of concrete actions to improve the ecological situation in the Aral Sea basin for the next 3-5 years, taking into account the socio-economic development of the region" was adopted in Nukus. This included the creation of the Aral Sea Basin Program (mainly funded by international donors) and the approval of the "Basic Provisions of the Concept of Solving the Problems of the Aral Sea, the Aral Sea Region, and the Aral Sea Basin".

The "Nukus Declaration of the Central Asian States and International Organizations on the Problem of Sustainable Development of the Aral Sea Basin" was signed on September 20, 1995, and it recognizes and accepts for strict implementation all previous and existing agreements, treaties and other normative acts regulating relations between States on water resources in the Aral Sea basin. The Aral Sea basin. The States agreed to "Changes in the structure and management of IFAS and the management of PBAM" in February 1997, which provided for the reorganization of the structures established in 1993 in the Aral Sea by combining their respective executive committees to form IFAS.

According to the rule, since 1998, the following governments had to contribute to the creation of the fund in US dollars: Kazakhstan, Turkmenistan and Uzbekistan - 0.3% of budget revenues, Tajikistan and Kyrgyzstan - 0.1%. In the same month, in May, the agreement "On the status of IFAS and its organizations" was signed. According to the text, the ICWC is an important component of IFAS, and the IFAS Executive Committee is obliged to "assist in the activities" of the ICWC. Ministries of Water Resources and political leaders of many countries continued to issue directives directly to the ICWC, which still retained some autonomy.

The "Agreement on the Use of Water and Energy Resources of the River Basin", signed on March 17, 1998, is the next important treaty regulating water relations between the States of the Syrdarya River basin after 1992.

Article 4 of the document defines guidelines on how water used during the growing season from the Toktogul reservoir should be reimbursed, including the use of energy resources or cash equivalents. Based on the decisions taken by representatives of water management and fuel and energy organizations headed by Deputy Prime Ministers of the Member States, it was stipulated that the operating mode of the reservoir, the volume of effluents, and the energy supply will be approved by annual intergovernmental agreements. BWO "Syrdarya" and ODC "Energy" were chosen as executive bodies.

In addition to an interstate water and energy consortium acting as the pact's executive body, the agreement envisaged for the eventual development of compensatory measures for regulating the regime of the Toktogul reservoir. This agreement marked a change in how governments would work together on water issues, but it ignored a number of important aspects of water use in the Syrdarya river basin. For example, the following are not spelled out: responsibilities and obligations of states in years of different water availability; responsibility of state bodies for the fulfillment of obligations; sources of financing.

One of the most successful relations can be called the cooperation between Kazakhstan and Kyrgyzstan on the management of the Chu-Talas rivers, despite the contradictions and problems related to water use in the Syrdarya basin. In January 2000, an agreement was adopted on the use of interstate water bodies on the Chu and Talas rivers, which is a bilateral agreement

between Kazakhstan and Kyrgyzstan. Cooperation in the basins of the Chu and Talas Rivers is the first interdepartmental cooperation based on the principles of joint participation in the operation of water bodies. As in the case of the Syr Darya, there were some problems with the flow of water downstream of the rivers. Moreover, it was an impossible task for Kyrgyzstan to maintain its hydroelectric power plants and reservoirs.

For a number of reasons, the agreement between the two countries can be considered successful. Firstly, an explanation of the principle according to which Kazakhstan, as a water user, is obliged to contribute to the maintenance of water bodies and pay compensation to the owner (Kyrgyzstan). The owner Party, which is the owner of interstate water bodies, has the right to compensation from the User Party for expenses incurred to ensure the safe and reliable operation of such facilities, in accordance with Article 3 of this agreement. The Kyrgyz side indicated that no actual money transfers were made from Kazakhstan to Kyrgyzstan in accordance with the agreement. The installation of equipment and necessary equipment carried out by water supply engineers on the territory of Kyrgyzstan was considered "compensation". However,

In actuality, the key agreements of 1992 and 1998 modified Soviet-era institutions to be settled within Central Asian regional realities. Despite the fact that the Central Asian nations and the ICWC made the final choices, BWO "Syrdarya" and BWO "Amudarya," the Republican Ministry of Water Resources, and the Central Asian Research Institute of Irrigation continued their work. Although the 1992 agreement does not specify a specific mechanism, it does entrench the fundamental concepts. Every year it became more difficult to agree on the distribution of water. The key problem was the issue of compensation that Kyrgyzstan received in Soviet times for the continued operation of the Toktogul reservoir in the irrigation mode. The 1992 treaty does not deal with the issue of compensation, but the states negotiated annually at the bilateral or trilateral levels to secure compensation for Kyrgyzstan and distribute water. At the conclusion of which there were also difficulties in connection with the establishment of market prices for coal, gas, and oil and the maintenance of low prices for electricity as a result of state control in this area. Since the 1998 agreement, efforts have been made to codify and control annual negotiations, as well as to promote the introduction of new ideas and practices, such as cash payment instead of barter. However, problems with water delivery, barter transactions, and other issues persisted in this region.

One of the reasons is that “it is necessary to separate agreements with the definition of long-term obligations on river regimes and water distribution from agreements that provide for commercial obligations, which may be based on fluctuations in market prices for various material assets and goods.”

The other case and example of regional cooperation, ICWC is a regional organization of Central Asian States established in accordance with the Almaty Agreement to jointly address issues related to the management, reasonable use and protection of water resources from interstate sources in the Aral Sea basin, as well as the implementation of jointly planned programs based on the principles of collegiality and mutual respect for the interests of the parties. The ICWC Resolution of 2008 establishing the new status of the Commission on Water Resources is a key legislative act in the field of regional cooperation. Paragraph 2.2, which states that "the water resources of the interstate sources of the Aral Sea basin should be managed using the principles of IWRM", is an outstanding aspect of the agreement. This idea does not fall under any of the agreements mentioned above.

Despite the paramount importance for the Central Asian region, the agreements do not fully solve the problem of water quality. As a regional water management organization, the ICWC has not fully implemented or approved the allocation of water quotas for different countries. In this regard, despite the relatively strong decision-making powers of the ICWC, the question arises as to how any problems can be solved if the State ignores the decision of the organization. Another problem is that there are no time limits for notification and consultation processes due to the lack of forecasting, despite the fact that the mechanisms for cooperation, notification, consultation and dispute resolution under regional agreements largely depend on the institutional framework.

BWOs should control all major interstate structures for the control of transboundary waters in the basin of the Syr Darya and Amu Darya rivers, according to the declared statuses (Status of the ICWC 2008, Status of

the BWO Amu Darya and BWO Syr Darya 1992), but as of right now, they only control the main interstate channel in Uzbekistan. From which follows the question that the BWOs are the executive and interdepartmental body of the ICWC, as it is enshrined in the 1992 agreements on the status of the BWO Syrdarya and the BWO Amudarya (Articles 1.1, 2.1 - 2.7, 3.1 - 3.9 in both documents), the Almaty Agreement of 1992 and the Regulations on the status of ICWC 2008, or are simply planning organizations. Again, this raises the question as to whether, if one or more states do not obey the Almaty Agreement or the ICWC Statute, there is no clear mechanism for the experience of the Central Asian states has shown that the presence of interstate structures and a number of agreements is not an indicator of successful cooperation. There are common information systems and methodologies used by countries on a wide range of issues at the regional level, but this does not contribute to positive cooperation in political and economic disagreements.

The low degree of success in the involvement of external actors in resolving water problems in the region is a constructive lesson. For example, the mediation proposed by the OSCE and the British government in the 1990s was rejected by most countries in the area.

In this regard, it should be noted that growing role interactions between specialists at the lower and middle levels, within which joint activities are carried out, such as the exchange of information and experience, regional training, and regional projects to improve water use efficiency.

China is not a party to any multilateral international treaty on transboundary rivers, as it is a country located upstream. Because of this, it is almost impossible to apply global experience to the joint use of the hydro resources of global waterways.

Beijing believes that "an individual approach is needed in each case." Delaying the solution of the problem is also part of traditional Chinese diplomacy. All this enables the Chinese side to use the current situation as a lever of pressure on Kazakhstan in solving its own important strategic tasks.

The agreement "On the rational use and protection of transboundary rivers" between Kazakhstan and China allowed to resolve this issue on a bilateral basis. Consequently, Russia's participation as one of the interested parties in the negotiation process was limited.

Conclusion

As a result of the analysis and discussion, the authors could conclude that the understanding of water security differs due to the national needs: for upstream countries-hydropower, and for upstream countries-irrigation purposes. The situation worsens because Kazakhstan and Uzbekistan are dependent on neighboring countries.

For example, Kazakhstan borders Russia and China, having Irtysh river shared between them Kazakhstan, when resolving issues with China related to the development of the Irtysh's hydro resources, had high hopes for the understanding and support of Russia, since the river flows through the territory of all three states. However, in Moscow, this issue is not regarded as of paramount importance and is not used as a "leash" to support the Republic of Kazakhstan within the sphere of influence of the Russian Federation.

Beijing, Astana and Moscow would benefit from a trilateral solution to this problem, especially in the context of the plan to divert Siberian rivers to the arid regions of Central Asia. The reanimated project can be supplemented with the transfer of part of the water from Siberia and to the XUAR. According to some authors, this may be one of the solutions to the problem.

Theoretically, the Chinese leadership shows that it is ready to support and discuss any agreements proposed by the Kazakh side. The draft "Concept of interstate distribution of water resources of transboundary rivers between the Republic of Kazakhstan and the People's Republic of China" may even receive the signature of Beijing. The change in the geopolitical situation is a key, decisive factor. Kazakh-Chinese relations inevitably changed as a result of the creation of the Customs Union of Belarus, Kazakhstan, and Russia in 2010 and the beginning of the functioning of the Economic Union consisting of three states on January 1, 2015, followed by the admission of Armenia and Kyrgyzstan.

The position of the Chinese side regarding the reasonable use and conservation of transboundary rivers has not changed significantly, but new strategies have been proposed that take into account the interests of Kazakhstan and the changing geopolitical landscape. Beijing's need to protect its economic interests in Kazakhstan

explains the new strategies. The securitization of geopolitical and commercial interests takes precedence over the securitization of cross-border rivers, but Beijing is ready to consider the possibility of a joint search for a solution.

An analysis of the problem showed that the solution of the issue of water use of the transboundary Ili and Irtysh rivers is associated with a number of difficulties that have arisen as a result of the activities of both parties (PRC and ROK).

The current contractual and legal framework allows solving almost the entire range of problems related to quality control and water intake, as well as the ecology of transboundary rivers. The implementation of the agreements is hindered by a whole range of factors, among which are the following: difference in approaches to the securitization of the water problem; lack of significant results of the negotiation process; dissatisfaction on the part of the Kazakh side with previously reached agreements that do not fully take into account Kazakhstani interests (there is no limit on China's water intake volumes); the difference in relation to the Republic of Kazakhstan and China in the management of the waters of transboundary rivers.

However, there are examples of solutions at the local level for the proportional use of water resources. Thus, representatives of the Rayymbek district of the Almaty region from Kazakhstan and the County of Dzhau su Ili-Kazakh Autonomous Okrug agreed to divide in equal proportions on the Sumbe and Kaishybulak rivers.

As a positive example, the authors identify the agreements on water distribution on the Khorgos River. However, it should be noted that we are talking about the watershed of the border river (the total length of the river is 180 km, of which about 160 km make up the border between the PRC and the ROK), and not about transboundary rivers. The issue of Khorgos dates back to the Soviet period, when in 1965 an agreement was signed between the PRC and the USSR on the use of the waters of the Khorgos River. Later, this document, with some amendments, was enshrined in the Agreement on the distribution and use of the waters of the Khorgos River in 2002.

The most important finding from the analysis is that implementing Integrated Water resources management on the regional level and reaching out the decision-makers on the highest level by younger generation specialists. Science-based and diplomatic negotiations on bilateral (Chu-Talas is the best example) and multilateral level (ICWC, IFAS could be the basis) are needed for regional cooperation between Central Asia countries.

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ОРТАЛЫҚ АЗИЯ ЕЛДЕРІНІҢ САЯСИ ДИСКУРСТАРЫНДАҒЫ СУ ҚАУІПСІЗДІГІ: ШОЛУ ЖӘНЕ ТҮСІНУ

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ВОДНАЯ БЕЗОПАСНОСТЬ В ПОЛИТИЧЕСКИХ ДИСКУРСАХ СТРАН ЦЕНТРАЛЬНОЙ АЗИИ: ОБЗОР И ПОНИМАНИЕ

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