IMPROVING THE EFFECTIVENESS OF WATER DIPLOMACY IN RESOLVING TRANSBOUNDARY RIVER DISPUTES IN KAZAKHSTAN

Nursultan ORUMBAYEV* *Master's Student, Institute of Diplomacy, Academy of Public Administration under the President of Kazakhstan, Astana, Kazakhstan, n.orumbayev@apa.kz*

Elmira JOLDYBAYEVA *Associate Professor, Institute of Diplomacy, Academy of Public Administration under the President of Kazakhstan, Astana, Kazakhstan, e.joldybayeva@apa.kz, ORCID ID: https://orcid.org/0000-0001-9745-4882*

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Abstract. This paper examines the economic problems Kazakhstan faces in transboundary river management and proposes solutions based on the United Nations guidelines for implementing water policy. This study focuses on the Syr Darya, which is the most important river basin for Kazakhstan from an economic point of view and is often a source of political controversy. The Syr Darya crosses through the territory of Kyrgyzstan, Tajikistan and Uzbekistan before reaching Kazakhstan. While the upstream countries of Kyrgyzstan and Tajikistan use the river to generate electricity, Uzbekistan and Kazakhstan need it for agricultural purposes. Differences over water usage have caused interstate conflicts in the Central Asian region. The riparian countries can neither agree on a water release schedule nor develop a trading mechanism for the exchange of resources to overcome disputes over the water resources of the Syr Darya. The study of the Syr Darya disputes between the countries of Central Asia and agreements on water management reveals the following problems: the roles and responsibilities of countries in relation to water use are not clearly defined, the lack of trust between the disputing parties and their reluctance to share accurate information and comply with the mutually agreed rules. Based on the study results, the authors recommend the creation of a joint regional institution that will monitor, analyse, and manage transboundary rivers in Central Asia.
Keywords: transboundary rivers, Kazakhstan, Central Asia, water diplomacy, inter-state disputes, institutions.

Аңдатпа. Бұл құжатта трансшекаралық өзендерге қатысты Қазақстан алдында тұрған экономикалық мәселелер қаралады және су саясатын іске асыру жөніндегі қағидаттарға негізделген шешімдер ұсынылады. Қазақстанда бірнеше трансшекаралық өзен бассейндері бар екеніне қарамастан, бұл зерттеу тек Сырдарияға бағытталған, себебі оның ел экономикасы үшін маңызы зор және өзен жиі саяси даулардың көзі болып келеді. Сырдария өзені Қазақстанға жетпес бұрын Қырғызстан, Тәжікстан, Өзбекстан аумағын кесіп өтеді. Жоғары ағыста орналасқан елдер Қырғызстан мен Тәжікстан өзенді электр энергиясын өндіру үшін пайдаланса, Өзбекстан мен Қазақстан оған ауыл шаруашылығы мақсаттары үшін мұқтаж. Суды пайдаланудағы айырмашылықтар аймақтағы қақтығыстарды тудырады. Көршілер суды ағызу кестесі, энергия мен су саудасының механизмі туралы ортақ келісімге келе алмай келеді. Су саясаты туралы жанжалдар мен аймақтық келісімдер жағдайларын сапалы зерттеу тараптардың рөлдері мен міндеттері нақты анықталмағандықтан, келісім туралы ынтаның болмауы, объективті ақпарат алмасудың жеткіліксіздігіне байланысты мемлекеттер арасында сенім проблемалары бар екенін көрсетеді. Бұл зерттеу жалпы мониторинг жүргізетін, жағдайды талдайтын аймақтық бірлескен ұйым құруды ұсынады.
Түйін сөздер: трансшекаралық өзендер, Қазақстан, Орталық Азия, су дипломатиясы, аймақтық жанжалдар, ұйым.

Аннотация. В данной статье исследованы и предложены пути решения таких экономических проблем, с которыми наша страна периодически сталкивается в отношении трансграничных рек. Данные выводы основаны на принципах реализации водной политики. Несмотря на то, что в Казахстане существует несколько трансграничных речных бассейнов, данное исследование сосредоточено только на Сырдарье, поскольку она является наиболее важной водной артерией для экономики страны и часто является источником политических споров. Река Сырдарья пересекает территорию Кыргызстана, Таджикистана и Узбекистана, прежде чем попасть в Казахстан. В то время как страны, расположенные выше по течению, Кыргызстан и Таджикистан, используют реку для выработки электроэнергии, а Узбекистан и Казахстан - для сельскохозяйственных целей. Различия в водопользовании вызывают конфликты в регионе, страны не могут прийти к соглашению относительно графика сброса воды и разработать механизм торговли энергией

* *Corresponding author: N. Orumbayev, n.orumbayev@apa.kz*

и водой. Исследование конфликтов и региональных соглашений о водной политике показывает, что роли и обязанности сторон четко не определены, существуют проблемы с доверием из-за отсутствия стимулов к соблюдению принципов соглашений, недостаточного обмена объективной информацией. В исследовании предлагается создать региональную совместную организацию, которая будет осуществлять мониторинг и анализировать ситуацию.
Ключевые слова: трансграничные реки, Казахстан, Центральная Азия, водная дипломатия, региональные конфликты, организации.

Introduction

Water is an indispensable and precious resource without which no branch of the state economy, such as transportation, energy and power industry, can function. With the population growth and global warming in the world, the demand for water resources has increased more than ever (Duchovny, 2011: 3). In this case, transboundary rivers such as the Amu Darya or Syr Darya that flows through the territories of several Central Asian countries such as Kyrgyzstan, Uzbekistan and Tajikistan are often subjects of contention leading to conflicts over decades (Figure 1). To regulate the effective use of water resources and reach acceptable solutions, water policy plays a crucial role.

Source: Kirilenko,2008: 5

Figure 1 – Amu Darya and Syr Darya on the map of Central Asia

For Kazakhstan, implementing an effective water policy is highly important, as it is a water-deficit country that relies on transboundary rivers to provide 40% of its water resources (Rivotti et al., 2019). According to the Ministry of Ecology, the average long-term trends of river flow in Central Asia was 120 km^3 in the 2000s, and today it has dropped to 102 km^3 (Kaukenov, 2022). The World Bank forecasts that the volume of water resources in Kazakhstan will decrease to 75 km^3 by 2030 (United Nations Development Programme, 2021). This means that in the next 8 years after 2022, the water deficit in the country will increase to 15%, which is about 12-15 cubic metres per year.

The cost of Kazakhstan's ineffective water diplomacy towards its neighbours has jeopardised its environmental and food security (Food and Agriculture Organization of the United Nations, 2015). According to the International Trade Administration (2022), agriculture is Kazakhstan's main industry, and the country is the largest exporter of grain wheat in Central Asia. The reduction of water resources in the Syr Darya will lead to a decrease in the potential of agriculture. The Food and Agriculture Organization of the United Nations (n.a.) stressed the severity of water scarcity in Kazakhstan, since out of 2 million hectares of developed farmland, only 61% were irrigated in 2016.

This also raises unemployment issues, as around one-third of the working population is employed in this sector (Kazakhstan - Agricultural Sector, n.d.).

To deal with the issues of transboundary rivers, Kazakhstan has launched various joint projects with its neighbours. For instance, Kazakhstan has been engaging China over the use of the Ili river, Russia over the Ural river and Uzbekistan, Kyrgyzstan,Tajikistan over the Syr Darya river basin (Kaukenov, 2022). Among all transboundary rivers, this paper focuses on the Syr Darya, which is the most important one for the country economically and often the source of regional disputes.

Kazakhstan uses the Syr Darya mainly for irrigation in its southern regions. Since Kazakhstan is located at the lower stream of the Syr Darya along with Uzbekistan, it is geographically dependent on the upstream countries of Tajikistan and Kyrgyzstan for water supply. The problem of water allocation in the region is further complicated by differences in its usage. While the lower stream countries use water from the Syr Darya to irrigate farmland in spring and summer, the upstream countries need to store water in dam reservoirs to generate energy in winter (Karayev, 2015).

Low water usage efficiency in agriculture, negative consequences of unilateral changes in the management of water resources and partially conflicting national priorities have caused diplomatic disputes between Kazakhstan, Tajikistan, Kyrgyzstan and Uzbekistan. Nevertheless, the disputed Central Asian countries have proclaimed fidelity to cooperate, and this region has several institutions established for solving disputes over water resources. Nonetheless, although the riparian countries have signed numerous agreements in the past, the lack of clearly defined roles of each state in water allocation and their low comprehension of the situation, negatively resulted in regional water diplomacy.

This paper focuses on Kazakhstan's water diplomacy towards Uzbekistan, Tajikistan, and Kyrgyzstan regarding the Syr Darya and aims to identify the causes of ineffective regional cooperation, conduct a comprehensive analysis about the problem and propose several solutions to facilitate mutually beneficial cooperation (World Bank, 2010).

Materials and Methods

To develop recommendations for solving transboundary water disputes in Central Asia, this paper adopts a qualitative research approach, with particular emphasis on the collection, analysis and interpretation of secondary data. A key method applied is document analysis, which is the review, identification, and in-depth study of the literature that contributes to the relevant theoretical and empirical aspects of the subject under consideration. The author also conducts high-quality interviews with government officials during his month-long visit to the Ministry of Foreign Affairs of Kazakhstan.

The secondary sources are an essential part of the research as the information received is crucial to get access to the knowledge of the respected academic and intellectual specialists in books, book chapters, interviews, articles, and documentary analysis of specific journals and newspapers. Case studies of political events used in this paper have been taken directly from the relevant journals such as the Water Policy and Journal of Hydrology.

In addition to the resources mentioned above, theoretical and practical guidelines about building a water policy agreement from international organisations such as the United Nations were used for the section of discussions.

Results

The question of water resource allocation in transboundary rivers arose after the collapse of the Soviet Union, which resulted in the end of a unified system of water management in Central Asia (Roberts, 2022). When Central Asian countries gained independence, new political and economic interests emerged, and this further accelerated the competition for formerly centralised resources such as water and electrical energy (Global Water Partnership, 2014).

To deal with the issue of allocating water resources in the Syr Darya river basin, numerous agreements have been made, though they were not very effective (United

Nations Publications, 2022). After the collapse of the Soviet Union, Central Asian countries aimed to reach mutually beneficial solutions regarding water management through regional agreements. One of the first conventions was the Almaty agreement in 1992, wherein Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan agreed to retain the Soviet system of centralised water control (Akunova, 2021). According to the agreement, upstream Tajikistan and Kyrgyzstan were obliged to release water for downstream Kazakhstan and Uzbekistan during the vegetation season in return for the supply of cheap energy sources from the two lower stream countries in winter.

However, this agreement was violated due to structural reasons. Firstly, the system lacked detailed points such as the defined system of energy delivery to upstream countries, particularly, the structure of the agreement “water for energy” was not clear (Wegerich et al., 2015). There were uncertainties about how lower stream countries would deliver energy resources and compensate for benefiting from the the stored water from the dams (Al-Faraj, F. A., & Scholz, M., 2015). During the Soviet era, energy prices were relatively low, and the system focused mostly on Kazakhstan and Uzbekistan, which had suitable climate and fields for cotton and wheat production (Adelphi, 2017). Therefore, the system of dams and reservoirs was regulated according to the water release schedule. By agreement, Kyrgyzstan and Tajikistan received energy resources, and Kazakhstan and Uzbekistan received water (Bimenova & Zhiltzov, 2015).

However, after the collapse of the Soviet Union the mutual agreement among the CA countries collapsed. Energy prices began to rise, and it seemed more profitable for downstream countries to choose to export energy abroad or outside the CA market. In the context of a new political reality, electricity production became a priority for Kyrgyzstan and Tajikistan (Adelphi, 2017). The two upstream countries changed the schedule of water release. They began releasing water from the dams in winter to generate electricity. As a consequence, the lower stream countries faced water shortage in summer (Bimenova & Zhilcov, 2015).

Another example of water diplomacy between Kazakhstan and other neighbouring Central Asian countries can be taken from the Syr Darya agreement in Bishkek in 1998 between Kazakhstan, Kyrgyzstan, and Uzbekistan (Central Asia Regional Water, n.d.). The content of the convention was the same as the Almaty agreement, according to which Kyrgyzstan would release water to Kazakhstan and Uzbekistan during the vegetation period in summer, and in return Kyrgyzstan would receive electricity supply in winter. More detailed than previous agreements, the Syr Darya Agreement specified the number of traded resources and the payments required for each party. This agreement also established positive principles such as mutually beneficial cooperation, good neighbourliness and compliance with obligations. However, there were still important aspects not included in the document.

For example, it was not possible for the three parties to come to a unified tariff policy for various types of energy resources. Moreover, there were no clear definitions of the concepts of "additionally generated electric energy in excess of needs", or "necessary annual and long-term water reserves in reservoirs for irrigation needs". From the very beginning, the parties violated the terms of the Agreement. Each violation was accompanied by mutual reproaches and accusations, which effectively invalidated the agreement. (Akunova, 2021).

Discussion

The study identifies several reasons hindering the development of regional cooperation in the field of water management over the Syr Darya. First of all, the institutional arrangements for the management of water resources in Central Asia are weak. At the regional level, there is a common information system and some joint approaches adopted by the riparian countries, but there is still no clear mechanism for joint water resources management.

Secondly, there is a lack of clear legislation on the use of transboundary rivers in Central Asia as a whole. It is one

of the main barriers to the adoption of effective measures for the management of the water- energy deal. In particular, a significant part of the agreements suffers from the lack of clear rules regarding reservoir operation, water distribution in normal and emergency conditions, financing and economic relations, compensation for damages, as well as the terms and procedures of arbitration (Ministry of Agriculture and Water Resources of the Republic of Uzbekistan, 2016).

Thirdly, there are inconsistencies between the regional agreements and the national legal rules of the countries. For example, the discrepancy arises in terms of the water resources distribution (Medetov and et al., 2018). Each country identifies water as the sole national resource of the country, while the regional agreements define the Syr Darya as a common resource (Bimenova & Zhilcov, 2015). None of the countries has specified in its legislation what water resources are subject to sovereignty ownership – generated from the territory of the state or coming from outside (Kirilenko and et all, 2008). This creates a source of instability in water security because there are opportunities to circumvent unclear provisions of legal documents (Wegerich, Van Rooijen, Soliev and Mukhamedova, 2015).

Vagueness of legislation has led to a lack of trust (Kallioras, A., et al., 2006). As can be seen from the practice, countries have manifested a tendency to violate the terms of agreements and try to reduce their dependence on each other. Each country has been taking actions to solve the emerging problems of water resource management on its own. For example, Kazakhstan has built the Kok-Sarai counter regulator that smooths out seasonal water changes and is planning to construct 9 more dams by the end of 2025 (Kazakhstan Today, 2021). Although the construction works have stopped due to financial difficulties, Tajikistan is building the Rogun dam mainly to provide energy security. These cases demonstrate that countries are overly susceptible to outside interference. This further makes the future cooperation between regional countries unachievable.

Fourthly, there is a low level of communication or in other words information exchange between countries. This again contributes to a decrease in mutual trust in the region. The need for reliable and up-to-date information is increasing due to poor diplomatic relations. In 1993, the first signs of conflict appeared after the collapse of the Soviet Union. Uzbekistan stopped gas supply to Kyrgyzstan due to the latter's failure to pay its debt. In response, Kyrgyzstan released water from the reservoir, violating the established schedule. It explained the change in reservoir schedule by the need to accumulate water during the summer season for electricity production purposes in winter (Akunova, 2021). Both sides accused each other of provoking the issue. While Uzbekistan claimed that it could not receive all the water and did not get the agreed payment for fossil fuels, Kyrgyzstan asserted that the quality of Uzbek gas was low and the price was inappropriately high for its economy.

Due to the lack of objective research, the needs of each country in water and energy resources were not given full consideration. For example, regulating the operation of the water reservoir Toktogul brought Kyrgyzstan additional expenditures as there was a flood in populated areas. Due to the lack of information exchange between the parties, they could not search for compromise. Without mutual consideration of the interests of each country in the region, it will be impossible to reach such a compromise.

Lower stream countries are not notified in a timely manner of changes in water release schedules. Regional agreements did not contribute to the solution of these issues, since the countries of Central Asia do not comply with them in practice (Skoulikaris, C. et al., 2019). A lack of an effective mechanism for water management and conflict resolution demonstrates the low level of communication and information exchange between among the regional countries.

So, what are the main recommendations? The study shows that there is a need for regular exchange of information between countries to build trust among Central Asian countries. A clear provision on the exchange of information in

the agreement on transboundary waters ensures the effectiveness of the monitoring and assessment systems and positively affects clarification of the legal norms in the agreement (Biswas, 1979). The goal of information exchange is to provide information for the efficient use of transboundary rivers such as the Syr Darya.

It is necessary to create a joint commission to make effective decisions that will be beneficial for all parties. The Commission will identify and oversee the steps necessary to promote agreements – establishing facts, developing and analysing scenarios, conducting discussions and negotiations. The UN Practical Guidelines About Building Cooperative Agreements Regarding the Transboundary Rivers note that specific goals help clarify steps and actions. These goals can be reflected in the development of plans for the management of transboundary water resources and can guide the harmonisation of national legislation or contribute to the allocation of financial resources necessary for the implementation of the agreement.

It must be noted that the new measures need to consider the specific roles of the participants in the implementation process, which reflect the commitments made under the agreement (Mianabadi, et al., 2020). An effective measure can be the development of a national implementation plan in consultation with all riparian countries on the Syr Darya river basin (Delipınar, Ş., & Karpuzcu, M., 2017). Such a plan should describe roles of the participants in the implementation process. Institutions or agencies responsible for national data collection and monitoring programmes should be involved. These institutions that oversee data monitoring should participate in the development of agreements on transboundary rivers in order to offer practical solutions and practical guidance on the development of agreements on cooperation in transboundary water resources management with relevant parameters, indicators and evaluation criteria (UNECE, 2021).

The Commission also serves as a platform for the arbitration of disputes arising in connection with the use and protection of water and other natural resources of the basin, as well as for the search for ways of settlement. The agreements should clearly set out the obligations to be fulfilled at the national and cross-border levels (Cosens, 2010). States may include provisions in agreements that establish a dispute resolution process related to water resources as well. Compliance may include obligations to report cases of non-compliance, conduct an appropriate assessment and eliminate them. The establishment of fact-finding commissions can be a useful tool to prevent recourse to judicial means in resolving a dispute over water resources.

Conclusion

To sum up, this paper analysed the issues that Kazakhstan face in the management of regional water resources in the Syr Darya river basin with other Central Asian countries including Uzbekistan, Kyrgyzstan and Tajikistan. Differences in water usage between these countries have caused political disputes. Kazakhstan and Uzbekistan need water to irrigate land, while Kyrgyzstan and Tajikistan use it to generate electricity. The riparian countries have not been able to come to a common solution for making optimal decisions. The main factors hindering regional cooperation on water resources management are the vagueness of the agreements, lack of trust and information exchange between the Central Asian countries. The ambiguity of some articles in the regional agreements creates the possibilities to circumvent legal rules and make decisions that might go against the national interests of countries. Moreover, without full monitoring of the conditions in the use of water, optimal water distribution has become difficult.

To cope with the problems stated above, this paper suggests establishing a joint commission in the region. It should take into consideration the needs of each riparian countries for water and energy resources and create opportunities for compromise. The commission will help resolve conflicts and make positive impact by developing practical cooperation mechanisms of action through data analysis and information exchange about water management.

In addition, there are areas for further research to develop this research issue.

While the focus of the study was on examining the economic aspect of the water dispute, the environmental aspect, in particular, the ecological issues cannot be ignored either. The Syr Darya is narrowing year by year and is under the threat of complete drying up due to inefficient water management. Moreover, the Syr Darya suffers from water pollution. The amount of agrochemicals in the river is very high. To address these issues, the regional joint commission proposed above can be useful, but the specific terms of the river salvage agreements require further analysis.

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ҚАЗАҚСТАНДАҒЫ ТРАНСШЕКАРАЛЫҚ ӨЗЕНДЕР ПРОБЛЕМАЛАРЫН ШЕШУДЕ СУ ДИПЛОМАТИЯСЫНЫҢ ТИІМДІЛІГІН АРТТЫРУ

Нұрсұлтан ОРУМБАЕВ, *Дипломатия институтының магистранты, Қазақстан Республикасы Президентінің жанындағы Мемлекеттік басқару академиясы, Астана, Қазақстан, n.orumbayev@apa.kz*

Эльмира ДЖОЛДЫБАЕВА, *доцент, Дипломатия институты, Қазақстан Республикасы Президентінің жанындағы Мемлекеттік басқару академиясы, Астана, Қазақстан, e.joldybayeva@apa.kz, ORCID ID: https://orcid.org/0000-0001-9745-4882*

ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ВОДНОЙ ДИПЛОМАТИИ В РАЗРЕШЕНИИ ПРОБЛЕМ ТРАНСГРАНИЧНЫХ РЕК КАЗАХСТАНА

Нурсултан ОРУМБАЕВ, *магистрант Института Дипломатии, Академия государственного управления при Президенте Республики Казахстан, Астана, Казахстан, n.orumbayev@apa.kz*

Эльмира ДЖОЛДЫБАЕВА, *доцент, Институт Дипломатии, Академия государственного управления при Президенте Республики Казахстан, Астана, Казахстан, e.joldybayeva@apa.kz, ORCID ID: https://orcid.org/0000-0001-9745-4882*