

**WATER ISSUE IN CENTRAL ASIA:
CHALLENGES AND OPPORTUNITIES**

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ABSTRACT

With the collapse of the Soviet Union in 1991, Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, and Turkmenistan, gained their independence and faced the water issue, which was regulated by the Moscow administration before their independence. Water allocation and regulation are mainly based on the study of Barthold and the USSR Central Asian Department. During the Soviet Union, Central Asian water resources were used without considering the future of water sources and determined only to increase to cotton production of the central apparatus. In this context, the drying up of the Aral Sea is seen as one of the results of the implemented policies. The relations of the states, within the scope of the construction of Rogun Dam and Kambarata HPP 1 Dam, were analyzed through legal means under the water security. Since the research is qualitative, the case analysis method is selected for the evaluation of the collected data.

Keywords: USSR, Central Asia, Water Issue, Rogun Dam, Kambarata HPP 1.

INTRODUCTION

The Central Asian region has several environmental issues, including the drying of the Aral Sea, the reduction of river and irrigation water, low water levels, and other issues caused by the Soviet testing nuclear weapons in Semey (Kazakhstan) and the Chinese testing base in Lop Nor located at Xinjiang Uygur Autonomous Region. However, among all the issues listed above, the most significant problem is seen as the water problem related to irrigated soils (Horsman, 2004: 69). Water resources are divided into three main parts due to the physical nature of the region. These sources respectively consist of surface flow formation zone (mountainous areas and upper basins in the south-east), water flow transition and spreading zone (middle part), and delta regions (in the northwest direction).

The water resources both on the surface and underground have a major effect as a limiting factor on the economic activities of the Central Asian region for development competing with environmental conditions. The largest rivers in the region mostly flow across borders and between states. The two largest rivers of the Central Asian region, Syr-Darya, and the Amu-Darya Rivers flow through Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. The Chu and Talas Rivers flow along with Kyrgyzstan and Kazakhstan, while the Tarim River flows along with the Kyrgyzstan, Tajikistan, and China borderlines (Interstate Commission for Water Coordination of Central Asia, 2018).

Today, more than 40% of the Central Asian population does not have access to the piped water supply. It is anticipated that the need for access to the water resource shall increase in the coming years. Also, the population of the Central Asian region, which has a population of about 65 million as of now, is estimated to be increased by 20% in 2025 (Kushkumbayev and Kushkumbayeva, 2015: 86). In addition to the need for water in the coming years, the Central Asian region has water-sharing problems. The improper distribution and over-allocation of water in the region, its economic importance, and the increasing need for water soon show that water shall remain a point of conflict between the states of the region (Horsman, 2004: 70).

The current water crisis stems from the policies applied to the region during the USSR period in the Central Asian region. The methods used in determining the administrative borders of the Central Asian states by the USSR administration and the increase in irrigation-based agriculture after the 1950s have caused the crisis that the Central Asian states face.

The technical solutions used in the negotiations mostly became the main element for the regulations on water allocation after the USSR period. Essentially, technical solutions are based on political and institutional designs. If the technical solutions are supported by the public and institutions, it shall create the conditions to reach consensus (Dobner and Frede, 2015: 86). In the light of this perspective, the main goal of this article is to examine the water issue in the Central Asian region in line with international conventions, bilateral and multilateral agreements and to analyze the opportunities and threats, which Central Asian countries may face within the framework of water security.

METHODOLOGY

As it is a qualitative research, the situation analysis method selected. The data, collected within the framework of the situation analysis, examined, and interpreted under the headings created at the beginning of the study. Personal observations and literature review were used for data collection. Within the scope of primary sources in research, the information compiled because of my personal observations and studies conducted while serving for the OSCE Office in Tajikistan and Turkmenistan. The data consisting of secondary sources consists of books, book chapters, articles, conference and seminar notices, news, interviews, electronic resources and documents and information from the website².

WATER SECURITY

Water is essential for the continuation of life and a basic need for health and hygiene along with being a tool for agriculture and energy. Water security is crucial when it comes to health, livelihoods, productive economies, ecosystems, and disaster risk reduction (USAID, 2020). In other words, water security means to strategically ensure water security, that is, the provision of sufficient quantity and quality of water to avoid major impacts from natural and man-made disasters (Rakhmanova, 2015: 6). Water security entails crop production, electric energy based on hydro sources and disagreement on the water allocation and delivery time as well as disaster of the Aral Sea in the Central Asian region (Sokolov, 2007: 5).

Water Security has a more formal definition during the second World Water Forum held at The Hague in March 2000. As an outcome of this meeting, the Ministerial Declaration, entitled “Water Security in the Twenty-First Century”, identified main principles to secure water related issues. Water security is defined to meet basic needs, to secure food supply, to protect ecosystems, to share water resources, to manage risks emerging water issues, to value water, to govern water allocation more justly and equitably (Wouters et al., 2009: 103). In conjunction with the above definition, water security encompasses the continuous use and protection of water systems, the measures against water-related hazards, maintaining the development of water resources with assuring water services for humans and the environment (Schultz and Uhlenbrook, 2008: 2). Despite the concept of water security is in the developmental phase, it is slowly taking its place in the legal framework (Wouters et al., 2009: 134).

² I served as a *Border Management Officer* between 2011 and 2013 in the border unit under the Politico-Military Department of OSCE Office in Tajikistan. From 2013 until 2014, I was *Acting Head of the Politico-Military Department* of the respective international organization. I was a *Consultant* to deliver Risk Assessment Training at the Turkmen-Afghan border for Turkmen Special Unit between March 2015 and May 2015 for OSCE Office in Turkmenistan.

LEGAL FRAMEWORK

AT INTERNATIONAL LEVEL

1976 Convention on the Prohibition of Military or any Hostile Use of Environmental Modification Techniques³

The Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques (ENMOD Convention) is a resolution to protect the environment in the event of armed conflict. It does not allow for unfriendly use of the environment as a justification for warfare. The ENMOD Convention was adopted by the General Assembly of the United Nations on 10 December 1976 and entered into force on 5 October 1978. Kazakhstan ratified the Convention on 25 April 2005, Kyrgyzstan on 15 June 2015, Tajikistan on 12 October 1999, while Uzbekistan did on 26 May 1993. According to Article I of the Convention, the use of prohibited techniques must meet the criteria stated in the text. The action taken by the state/s must aim at unfriendly purposes, cause destruction, damage, or injury to another State Party, and must have widespread, long-lasting, or severe effects. The term prohibited techniques refer to any actions for modifying natural processes. It includes the dynamics, composition, and or structure of the hydrosphere (Wouters et al., 2009: 125).

UN Water Convention (Convention on the Protection and Use of Transboundary Watercourses and International Lakes)

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes, known as the Water Convention, was adopted in Helsinki in 1992 and entered into force in 1996⁴. It is a unique international legal instrument, which aims to ensure the sustainable use of transboundary water resources through facilitating cooperation. It was initially negotiated as a European regional convention but then has been opened for accession to all UN Member States in 2016. According to the Convention, the parties bordering the even transboundary waters must cooperate through agreements and establishing joint mechanisms. The Convention defined common terminology to have a standard approach among all members. In this context, “Transboundary waters” defined “...any surface or ground waters that mark, cross, or are located on boundaries between two or more States...” while “Transboundary impact” explained as “...any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party, within an area under the jurisdiction of another Party...”.

According to Article 2 “...the Parties of the convention shall take all appropriate measures to prevent, control, and reduce any transboundary impact, to ensure that transboundary waters are used with the aim of ecologically sound and rational water management, conservation of water resources and environmental protection...”. In line with the above-mentioned convention, if any disputes arise among the members, international water law offers a framework for the peaceful

³ Please refer to the following website for detailed information, https://treaties.un.org/doc/Treaties/1978/10/19781005%2000-39%20AM/Ch_XXVI_01p.pdf

⁴ Please refer to the following website for detailed information, https://unece.org/DAM/env/water/publications/WAT_Text/ECE_MP.WAT_41.pdf

resolution of the differences (Wouters et al., 2009: 120). Essentially, UNECE Water Convention was an instrument to ensure transboundary waters are used in a reasonable and equitable way, considering its transboundary character. Kazakhstan ratified the Convention on 11 January 2001, Turkmenistan on 29 August 2012, and Uzbekistan 4 September 2007.

Convention on the Law of the Non-Navigational Uses of International Watercourses

The Convention on the Law of Non-Navigational Uses of International Watercourses, known as the UN Watercourses Convention, is an instrument that was adopted by the United Nations on 21 May 1997⁵. It provides guidelines for the usage of international watercourses, measures of protection, and preservation with management. It defined “Watercourse” to introduce a common approach in terms of handling it for negotiations. In the framework of the Convention, “Watercourse” defined as *“a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus”* while *“International watercourse”* and explained watercourse as *“parts of which situated in different States.”* It also provided guidelines for the agreement among the Watercourse States and implied the waters to be annexed to the agreement.

AT REGIONAL LEVEL

Agreement among the Central Asian Countries on Cooperation in the Field of Joint Management on Utilization and Protection of Water Resources from Interstate Sources

The agreement was made among The Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, Turkmenistan, and the Republic of Uzbekistan. It was related to coordination and organization solutions for joint management of interstate water resources and for further pursuing a coordinated policy in the interests of economic growth and promoting living standards as for the parties of the agreement. The Agreement is signed in Alma-Ata on 18 February 1992. The status of the basin water associations for Amu-Darya and Syr-Darya was established on 6 April 1992 in Ashgabat as an executive and interdepartmental control body of ICWC of Central Asia republics, Kazakhstan, and Turkmenistan in line with the Alma-Ata Agreement.

Agreement among the Central Asian Countries on Joint Activities in Addressing the Aral Sea and the Zone around the Sea Crisis, Improving the Environment, and Enduring the Social and Economic Development of the Aral Sea Region

The agreement was made among all states of Central Asia in Kyzyl-Orda on 26 March 1993. Despite the intention to save the Aral Sea among the Central Asian States, there was a specific role given to the Russian Federation for supporting the social and economic development of the Aral Sea. According to Article III,

⁵ Please refer to the following website for detailed information, https://treaties.un.org/doc/Treaties/1998/09/19980925%2006-30%20PM/Ch_XXVII_12p.pdf

The Russian Federation would participate in the Interstate Council work as an observer in addressing the Aral Sea crisis and the rehabilitation of the zone.

AT BILATERAL AND TRILATERAL LEVEL

Agreement between Uzbekistan and Tajikistan on Cooperation in the Area of Rational Water and Energy Uses

Agreement on the distribution of water in return for compensation from Uzbekistan was reached between Uzbekistan and Tajikistan on 4 February 1998, 13 April 1999, and 14 January 2000.

Agreement among Kazakhstan, the Kyrgyz Republic, and Uzbekistan on the Use of Water and Energy Resources of the Syr-Darya Basin

The agreement was made on the modalities of water allocation and in returns in Bishkek on 17 March 1998.

Agreement between Kazakhstan and the Kyrgyz Republic on Comprehensive Use of Water and Energy Resources of the Naryn

The agreement was made on 22 May 1999 regarding Syr-Darya Cascade Reservoirs to provide efficient water releases during the growing season, prevent flooding of areas in mid-and downstream Syr-Darya, and for the rational use of fuel and energy resources. A similar agreement was made also in Bishkek on 23 May 2000.

All these international conventions, agreements at the regional and national level clearly show that there is a disagreement among the Central Asia states. Although the respective conventions offer a peaceful solution and dialogue, the Central Asian states have not been able to develop solutions in favor of all states until today. The inclusion of the old hegemonic state of Russia in the water issue through agreement makes the matter more complicated. Recalling the ongoing negotiations for border demarcation of the Kyrgyzstan-Tajikistan border, both Central Asian states refer to the Russian Federation archives. Tajikistan and Kyrgyzstan locate the border arrangements made by the Soviet Union on different dates for reinforcing their claims. These regulations are mostly in favor of one but against the other.

CENTRAL ASIAN WATER BASINS: SYR-DARYA AND AMU-DARYA

Most of the water used in the region flows from the Syr-Darya and Amu-Darya Rivers originating from the Pamir and Tian Shan mountains.

Map 1. *Syr-Darya-Amu-Darya Rivers Flow Routes*



Source: Ziganshina (2014)

As can be seen from the map, the Syr-Darya River flows through Kyrgyzstan and passes over Tajikistan (also through the densely populated Fergana Valley), and then flows towards Uzbekistan and Kazakhstan. Amu-Darya River also flows from Tajikistan towards Uzbekistan and Turkmenistan.

As marked on the map, Kyrgyzstan and Tajikistan are located on the upper part of the Amu-Darya River and named Lake upstream states, while Kazakhstan, Turkmenistan, and Uzbekistan are located on the lower part of the Amu-Darya River and named downstream states. It should be noted that the Karakum canal, an artificial reservoir completed in 1967, which flows through the Karakum Desert and carries water from the Amu-Darya River, is one of the world’s largest irrigation and shipping canals. The downstream states use water mostly for agricultural purposes, whereas upstream states use water as hydro energy.

Table 1. *Water Basins in Central Asia*

States	Syr-Darya River	Amu-Darya River
Kyrgyzstan	74.2 %	2.0 %
Kazakhstan	6.5 %	-
Uzbekistan	16.6 %	8.5 %
Tajikistan	2.7 %	72.9 %
Turkmenistan	-	1.9 %
Afghanistan	-	13.9 %

Source: Kushkumbayev and Kushkumbayeva (2013: 212)

According to the table, 74.2% of the Syr-Darya River water basin is in Kyrgyzstan territory, while 72.9% of the Amu-Darya River water basin is in Tajikistan. These states, upstream states, are significant actors in the allocation of water. Despite having such water basin, half of the people in rural areas from both states do not have access to drinking water and energy even today (Laruelle et al., 2013: 2).

Table 2. *Structure of Energy Sources in Central Asia.*

States	Hydro Energy	Gas	Oil	Coal
Tajikistan	96%	2%	1%	1%
Kyrgyzstan	82%	2%	5%	11%
Kazakhstan	1%	16%	50%	33%
Uzbekistan	1%	84%	13%	2%
Turkmenistan	0%	83%	17%	0%

Source: (Lemenkova, 2013).

Upstream states have far more capacity in terms of hydro energy compared to downstream states. Likewise, downstream states are richer than upstream states due to having coal, oil, and gas. The figures in Table 2 clearly express the interest for both upstream and downstream states to cooperate and protect the environment.

WATER REGULATIONS IN THE USSR PERIOD

To deeply examine water regulations, it is required to make a short journey in the history of the establishments of Central Asian states starting from Tsarist Russia. The demographic research carried out by Barthold, who was the President of the USSR Academy of Sciences Commission for the Study of the Tribal Composition of the Population of the Borderlands of Russia and the director of the Central Asia department and served for the Academy between 1912 and 1930, made significant contributions to the transformation policies of the Soviet Union⁶. Being aware of the demographic structure in the Central Asian region was the determining factor in the planning of the administrative borders of the regional states during Central Asia states establishment, and later periods of the USSR (Green, 2000: 71).

The Central Asian people as the other states of the Soviet Union subjected to a program called the New Economic Model. With this model, also known as Kolkhoz, new educational, economic, social, cultural, political, and agricultural policies were introduced, particularly, in the Central Asia region. Private property rights were prohibited in line with the New Economic Model (Karabulut, 2019: 58). Lenin's May 1918 decree regarding "*The Organization of Irrigation Work in Turkestan*" emphasized the cotton production directly that led to work on large-scale irrigation projects in Central Asia to ensure the USSR's cotton independence (Micklin, 1991: 11).

Then, the New Economic Model was implemented by Lenin in 1921 and continued with periodic intervals. Following the implementation of the economic model, the USSR took third place in the world in the irrigated area, after China and India (Micklin, 1991: 8). Also, it ranked third in the world in cotton production after Egypt and the US with the supply of over 90% from Central Asia (Micklin, 1991: 10). Therefore, the cotton production in Central Asia meant earnings of foreign exchange for the USSR. Since cotton production was prioritized during

6 Known as the historian of Turkestan, Vasily V. Barthold was born in 1869 in St. Petersburg. He was a member of a wealthy family of German origin. He changed his name from Wilhelm to Vasily Vladimirovich. He served as a member of the Russian Academy of Sciences between 1912-1930. In other words, he continued the task he started in the Tsarist period until he died in the USSR period. Barthold worked in many European, Istanbul, and Cairo libraries. In 1917, he wrote the history of Kyrgyz and Turkmens. For more detailed information, please refer to "*Four studies on the History of Central Asia*" book.

the USSR, the regulations for the use of water also coordinated by the central government. Soviet planners made the crucial arrangement for the water basins of the Central Asian region in the 1950s.

The purpose of these arrangements was to promote large projects that greatly increase agricultural production and facilitate land reclamation. All plans and implementation managed directly from Moscow (Becks, 2011: 38). In this context, the Karakum Canal, an artificial reservoir that started to build in 1954, was a product of that period to irrigate the desert region surrounding the Sea to favor agriculture rather than supply the Aral Sea basin.

During the Soviet period, the Aral Sea Basin was managed as part of economic activities. Soviet central planners considered Central Asian rivers for irrigation of cotton, which generated greater economic conditions and let much of its water flow empty into the Aral Sea (Postel, 2000: 943). According to Soviet-era regulations, the upstream states would supply the necessary water in spring and summer for irrigation-based agricultural economies, and cotton fields of downstream states.

In return for the allocation of water, the downstream states would provide gas and coal to the upstream states during the winter. While water management was an internal issue in which Moscow covered all maintenance and operational costs of dams and reservoirs has become an interstate problem after the collapse of the USSR (Zakhirova, 2013: 1997).

WATER ARRANGEMENTS POST-SOVIET PERIOD

With the independence of the Central Asian States, the former integrated economic system dissolved. Each state of the Central Asian states reformulated its economic priorities (Sokolov, 2009). After the collapse of the USSR, the Central Asian states reached an agreement on February 18, 1992, for the distribution of water and in returns in line with the Almaty Agreement that consists of 15 articles. Before this agreement was signed, Uzbekistan put forward its objections about the water allocation rate agreed during the USSR period.

The method of *collaboration and combining the action required for collaboration* used for solving the water issue. According to the agreement, the Central Asian states maintained their water allocation rates in the USSR period. Also, the governments of the region promised to avoid projects that would harm each other and to keep communication channels open for information exchange (Horsman, 2004: 71).

Table 3. *Water Allocation as Stated in the Almaty Agreement*

State	Syr-Darya River Water Allocation (%)	Amu-Darya River Water Allocation (%)
Kazakhstan	38.1	0
Kyrgyzstan	1.0	0.4
Tajikistan	9.2	13.06
Turkmenistan	0	43.0
Uzbekistan	51.7	43.0

Source: Zakhirova (2013: 1997)

Even though the upstream states are the source of the water for downstream states, they received water in small quotas and provided large quotas allocations for the downstream states due to less cotton production reflected in the table (Zakhirova, 2013: 1998). According to the Almaty agreement, it decided to establish an interstate commission to regulate water arrangements in the region. The water allocation commission under the name of the Interstate Commission for Water Coordination of Central Asia (ICWC) operates as part of the International Fund, which protects the Aral Sea as well as ensures economic use of water throughout the region.

The operation purpose of the ICWC water allocation commission identified as *“to implement management solutions for the protection of the Aral Sea, to determine the rational use of water, to protect the cross-border water resources, and to implement jointly planned programs based on the interests of the parties, partnership, and mutual respect* (Kushkumbayev and Kushkumbayeva, 2013: 214). Despite the agreement among the sides, the Central Asian states do not support the work of the ICWC water allocation commission (Woldemariam, 2007: 12).

In other words, the upstream and downstream states are not fulfilling their commitments. As the tension is continuing with water allocation, the Central Asia region faces another challenge arising from the construction of Rogun Dam in Tajikistan and the Kambarata HPP1 dam in Kyrgyzstan. The dam construction causes new conflicts among the states of the Central Asian states and lets to apply various pre-emptive measures against each other.

THE CONSTRUCTION OF ROGUN HYDRO POWER PLANT

The construction of the Rogun Hydro Power Plant was first proposed at the beginning of 1959 for the period of the USSR to strengthen the agricultural economy⁷. Although the project was initiated as of 1976, the construction of the dam was put on hold without taking any further action until the collapse of the USSR. The dissolve of the USSR became a cornerstone to realize the construction of the Rogun HPP. The Rogun water reservoir area was approved under the Almaty agreement signed in 1992, which was formulating the Central Asian region water allocation and joint management of water. The construction of the Rogun Hydro Power Plant was first proposed at the beginning of 1959 to strengthen the agricultural economy.

The dissolution of the USSR became a cornerstone to realize the construction of the Rogun HPP. Although the agreement was made in 1992, the necessary works to retain the water in the Rogun region did not commence due to the Tajik civil war. After the civil war and stabilization of the public order, Tajikistan searched

⁷ The Rogun dam, which constructed on the Vakhsh River and located in the Pamir region, one of the main mountain areas of Central Asia called the roof of the world, has 335 meters of filling rock area. With the construction of the Rogun Dam, the energy production of Tajikistan doubled. As for the remained construction site, the agreement made between Salini Impregilo and the OJSC “Rogun Hydroelectric Project” (state company coordinating the project). The construction is composed of four parts related to the operation of Pamir’s huge hydroelectric potential. At the time the construction of the dam is completed, it will contain 6 turbines of 600 MW each, which means that the total installed power, the equivalent of three nuclear power plants, reaches 3,600 MW. The most significant outcome of the dam construction is to place Tajikistan a reference-point for the energy sector in the region, to increase the energy production, and to reduce power cuts in winter that the state frequently faces. For more information, please refer to the following website <https://www.salini-impregilo.com/en/projects/in-progress/rogun-dam.html#>.

for international financial support to build the Rogun Dam in the 2000s. Despite the three agreements made with the Russian Federation respectively in 1994, 2000 and 2004, the construction of the Rogun Dam was never completed (Roza'nov, 2015).

The negotiations were conducted with the Russian Federation, and the construction of the Rogun Dam was resumed in 2008. Following that negotiations, one of the derivation-tunnels of the Vakhsh River was renovated in 2010 as part of the Rogun Dam construction, and this part became the highest water holding area in the region (Akhmetkaliyeva, 2016). Reiteratively, Tajikistan faced with the financial problems due to ongoing construction.

Even, in the period when the World Bank prepared the seismic assessment report, Tajikistan tried to reach an agreement with the Russian Federation for the financial support. Tajikistan extended the deadline of the 201st Motor Rifle Division of the Russian Federation in Tajikistan until 2042 in exchange for a symbolic amount in 2014 as for its support. There were rumors that Iran would utilize water from the Rogun Dam by pipeline. But none of the parties made any statements confirming this information. Despite the extension of the deadline of 201st Motor Rifle Division, the Russian Federation did not provide any financial support.

Immediately upon the construction of the Rogun HPP, Tajikistan faced conflicts directly with Uzbekistan, and indirectly with other downstream states. Particularly, Uzbekistan constantly opposed the construction of the dam. Uzbekistan claimed that in the case of keeping water in the dam, the agricultural areas would be affected. In addition to that, the dam might be destroyed by a possible earthquake. As a result, the consequences of dam construction would be devastating for the regional economy.

Essentially, Uzbekistan was concerned that Tajikistan could use the Rogun Dam as a pressure tool on the foreign policy between the two states (Kucera, 2013: 3). Against the allegations and suspicions of Uzbekistan, Tajikistan stated that if Uzbekistan could support the project, it would allow Uzbekistan to control the annual water release in the water basin (Akhmetkaliyeva, 2016).

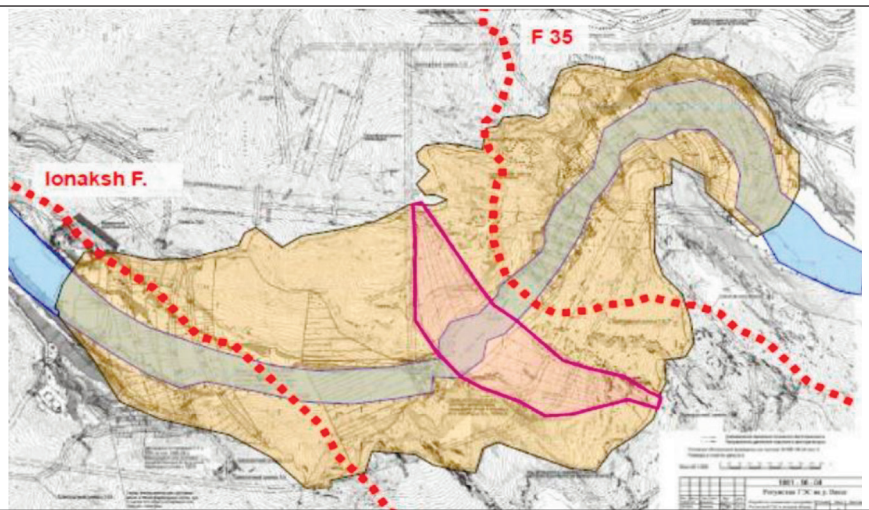
In conjunction with the above-mentioned declaration, Tajikistan signaled a green light for cooperation with Uzbekistan. It also pointed out that the importance of the dam-building for Tajikistan's energy needs. Tajikistan President Emomali Rahmon believes that the construction of the Rogun Dam on the Vakhsh River is the solution to the countless energy problems. Since Tajikistan frequently exposed to power cuts in cold winter conditions, the electricity produced by the construction of the Rogun Dam would meet the domestic energy needs. In the event of having surplus electricity, the market for Afghanistan, Pakistan, or China market would be available. Uzbekistan responded to Tajikistan's open cooperation requests with sanctions. The water-based dispute did not resolve in the second quarter of 2011. On 16-17 November 2011, the bombing action that took place on the Uzbekistan side of the Ghalaba-Amuzang railway targeted the bridge, which provided transportation between the two states, and caused damage. The railway transportation between Tajikistan and Uzbekistan was interrupted.

All railway traffic between Termez (Uzbekistan) and Qurghan Tappa (Tajikistan)

was stopped after this incident. On 16 December 2011, the Ministry of Transport of Tajikistan delivered “Nota Verbal” to the OSCE’s Dushanbe office, requesting that the OSCE should take a role in this matter. In addition to that, Tajikistan offered to pay a fee for the repair of the bridge on the Uzbekistan side. The Uzbekistan side responded to this proposal negatively and stated its priority was to clarify the bombing action rather than building the bridge. The Uzbek side did not provide any information regarding the judicial investigation and operational time. Due to the inability to use the railway between the two states, also, road transportation over Uzbekistan to Tajikistan faced serious obstacles. Although there were no technical, security, and personnel shortages on the Uzbekistan side, border crossings were at the lowest level starting from November 2011 till the end of February 2012.

After the interruption of the train transportation between the two states, the Tajik State Railways Company claimed that Uzbekistan increased train transportation fees by 32% in January 2012, which was an extra cost of \$70 million per year for Tajik importers. Ultimately, the World Bank intervened in the conflict between the two countries in 2012. The World Bank organized (5) meetings in which the Central Asian states were the main participants for the Assessment Studies of the Rogun Hydroelectric Project (Akhmetkaliyeva, 2016).

Map 2. Fault Lines on Rogun Dam Track Area



Source: Bellier (2013: 8)

According to the seismic assessment report prepared for the World Bank, there are (3) fault lines in Tajikistan. The place where the Rogun Hydro Power Plant built located between the fault lines of Ionakhsh and Gulizindan (Bellier, 2013: 9). The parameter values regarding the venue of the dam were within the acceptable limits per the conducted studies. The information was shared with the participants in the above-mentioned consultation meeting accordingly (News Central Asia, 2018). The breaking point was the death of the former president of Uzbekistan on September 2, 2016.

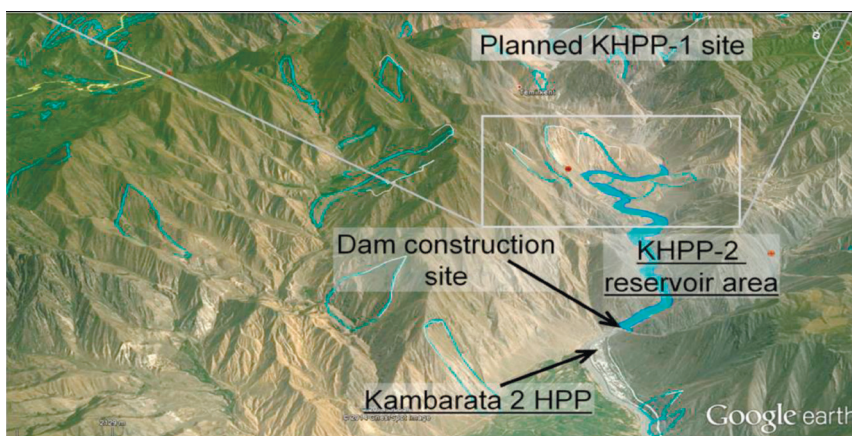
President Shavkat Mirziyoyev, who came to power after Islam Karimov, removed Uzbekistan’s reserves on the Rogun Dam construction in 2016.

Tajikistan continued the building of the dam in 2016 by signing a contract with the firm Salini Impregilo. The Italian company commenced the work in October of the same year. The dam construction project included dozens of subcontractors from China, Germany, Iran, and the Russian Federation (Najibullah, 2018). The problem of financing the Rogun Dam was solved through the sale of government bonds. Tajikistan government bonds were sold at 85% to fund managers, 9% to hedge funds, 6% to banks and other financial institutions in conjunction with the investor type. The bonds bought by investors from the USA with the amount of 38%, the UK with the amount of 24%, EU countries with the amount of 24%, and finally by Asia investors with the amount of 3% (Aliyeva, 2018). Phase 1 of the Rogun Dam, which has been continuing for approximately 42 years and has been interrupted several times, started to function on 16 November 2018 (Stratfor, 2018).

THE CONSTRUCTION OF KAMBARATA HYDRO POWER PLANT

Kyrgyzstan's physical geography looks like Tajikistan's geography and it is a mountainous region and has rivers. It is considered as one of the upstream states. Although it is rich in water resources, it is extremely poor in terms of having hydrocarbon resources. Kyrgyzstan currently has the Kambarata-2 Hydro Power Plants, also known as Kambar-Ata-2 located on the Naryn River in Kambar. The preliminary work regarding the construction of the Kambarata HPP-1 dam has been continuing since the 1970s.

Map 3. Planned KHPP Site



Source: Havenith et al. (2015: 4)

It has planned to be built 14 km over the Kambarata HPP-2 on the Naryn River in the V-shaped canyon as seen on the map. Although the Kambarata HPP 1 planned to be built on the upper side of Naryn Waterfall on the Naryn River, its design phase continued until the 1980s. The collapse of the USSR stopped construction works due to a lack of funding that commenced in 1986. Kyrgyzstan tried to make negotiations with Kazakhstan and Russian Federation to resume its construction in 2009. Though Russia promises to pledge \$1.7 billion as debt for the construction of Kambarata Dam, it withdrew the credit back owing to the Manas case. After a while, Russia agreed to invest in the

construction again in 2012. But it did not fund the construction of the dam despite the groundwork completed and feasibility work carried out by SNC Lavalin International Company approved by the Kyrgyz government in July 2014. The Kyrgyz government canceled the agreement with Russia on the construction and operation of the Kambarata HPP 1 (Menga, 2018: 14).

Table 4. *Kambarata Hydro Power Plant-1*

Kam- barata HPP-1	Normal Re- source Level NHL, m	Installed Capacity MW	Electric Ener- gy Production, Mln. kWh	Reservoir Space Mln. Cbm	HPP Type
	1198	1860	5640	2730	Dam

Source: National Energy Holding Company (2019: 6)

If the Kambarata HPP plant becomes operational, its capacity will reach up to 1860 MW, as can be seen from the table, and it will supply the energy needs of Kyrgyzstan to a large extent. The construction processes of the Kambarata HPP 1 and the financing negotiations with the Russian Federation were remarkably like the Tajikistan Rogun HPP construction processes and financing negotiations. During the Kambarata HPP 1 construction process, Uzbekistan voiced its claims against the project. The Uzbek side stated that the construction of the dam would damage the Uzbek agricultural lands and destroy the Uzbek settlements due to the dam-building site location on the earthquake fault line. Also, receiving water for the Kambarata-1 HPP dam and discharging excess water in the winter considered as another problem (Rozaev, 2015).

The developing relations with the USA or China-led Russia to withdraw its financial support in 2016 despite its commitment. These efforts of the Kyrgyz government is taken into consideration as a conflict with the interests of the Russian Federation in the region. Although the Russian Federation and China are under the umbrella of the SCO organization, there is often a conflict of interest in the region between the two states. Due to funding problems, Kyrgyzstan President Atambayev stated that Kyrgyzstan would end its cooperation with the Russian Federation in the construction of the Kambarata-1 and search for new investors due to the difficulties of the Russian economy face. Also, Atambayev added that there was a mutual understanding with the Russian leadership in the search for new financing for the dam construction (Izvestia News, 2016).

The relations between Kyrgyzstan and Uzbekistan developed after Mirziyoyev came to power in late 2017. Uzbekistan and Kyrgyzstan governments agreed to cooperate in the construction of the Kambarata HPP 1. Following that, a working group was established to discuss technical issues. Unfortunately, this close relations did not turn into financial support. Kyrgyzstan's government continued its search for financing for the realization of the project. Within this framework, the Kyrgyz government made a presentation for possible investors in Istanbul in January 2019 and invited the investors to participate in the dam construction project. Today, the efforts between the Kyrgyzstan government and the Asian Development Bank and the World Bank for funding the Kambarata HPP-1 project is continuing.

CONCLUSION

The problems, which emerge from the water regulations in the Central Asian region, is mostly based on the policies of the Moscow administration. It was started to implement from the Russian Empire, the Soviet Union, and continued with the Russian Federation. Especially, the studies of the Central Asian Department of the USSR and the New Economic Model introduced by Lenin to increase cotton production led to the Aral Sea facing environmental hazards. The water resources distribution was designed in line with the benefits of the central government of the Soviet Union, contrary to the region's people.

Today, the projects, which put forward by the Central Asian states for economic development, are either not financially supported or postponed by the two most important players of the region, namely, Russia and China. Even though the Russian Federation agreed to provide financial support, as in the case of the Rogun and Kambarata dams, it withdrew financial support or stalled the demands of the relevant states, depending on its policies.

For example, the Russian Federation promised financial support to Tajikistan during the construction of the Rogun Dams. The deal was an extension of the 201st Motor Rifle Division in favor of the Russian Federation, while the Russian Federation would fund the construction in return. Tajikistan extended the deadline of the military base against a very symbolic fee until 2042. However, it did not get any financial support. The Tajikistan state bonds were purchased mostly by the Western States. The US was the first ranked due to buying 86% of the state bonds. That is why Tajikistan would be able to construct Rogun Dam. A similar situation regarding support of the Russian Federation revealed during the construction of the Kambarata HPP 1.

The Russian Federation limits the relationship of the Central Asian states with the other major and regional powers. It keeps them under control through regional organizations through CSTO or SCO. It maintains the same practice and limitations in the economic field of the Central Asian states. It neither allows other powers to intervene in the region nor allows the region states to have independent policies. The constructive approach of Uzbekistan reinforced the stability in the region and provided conditions for peaceful solutions.

The water usage in Central Asia should identify in a friendly manner and issues solve among the Central Asian states without intervening and including any great powers. However, any support for economic development should welcome from out of the Central Asian region within the framework of the water issue. The areas of action and economic motivations determined for Central Asia during the Soviet Union period have changed. The states of the region should not be in a position of negligence in making more independent decisions. The economic situation, irrigation, and agricultural areas in the region should overhaul again.

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