Conflicts over water and energy resources in Central Asia and their impact on women's rights

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Abstract. Central Asia has sufficient water and energy resources. Kyrgyzstan and Tajikistan have large reserves of fresh water. Kazakhstan, Uzbekistan, and Turkmenistan have oil and gas. However, conflicts constantly arise between all Central Asian countries over water and energy resources. The purpose of the article is to analyze the key problems in the distribution of water resources and conflicts between Central Asian countries and their negative impact on women’s rights. This study used analysis of research conducted by international organizations, by the National Statistical Committee of Kyrgyzstan, and content analysis of Internet resources. The solution to conflicts over water and energy resources between Central Asian countries lies in the balanced and coordinated use of the existing high potential and reasonable mutual exchange of resources. Negotiated conflict resolution is important for women. The active participation of women in increasing efficiency in the water and energy sector will create the prerequisites for improving the economies of the republics, developing “green” energy, and maintaining the environmental balance. It would help to achieve sustainable development goals in the Central Asian region.

Keywords: Central Asia, water and energy resources, hydroelectric power stations, water conservation, gender equality, ensuring access to water and sanitation for all.

Introduction

Historically, the countries of Central Asia have been agricultural regions. The problem with water resources has always been acute. The exception was the development of the economies of Central Asia during the USSR. Thanks to involvement in socialist construction, the largest hydroelectric power stations were built here, meeting the needs of the agro-industrial complex, irrigation, and providing the population with clean drinking water. Light and heavy industry began to develop. But in general, the Central Asian republics continued to remain predominantly agricultural. Kyrgyzstan specialized in the supply of meat and wool. Kazakhstan was a granary of grain crops. Uzbekistan grew cotton. Equal and fair distribution of water resources for agriculture was important. Thanks to a unified system for making political, economic and social decisions, and a unified program for water and energy development in

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Soviet times, the issue of providing the population with drinking, technical and irrigation water was practically resolved.

Currently, population growth, water and electricity consumption in all sectors of the economy lead to a shortage of resources. The uncoordinated distribution of water resources is causing an increase in the “degree of conflict potential” in this region [2, 556].

State building of the newly independent countries of Central Asia took on the character of trial-and-error methods. This has led to irrational use of water resources, infrastructure and management problems, and soil and environmental pollution. Young independent economically weak states could not replace outdated equipment and create effective mechanisms for controlling water resources. New players China and Iran have appeared in the region. They use their economic power to redirect water resources to develop their economies. All these factors are today's time bombs for future conflicts and instability between the countries of Central Asia itself.

The purpose of this article is to analyze the key problems in the distribution of water resources between the countries of Central Asia, the relationship between conflicts in the use of water resources, the participation of women in these processes, and discrimination against women’s rights. The article aims to propose specific strategies and interventions that can contribute to the efficient use of water resources, reduce conflicts and eliminate discrimination against women's rights.

Main tasks:

- To analyze the balance of water resources in Central Asia;
- To consider conflicts arising in the use of water resources in the Fergana Valley;
- To consider the disputes surrounding the construction of hydroelectric power stations, political, environmental and social consequences;
- To analyze the main problems and challenges faced by women in access to water resources, and the consequences leading to discrimination against women’s rights.

Research methods

The main method used in this article was studying and comparative analysis of research and reports of international organizations such as the UN, World Bank, Eurasian Development Bank, and others, that have sufficient financial resources to conduct large-scale studies throughout Central Asia and data from the National Statistical Committee of the Kyrgyz Republic. To understand the connection of the main political mistakes of former governments of the Kyrgyz Republic with water-energy resources content analysis of internet sources was used. The works of authors studying the problem of water resources in Central Asian countries and ways to achieve sustainable gender development and achieve SDG-6 are considered.

Correlation of water resources in Central Asia

The geographical peculiarity of the countries of Central Asia has objectively led to historically disproportionate water resources. Kyrgyzstan and Tajikistan, located in mountainous areas, have glaciers and headwaters of rivers passing through the entire territory of Central Asia. They turned out to be the masters of the main reserves of water resources. According to the Yearbook “Water in Central Asia and Around the Globe”, “The total available water resources in the Kyrgyz Republic are estimated at 2,458 km, including 650 km (26.4%) in glaciers, 1,745 km (71%) 3 in lakes, 13 km (0.5%) as potentially usable groundwater and mineral thermal resources, and 44.5 to 3 51.9 km (2%) as average annual river runoff. The total annual volume of renewable water resources is estimated at 46.5 km. The country has over
3,500 watercourses, including 30 large rivers. The average annual 3 river runoff formed in the country is 44.5 km and reaches 47.2 km if return water is included” [16, 65].

Most of the territory of Kyrgyzstan is located on the Tien Shan mountain ranges (Tenir-Too in Kyrgyz), where multiple drains are formed. “The main rivers belong to the basin of the Syr Darya, Talas, Chu, Ili, Manas, Tarim, and Konchedarya. Most of them are characterized by alternating mountain gorges and widening valleys, where the river breaks into branches; combined with the large decline, this creates favorable opportunities for hydroelectric development. The rivers are fed predominantly by snow, in the high mountain areas in the summer months it is also fed by glaciers; Maximum flow is in late spring and summer. This increases the economic importance of the Tien Shan rivers, a significant part of the flow of which is used for irrigation of intramountain valleys and basins, as well as plains adjacent to the mountain system” [5, 33].

Tajikistan also has large water reserves. “Tajikistan has got water resources from glaciers, rivers, lakes, reservoirs and groundwater. There are 14,509 glaciers with the total glaciation area of 11,146 km (approx. 8% of the country’s area) and the total glacial volume of about 845 km. 947 rivers stretching to more than 28,500 km now across the country. The average annual river runoff is 64 km/year (including 80% of the Amu Darya River and 1% of the Syr Darya River) or 55.4% of the average long-term annual surface runoff in the Aral Sea Basin. Tajikistan possesses about 1,300 lakes covering 705 km. The lakes contain over 46.3 km of water, including 20 km of freshwater” [16, 74].

Uzbekistan, Kazakhstan and Turkmenistan, which find themselves downstream, constantly experience an acute shortage of water. At the same time, the majority of the population continues to rely on agriculture to feed itself. In terms of water resources, Kazakhstan receives more than 40 percent from outside, Uzbekistan more than 77 percent of water, Turkmenistan - more than 90 percent. Uneven access to water resources and their acute shortage have repeatedly led to individual conflicts between all countries of Central Asia. Moreover, these conflicts cannot be removed from the agenda any further. At the same time, Turkmenistan, Uzbekistan and Kazakhstan have large reserves of oil, gas and coal.

In general, the presence of oil, gas and coal, as well as water resources, indicates the significant potential of Central Asia. It is clear that their water and energy systems are closely intertwined. “The presence of such diverse power systems means that it is possible to meet the seasonal energy needs of all countries in the most economical and environmentally friendly way: by maximizing the use of inexpensive hydropower in the summer and reliable sources of thermal energy in the winter, when the cold climate limits hydropower production.” In addition, wind and solar energy are not yet used. However, despite the high water and energy potential of Central Asia, “around 2 million households across the region used to be affected by winter heat and power shortages per year” [14, 9].

Another objective challenge for all Central Asian countries is global warming. According to the World Bank’s 2009 report “Adapting to Climate Change in Central Asia” notes that “average temperatures in the region have already increased by 0.5°C and are projected to increase by 1.6° to 2.6°C by 2030-50. The cumulative effects of climate change and the near-depletion of the Aral Sea are further increasing water-related stress. Increasing temperatures lead to earlier snowmelt, shifting runoff into spring and reducing water flows in the irrigation season by up to 25 percent. Rapid glacier melt is increasing water flows for the time being. However, it is expected that once the Central Asia region reaches “peak water” by around 2050, this effect will be reversed, and river flows will decrease markedly” [14, 12].

If current water management policies continue, water shortages could lead to a significant slowdown in economic growth. At the same time, improving the efficiency of water use in the economy can significantly contribute to the expansion of agricultural production, the development of green energy and the preservation of the region's environmental assets. Of all
regions of the world, changes in water consumption dynamics will have the most significant impact on the economic growth of Central Asia. Thus, Central Asia stands to gain the most by ensuring its water resources are properly managed in the context of climate change, or suffer the greatest losses if it does not.

**Conflicts arising over the use of water resources in the Fergana Valley**

The Fergana Valley is an intermountain depression, one of the most densely populated regions of Central Asia, uniting Kyrgyzstan, Tajikistan and Uzbekistan. The area of the valley is almost 22 thousand km². The surrounding mountains are 58 thousand km². Here the two largest rivers Naryn and Kara-Darya unite and form the Syr Darya. The Amudarya River increases the area of irrigated land. Despite the gray soils, due to the excessive use of fertilizers, the Fergana Valley is considered a fertile region, a breadbasket for the population of the three republics. Since the population is mainly engaged in agriculture, any attempts to build hydroelectric power stations lead to conflicts between countries.

Tajikistan has built a whole cascade of hydroelectric power stations on the Vaksh River. The largest of them is the Rogun hydroelectric power station. There are currently 8 hydroelectric power stations in operation, and additional new ones are being designed. This is causing increasing concern in Kyrgyzstan and Uzbekistan due to the threat of decreasing water resources for the needs of the population and agriculture. At the same time, intensive use of water for industry, irrigation, and fertilization lead to water pollution, deterioration of soil quality, erosion, desertification and, in general, subsequent irreversible environmental consequences, as has already happened with the Aral Sea.

**Conflicts around the Rogun hydroelectric power station**

The Rogun hydroelectric power station, with an installed capacity of 3600 MW, is the largest among other hydroelectric power stations of the Vaksh cascade and is of great economic and strategic importance for Tajikistan. Two of the six units were launched in 2018. The full launch of hydroelectric power plants requires billions of dollars in investments. The launch of the Rogun hydroelectric power station was accompanied by stiff resistance from Uzbekistan. Although the parties to the conflict were Tajikistan and Uzbekistan, “the participants include Kyrgyzstan, Turkmenistan, the USA, Pakistan, Afghanistan, Saudi Arabia, and Russia.” The full launch of the Rogun hydroelectric power station threatens the development of environmental and social problems both for Uzbekistan and other neighboring countries. “Official Tashkent attracted the attention of the entire world community to the environmental catastrophe that the construction of a hydroelectric power station would entail - desertification of the Karakalpak and Khorezm regions, the main source of income of which is agriculture; the regions of the neighboring Bukhara region are also facing the problem of desertification. Another environmental threat is the fact that the Rogun hydroelectric power station is being built in a seismically dangerous zone and a dam failure due to an earthquake threatens to flood Uzbek territories” [2, 559]. Uzbekistan is experiencing significant economic losses. Uzbekistan is the largest producer of cotton in Central Asia, the cultivation of which directly depends on the waters of the Amu Darya, and therefore on its mouths, located in Tajikistan.

Uzbekistan took concrete steps to block the construction of hydroelectric power stations. In the 1990s, Uzbekistan introduced a visa regime with all neighboring republics, including Tajikistan. In 2009, he cut off gas supplies from Turkmenistan to Tajikistan, which passes through Uzbekistan. In 2011, railway tracks in the southern part of Tajikistan on the border with Uzbekistan were completely dismantled. In 2013, Uzbekistan stopped supplying its natural gas. This was a blow to the work of enterprises, “primarily the aluminum smelter, the income from which accounts for about 75% of Tajikistan’s budget revenues, the enterprise was forced to switch to coal” [2, 559].
Despite fierce opposition from Uzbekistan, Tajikistan is looking for ways to fully launch the Rogun hydroelectric power station for 6 billion US dollars. To achieve this, Tajikistan is trying to attract investment from Russia and Saudi Arabia. In this regard, Russian experts are trying to calculate all the risks associated with the international confrontation, since by investing money in the construction of the Rogun hydroelectric power station, it automatically becomes a participant in the conflict. But since the economic benefits for Tajikistan will outweigh the risks in the political and social sphere, the country will strive to complete the construction of the Rogun hydroelectric power station. Tajikistan will not only be able to cover the significant electricity needs of its economy but also export it to Uzbekistan, Afghanistan and Pakistan. In any case, to reduce subsequent political and social problems associated with open conflict with Uzbekistan, the governments of both countries must jointly find an alternative way to implement this project.

Conflicts and solutions around Kambar-Ata hydroelectric power station-1

The history of Kambar-Ata HPS-1 is very similar to the situation around the Rogun HPS. Kambar-Ata HPS-1 should become the largest in Kyrgyzstan with a production capacity of 1860 MW of electricity annually. Built in Soviet times, the largest hydroelectric power station in Central Asia, Toktogul HPS, produces 1,200 MW, although in terms of water volume, the Toktogul HPS has 19 billion cubic meters, and the Kambar-Ata hydroelectric power station-1 will have 6 billion cubic meters. Kambar-Ata HPS-1 would make it possible to cover the ever-increasing need for electricity and make money on its exports. However, Uzbekistan put up tough opposition here too for 30 years.

As in the launch of the Rogun hydroelectric power station, the participants in a possible conflict are not only Kyrgyzstan and Uzbekistan but Russia and Kazakhstan. Being an economically weak country like Tajikistan, Kyrgyzstan is forced to turn to stronger neighbors for financial assistance. In 2012, the Russian company “Rosenergo” and Kyrgyzstan reached an agreement on the construction of Kambar-Ata HPS-1, which is located in the southern part of Kyrgyzstan. However, just as in the case of Tajikistan, Uzbekistan, which depends on the waters of Kyrgyzstan, prohibited the construction of Kambar-Ata, using open threats, including the use of armed confrontation. Radio Ozodi (Radio Liberty) reported: “While the current leadership of Uzbekistan is in power, Kambar-Ata and the Rogun hydroelectric station will not be built” [27].

Islam Karimov managed to create the most powerful army among the countries of Central Asia. Uzbekistan, to maintain full sovereignty in foreign policy, did not join such organizations as the CSTO, SCO, and Eurasian Economic Community. Shavkat Mirziyoyev adheres to the same policy today. However, the militant rhetoric under Sh. Mirziyoyev has changed significantly. Now Uzbekistan is looking for ways to jointly resolve problems arising between the former allied states.

Under Islam Karimov, Uzbekistan even applied to the UN for an international examination to prove the harm from the Kambar-Ata HPS-1, which would strike the water balance of the entire region. Karimov’s resistance provoked open, impartial criticism of his policies from the President of Kyrgyzstan A. Atambayev. The construction of Kambar-Ata required $2.7 billion. The impressive amount of construction of the hydroelectric power station and Karimov’s threats froze this project for a long time.

It is obvious that conflicts in the water and energy sector pose a threat to security in the region and will hinder the economic growth of the republics. This will also have a significant impact on the livelihoods and quality of life of the local population. The main blow, as usual, will fall on women.

The coming to power of Sh. Mirziyoyev in 2016 opened a new page in the construction of Kambar-Ata HPS-1. In 2017, Uzbekistan not only agreed, but also decided to take part in financing the hydroelectric power station. “In early October, “Uzbekhydroenergo” and the
National Energy Holding Company of Kyrgyzstan signed a memorandum of cooperation in the implementation of the Kambar-Ata HPS-1 construction project” [31].

In 2022, Kazakhstan decided to join the construction of the Kambar-Ata hydropower station. There was a mutual understanding between the leaders of Uzbekistan, Kyrgyzstan and Kazakhstan that in the current conditions of global confrontation between the strongest countries in the world, conflicts in the region will not bring any benefit to the republics. Therefore, they began to look for ways to consolidate the republics and create a balance of interests. As Zhoomart Tokayev noted: “More than 60 million people live in the region, and the total territory is about 4 million square kilometers - almost the same as all the countries of the European Union. After all, our states are united by the historical proximity of culture, language, as well as religion, traditions, and family ties. All this allows us to say that the creation of a regional identity, a common economic and sociocultural landscape is a very real project” [21]. The participation of Uzbekistan and Kazakhstan in the Kambar-Ata project will allow them to influence the operating mode of hydropower stations and the regulation of the water balance, on which the agriculture of these countries and the solution of many environmental and social problems, not to mention political and economic ones, depend.

**Solution**

The solution to the issue of conflicts over water and energy resources in the countries of Central Asia lies in the balanced and coordinated use of the existing high potential. If Kyrgyzstan and Tajikistan have water resources, then Kazakhstan, Uzbekistan and Turkmenistan have oil and gas. The countries of Central Asia could develop a policy of reasonable mutual exchange of resources. However, as we saw above, it is the joint search for solutions to problems with the water and energy balance that is the stumbling block. Modern governments are trying to find mutually beneficial solutions that will ensure the entire water and energy security of the entire region.

**Inner-country conflicts caused by the corrupt transfer of lands with water resources to neighboring states using the example of Kyrgyzstan**

In 2005, the first people's revolution took place in Kyrgyzstan. The trigger for the revolution was the transfer by President Akaev to A.A. almost 1000 hectares of Uzengu-Kush glaciers to China without any payment of indemnity. The Kyrgyz people would not agree to any indemnity. Uzengu-Kush is a glacial basin of 2800 hectares, located in the intramountain depression of the Tien Shan (Tenir-Too) at an altitude of 3000-3500 m. Uzengu-Kush belongs to the glacial-nival landscape belt, where there is snow for more than six months. Glaciers are ubiquitous. As noted by Topchubaev A.B. “The most precipitation falls in the glacial-nival belt - 600 mm, where 40% of the precipitation goes to evaporation (150 mm). Gross moisture makes up 50–55% of precipitation, of which 28% goes to the formation of underground runoff. The total river flow here is the greatest; if we take the river flow generated in all altitudinal zones, then the glacial-nival belt alone accounts for almost 36% of the flow” [12, 163]. Also, the location at this altitude contributes to a high concentration of watersheds due to less evaporation [12, 163]. The location of Uzengu-Kush in the basin creates the best conditions for preserving glaciers as a strategic reserve of fresh water. This is of particular relevance in the context of global warming and melting glaciers. In 2002, 30% of the Uzengu-Kush territory was transferred to China. Per the “New Margilan Peace Treaty of 1884”, China claimed the territory of five areas within Kyrgyzstan: “Uzengu-Kush”, “Enilchek”, “Tepshi”, “Irkeshtam”, “Murgab” with a total area of more than 400,000 hectares. From time immemorial, the Kyrgyz considered these territories theirs. All names of settlements, rivers, mountains, gorges, all toponymy are of Kyrgyz origin. Moreover, in 1924 the Kara-Kyrgyz Autonomous Region appeared, and in 1936
a new state - the Kyrgyz SSR with established borders. In 1991, the independent Kyrgyz Republic emerged, inheriting all the territories included in it back in 1924.

Before the ratification of the agreement on the transfer of lands to China by deputies of the two parliaments of the Kyrgyz Republic on May 10 and 17, 2002, residents of the village of Bospiek, Aksy district, Jalal-Abad region, under the leadership of Azimbek Beknazarov, opposed any transfer of Kyrgyz lands. Residents of other regions and activists supported the demand for the preservation of Uzengu-Kush. However, the leadership of independent Kyrgyzstan, instead of negotiating with its people, on March 17, 2002, carried out a bloody massacre against the residents of Bospiek. The people did not forgive A.A. Akayev. transfer of lands and execution of civilians. On March 24, 2005, he simply swept away the corrupt regime.

China not only lays claim to many border territories of Kyrgyzstan, but also of Kazakhstan and Tajikistan. The main reason is water resources.

China is carrying out a full-scale transformation of the Xinjiang Uygur Autonomous Region, transferring population from Eastern China. Thus, the country's leadership is solving the problem of Uyghur separatism, the dissolution of the indigenous peoples of this area and the settlement of sparsely populated outskirts. The population of this area is planned to increase to 150 million people. The most pressing issue of these plans will be the provision of water resources. For this purpose, the flows of the Irysh and Ili Rivers are redirected to inland China. This created an environmental threat to Lake Balkhash in Kazakhstan, and an even more severe shortage of water resources. Since Kazakhstan cannot resolve issues with economically and politically powerful China, it is trying to solve its problems of lack of resources using Kyrgyzstan.

In 2010, the events of Uzengu-Kush were repeated. Now from Karkyra. Karkyra is the same name for a gorge, valley and river on the territory of Kyrgyzstan and now Kazakhstan. Karkyra means “crane”. These birds live in the steppes and meadows of Kyrgyzstan at an altitude of up to 3000 m. Returning from wintering in the spring, they fill the entire area with their beautiful calls. The territory of Karkyra stretches 67,000 hectares and is a fertile place for both grazing and agriculture. The beauty of these places attracts tourists from all over the world. The second President of Kyrgyzstan K. Bakiev transfers more than 1000 hectares of Karkyra to Kazakhstan, despite numerous rallies and speeches by opposition parties. Along with Karkyra, the lands of Talas and Chui regions and several boarding houses in Issyk-Kul were also transferred. Bakiyev tried to solve the problem of lack of electricity due to the unplanned release of water to neighboring countries by calling for the preparation of dung for the heating season. All this led to the Second People's Revolution on April 7, 2010, and the overthrow of the next corrupt regime, which ended with numerous casualties. 98 people were killed and more than 400 were maimed. Mothers, wives, and daughters lost their sons, husbands and fathers.

Summing up the reign of the former President of the Kyrgyz Republic K.S. Bakiev, political scientist Mars Sariev noted among the many economic and political mistakes “squandering water and energy resources” and the total plunder of the country (29). Another expert Nikita Mendkovich also noted that the energy sector remained a vulnerable area with many crisis phenomena. However, Bakiyev did nothing to improve it. Moreover, in foreign policy, he did not try to establish himself as a reliable partner, but “resorted to actual deception of partners” [29]. In turn, ex-president Bakiev K.S. in an interview with a Kazakh newspaper, trying to justify himself for the transfer of Karkyra and other lands to Kazakhstan, he said that the agreement between Kyrgyzstan and Kazakhstan was signed by Presidents A. Akaev on December 15, 2001 in Astana. Kazakhstan ratified this treaty on December 3, 2003 [18]. The agreement was ratified by Kyrgyz Parliament (Jogorku Kenesh) in 2010.

After the April revolution, Kazakhstan began to block its borders to Kyrgyzstanis and Kyrgyz agricultural products, which were especially needed in the border regions of
Kazakhstan. From that moment on, a tough confrontation began between the presidents of Kyrgyzstan and Kazakhstan - A. Atambayev and N. Nazarbayev.

In 2021, the now new government of Kyrgyzstan, which also came in the wake of the 2020 revolution, raised the issue of resolving disputes over undefined areas on the border between Kyrgyzstan and Uzbekistan. The issue of transferring the Kempir-Abad reservoir to Uzbekistan became especially acute. The Kempir-Abad reservoir was built in 1983 on the territory of Kyrgyzstan. However, back in 1973, in order to obtain these territories, Uzbekistan provided compensation and transferred 4,100 hectares of pastures in return. The Uzbek side calls this reservoir Andijan. The waters of several rivers flow into Kempir-Abad: Tar, Kara-Kuldzha and Kara-Darya. The mouths of all rivers are also not in the territory of Kyrgyzstan. “The reservoir covers an area of 4,400 hectares. Its total volume is 1.9 cubic kilometers. The waters of the Fergana Canal begin from the Kempir-Abad reservoir and enter Uzbekistan through the Aravan region” [32]. The region's Kyrgyz population relies on agriculture for their livelihood, and the transfer of the reservoir to Uzbekistan in 2022 was both an economic and psychological blow to them. Despite numerous protests by the local population, famous politicians, and representatives of NGOs, the reservoir was transferred to Uzbekistan. The Uzbek newspaper notes that “As part of the documents, 4,957 hectares of the reservoir and an additional 19.5 hectares were transferred to Uzbekistan for maintenance and protection of the dam. 1019 hectares of pasture land are transferred to Kyrgyzstan as compensation” [22]. Prime Minister of Uzbekistan Abdulla Aripov also noted that this reservoir is a strategic object for agriculture in Uzbekistan.

The most active Kyrgyz politicians and human rights activists who opposed the transfer of the reservoir to Uzbekistan were imprisoned [19]. “On October 23, mass arrests began. The authorities sent 27 people to jail on charges of preparing for mass riots” (28). Two years have passed, however, “Currently 11 people remain in custody” [28]. The newspaper notes: “Several international human rights organizations, such as the International Partnership for Human Rights (IPHR), the World Organization against Torture (OMCT), the Norwegian Helsinki Committee (NHC), the Helsinki Foundation for Human Rights (HFHR), Freedom Now Now) and others, issued a statement calling for the immediate release of politicians and activists arrested in Kyrgyzstan” [28]. Almost half of the activists and human rights defenders in the Kempir-Abad case are women.

**Gender sensitivity to water problems in Central Asia: the example of Kyrgyzstan**

Kyrgyzstan was one of the first in Central Asia to ratify the UN Convention on the Elimination of All Forms of Discrimination against Women (1996) and adopted the Beijing Platform for Action (1995). Just like most countries in Central Asia, Kyrgyzstan has joined the 2030 Agenda to implement the program for sustainable development of the world. SDG-5 and SDG-6 occupy an important place in this agenda. SDG 5 is related to gender equality and promoting the rights and empowerment of women and girls. At the same time, gender equality permeates all 17 sustainable development goals and is of course directly linked to SDG 6 on ensuring the availability and sustainable management of water and sanitation for all. Without achieving SDG-6, the full achievement of SDG-5 is impossible. Likewise, achieving fundamental human rights is a prerequisite for achieving sustainable development and prosperity throughout the world.

The Kyrgyz Republic has developed a Green Economy Program for 2019-2023. This program includes issues of fair access to natural resources for all social groups, including women. The program states that “the transition to a green economy is not a gender-neutral process and requires full consideration of the human dimension. Women and men make different contributions to the existing economic system, have different benefits, respond to different impulses, and prefer different solutions. Women's interests must be taken into account
in policy development, not only as objects of policy but also as important agents in design, implementation and evaluation” [8]. Implementation of the program requires concentration of human potential. The solution to the personnel issue should be the active involvement of women in the development of the “green economy” policy itself, as well as in decision-making at all levels. Today, “Women continue to be underrepresented at all levels of policy-making and decision-making on natural resources and environmental management, environmental conservation and damage control. Their experience and skills in the field of propaganda and monitoring of correct environmental management methods are still not in demand” (8). The program notes that women play a leading role in promoting the principles of respect for the environment. Women are characterized as the most stable members of local communities [8]. It is necessary to promote educational programs among women in the field of use and distribution of water and energy resources. Currently, 83.1% of students in secondary and higher vocational education in energy studies are men and only 16.9% are women. The same gender asymmetry prevails in the professional energy sector. Men make up 90.5% here, which automatically leads to discrimination against women's rights, their exclusion in decision-making, and access to water resources. Most women in rural regions of Kyrgyzstan still carry water on their shoulders and use dirty water.

Conclusions
It is quite obvious that without cooperation of the countries of Central Asia, without interaction with neighbors in the EAEU and SCO, without achieving mutually beneficial cooperation with Iran, Afghanistan and Pakistan, it is impossible to talk about the stable development of the Central Asian region. International organizations such as the UN and the World Bank play a very important role in reducing tension in this region, helping to develop the necessary research, programs and financing individual needs of the population, such as the availability of clean drinking water, solving problems of irrigation, purification of water bodies, etc. The UN has created a regional center for preventive diplomacy for Central Asia (UNRCCA). The main task of UNRCCA is to achieve a peaceful settlement between the countries of Central Asia on issues of transboundary management of water and energy resources.

Negotiated conflict resolution is important for women. It is women who lose their breadwinners and children when such conflicts arise.

Studies of water and energy resources in Central Asia by international organizations have shown that “Kazakhstan, Kyrgyz Republic, and Turkmenistan have more water per capita than half the countries in the world. Tajikistan and Uzbekistan have less water per capita but are far from water-scarce” [15, 4]. Moreover, “As a result, all Central Asian countries are in the top decile for average annual water withdrawals per capita. Withdrawals across the region are around five times the global average” [15, 4]. Accordingly, the root of most conflicts between the countries of Central Asia lies in the low efficiency of water use, unreasonably high loads on the water resource system, the lack of a scientific approach for the rational use of available water and energy resources, the lack of a thoughtful management system, high corruption, and the inability to negotiate and think strategically.

International organizations offer:

- Correct government policy, improving management in the water and energy sector to increase the efficiency of water use and energy distribution;
- Reforms in the water and energy sector. Among them: political, legislative, institutional, irrigation, sanitary;
- Targeted investments and modernization of infrastructure, especially irrigation;
- Redistribution of water resources and risks;
- Focus on environmental aspects of water resources management.

If Central Asian countries implement these suggestions, they “can improve water security and achieve continued strong economic growth in the face of climate change» [15, 11].

International organizations also play a significant role in the implementation of sustainable gender development goals. Following international standards, the National Development Strategy of the Kyrgyz Republic for 2018-2040 was developed in the republic. In it, Kyrgyzstan pledged to take the necessary steps to achieve the adopted Sustainable Development Goals of the 2030 Agenda. To do this: “Carry out reforms to provide women with equal rights to economic resources, as well as access to ownership and control of land and other forms of property, financial services, inherited property and natural resources following national laws” [11, 66].

Reducing discrimination against women’s rights in matters of access to water and energy resources must first begin with their education. It is also necessary to create favorable conditions for women’s participation in politics, economics, and public life. The active participation of women in increasing efficiency in the water and energy sector will create the prerequisites for improving the economies of the republics, expanding the agricultural and agro-industrial complex, ensuring food security, developing “green” energy, and maintaining the environmental balance. Without addressing these issues, it is impossible to prepare for future climate change with its associated challenges and losses.

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