



CHINA'S WATER PROJECTS IN XINJIANG UYGUR AUTONOMOUS REGION AND THEIR POSSIBLE EFFECTS

China is constantly faced with the problem of meeting its increasing demand for energy and natural resources and its large consumption needs has ever grown in parallel with its rapid economic growth in the last 30 years. Therefore China, which focuses on industrial production aiming for more efficiency and more profit, does not refrain itself to cause a change in the natural environment in order to realize many gigantic infrastructure projects. The possible environmental effects of China's major projects, especially in the fields of energy and water management, which has already reached a record level in environmental pollution, which is the general problem of the world, are quite remarkable. In this context, major water projects and their possible effects in the Xinjiang Uygur Autonomous Region (XUAR), which is China's largest energy and cotton production area, are issues that need to be examined both in terms of the region and neighboring countries.

In XUAR, where the continental arid climate prevails due to its distance from the sea and surrounded by high mountains, the annual average precipitation is only 170.6 mm. Therefore, water management in the region is among the important issues. In this context, Beijing administration primarily focuses on the construction of various water dams in water projects in the XUAR. While there were only 3 water dams in XUAR in 1949, the cultivation of virgin lands in the region to a large extent after the 1950s and the increase of irrigated agriculture with the deployment of the Xinjiang Production and Construction Corps accelerated the construction of various water dams in the region. While in 2000 the number of water dams in the region was 485 and the total storage capacity was 6.7 billion cubic meters, in 2020 the total number of water dams built and under construction in the region reached 724 and the total storage capacity reached 29 billion cubic meters. According to the data, the construction of water dams has increased in XUAR since the 2000s. From 2010 to 2020, 136 water dams were rebuilt in the region. By 2030, 30 more medium and large dams are planned to be built in the region.

In terms of intended use, the water dams in XUAR are primarily used for irrigated agriculture. According to 2020 data, while the total agricultural land in the region is 6.2 million hectares, 80% of it is irrigated agricultural land. As a matter of fact, the water used in the agricultural sector in the region corresponds to approximately 95% of the total annual water consumption. For example, in 2020 of the region's total water consumption of 54.993 billion cubic meters, 50.003 billion cubic meters was realized in agriculture, 1.152 billion cubic meters in industry and 1.749 billion cubic meters in domestic use. In addition, considering that XUAR is the largest cotton producing area in China, most of the agricultural water consumption in the region is used to irrigate cotton fields. For instance, while cotton was grown on 2.506 million hectares of land in the region in

2021, annual cotton production was 5.129 million tons, which corresponds to approximately 90% of China's total cotton production.

In addition, some of the water dams in XUAR also have hydroelectric power plants. Water dams, especially in mountainous areas, are used to generate hydroelectricity. According to statistical data, there are 63 hydroelectric power plants with an installed capacity of approximately 6.800 MW and an annual electricity generation capacity of 22 billion kWh built in the mountainous regions of XUAR today. Artas Hydroelectric Power Plant, the largest of these hydroelectric power plants, started construction in 2015 with an investment of 10.986 billion yuan (approximately 1.733 billion dollars), and has been producing electricity since August 2021. Located in Yarkand Nahri feeding the Tarim River, the Artas Hydroelectric Power Plant has an installed power of 775 MW and is expected to generate 2.186 billion kWh of electricity annually.

One of the biggest water projects of China in XUAR in the last 25 years can be cited as the Water Supply Project from Irtysh. In other words, the work of this project, which is also called the Irtysh-Karamay-Urumqi Canal, started in 1997 and still continues. The overall plan of the project was accepted by the China National Development and Reform Commission in 1997 and approved by resolution No. 869 in 2000, furthermore, it was developed by the Chinese State Council as the Irtysh Basin Development General Plan of the XUAR in 2009. Within the framework of the project, it is planned to construct 840 kilometers of canals, 5 water dams, 1 hydroelectric power plant, 8 water tunnels and 2 water pumping stations. The gigantic water project consists of 3 major phases: Water Supply from Irtysh to Karamay, Water Supply from Irtysh to Urumqi and Water Supply from Irtysh to Kumul. In the first phase of the project, from 1997 to 2001, with a capacity of 248.2 million cubic meters, No. 635 Water Dam, 136 kilometers of main canal and 324 kilometers of Karamay Canal were built. In its second phase, from 2001 to 2019, No. 500 Water Dam and 324 km Urumqi Canal have been completed. In the third phase, a total of 283 kilometers of canal is constructed from the Karasuik dam constructed at the confluence of the Irtysh River with the Kara Irtysh River to the Koskuduk (Shuangjinzi) dam in the Shonzh district over the east of the Kurban-Tungut desert, and from there to the Santanghu dam in Kumul city. It is planned to draw 500 million cubic meters of water annually from the Irtysh River via the canal. In general, within the scope of the Water Supply Project from Irtysh, China aims to irrigate approximately 140 thousand hectares of agricultural land in the districts where the canal passes, as well as meeting the water needs of industrial facilities in the Northern Tianshan Economic Zone, especially in Karamay and Urumqi of the Irtysh River, and in the city of Kumul. In this direction, it is foreseen that 3.38 billion cubic meters

of water will be drawn annually from the Irtysh River.

However, in recent years, the excessive use of water in the region has been drawing attention. Today, it is known that the utilization degree of the existing water resources in XUAR is over 70% and the groundwater is decreasing. The focus of the dams in the region on certain large rivers and excessive water consumption are causing the water level of some rivers to decrease and even the lower parts of it to dry up. For instance, while there are 3.441 rivers, large and small, in total in XUAR, 724 water dams were built on 293 rivers. One of the biggest problems arising from the water projects in the region is the drying of the lower part of the Tarim River and the gradual aridity of the Tarim River Basin. At this point, there are about 60 water dams in the Tarim River and the rivers that feed it. According to Chinese studies, the almost complete interruption of the river feeding the lake due to the construction of the Puhui dam in 1958 on the Konqi River, the lower tributary of the Tarim River and the Aksupu dam in 1962, is one of the main reasons for the drying up of Lop Nur lake. In addition, the Daxihaizi dam, built in 1958-1960 and expanded in 1972, dried up the 363 kilometer lower reaches of the Tarim River and Lake Taitema at the tail end.

In terms of neighboring countries, the water dams in China's Irtysh and Ile rivers and especially the Water Supply Project from Irtysh also worry Kazakhstan. According to the data, China has built nearly 30 water dams and hydroelectric power plants on the Ile River and the Irtysh River and other rivers feeding them. Therefore, there has been a certain decrease in the water level of the Ile River and Irtysh River, which have passed into Kazakhstan in recent years. The decrease in the Ile River causes the water level in Balkash Lake and the decrease in the Irtysh River causes the water level of Zaysan Lake to decrease. Despite several negotiations between Kazakhstan and China on transboundary waters, no final conclusion has been reached. According to foreign experts, these transboundary water problems carry the risk of causing conflicts between China and Kazakhstan in the coming period.

In summary, China's water projects in East Turkestan contribute to the development of the agricultural and industrial sector in the region, but also create negative effects due to excessive water use. Considering the trade-economic, energy and population policies of the Beijing administration for the region in recent years, it can be predicted that water consumption will increase gradually due to the growth of the energy-oriented industrial sector in the region and the increase in the population. Therefore, the problems caused by excessive water consumption will continue to increase. For this reason, Kazakhstan, which shares many transboundary waters with China, needs to follow the water projects in XUAR more closely and evaluate their possible effects.

Politics, Foreign Affairs, and Security

- Türkiye and Armenia held the second round of talks for the normalization relations in Vienna. The sides were represented by special representatives the ambassador Serdar Kılıç and Deputy Parliament Speaker of Armenia Ruben Rubinyan. The normalization process suggests the restoration of diplomatic ties, the opening of sealed borders, and starting economic, trade and transportation projects between the two countries (Hurriyet-dailynews.com, 24.02.2022).
- The President of Uzbekistan Shavkat Mirziyoyev had a telephone conversation with the President of the Türkiye Recep Tayyip Erdoğan. Discussing the development of the Uzbek-Turkish cooperation the leaders noted the positive dynamics of bilateral partnership in the trade and economic sphere. The Presidents also touched upon a number of issues of regional and international politics and discussed the preparations for the next meeting of the High-Level Strategic Cooperation Council to be held in Tashkent (Centralasia.news, 26.02.2022).
- The President of Tajikistan Emomali Rahmon received the Chairman of the Russian Federation Council (Russia's upper chamber of parliament) Valentina Matviyenko. The parties discussed the state and prospects of further expansion of friendly cooperation between Tajikistan and Russia in various fields. President Rahmon reportedly expressed satisfaction with the high level of cooperation between the two nations and the highly appraised personal contribution of Valentina Matviyenko to the expansion of the strategic partnership between Tajikistan and Russia (ASIA-Plus, 25.02.2022).
- The Minister of Foreign Affairs of Kyrgyzstan Ruslan Kazakbaev with the Special Representative of the European Union for Central Asia Teri Hakala. During the talks, the parties confirmed their mutual readiness to further expand the partnership and cooperation between Kyrgyzstan and the European Union. Agreements were reached on the development of practical steps to organize events at the level of the Kyrgyz Republic-EU and EU-Central Asia (Kabar, 24.02.2022).
- A number of states announced sanctions against Russia following the invasion of Ukraine. Russia plans to respond to the Western sanctions in an asymmetric manner. According to Russian Security Council Deputy Chairman Dmitry Medvedev, Russia may nationalize property of people registered in the US, the EU and other unfriendly jurisdictions. He noted that Russia is being threatened with arrests of assets of Russian citizens and companies abroad. Medvedev mentioned that the country had a law on this issue (TASS, 26.02.2022).
- Foreign Minister of Turkey Mevlut Cavusoglu made a working visit to Kazakhstan, where he was received by the President of Kazakhstan Kassym-Jomart Tokayev in an online format. During the conversation, the parties discussed the prospects for the development of the Kazakh-Turkish strategic partnership with an emphasis on economic cooperation. The President reaffirmed Kazakhstan's Government support for joint projects with the participation of Turkish companies. Mevlut Cavusoglu expressed Turkey's full support for the political and economic reforms (Kazinform, 24.02.2022).

Economy, Finance, and Energy

- First Deputy Prime Minister of Kazakhstan Roman Sklyar recently announced that the rate of recycling fee for vehicles and agricultural machinery will be reduced by 50%. He added that funds in the amount of \$461.8 million, accumulated from the collection of recycling fees, would be used for the benefit of the population. In particular, \$230.9 million will be allocated for preferential car loans of domestic production at 4% per annum and zero down payments. The government expects that more than 70 thousand citizens of Kazakhstan will be able to purchase vehicles at affordable prices (Qazaq TV, 23.02.2022).
- Kazakhstan strengthened administration control on the border with China. As a result, flows of goods from China were reoriented to Kyrgyzstan's border. Since the beginning of 2022, there has been a 5-fold increase in Chinese imports to Kyrgyzstan, and a 2.5-fold increase in imports from Kyrgyzstan to Kazakhstan. It is important to note that since the beginning of the year, receipts of customs payments and taxes at border posts have been reduced by 23%, and the volume - by 26% (Kabar, 22.02.2022).
- Uzbekistan plans to modernize its energy sector by the construction of new hydroelectric power plants. According to the Ministry of Energy of the country, in accordance with the development strategy of Uzbekistan for 2022-2026, 15 new hydroelectric power plants (HPP) with a total capacity of 868 MW will be built and 5 more operating HPPs will be modernized. As a result, by 2026, the total capacity of the country's hydroelectric power plants will reach 2.920 MW (Kun.uz, 21.02.2022).
- According to the Asian Development Bank Country Director for Tajikistan Shanny Campbell, the bank considers granting \$193 million to Tajikistan in 2022. The financial assistance aims to support further development of the urban infrastructure in Dushanbe, improve energy and financial sectors, build disaster resilience and improve road maintenance. Campbell noted that the bank considered granting \$465 million to Tajikistan in grants within the next three years. Since 1998, the ADB has provided Tajikistan financial assistance worth \$2.2 billion (Asia-Plus, 23.02.2022).
- Azerbaijan, Russia and Iran plan to strengthen energy cooperation. Energy Ministers of the countries recently discussed energy issues during a trilateral meeting held in Doha, Qatar on the sidelines of the Gas Exporting Countries Forum. In particular, they focused on the work done to create a North-South Power Transmission Corridor. The Ministers emphasized the importance of the electricity corridor for all three countries and the need to accelerate the project's feasibility study (AzerNews, 24.02.2022).
- All reserves of the Russian Central Bank, amounting to \$630 billion, will be targeted by the sanctions of the United States and its Western partners. Western countries are still looking into the possibility of adopting more sanctions against the Central Bank of Russia. Sanctions prevent the Russian Central Bank from transacting with Western banks which it needs to do to actually intervene in foreign exchange markets. It must buy the ruble to support its currency (TASS, 27.02.2022).

Society and Culture

- Türkiye and Bosnia and Herzegovina began a special training project for Bosnian citizens to mark the 30th anniversary of the independence of Bosnia and Herzegovina and celebrate bilateral ties between both countries. The three-week project called the "Applied Training Program on Intercultural Strategic Communication" is aimed at promoting intercultural strategic communications. It is being organized by the Yunus Emre Institute includes training volunteers who will serve as "peace envoys" in the international arena, showing the unity and integrity of Bosnia and Herzegovina (Trtworld.com, 23.02.2022).
- Mongolia and Türkiye established a Memorandum of Cooperation for higher education. The document was signed during the meeting of the Minister of Education and Science of Mongolia Luvsantsuren Enkh-Amgalan and the Ambassador Extraordinary and Plenipotentiary of Türkiye to Mongolia Zafer Ates. Minister Enkh-Amgalan called for increasing the number of Mongolian students involved in the scholarship provided by the Government of Türkiye and expressed his confidence that there will be significant results reached in the education sector through the memorandum (Montsame.mn, 22.02.2022).
- According to the Ambassador of Saudi Arabia to Tajikistan Waleed bin Abdulrahman Al-Reshaidan, Saudi Arabia will provide assistance to 9,500 vulnerable families in Tajikistan in the anticipation of the holy month of Ramadan. The King Salman Humanitarian Aid and Relief Center (KSRelief) will provide assistance to vulnerable families. In Tajikistan, Saudi Arabia has already provided humanitarian assistance to vulnerable families through KSRelief in a total amount of 12 million US dollars (ASIA-Plus, 24.02.2022).
- The Ambassador of Kyrgyzstan to Türkiye Kubanychbek Omuraliev met with the rector of Ankara University, Professor Necdet Unuvar. During the meeting, the sides noted the need to develop cooperation between Ankara University and Kyrgyz universities. They also agreed to organize a speech by Ambassador Omuraliev on Kyrgyz-Turkish relations at the University, as well as a photo exhibition dedicated to the ancient history, rich culture, picturesque nature and traditional life of Kyrgyzstan (Kabar, 25.02.2022).
- Secretary-General of the International Organization of Turkic Culture TURKSOY Dusen Kasseinov met with a delegation of the Ministry of Culture of Türkiye headed by its Deputy Minister Ozgul Ozkan Yavuz. The parties discussed issues of the organization of new cultural events to be held jointly with countries of the Turkic World. The sides expressed readiness to cooperate in contributing to the promotion and development of culture and art in Turkic countries (Turksoy.org, 22.02.2022).
- The Government of Uzbekistan in partnership with the UN agencies concluded its first UN joint programme sponsored by the Joint Sustainable Development Goals (SDG) Fund. The fund allocated \$2 million for the program aimed at improving social protection systems to accelerate progress towards the achievement of SDGs and to enhance multilateral collaboration. Thanks to the Government and UN joint efforts more people got access to the social benefits and social services (Unicef.org, 25.02.2022).