



## FLOOD THREAT IN KAZAKHSTAN: IS THE SOURCE OF THE PROBLEM NATURAL CAUSES OR THE HUMAN FACTOR?

Due to the accelerating global-scale air pollution, the emission of various gasses into the atmosphere without much treatment increases the level of global warming. According to the United Nations data, the average global temperature has increased by 1.1°C since the industrialization period. Global warming, along with rising average temperatures, causes floods due to the rapid melting of snow after the end of winter. For this reason, many countries and international organizations carry out various studies to reduce the warming, which is very difficult to recover. This article discusses the recent flood risk events in Kazakhstan in relation to flood disasters caused by global warming.

Most floods occur after heavy rains or during the melting of spring snow. In many cases it can cause economic damage; in some cases it can be fatal. For example, floods in Europe over the past 30 years have caused a total loss of \$90 billion. During the floods in April 2022, 12 regional and 15 local highways and bridges were destroyed in Aktobe, West Kazakhstan, Pavlodar and Karaganda regions. In addition, 256 settlements and 2 social facilities were also flooded. Due to this, communication between different districts and cities in the region was interrupted, albeit for a short time. This situation created various difficulties in the daily life of the population living in neighboring settlements and put the victims in a difficult economic situation.

Flood disasters in Kazakhstan are not a new phenomenon and a study of flood disasters over the past 20 years shows that natural factors such as heavy rainfall and rapid melting of snow are important. For instance, in 2004 and 2007, as a result of the overflow of the Syrdarya River, floods were experienced in Kyzylorda and Turkistan regions and in 2010 in the province of East Kazakhstan due to the overflow of the Irtysh River. In addition to these, the flooding of the Ural River in 2011 caused great material damage in the regions where the disaster occurred in the West Kazakhstan province. Also, 700 roads, 34 bridges and 7 railways were partially damaged by floods in 2013-2018.

Due to global warming and the change of seasons, continuous rains and rapid melting of snow and glaciers increase the risk of flooding. In this regard, various measures

are taken at different levels of the state in order to adapt to the changing climatic conditions and to reduce the mentioned damages. Among them are various practices of local municipalities, such as timely removal of snow from the city, cleaning of water canals and construction and cleaning of flood ditches. The failures in such works or the inability to allocate the necessary financial resources on time make the current possible flood disasters inevitable. In other words, in the current situation, anthropogenic factors can be added to natural disasters caused by changing climatic conditions over the years. For instance, during the recent floods, due to the lack of special rainwater drainage in the regional and district centers and the clogging of the central sewer system with mud mixed with garbage, settlements and streets were flooded. In addition, local governments in Kazakhstan allow the construction of houses only 500 meters from rivers. This situation poses a significant threat to nearby settlements in the case of a river overflow. However, local governments must take all necessary precautions when permitting the construction of houses, workplaces and factories in flood-prone areas. Another important issue regarding flood disasters is the repair and inspection processes of dams. Failure to carry out timely repairs of the dams, which are used primarily for hydroelectric production and various purposes, adding to the above risk factors, may cause new flood disasters. The best example is the flood after the wall of the Sardoba Dam in Uzbekistan burst due to heavy rainfall. The flood crossed the border and washed away a part of Kazakhstan's Turkistan region. For this reason, repair and regular maintenance of 1.823 reservoirs and dams in Kazakhstan is one of the most important issues. After all, out of 1.646 facilities inspected in Kazakhstan 527 of them require a repair. An example of such hazards is the explosion of the Lailin and Kyzylagash reservoirs in Kazakhstan in 2010. Following these events, the issue of control of dams and reservoirs became one of the most important issues on the agenda.

The Government of Kazakhstan has paid special attention to this issue and developed state programs and road maps to prevent floods in the country. As part of these programs, 51 river banks were strengthened, 72

km of river channels were cleaned, 78 km of dams were built and repaired, 2 hydraulic structures and 6 hydraulic structures were repaired, 21 km of water drainage canals and 25 km of drainage canals were cleaned and 4 local civil protection notification systems were installed in 2021. In order to protect the population and reduce the economic damage caused by floods, flood control dams are being built on the Aksai and Ayusai rivers in Almaty region. In order to protect the Khorgos International Center for Cross-Border Cooperation, the construction of the Shukrybulak flood prevention dam and mudflow protection facilities on the Khorgos River is being carried out jointly with the People's Republic of China. The implementation of such a set of flood control measures eliminated the risk of flooding for 340 settlements and minimized the risk for 385 settlements. However, due to the sharp warming of the weather, about 157 settlements of the country may face such a catastrophic threat. In particular, most of them, 49 settlements (28.000 houses) are located in the West Kazakhstan region, 34 settlements (733 houses) in Kostanay region and 25 settlements (967 houses) in the territory of Akmola region.

In conclusion, the first period of spring, which began with the change in weather conditions due to climate change, is a period of frequent floods in Kazakhstan, as in many countries. Even if a single country does not have the power to stop climate change, states can minimize the damage by joint action. Despite many precautionary measures taken by the Kazakh government, flooding is still a problem in some areas. In addition to the measures taken in this regard, the coordination of the Ministry of Emergency Situations with relevant government institutions and local administrations plays an important role in the prevention of such disasters. Thus, the saved financial resources can be used for other needs by reducing the economic costs of flood disasters. After all, repairing and restoring various damaged infrastructure and paying compensation to flood victims can put a significant economic burden on the state. Therefore, the human factor should contribute to reduce the potential risk of natural disasters, such as floods, instead of increasing them. It depends only on the methods and ability of states to implement preventive measures.

## Politics, Foreign Affairs, and Security

- Prime Minister of Georgia Irakli Garibashvili and the Interior Minister of Türkiye Süleyman Soylu held a meeting in Tbilisi. Discussing the development of bilateral relations, the sides noted the high level of the strategic partnership between the two countries, noting it was important to further deepen the existing cooperation. The Ministers also talked about the ongoing conflict in Ukraine and its possible effect on the security situation in the South Caucasus region (Agenda.ge, 07.04.2022).
- Kyrgyzstan and India concluded a two-week-long wargame involving their special forces. During the exercises, special forces contingents from India and Kyrgyzstan shared their expertise and best practices of tactics, techniques and procedures to counter existing and emergent threats across the entire spectrum of conflict. Besides sharing special skills and techniques between participating special forces contingents, the joint training further strengthened the existing ties between India and Kyrgyzstan (Kabar.kg, 08.04.2022).
- Vice Prime Minister of Kazakhstan Yerlan Tugzhanov recently chaired a meeting of the Interdepartmental Commission on prevention of the coronavirus infection. Given the stabilized COVID-19 situation, the Commission decided to remove restrictions on the movement of Kazakh nationals and foreigners across the land crossing points at borders with Russia, Uzbekistan, and Kyrgyzstan starting from April 11. Kazakhstanis or foreigners are still required to present COVID-19 PCR test certificates with a negative result as well as COVID-19 vaccination, revaccination documents/passports (Kazinform, 06.04.2022).
- The President of Uzbekistan Shavkat Mirziyoyev had a telephone conversation with his Kyrgyz counterpart Sadyr Japarov. The Presidents discussed the implementation of the agreements reached on further strengthening the relations of friendship, good neighborliness and strategic partnership. Particular attention was paid to the promotion of priority projects of mutually beneficial cooperation, including the launch of the Uzbek-Kyrgyz Development Fund, and the acceleration of the implementation of infrastructure projects for the construction of the Kambarata HPP-1 and the China-Kyrgyzstan-Uzbekistan railway (UzReport, 08.04.2022).
- According to the Ambassador of the European Union to Ukraine Matti Maasilta, Ukraine has a chance to receive a positive response to the request for the status of a candidate member of the EU in June 2022. The Ambassador thinks that the member countries will express their proposals in June, and the compliance of Ukraine with the Copenhagen criteria will be recognized. Matti Maasilta expects that the general response will be positive and quick (Ukrinform, 10.04.2022).
- Prime Minister of Armenia Nikol Pashinyan and President of Azerbaijan İlham Aliyev, held a meeting in Brussels and agreed to establish a Joint Border Commission to delimit their mutual boundary line and to “establish a stable security situation” around the border. The sides agreed to instruct their Ministers of Foreign Affairs to work on the preparation of a future peace treaty, which would address all necessary issues. Such a treaty would be aimed at finally resolving the conflict (Eurasianet.org, 07.04.2022).

## Economy, Finance, and Energy

- During the first two months of 2022, Kazakhstan’s exports to the European Union increased by 84.5% amounting to \$5.2 billion. During the reported period, wheat export has increased 13 times due to the increase in the sown area last year. In January of 2022, the prices of export supplies of wheat and meslin grew by 19%. The growth of prices in the CIS countries equaled 21.8%, while in the rest of the world it grew by 10.8% (Qazaq TV, 08.04.2022).
- Georgia’s Poti city recently hosted an international shipping conference, where experts discussed logistic capabilities and growth prospects of trade. The cargo traffic through the Caspian route became the most demanded due to the geopolitical situation. It should be mentioned that Kazakhstan and Georgia have partnership relations. The trade turnover between the two countries amounted to \$88 million last year, having increased by 57% over two months of 2022. Kazakhstan plans to create joint ventures with Georgia, Azerbaijan and Turkey (Qazaq TV, 07.04.2022).
- According to the Chairman of the Cabinet of Ministers of Kyrgyzstan Akyzbek Japarov, the country’s government launched work on 15-20 small hydropower plants as part of the increase in generation capacity. Akyzbek Japarov added that about 30 small HPPs are planned to be launched this year, of which 4 will be launched by their own efforts, the rest - under the public-private partnership. The government’s plans include the launch of the Kambarata HPP-1, three solar substations and a wind farm (Kabar, 08.04.2022).
- Commissioner for Neighbourhood and Enlargement of the European Commission, Olivér Várhegyi, announced an additional €53 million to help the Republic of Moldova cope with the multiple repercussions of the Russian military aggression against Ukraine. The announcement was made at the Ministerial Conference in Berlin launching the Moldova Support Platform. The EU will also continue to support Moldova’s long-term recovery and resilience, in particular through the Eastern Partnership Economic and Investment Plan (European Commission, 05.04.2022).
- According to the Finance Minister of Ukraine Serhiy Marchenko, the country has received about €3 billion in financial assistance from partners. The volume of negotiated assistance is around €7 billion. Recently the Minister signed an agreement with Germany on a tied loan of €150 million. Ukraine received €300 million in loans from France and \$500 million in grants from The United States. Canada is ready to provide a loan of \$500 million (Ukrinform, 07.04.2022).
- In January-March 2022, Azerbaijan’s exports totaled \$8 billion, with the non-oil sector accounting for \$727.2 million. Non-oil exports demonstrated significant growth increasing by \$225.6 million or 45%, compared to the same period last year. Of the total non-oil exports, fruits and vegetable products’ export increased by 28.5% and amounted to \$124.9 million. Exports of chemical products increased by 10 times, aluminum products - by 63.9%, cotton yarn - by 29.3%, and ferrous metals - by 48.7% (AzerNews, 07.04.2022).

## Society and Culture

- Tashkent hosted the sixth Meeting of the Heads of Ministries and Departments of Science and Technology of the Member States of the Shanghai Cooperation Organization. The parties discussed the current policy and priority areas for the development of science, technology, and innovation in the SCO member states and approved the Action Plan for Scientific and Technical Cooperation in Priority Areas for 2022-2025. Following the meeting, the heads of delegations noted the commonality of national priorities in the field of science and agreed to actively use the potential of the countries of the organization to strengthen cooperation in this area (Minobrnauki.gov.ru, 08.04.2022).
- Regular flights from the Turkish cities of Dalaman and Antalya to Kyrgyzstan’s Osh International Airport are to be launched in June 2022. The flights will be carried out by the Pegasus company. The flight on the route Antalya-Osh-Antalya is planned to be carried out from June 2 to September 29 two times a week. The flight on the Dalaman-Osh-Dalaman route is scheduled from June 4 to September 27 on Wednesdays and Saturdays (Kabar.kg, 06.04.2022).
- According to the Russian Ministry of Internal Affairs, in 2021, a record number of Tajiks received Russian citizenship - 103,681 people, which is 63.5% more compared to 2020. Currently, about 96.5 thousand citizens of Tajikistan have residence permits in Russia. And another 47 thousand Tajiks have temporary residence permits (ASIA-Plus, 07.04.2022).
- The EBRD and Green Climate Fund will allocate \$4 million to promote green technologies in Tajikistan. The official signing ceremony took place at the branch of MDO "Humo" in the city of Kulyab. A new financial package of \$4 million will be provided under the Green Economy Financing Facility (GEFF). It will consist of a \$3 million EBRD loan to be repaid in local currency and \$1 million concessional financing from the Green Climate Fund (GCF) (ASIA-Plus, 05.04.2022).
- The ways to apply waste-to-energy solutions in the Central Asia (CA) cities and green investments were discussed during a two-day online workshop. The event was organized by the EU-funded project “European Union – Central Asia Water, Environment and Climate Change Cooperation (WECOOP) and gathered about 70 experts from (CA), representatives of the EU and International Financial Institutions. During the event, the participants proposed solutions and reviewed examples of implementation of waste-to-energy projects in the countries in Central Europe, the Baltics, the Caucasus and Central Asia (UzDaily.com, 08.04.2022).
- The Ministry of Higher and Secondary Specialized Education of Uzbekistan (MHSSE), the Delegation of EU to Uzbekistan, and the United Nations Development Program (UNDP) launched an initiative to create new educational opportunities for Afghan citizens in Uzbekistan. The initiative will focus on women and youth and offer short-term courses in a range of disciplines. A total of 345 Afghan citizens will receive educational grants and diplomas and certificates upon completion of their studies (Uz.undp.org, 07.04.2022).