



THE IMPACT OF ARAL SEA ON ECOLOGICAL MIGRATION: THE CASE OF KYZYLORDA REGION

Various environmental problems have emerged in the territory of Kazakhstan, causing different tensions in the regions during recent years. One of them is the Aral Sea problem, which has emerged as a result of anthropogenic activities. It is well known that the drying up of the Aral Sea has turned the region into a major environmental disaster zone. The Aral Sea problem has been directly related to the overuse of the Syrdarya and Amudarya rivers for irrigated agriculture since the 1960s. By the 1990s, seawater resources had decreased by 60% and the depth of the water decreased by 16.6 meters. Constant winds in the region have been carrying dust containing harmful herbicides and pesticides that have accumulated on the seabed for decades to residential areas hundreds of miles from the sea. Aral's pesticides can be found in the blood of Antarctic penguins and its dust in Scandinavian forests. Thus, the drying up of the Aral Sea, triggering the desertification of the environment and by directly affecting the socio-economic situation in the region as a whole, caused a change in the regional ecosystem.

The unfavorable environmental situation in the region affects the health of the population (death growth), life expectancy, regional economy and migration. The Aral Sea and Kyzylorda regions are considered the most affected by such environmental problems and the epicenter of the disaster. According to health statistics of the population of the Kyzylorda region, the increase in the proportion of underweight newborns and mortality is directly related to the degree of deterioration of living conditions. In addition, increased stress, water and air pollution cause cardiovascular diseases and cancer in the local population. Recently, it has been observed that the incidence of cardiovascular diseases has increased by one and a half times, diabetes by three times, and bronchial asthma in children by almost two times. On the other hand, the vast majority of children are diagnosed with small developmental disorders and pathological diseases. Infant mortality (9.75 children per 1,000 people) and stillbirth rates in the region are considerably higher than in other regions of Kazakhstan. Thus, it can be seen that there is a relationship between the level of environmental pollution and the death rate. Public health as one of the important priorities of public policy is a factor that directly affects the social and economic situation of the population. However, in the context of environmental and economic crisis, there may be an increase in patient rates, a sharp decline in birth rates and a significant increase in death rates. In this case, it is necessary to carry out studies in this direction by taking into account the level of illness and demographic indicators of the population in the areas of environmental disasters.

Climate change and deteriorating environmental conditions force local people to migrate voluntarily or forcibly. This is called ecological migration. Ecological migrants are people who are forced to relocate temporarily or permanently move from their place of residence to the country or abroad due to sudden or gradual changes in the environment that adversely affect their lives or living conditions. The Kyzylorda region can be named as the region exposed to such forced ecological migration in Kazakhstan. The current situation in the region clearly shows the lack of a legal mechanism to regulate environmental migration from areas where the ecological situation has deteriorated due to the unreasonable and unsystematic use of natural resources. Deterioration of the environment in the region has created significant unfavorable conditions for the employment and income of the local population. Environmental factors have forced many locals to migrate, both legally and illegally.

Environmental analysis and research, such as climate and economic migration, formed the basis for the concept of ecological migration. Ecological migration is divided into voluntary and forced due to sudden or slow changes in the environment; it is classified as internal or international migration by territorial form, temporary and permanent migration by term. Sudden natural events and gradual degradation of the environment are often of the nature of internal migration through the movement of people from one place to another. In this regard, in order to improve the system of regulation of migration processes in the country, the Concept of Migration Policy of the Republic of Kazakhstan for 2017-2021, approved by the Government of the Republic of Kazakhstan with № 602 Decree on September 29th 2017. Kazakhstan has developed a sustainable migration strategy for recruitment of foreign workers, temporary migration for the optimal settlement of citizens in the country, as well as a long-term sustainable migration strategy for repatriates coming to Kazakhstan. In addition, two districts of the Kyzylorda region were included in the ecological disaster zone by the Law No. 1468-XII of 30 June 1992 "On the social protection of citizens affected by environmental disasters in the Aral Sea region". The rest of the territory of the Kyzylorda region is referred to the zone of ecological crisis by this law.

Recently, the Kyzylorda region has had a negative balance due to the migration statistics below. Regarding international migration, it should be noted that in recent years the intensity of foreign migration in the region remains at the lowest level in the country. For example, in 2020, 44 people came to the Kyzylorda region from abroad, and 52 people moved abroad

from the region. However, there is a steady increase in the number of people who migrate to and from the region due to interregional internal migration. In other words, while the number of people who came to the region in 2020 was 25,174, the number of those who left was 29,901 and the internal migration balance was 4,736 people. According to statistics, international migration has increased slowly and steadily in the last six years, showing a reverse balance (2015-45, 2016-51, 2017-27, 2018-35, 2019-38, 2020 -8). However, it should be noted that due to bureaucratic issues and lack of need for internal migration in Kazakhstan, migrants often do not leave their previous place of residence and do not register at their new place of residence. For example, in the Kyzylorda region, some of the citizens permanently registered live in other regions of the country.

The growth of the population of the Kyzylorda region in the zone of ecological disaster and ecological crisis is mainly due to high birth rates. In 2020, 21,674 children were born and 2,859 people died in the region. In other words, the demographic growth is 7.5 times higher than the death rate. Despite this, the population of the region is not increasing significantly. This is evidenced by the negative balance of internal migration mentioned above.

As a result, it is possible to say that the number of pathological diseases such as infant mortality, stillbirth, diabetes, bronchial asthma and cardiovascular diseases are increasing in the Aral Sea region due to the ecological disaster. Therefore, it is clear that a person who is convinced that the ecology of the area is harmful to health will not prefer this area as a permanent residence. Thus, the population in the ecological disaster area prefers to settle in an economically productive and ecologically clean area. However, special attention should be paid to residents who do not leave their place of residence due to environmental reasons and continue to live in the area where the environmental disaster/crisis. For this reason, a high level of state support should be provided not only to create conditions for migrants to other regions, but also to the population living in areas of ecological disaster/crisis. In particular, the government should help the population adapt to the regional environmental situation. In addition, there is a need to implement a comprehensive health monitoring program together with the Ministry of Health of Kazakhstan in the areas of environmental disasters and environmental crisis. Much effort is needed to restore the regional ecology with the help of governmental and non-governmental organizations in the field of environmental protection. Such measures will make the region socially and economically attractive for internal migrants from other parts of Kazakhstan and will increase the intensity of internal migration to the Kyzylorda region.

Politics, Foreign Affairs, and Security

- The Senate of the Kazakh Parliament ratified the agreement on the protection of the Caspian Sea, which was concluded by five Caspian basin states. According to the Minister of Ecology, Geology and Natural Resources of Kazakhstan Serikkali Brekeshev, the draft law will not have negative social, economic and legal consequences for Kazakhstan. Ratification will enable countries to use the best environmental technologies to preserve the Caspian Sea environment and to monitor the pollution levels and rational use of resources (Qazaq TV, 21.10.2021).
- NATO Secretary General's Special Representative for the Caucasus and Central Asia Javier Colomina Piriz met with the Defense Minister of Azerbaijan Zakir Hasanov as part of his visit to the country. The sides expressed satisfaction with the current state of Azerbaijan-NATO cooperation and noted the positive results achieved in this sphere. Minister Hasanov emphasized the readiness of Azerbaijan to normalize relations with Armenia under international law principles by eliminating the factor of occupation of Azerbaijani territories. The sides also exchanged views on the NATO-Azerbaijan partnership agenda, as well as future prospects (Azernews.az, 19.10.2021).
- The Collective Security Treaty Organization continues to conduct military exercises in Tajikistan. Recently, it was planned that the Secretary-General of the organization Stanislav Zas would arrive in Tajikistan on a working visit to check the readiness of the troops for the final stage of the exercises. Earlier, the commander of the Central Military District of Russia, Alexander Lapin, arrived in Tajikistan. Four thousand servicemen and more than 500 pieces of equipment take part in joint maneuvers (Asia-Plus, 20.10.2021).
- The Prime Ministers of the countries of the Trio (Georgia, Moldova and Ukraine) held an online meeting discussing synchronizing and pooling efforts on the path of European integration during the online meeting of the Prime Ministers of the three countries of the Trio. The heads of government express their conviction that the countries of the Associated Trio will be in the next wave of EU enlargement. The Prime Ministers also agreed to "speak with one voice" and promote the same goals at the Eastern Partnership Summit (Interfax.com.ua, 24.10.2021).
- The third meeting of consultations on Afghanistan was held in Moscow. The meeting was attended by representatives of China, India, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Tajikistan, Turkmenistan, Uzbekistan, as well as a high-ranking delegation of the Afghan interim government. During the talks, the participants focused on the issues of recognition and legitimacy of the current Afghan government, Afghan relations with other countries of the region and providing humanitarian aid to the Afghan people. The participants also paid special attention to the trans-Afghan energy, transport and industrial corridors (TASS, 21.10.2021).
- Deputy Prime Ministers of Armenia, Azerbaijan and Russia - Mher Grigoryan, Shahin Mustafayev and Aleksey Overchuk - held a meeting of the trilateral working group. The sides considered the prospects of restoring transport communications in the South Caucasus region and the course of further work within the framework of the trilateral statement signed by the Armenian, Azerbaijani and Russian leaders on January 11, 2021. The parties agreed to hold the second part of the eighth meeting in the near future (Azernews.az, 21.10.2021).

Economy, Finance, and Energy

- Kazakhstan has exported 23 million tons of coal since the beginning of 2021. Coal producers of the country started to penetrate new markets such as Bulgaria, Morocco, India, South Korea, and the United Kingdom (UK). Only the UK received around 192 thousand tons of coal, while China, Turkey, Poland, Switzerland and Uzbekistan increased their purchases. Over nine months of 2021, Kazakhstan has developed more than 79 million tons of coal (Qazaq TV, 22.10.2021).
- Foreign trade indicators of Uzbekistan demonstrated growth in 2021. During nine months of 2021, the country's external trade turnover reached \$28.2 billion, increasing by 2.5% compared to the same period of 2020. Uzbekistan's exports and imports respectively equaled \$10.3 billion and \$17.8 billion, correspondingly increasing by 17.2% and 18.7%. The country's top three trade partners are China, Russia and Kazakhstan. The trade turnover with the Commonwealth of Independent States countries amounted to \$10.8 billion (UzReport, 23.10.2021).
- Kyrgyzstan plans to develop its energy sector by constructing small hydroelectric power plants. According to the country's authorities, an appropriate legal framework has been created and regulatory documents have been adopted to attract private investments through tax and other preferences. The total capacity of small hydroelectric power plants in different regions of the country exceeds 100 MW. Nineteen small hydropower plants with a total capacity of 54 MW are already operating in the republic (Kabar, 18.10.2021).
- According to the official representative of the Eurasian Economic Commission Iya Malkina, the foreign trade in the Eurasian Economic Union has exceeded the pre-pandemic level by 10%. During 8 months of 2021, the union's external trade amounted to \$522 billion, up by a third year-on-year. In particular, exports surged by 38.5%, while imports increased by 24.5%. In the first half of 2021, direct investments in the EAEU countries amounted to \$14.7 billion (BelTA, 20.10.2021).
- Deputy Agriculture and Food Minister of Belarus Aleksei Bogdanov recently announced that the country planned to increase the export of dairy products to \$4 billion by 2030. Bogdanov explained that in 2020, Belarus exported \$2.4 billion worth of dairy products, while this year it is expected that the exports would increase by \$100 million. By 2025, Belarus will ramp up milk production to 9.2 million tons and the export revenues will exceed \$3 billion (BelTA, 20.10.2021).
- Iranian and Turkmen authorities are negotiating the resumption of gas imports. The Iranian side expressed its hope that the oil and energy ministries would take measures to prevent interruptions in the supply of electricity and gas in the winter in Iran. It is expected that the electricity deficit in Iran would range from 11 to 12 thousand megawatts. Turkmenistan cut off gas supplies to Iran on January 1, 2017, due to the accumulation of a large debt (Orient, 18.10.2021).

Society and Culture

- Istanbul hosted the three-day Turkic Council Media Forum themed "Fundamental past, strong future". The forum gathered 350 leading mass media representatives, scientific and cultural workers, well-known bloggers and students from the Turkic Council member states, such as Azerbaijan, Kazakhstan, Kyrgyzstan, Turkey, Uzbekistan, observer state Hungary, as well as Turkmenistan. The participants discussed opportunities for the development of cooperation in the cinema industry and mass media, joint fight against disinformation, including on social media (Kazinform, 24.10.2021).
- The Turkish Cooperation and Coordination Agency (TIKA) delivered and installed modern digital equipment in the "Kyrgyzfilm" National Film Studio, named after Tolomush Okeyev, the first Kyrgyz Ambassador to Turkey and a famous movie director. The event was held on the occasion of the 5th Turkish Film Week in Bishkek. The new equipment will help the National Film Studio of Kyrgyzstan to digitize its movie archive. TIKA has intense cooperation with Kyrgyzstan and already has implemented more than 900 projects in this country (Tika.gov.tr, 22.10.2021).
- Dushanbe hosted the first day of the regional conference on Central Asia in preparation for the 9th World Water Forum. As a result of the event, the position of the region in relation to water issues was indicated. The congress was organized by the Executive Committee of the International Fund for Saving the Aral Sea (IFAS). All the comments and suggestions of the conference participants will be summarized in the main document and presented at the appropriate world forum, which will be held next year in the city of Dakar in Senegal, as the position of the Central Asian region on this issue (Centralasia.news, 20.10.2021).
- The Center for Innovative Technologies of Kyrgyz National University named after Jusup Balasagyn in Bishkek held the online opening ceremony of the Silk Road Institute. The institute will train specialists for undergraduate, graduate and postgraduate professional education programs (Ph.D. in philosophy). The project is being carried out within the framework of the Belt and Road Initiative and is expected to strengthen and deepen the relations of friendship and cooperation between Kyrgyzstan and China in the cultural and humanitarian sphere (Kabar, 20.10.2021).
- The United Nations (UN) has launched 12 new specialized social services in Turkmenistan aimed at supporting children with disabilities, young citizens left without parental care, adults with disabilities, the elderly, women who experience gender-based violence, and young citizens in a group of risk. The initiative will be implemented in cooperation with the government of Turkmenistan. The joint program is also funded by the Joint Sustainable Development Goals (SDG) Fund, UNICEF, UNDP, UNFPA and UNODC. The implementation of the program will begin in 2022 (Centralasia.news, 19.10.2021).
- The President of Turkmenistan Gurbanguly Berdimuhamedov approved the new national program on the Aral Sea. The program will last until 2025 and is aimed at preserving the environment in the climate change context, improving the social, economic, and ecological situation in the Aral zone of Turkmenistan and decreasing the negative influence of the Aral crisis. The document relies on positions of the resolution of the UN General Assembly on cooperation between the United Nations Organization and the IFAS (Orient.tm, 23.10.2021).