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## THE ARAL SEA PROBLEM THROUGH THE PRISM OF FOREIGN POLICY OF THE REPUBLIC OF UZBEKISTAN

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**Abstract.** The Aral Sea, once one of the world's largest inland bodies of water, has experienced a catastrophic decline over the past several decades, primarily due to unsustainable water management practices. This environmental catastrophe has had profound implications for the foreign policy of the Republic of Uzbekistan, a country heavily impacted by the crisis. This scientific article examines the multifaceted dimensions of the Aral Sea problem and how it has shaped Uzbekistan's foreign policy. It explores the nation's efforts in water resource management, regional cooperation, international partnerships, climate diplomacy, security considerations, and humanitarian responses in the context of the Aral Sea crisis. The main purpose of this article is to analyze the problems and causes of the drying up of the Aral Sea and to generalize approaches to resolving this issue of the Republic of Uzbekistan through the lens of foreign policy. This analysis was carried out by applying such methods as historical, comparative and content analysis. These methods enabled the author to analyse and identify the main factors contributing to solving the problems of the Aral Sea. The author concluded that Uzbekistan, as an equal subject of international relations, is pursuing an active foreign policy aimed also at solving the ecological disaster in the territory of the Aral Sea region. Thus, this article summarizes the main ways of improving the situation in the Aral Sea, which the Republic of Uzbekistan is undertaking in the international arena and in the region as a whole.

**Keywords:** Aral Sea, Republic of Uzbekistan, foreign policy, water, environmental catastrophe, Aral Sea crisis, regional and international cooperation, Central Asia

### Introduction

About 80 countries with over 1.1 billion populations don't have regular access to healthy freshwater resources [1]. The global problem of water scarcity also affected the countries of Central Asia. Water management has long been a stumbling block among the Central Asian States.

The Aral Sea crisis is a significant environmental and socio-economic issue that has had a profound impact on the foreign policy of the Republic of Uzbekistan and the entire Central Asian region. The Aral Sea, once one of the world's largest inland bodies of water, has been steadily shrinking since the 1960s due to unsustainable water management practices, primarily by the former Soviet Union. This crisis has wide-ranging implications for Uzbekistan's foreign policy in several ways: Water Resource Management, Regional and international Cooperation, Humanitarian and Health Concerns, Security Implications.

The Aral Sea crisis has led Uzbekistan to prioritize responsible water resource management as a one of the most important foreign policy issue. Uzbekistan, like its Central Asian neighbors, relies heavily on water from the Amu Darya and Syr Darya rivers for irrigation and agriculture. The shrinking of the Aral Sea and competition over water resources with neighboring countries, such as Kazakhstan and

Turkmenistan, has created tension and necessitated diplomacy to secure a fair share of water.

The desiccation and subsequent almost complete loss of the Aral Sea, once the world's fourth largest inland water body [2], having had farreaching social, economic and ecological implications in all countries of Central Asia aggravated the situation even more [3].

Central Asia, which contains extensive dryland ecosystems, is among the regions most heavily impacted by the global climate change, and the trends are projected to accelerate in the coming decades [4], putting even more pressure on precious natural resources and already fragile ecosystems. In the long term, populations of Central Asian countries are likely to suffer from the severe consequences of land degradation, desertification and food security issues imposed by climate change if no immediate actions for adaptation and mitigation are taken [3].

The desiccation of the Aral Sea has resulted in severe environmental consequences. The exposed seabed has become a source of salt and dust storms, causing health problems and damaging agricultural lands. Uzbekistan, as one of the countries most affected by these environmental changes, has had to grapple with the task of mitigating the ecological fallout. This has compelled Uzbekistan to prioritize environmental diplomacy in its foreign policy.

Uzbekistan's foreign policy has included efforts to raise international awareness about the Aral Sea crisis and garner support for initiatives aimed at restoring the sea and its surrounding ecosystem. The country has actively engaged with international organizations, such as the United Nations and the World Bank, to seek assistance and funding for environmental projects in the region.

### **Description of materials and methods**

In this article, using the methods of cause-and-effect analysis, the author tried to identify the causes of the disaster, analyze the consequences and summarize the measures taken by Tashkent regarding the crisis in the Aral Sea region and its impact not only on the country's economy, people's health and quality of life, but also on regional and international cooperation. The author uses content analysis, historical, comparative and analytical methods, within the framework of which a meaningful analysis of a number of official reports of international organizations, official statements, and legislative acts is carried out. The article also analyzed secondary sources such as scientific articles by foreign and domestic authors, and materials from periodicals.

The problem of the Aral Sea has been relevant for several years now. Until the 1960s, the state of the Aral Sea and the rivers that feed it, the Syr Darya and Amu Darya, was characterized as stable. In the 1960s it became large-scale. The problem of the Aral Sea has attracted the attention of many scientists and specialists, since the disappearance of this inland sea has become a serious environmental disaster. Scientists from all over the world have been studying this issue and trying to find solutions for decades. For example, T. Saiko and I. Zon wrote about the study of the causes and dynamics of desertification in one of the most dangerous regions of the

world - the Aral Sea region[5]. Also, the crisis in the Aral Sea region was discussed in the works of many authors and adaptation measures were proposed, for example in article of Ramatov, Glantz, Rubinstein and Zonn, Saiko, Lioubimtseva and Henebry, Ososkova, Gorelkin and Chub, Tischbein et al.

### Results and Discussion

According to the latest data of report by the World Resources Institute, the Republic of Uzbekistan is in 25th place out of 164 countries in the water shortage ranking. And it is in 29th place among countries that will be subject to high levels of water stress by 2040. The situation remains at a critical level, especially taking into account the fact that by 2040 the population of Uzbekistan will exceed 40 million people. In turn, rapid population growth can lead to significant water shortages of up to 46 percent. If in 2010 the withdrawal of fresh water in proportion to the available fresh water resources was 129.9 percent, in 2015 - 158.1, then in 2019 this mark reached 168.9 percent [6]. The unsustainable use of water resources in the Central Asian region has led to the drying up of the Aral Sea. Uzbekistan in particular, is among the areas most effected by dust and salt storms due to soil and wind erosion [3]. Desertification of the Aral Sea region, accompanied by processes of pasture degradation, soil salinization, as well as the development of aeolian processes, led to the formation of a new Aralkum desert, from which about 100 million tons of dust and toxic salts rise annually, spreading over hundreds of kilometers [7]. Salt and dust storms travel thousands of kilometers, which in turn leads to a number of environmental, climatic, socio-economic and demographic problems in the region.

Every year the level of the Aral Sea continues to decline. From 2017 to 2022, the water level dropped by 5 meters above sea level, which is 17%.

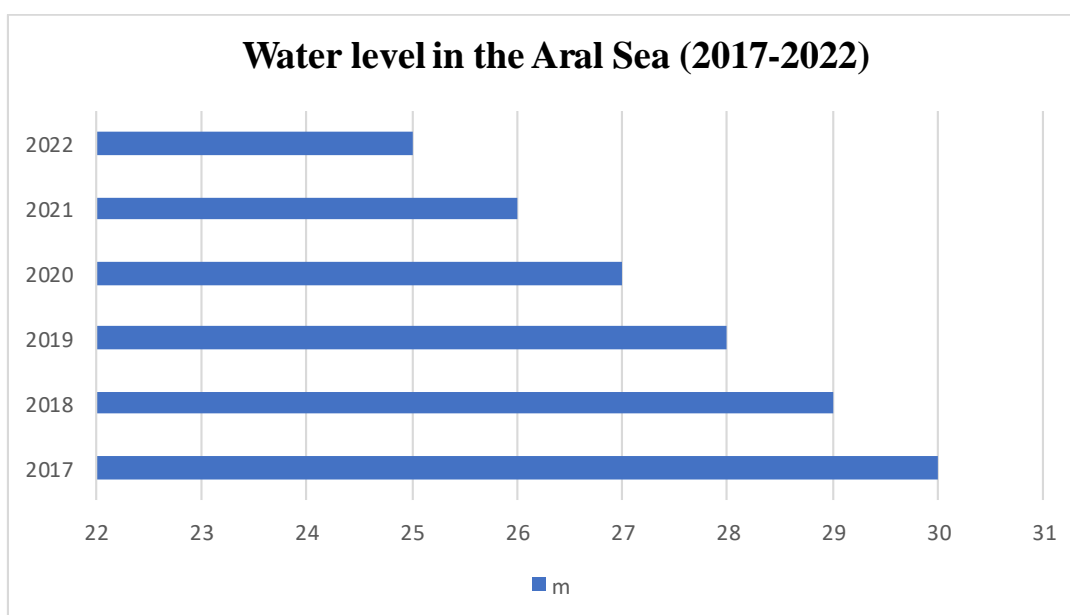


Figure 1 - Water level in the Areal Sea

According to the World Bank, by 2050, water flow in the Syrdarya and Amudarya river basins may decrease by 5% and 15%, respectively. According to ADB estimates, by 2050 the area of irrigated land in the region will decrease by 25%. As a result, water shortages could lead to a drop in the GDP of Central Asian countries by 11%.

### **Interaction of the Republic of Uzbekistan with international platforms**

The Aral Sea problem is a global problem. The international community confirms the importance of the Aral Sea problem, which every year worsens the state of the environment and negatively impacts regional stability. Thanks to assistance in solving the Aral crisis, Uzbekistan is only strengthening its position on the world stage.

According to Sh. Mirziyoyev's foreign policy, Uzbekistan actively takes part in international environmental initiatives and agreements. The country has positioned itself as a proponent of sustainable water management and environmental protection, helping to strengthen its image as a responsible global player.

Uzbekistan recognizes that the Aral Sea crisis is a regional problem requiring joint solutions. Back in 1990, the heads of state of Central Asia announced the decision to create the International Fund for Saving the Aral Sea to prevent an environmental disaster in the Aral Sea region. However, the solution to the problem did not move beyond the signing of the Agreements. And the Republic of Uzbekistan was faced with the question of finding alternative platforms to solve the problems of the Aral Sea

With Sh. Mirziyoyev coming to power, the situation began to change. The main priorities of foreign policy are building good neighborly and mutually beneficial relations with Central Asian countries. The foreign policy concept of Uzbekistan, among other things, defines the basic principles of international cooperation in the field of management, use and protection of water resources. To mitigate the consequences of the Aral crisis, the Head of State has repeatedly raised this issue at various international forums. At each presentation, he calls for paying special attention to the environmental situation in the region and finding a common mutually beneficial solution for the benefit of the entire Central Asian region.

Uzbekistan has engaged with organizations like the United Nations, the World Bank, and various non-governmental organizations to access funding and technical expertise for projects aimed at improving water management, restoring the Aral Sea ecosystem, and addressing related health and socio-economic issues. In 2018, the Leader of Uzbekistan proposed an initiative to create a multi-donor trust for human security for the Aral Sea region with the support of the United Nations, which is now an international platform for the implementation and supervision of events, improving the environmental and socio-economic situation in the region.

In 2019-2020, with funds from the United Nations Multi-donor Trust Fund for Human Security for the Region of the Aral Sea, the ICWC, with the participation of the International Innovation Center of the Aral Sea region under the President of Uzbekistan, conducted two comprehensive expeditions to study the condition of dried up aral sea floor. The survey covered 1.25 million hectares of 2.7 million

hectares of dry ground in Uzbekistan. The book «Monitoring the Drained Bottom of the Aral Sea» was published. Thanks to the study, it was possible to establish the actual state of the drained area, to create a risk map, a soil map, a vegetation map of the planting area, the state of the UHF. The expeditions determined that, in addition to self-growing, found on the dry seabed of 210,000 hectares in 2005-2010, over the period 2010-2019, self-growing covered another 160,000 hectares [8].

In the recent period, about 1.62 million hectares of forest were planted from Saksaul and other desert plants. In 2023, it was planned to plant another 100,000 hectares of forest. Some Uzbek experts believe that with the successful development of the project of planting desert plants for 12 years, there is a possibility of improving the environmental situation in the Aral Sea region.

The Central Asian Regional Environmental Centre is actively cooperating with development partners in the Aral Sea basin. At the moment the center is implementing a project with the funding of the World Bank Climate Adaptation and Mitigation Program for Aral Sea Basin. In 2022, the project received additional funding until May 2024 and was renamed the Climate Adaptation and Mitigation Program for Aral Sea Basin Additional Funding.

### **Implementation of projects in the Republic of Uzbekistan**

The Government of Uzbekistan has signed a number of documents aimed at addressing issues related to the management, use and protection of water resources. In July 2020, the Concept for the Development of the Water Sector of the Republic of Uzbekistan for 2020-2030 was adopted, the aim of which is to Creation of conditions necessary to meet the constantly growing needs of the population, sectors of economy and environment in water, ensuring reliable and safe operation of water facilities, as well as effective management and rational use of water resources, improving the reclamation of irrigated lands, achieving water security in the context of increasing water scarcity and global climate change». The concept includes 11 priority areas, one of which is the development of interstate relations in the use of transboundary water resources, the development and promotion of mutually acceptable mechanisms for the joint management of transboundary water resources, subject to ensuring a balance of interests of all Central Asian countries [9].

To implement this direction, a number of activities are being implemented aimed at developing cooperation of the Republic of Uzbekistan with the countries of the Aral Sea basin and regional interstate water management organizations on the issues of joint use of water resources and interstate water management facilities in the region. Working groups on water use issues have been established with Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, which are producing positive results. The countries of Central Asia have resolved almost all controversial issues regarding water management facilities in border areas and their operation, the regimes and volumes of water withdrawals from the main transboundary rivers are being promptly coordinated, and joint efforts are being made to mitigate the effects of low water. Bilateral treaties and agreements in the field of water use with almost all neighboring countries of Uzbekistan have also been updated. Uzbekistan is building relations on water issues with the countries of Central Asia both at the

multilateral level - within the framework of the International Fund for Saving the Aral Sea (IFAS) and the Interstate Coordination Water Commission (ICWC), and at the bilateral level - within the framework of working groups on water use issues.

In November 2020, the Cabinet of Ministers of the Republic of Uzbekistan signed resolution 745 «On additional measures to create forests in the regions of the Republic, «green cover» in the regions of the Aral Sea and the Aral Sea». This decision determines the volume of forest laying in the Republic of Karakalpakstan and districts in 2021, as well as «green coverings» on the drained bottom of the Aral Sea and in the Aral Sea region - 375,000 hectares in the Republic of Karakalpakstan are located in the arid lands of the Aral Sea, 172 thousand hectares - in the area of the Aral Sea in the Khorezm, Bukhara and Navoi regions[10].

In 2021, during a speech on the implementation of the foreign policy of the Republic of Uzbekistan, the President set a task for the Oliy Majilis to continue working with neighbouring countries to mitigate the consequences of the ecological disaster caused by the tragedy of the Aral Sea. In this connection, practical work within the UN Multi-donor Trust Fund for Human Security for the Aral Sea Region will be strengthened». On December 24, 2019, the Cabinet of Ministers of the Republic of Uzbekistan issued 1031 «On the creation of a «green cover» on the dry bottom of the Aral Sea - protective forest plantations». Work on the creation of a green cover at the bottom of the dried-up Aral Sea was resumed immediately after the signing of the resolution.

One of the main documents of the Republic of Uzbekistan is the State Development Strategy. According to the New Uzbekistan Development Strategy for 2022-2026, it is planned to create an additional 500,000 hectares of green areas on the dry seabed of the Aral Sea, bringing their total area by the end of 2026 to 2.5 million hectares, or 78 per cent of the territory. It is planned to implement projects within the framework of the international fund «Green Climate» and the Global Environment Facility, aimed at protecting biodiversity, preventing climate change and soil erosion, worth 300 million USD. Over the past few years, 1.7 million hectares of plants have been planted at the bottom of the Aral Sea. In 2024-2025, forest planting is planned for another 400 thousand hectares. In order to mitigate the consequences of the Aral Sea disaster, as well as to conserve biodiversity in the Aral Sea region, natural parks, nature reserves and State reserves have been established on an area of more than 3.5 million hectares. Today, the area of protected natural areas in the Aral Sea region is 4.6 million hectares. In addition, over the past seven years, water-saving technologies have been introduced in an area of 1 million hectares, or about a quarter of the country's irrigated land [11].

The planting of desert-resistant plants at the bottom of the Aral Sea simultaneously solves several important tasks: conditions are created to mitigate the state of the environment, prevent further degradation of natural resources, and ensure maximum sand retention on the drained Aral Sea floor; A favourable ecosystem for the distribution and reproduction of different species of fauna is emerging; an increase in the area of desert forests and biodiversity will create the conditions for climate mitigation in the region. That is, planting desert-resistant plants on the drained seabed of the Aral Sea contributes not only to the maximum amount of sand

retention on the drained seabed, prevent further degradation of natural resources, but also to the formation of a favorable ecosystem, will also create climate mitigation conditions in the region [12].

However, as reality shows, despite the significant efforts of Uzbekistan, the state is facing difficulties and some measures to restore the Aral Sea are being postponed. Although the government recognizes the need to improve water management, the efficiency of irrigation systems remains low and much of the water is wasted due to a lack of modern technology. This in turn leads to excessive consumption of water resources in the region. It is also worth noting the lack of effective mechanisms for the implementation of intergovernmental agreements on the distribution of water resources; some issues on the joint management of water resources of the Amudarya and Syrdarya with neighboring countries remain at the discussion stage. Despite the fact that Uzbekistan is actively planting saxaul in the disaster zone, this is not enough for the reclamation of saline and degraded lands and brings limited success in creating protective forest belts. Weak results can also be seen in the socio-economic sector. The quality of drinking water and sanitation in the affected areas remains quite low. Insufficient efforts are being made to create new jobs and economic opportunities for the population, which in turn would compensate for losses in fisheries and agriculture.

Of course, all this comes down to limited financial resources and insufficient attraction of international assistance and investment to support programs for the restoration of the Aral Sea. Uzbekistan also faces bureaucratic obstacles, such as insufficient interdepartmental coordination that slows down project implementation and ineffective project management and a lack of qualified personnel to perform specialized tasks. To successfully overcome these obstacles, more effective measures to improve water resources management, intensified international cooperation, attracting additional financial resources and modernizing infrastructure are needed. Strengthening interdepartmental coordination and staff development also play an important role in the implementation of the recovery program.

### **Experience in regional cooperation to solve the Aral Sea problem**

The Aral Sea crisis has necessitated regional cooperation, with Uzbekistan taking a leading role in promoting collaboration among affected countries. The Central Asian countries have initiated various regional projects and frameworks. In 1992, the countries of Central Asia signed the “Agreement on cooperation in the field of joint management of the regulation of the use and protection of water resources of interstate water sources”, established the “Interstate Coordination Water Commission of Central Asia (ICWC)” and launched an international project – the “Aral Sea Basin Program (ASBP)”. In 1993, on the initiative of the President of the Republic of Uzbekistan International Fund for Saving the Aral Sea (IFAS), to address water management issues and environmental rehabilitation was created.

Uzbekistan's foreign policy has emphasized the importance of peaceful and cooperative solutions to regional challenges. The country has engaged in diplomatic efforts to resolve water disputes and strengthen regional agreements on water

resource management. This cooperative approach is seen as essential to maintaining stability and security in Central Asia.

The Aral Sea crisis has security implications, as it can exacerbate tensions over water resources and lead to social and economic instability in the region. Uzbekistan has worked to address these security concerns through diplomatic channels and by fostering stability through regional cooperation.

Uzbekistan's foreign policy includes efforts to negotiate water-sharing agreements and promote cooperation on environmental restoration with neighboring countries.

On 14 September 2023, a meeting of the Council of Heads of States Founders of the International Fund for Saving the Aral Sea (IFAS) was held in Dushanbe. Leaders of Uzbekistan, Kazakhstan, Turkmenistan and Kyrgyzstan participated in the meeting. The meeting discussed the problems of the region and measures to improve the eco-logical situation in the Aral Sea basin. In addition, the President of the Republic of Uzbekistan expressed concern that, due to the construction of the new Kushtem canal [11] length of 280 km, width of 100 meters, depth of 8.5 meters, in the region of Central Asia there was a new participant in the water management process Afghanistan, which can dramatically change the water regime of the region. The end of construction is planned by 2028. After the commissioning of this canal, Afghanistan is able to irrigate 550 thousand hectares of land, and water consumption from the Amu Darya may increase to 17 cubic meters. The situation is aggravated by the fact that Afghanistan is not a party to the UN Convention on the Protection and Use of Transboundary Watercourses and International Lakes and has not signed any agreements on water issues with other countries in the region. In other words, Afghanistan has no obligations either to its neighbors in the region or to the world community [13]. It is clear that if the current water situation remains unchanged, the pressure on water resources could increase threefold by 2040. Consequently, there is a greater likelihood of a decline in the socio-economic development of States. Economic damage could reach 11 per cent of the regional gross product. According to the United Nations, the States of the region are losing up to \$2 billion due to scarcity and inefficient use of water resources [11].

It is worth noting that the closest cooperation on solving the environmental problem of the Aral Sea is being conducted between Kazakhstan and Uzbekistan. Over the past five years, five meetings of the Joint Working Group have been held to develop proposals in all areas of water relations. Thanks to its activities, a number of issues were promptly resolved and practical proposals were developed to enhance cooperation in this sphere. In December 2022, an agreement was signed between the Heads of State of Kazakhstan and Uzbekistan on cooperation in the field of environmental protection. In addition to joint projects aimed at combating the environmental disaster, the two countries committed themselves to sharing their experiences in mitigating its negative effects in the region. Cooperation between Uzbekistan and Kazakhstan on the rational use of water resources and mitigation of the effects of the drying up of the Aral Sea is the result of constructive mutually beneficial cooperation and contributes to the sustainable development of the entire Central Asian region.



## Socio-Economic Impacts

The decline of the Aral Sea has had profound socio-economic effects in Uzbekistan. The fishing industry, once a significant source of income and employment, has collapsed, leading to unemployment and poverty in the affected regions. Furthermore, the dust storms and deteriorating soil quality have negatively impacted agriculture, a sector vital to Uzbekistan's economy.

One of the leading sectors of the economy of Uzbekistan is agriculture. However, the contribution of the agricultural sector to the GDP of Uzbekistan falls every year. By the end of 2023, the share of agriculture in the GDP of the Republic of Uzbekistan was 24,3 per cent, compared with 25,0 per cent in 2022. Every year, the share of agriculture in Uzbekistan's GDP decreases.

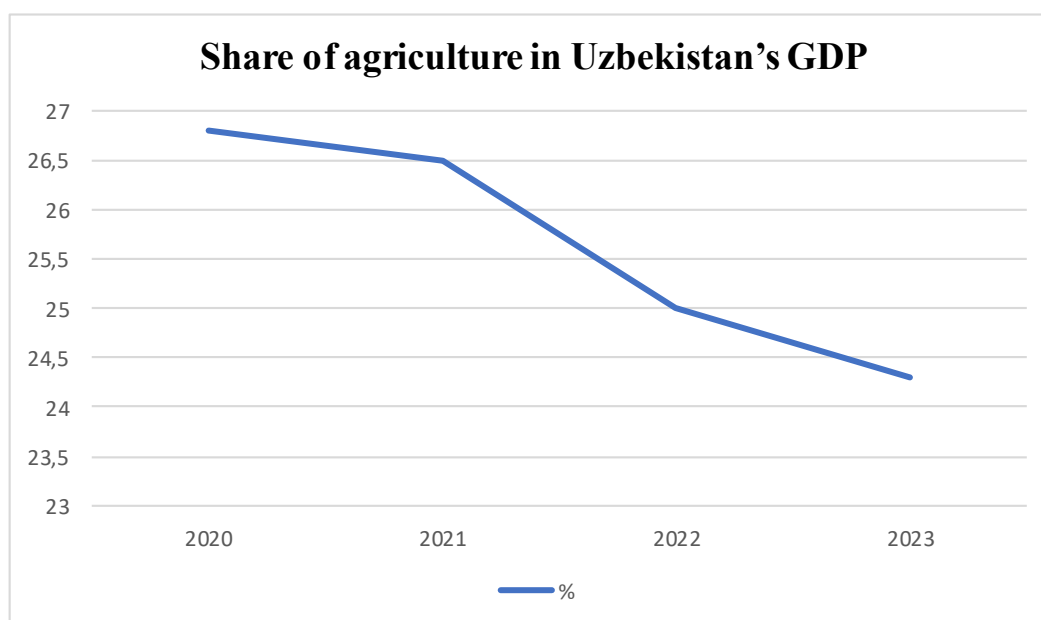


Figure 2 – Share of agriculture in Uzbekistan's GDP

Among other things, much attention is paid to growing moisture-like crops such as cotton, rice and wheat. 91 per cent of Uzbekistan's water resources go to agriculture. In an effort to improve water efficiency, by the end of 2022, 35 per cent of irrigated land had been conserved. In this connection, it is necessary to accelerate the introduction of the latest water-saving technologies and the implementation of joint measures with Kazakhstan on forest plantations in the Aral Sea region, as Uzbekistan is the largest consumer of water.

To address these challenges, Uzbekistan has sought to diversify its economy and reduce its dependence on the Aral Sea region. This shift in economic policy has influenced the country's foreign relations, as Uzbekistan seeks foreign investment and partnerships to support economic development in non-Aral Sea regions.

The catastrophic situation in the Aral Sea is also affecting the health of the population. The population most affected in the region is certain: pregnant women, children and adolescents, high rates of pulmonary and cardiovascular diseases,

respiratory diseases, the accumulation of kidney stones and anemia and other more serious disease [14].

The chart below shows examples of the most common diseases in the Aral Sea region as a percentage of the total population.

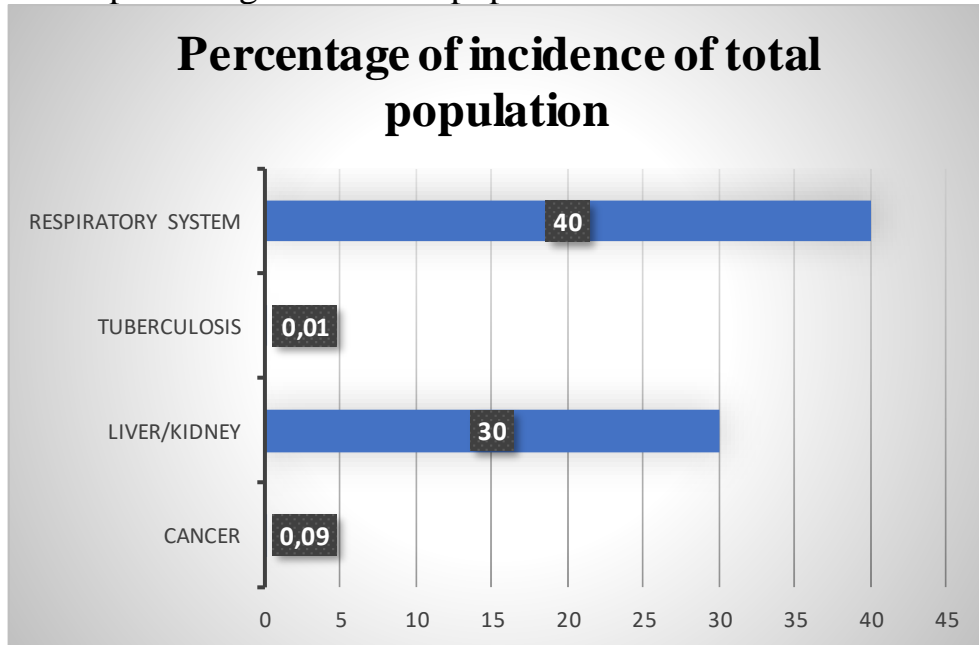


Figure 3 – Percentage of incidence of total population

In 2022, the Roadmap for Supporting Health and Well-being in Central Asia 2022-2025 was approved. The Road Map was developed jointly by SPECA using a new approach developed by the WHO Regional Office for Europe to promote subregional cooperation for health and well-being.

The Road Map calls for increased subregional cooperation to assess health impacts and address environmental and climate-related public health challenges in the Aral Sea region; Provides a platform and support for working in partnership at the highest political level.

The study of this problem showed that the negative situation in the Aral Sea region, low quality of life, unemployment and deteriorating public health are directly related to migration from the disaster zone. Over the past 30 years, approximately 100,000 people have left the region in search of better living conditions. Currently, there are about 1.5 million people in the region, a significant portion of whom live in poverty and are not officially employed.

Unfortunately, it is not possible to fully restore the Aral Sea at this time. However, the parties concerned can reduce the adverse impact of the Aral Sea catastrophe on the environmental situation and livelihoods of the population in the region. In 2023, thanks to concerted action and coordinated cooperation among the countries of Central Asia, 1.5 billion cubic metres of water entered the Aral Sea. In the first few years, the level of the Aral Sea increased by 95 centimeters.

## Conclusion

In summary, the Aral Sea crisis has played a significant role in shaping the foreign policy of Uzbekistan. It has prompted the country to prioritize water resource management, regional cooperation, international partnerships, climate diplomacy, security considerations, and humanitarian efforts in its foreign relations. Uzbekistan recognizes that addressing the Aral Sea crisis requires a multifaceted approach that involves collaboration with neighboring states and the international community to find sustainable solutions to this ongoing environmental disaster.

The shrinking of the Aral Sea has raised security concerns, as competition over dwindling water resources can lead to regional tensions. Uzbekistan's foreign policy includes diplomatic efforts to address these concerns and promote stability through cooperation and negotiation with neighboring states.

The Aral Sea's desiccation has caused significant health problems due to the release of toxic dust and chemicals from the exposed seabed.

Together with international organizations, Uzbekistan, to help the affected community, is implementing various humanitarian programs that help in solving medical and socio-economic problems. To achieve this, the state is developing cooperation and partnerships with international organizations such as the UN and the World Bank. In this way, Uzbekistan has access to funding and international experience to implement projects that contribute to improving water management, restoring the Aral Sea ecosystem and mitigating the greater impacts of the crisis.

The Aral Sea crisis is closely linked to climate change and environmental degradation. Uzbekistan recognizes the importance of climate diplomacy and participates in international efforts to combat climate change. Sustainable water management is promoted as a vital adaptation strategy in the face of climate change.

Recognizing that the Aral Sea crisis is a common regional problem, Uzbekistan is actively participating in regional initiatives such as the International Fund for Saving the Aral Sea (IFAS). These efforts involve cooperation with neighboring countries such as Kazakhstan and Turkmenistan to collectively address issues of water resource management, environmental restoration and socio-economic development.

The main driving force behind the Aral Sea crisis is the irrational use of the Amu Darya and Syr Darya rivers for irrigation and agriculture. Uzbekistan's foreign policy has prioritized responsible water management as it seeks to balance its agricultural needs with the need to conserve the region's remaining water resources. Negotiating water-sharing agreements with neighboring countries and investing in modern irrigation methods are central to Uzbekistan's approach.

Uzbekistan, together with all interested actors and organizations, should take all necessary measures to resolve the serious problem of the Aral Sea, since it has a strong impact on all vital aspects of the region as a whole.

In addition, the following recommendations can be offered to the countries of Central Asia and the Republic of Uzbekistan, in particular:

- Continue to create small local reservoirs in the Amu Darya delta;
- Approach rationally to the distribution of water resources to all countries of Central Asia through regional consensus;

- Continue the implementation of programs for planting desert-resistant plants at the bottom of the Aral Sea in order to reduce dust storms and improve the microclimate;
- Review agricultural policy; use new plant varieties adapted to drought conditions;
- Accelerate the introduction and improvement of water-saving technologies and irrigation systems; continue to introduce drip irrigation technologies to reduce water losses; upgrade irrigation canals to reduce leakage and improve water use efficiency;
- Expand cooperation on the Aral Sea problem not only with the countries of Central Asia, but also with the world community, by implementing project financing and attracting investments;
- Develop a unified algorithm for countries regarding the sharing and exchange of water resources;
- Develop appropriate regulations on the use of transboundary groundwater;
- Develop mechanisms for resolving conflict situations resulting from violation of agreements on the joint use of water resources;
- Create a unified electronic database with hydrometeorological data between the countries of Central Asia to monitor water availability forecasts and rational management of transboundary water resources;
- Create a system of monitoring and regular reporting on the environmental and social condition of the region;
- Regularly examine and diagnose at an early stage the development of diseases associated with environmental problems. Training the population in methods of preventing diseases associated with environmental pollution;
- Provide for the modernization of old and construction of new treatment facilities; carrying out comprehensive measures to improve sanitary conditions and combat water pollution;

In turn, the international community should consider the following:

- Provide financial support to the Aral Sea region for the implementation of projects to restore the Aral Sea ecosystem, construction of wastewater treatment plants, irrigation systems and medical facilities in the form of grants, investments and international funds;
- Exchange advanced technologies in the field of water resources management, agriculture and ecology by holding conferences, working meetings, trainings for local specialists on the use of modern technologies;
- Conduct joint international scientific research to study the state of the environment in the region and find ways to solve problems;
- Organize international medical movements to provide assistance to the population and provide necessary medical supplies.

Solving the Aral Sea problem requires coordinated efforts at both the national and international levels. Comprehensive measures to manage water resources, improve public health, develop sustainable agriculture and restore ecosystems can significantly mitigate the consequences of the environmental crisis and ensure sustainable development of the region.

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## АРАЛ МӘСЕЛЕСІ ӨЗБЕКСТАН РЕСПУБЛИКАСЫ СЫРТҚЫ САЯСАТЫ ПРИЗМАСЫ АРҚЫЛЫ

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**Аңдатпа.** Бір кездері әлемдегі ең ірі ішкі су қоймаларының бірі болған Арал теңізі соңғы бірнеше онжылдықта ең алдымен суды басқарудың тұрақсыз тәжірибесіне байланысты апатты құлдырауды бастан өткерді. Бұл экологиялық апат дағдарыстан қатты зардап шеккен Өзбекстан Республикасының сыртқы саясатына терең әсер етті. Бұл ғылыми мақалада Арал проблемасының көп қырлы қырлары және оның Өзбекстанның сыртқы

саясатын қалай қалыптастырғаны қарастырылады. Ол елдің су ресурстарын басқару, аймақтық ынтымақтастық, халықаралық серіктестік, климаттық дипломатия, қауіпсіздік мәселелері және Арал дағдарысы контекстіндегі гуманитарлық жауаптар саласындағы күш-жігерін зерттейді. Бұл мақаланың негізгі мақсаты – Арал теңізінің құрғауының проблемалары мен себептерін талдау және Өзбекстан Республикасының сыртқы саясатының объективі арқылы осы мәселені шешудің тәсілдерін жалпылау. Бұл талдау тарихи, салыстырмалы және мазмұндық талдау сияқты әдістерді қолдану арқылы жүзеге асырылды. Бұл әдістер авторға Арал проблемаларын шешуге ықпал ететін негізгі факторларды талдап, анықтауға мүмкіндік берді. Автор Өзбекстан халықаралық қатынастардың тең құқылы субъектісі ретінде Арал өңіріндегі экологиялық апатты шешуге бағытталған белсенді сыртқы саясат жүргізіп жатыр деген қорытындыға келді. Осылайша, бұл мақалада Өзбекстан Республикасы халықаралық аренада және жалпы аймақта қолға алып жатқан Арал теңізіндегі жағдайды жақсартудың негізгі жолдары жинақталған.

**Тірек сөздер:** Арал теңізі, Өзбекстан Республикасы, сыртқы саясат, су, экологиялық апат, Арал дағдарысы, аймақтық және халықаралық ынтымақтастық, Орталық Азия

## ПРОБЛЕМА АРАЛЬСКОГО МОРЯ ЧЕРЕЗ ПРИЗМУ ВНЕШНЕЙ ПОЛИТИКИ РЕСПУБЛИКИ УЗБЕКИСТАН

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**Аннотация.** Аральское море, когда-то одно из крупнейших внутренних водоемов в мире, за последние несколько десятилетий пережило катастрофическое истощение, в первую очередь из-за нерационального управления водными ресурсами. Эта экологическая катастрофа привела к пагубным последствиям в том числе и для внешней политики Республики Узбекистан. В данной статье рассматриваются многогранные аспекты проблемы Аральского моря и то, как она повлияла на внешнюю политику Узбекистана. В статье анализируются попытки страны в управлении водными ресурсами, региональном сотрудничестве, международном партнерстве, климатической дипломатии, соображениях безопасности и гуманитарных мерах реагирования в контексте кризиса Аральского моря. Основной целью данной статьи является анализ проблем и причин высыхания Аральского моря и обобщение подходов к решению данного вопроса Республики Узбекистан через призму внешней политики. Данный анализ осуществлен путем применения таких методов как исторический, сравнительный и контент-анализ. Данные методы позволили автору проанализировать и выявить основные факторы, способствующие решению проблем Аральского моря. Автор пришел к выводу, что Узбекистан, будучи равноправным субъектом международных отношений, проводит активную внешнюю политику, направленную также и на решение экологической катастрофы на территории Приаралья. Таким образом, в данной статье обобщены основные пути улучшения ситуации на Аральском море, которые Республика Узбекистан предпринимает на международной арене и в регионе в целом.

**Ключевые слова:** Аральское море, Республика Узбекистан, внешняя политика, вода, экологическая катастрофа, Аральский кризис, региональное и международное сотрудничество, Центральная Азия

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