



THE PROBLEM OF THE ARAL SEA AND THE EFFORTS BEING MADE TO RESOLVE IT

Urazbaeva Nafisa Muzaffarovna

Nukus branch of Uzbekistan state university of
physical education and sports

<https://doi.org/10.5281/zenodo.10404473>

ABSTRACT: In this article, we will talk about the Aral Sea and its problems. The daily drying of the Aral Sea and its waters is one of the most global problems of this century, and a lot of work is being done to solve it. Today, significant changes in the environment are taking place on our planet as a result of the negative impact of human activities. In particular, climate changes and various natural disasters are felt in all latitudes of the planet. As a result, the areas covered by forests are destroyed and the atmosphere, water and lithosphere are being polluted.

KEY WORDS: climate change, pollution, salty shores, UN funds, Multilateral partnership, global problem.

INTRODUCTION: Changes in the state of the natural environment due to human influence, strong anthropogenic impact on living and non-living components cause local, regional and global environmental problems. In particular, as a result of such effects, the "Island problem", which is considered the most dangerous point of the ecological crisis in the region, arose. The following information about this proves our opinion. Over the last 40-45 years, the level of the Aral Sea has dropped by 22 meters, the water area has decreased more than 4 times, the volume of water has decreased up to 10 times (from 1064 cubic km to 70 cubic km), the salt content of the water has reached 112 g/l, and in the eastern part of the Island reached 280 g/l. The Aral Sea has become almost a "dead" sea. The area of the dry bottom is 4.2 million hectares, and it has become a source of dust, sand-salt aerosols spreading to the neighboring areas. Every year, 80 to 100 million tons of dust are released into the atmosphere. At the same time, the rates of land degradation and desertification are increasing in the deltas of Amudarya and Syrdarya.

MATERIALS AND DISCUSSION: Attention was paid to the three main directions of solving the problem of the island and Arolboyi, i.e., firstly, to improve the sanitary-epidemiological situation of the region by supplying drinking water to the population through pipes, as well as to the use of underground fresh water. The need to drastically raise the level of health and sanitary services was emphasized; secondly, to create a "Green belt" by building an artificial dam on the dry southern shores of the sea and constantly watering the delta ecosystem; thirdly, to maintain the sea itself. To maintain it, it is necessary to systematically send a large amount of water to it in addition, it was emphasized by the experts that sand migration and dust rising will be prevented as a result of the construction of saxophone fields on the dry bottom of the island. The Aral Sea is the largest closed lake in Central Asia. Administratively, more than half of the southwestern part of the Aral Sea is located in the territory of Uzbekistan, and the northeastern part is located in Kazakhstan. Until the 60s of the last century, the area of the Aral Sea with its islands was on average 68,000 km². In terms

of size, it was the fourth largest in the world (after the Caspian Sea, Lake Superior in America and Lake Victoria in Africa), and the second largest on the Eurasian continent (after the Caspian). The sea stretches from the north-east to the south-west. 428 km, the widest part was 235 km (45° latitude). The area of its basin is 690 thousand km². The water volume is 1000 km³. It is moderately dry. It varies around 16.5 m. It is called the sea because of the size of its basin. The Aral Sea was formed in the upper Pliocene in the depression of the Earth's crust. The topography (except for the western part) is flat. There were many peninsulas and gulfs in the Aral Sea. The biggest gulfs on the northern shores were Chernishev, Paskevich, Sarichiganok, Perovskiy, Tushbas, Ashshibas, Aksaga, Suluv and others on the southeastern and eastern coasts, Ajiboy, Talliq, Jiltirbas gulfs, Kulonli and Moynok peninsulas at the confluence of Amudarya and Syrdarya. The water level in the Aral Sea has been rising and falling since ancient times. In the next geological period, the water of the Aral Sea periodically poured into the Caspian through Sarikamish and Ozboy, the water level was quite high, and the coast of several thousand square kilometers in the east of Jan. Vajan was under water. The Aral Sea is not very deep. The depth of the northern part of Karakalpakstan near the Ustyurt plain reaches 69 m. The shallow areas of the lake correspond to its southern, southeastern and eastern parts. The morphological structure of the coasts of the Aral Sea is very complex. They differ from each other in some features. The northern coast is high, some lands are low, and there are deep gulfs. The eastern coast is low; sandy, there were many small bays and islands. The southern coast is formed by the Amudarya delta. The western coast is less cut and consists of Ustyurtchinki. There were more than 300 islands in the Aral Sea. 80% of them are in the southeastern part of the sea. The largest were Kokorol (273 km²), Vozrojdeniye (216 km²) and Borsakelmas (133 km²). Amudarya and Syrdarya flows into the sea. Until the 1960s, the Amudarya carried 38.6 km³ of water to the Aral Sea, and the Syrdarya 14.5 km³. Rainfall also plays an important role in the water balance. 82-176 mm of rain falls annually in the sea area. 5.5 km³ of underground water was added to the sea from the surroundings per year. Absolute sea level fell to 31 m in the early 2000s, 1950 m below the level of the late 22nd century. In 2001, the Great Aral Sea (South) was divided into West and East in 2001. In 2003, a quarter of the original area was covered by the Aral Sea and about 10% by sea water. Today, instead of the old deep sea, there are new sand and salt deserts with a total area of 38,000 km².

Since the sea is located in a desert zone, 1 m of water evaporates from its surface every year. This is more than the water, rain and underground water brought by rivers to the sea in the next period. Therefore, as a result of climatic changes, the water level of the Aral Sea has been changing over the years. For example, the sea level began to rise in 1785 and decreased in 1825, increased again in 1835-50, and decreased in 1862. Kokorol became a peninsula in 1880. In 1881, the water level decreased. Since 1885, the water level in the Aral Sea has started to rise again. By 1899, the Kokorol peninsula became an island. In 1919, the area of the sea was 67,300 km², and the amount of water was 1,087 km³. By 1935, the area was 69,670 km², and the amount of water increased to 1,153 km³. During the next century and a half, the sea level changed a lot. The sea navigation season lasted 7 months. Large ports such as Aralsk and Moynok operated. There was little population around the Aral Sea. The population was mainly engaged in fishing and, partially, in cattle breeding, muskrat breeding and vegetable-polishing. It was fished from the sea until the 90s of the last century. A large number of fishing farms operated in and around the cities of Aralsk and Moynak, fish salting



factories were operating in the Amudarya delta, Avan settlement (Kokorol o.), Bugunposyolka (east coast), Uyali and Uzunkyr islands. The Aral Sea was first explored and mapped by A. I. Butakov in 1848-49. Since the water level of the Aral Sea is related to the water regime of Amudarya and Syrdarya, the more water from these two rivers is used for irrigation, the more water in the sea decreases. Especially since the 60s of the last century, the amount of water flowing into the sea from Amudarya and Syrdarya has been decreasing year by year as a result of the expansion of irrigated fields. As a result, the water level in the sea began to decrease rapidly. The effect of the decrease of the water level in the Aral Sea on its water surface and water capacity, the amount of water poured was 56 km^3 , and the amount of atmospheric precipitation on the sea surface equaled 9.1 km^3 . The consumption, that is, the output, mainly consists of evaporation, and it averaged 66.1 km^3 during this period. During this period, a negative difference in the water balance was recorded: the sea lost 1 km^3 of water annually, during 1911-1960, it lost 50 km^3 of water.

Currently, the Aral Sea is divided into 3 parts: the first is a small and shallow northern part (salinity - 8-13 g/l); the second is the shallow eastern part with a relatively larger area (salinity - 69-72 g/l); the third is the deepest western part (salinity - 68-69 g/l). The Russian conference concluded that the drying up of the Aral Sea has slowed down and called to keep it in this state. In the Address of the head of our state to the OliyMajlis, serious concern was expressed about the worsening of the environmental situation in our region and the whole world, and it was noted the need to resolutely continue efforts aimed at mitigating the effects of the environmental tragedy of the Aral Sea together with neighboring countries and the world community.

"In this regard, we will further strengthen practical work within the framework of the Multilateral Trust Fund for ensuring human security in the Aral Bay region, established in cooperation with the United Nations," it was noted. In fact, the drying up of the Aral Sea has become the center of ecological disaster not only in our region, but also globally. Therefore, in September of last year, both at the 75th session of the UN General Assembly and at the 72nd session in 2017, our honorable President put this issue on the agenda. At that time, for the first time in history, the President of the United Nations showed the map of the sea to the whole world community and revealed the depth and complexity of the problem. It is no coincidence that last year our President proposed to adopt a special resolution of the General Assembly of the United Nations on declaring the Aral Bay region as a region of ecological innovation and technology, and to celebrate the date of approval of this important document as the International Day of Protection and Restoration of Ecological Systems. As a result, 75 million tons of dust and toxic salts rise into the atmosphere every year from the 5.5 million hectares of the dry bottom of the sea, in the territory of Uzbekistan and Kazakhstan, reaching the distant Pamirs, Tien-Shan, even Greenland, Arctic glaciers and Norwegian forests. Of course, at the initiative of our country, in 2017, the United Nations Multilateral Partnership Trust Fund for Human Security was established for the Aral Bay region, which serves as a support platform for the international community to provide practical assistance to the population living in a difficult ecological region. The fact that countries such as Norway, Finland, Japan, South Korea, the European Union, Germany, the UAE, Turkey, and Switzerland show great interest in this fund shows that it has great prospects. However, it must be said frankly that at the moment the main work is being carried out by Uzbekistan, the costs of unprecedented work are being covered mainly from the republican and local budgets and



donations. The reasonable and appropriate proposal in the petition is a consistent and logical continuation of the policy of the President, and in the last four years, forests and bushes have been established on about one and a half million hectares of land on the dry part of the seabed, and the addition of another 700,000 hectares of land to this this year is an indication of the scope of the work carried out by our country proves its size.

New plant areas, pastures and tree groves created here by the unprecedented measures of Uzbekistan contribute to the formation of the soil layer, to the gradual change of climate and environment, to mitigating the consequences of environmental hazards along the island, and to reducing the harm to the health of millions of people. In 2017-2021, according to the state program for the development of the Aral Sea region, as well as the relevant decisions of the Cabinet of Ministers, systematic work is being carried out to create a "green belt" in the Aral Sea basin and the Aral Sea region, as well as in the neighboring Khorezm, Bukhara and Navoi regions. The President's decision on October 2 of last year "On approving the concept of development of the forestry system in the Republic of Uzbekistan until 2030" once again confirms that these goals are strategic. Now it is extremely urgent to strengthen the activities of the Multilateral Trust Fund for ensuring human security in the Aral Bay region. The management system of trust funds itself is distinguished by accuracy and orderliness in the processes of decision-making, allocation of funds and accountability. More than 50 such UN funds around the world have proven to be highly effective with their principles of transparency.

CONCLUSION: In short, the island is a world problem and we must feel responsible for solving it. According to recent information, the Aral Sea has started to fill again and has filled up to 38 centimeters. This is certainly a very happy situation for the morals of the whole world. We young people wish that in the future the Aral Sea will overflow again like its glorious past. As the people of the whole world act together, not only the Aral Sea, but also all environmental problems will become easier to find, and natural resources that will last for millions of years will be preserved for future generations.

References:

1. Akramov A. Z, Rafikov A. A., Proshloye, nastoyasheye i budusheye Aralskogomorya, T., 1990
2. Xikmatov B. F.,
Izucheniye dinamiki elementov vodnogo balansa i mineralizatsii Aralskogomorya,
Dissertatsiya na soiskaniye akademicheskoy stepeni magistra gidrologii, T., 2003.
3. Berg L. S, Aralskoye more, SPB, 1908;
4. O'zbekiston milliy ensiklopediyasi (2000-2005)
5. Akramov, R. Nurinboev. Orol muommolari (1979).

