

THE ARAL SEA PROBLEM IS THE PROBLEM OF THE CENTURE

Kh. N. Tokhtamurodova

Institute of irrigation and agro-technologies of
Karshi MTU "TIQXMMI" MTU, teacher.

E. G. Uralova

Institute of irrigation and agro-technologies of Karshi
MTU "TIQXMMI" student

Annotation:

We know that the whole nation suffers from lack of water, that is, the island, which is our water supply, is drying up day by day, and as a result of this, various accidents and air pollution have consequences such as lack of water. Given

Аннотация:

Мы знаем, что весь народ страдает от нехватки воды, то есть остров, который является нашим запасом воды, день ото дня пересыхает, и в результате этого различные аварии и загрязнение воздуха имеют такие последствия, как недостаток воды.

Annotatsiya:

Biz bilamizki butun xalq suvsizlikdan ziyon chekadi yani hozirgi kunda suv taminotimiz bo'lmish orol ham qurub boryapdi kundan kunga buning oqibatida turli xil kasssilklar va havoning ifloslanishi suvsizlik kabi oqibatlarga olib kelmoqda buning oldini olish uchun turli xil chora tadbirlar olib borilmoqda maqolamizda shu haqida yoritib berilgan.

Key words: Aral Sea, desert zone, coast, water, soil, temperature, drought, animal husbandry. water bodies, territory.

слова: Аральское море, пустынная зона, побережье, вода, почва, температура, засуха, животноводство. водные объекты, территория.

Kalit so'zlar: Orol dengizi, cho'l zona, qirg'oq, suv, tuproq, tempratura, qurg'oqchilik, chorvachilik. suv havzalar, hudud.



Enter

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 northeast to southwest, its length is 428 km, and its widest point is 235 km (45° latitude). The area of its basin is 690,000 km², its water volume is 1,000 km³, and the average depth 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 a depression on the bent surface 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 largest gulfs on the northern shores are Chernishev, Paskevich, Sarichiganok, Perovskiy, Tushbas, Ashshibas, Aksaga, Suluv and others on the southeastern and eastern coasts, Ajiboy, Talliq, Jiltirbas gulfs, Kulonli and Moynok at the confluence of Amudarya and Syrdarya. It is known that the water level in the Aral Sea rises and falls from time immemorial. 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 km² in the east of Jan. Vajan was under water. The Aral Sea is not very deep. Deep places in the western part of the Aral Sea. The northern part of Karakalpakstan reaches a depth of 69 m near the Ustyurt plain. 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 Ustyurt chinki. 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 carried 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 dropped to 31 m in the early 2000s, 1950 m below the level of



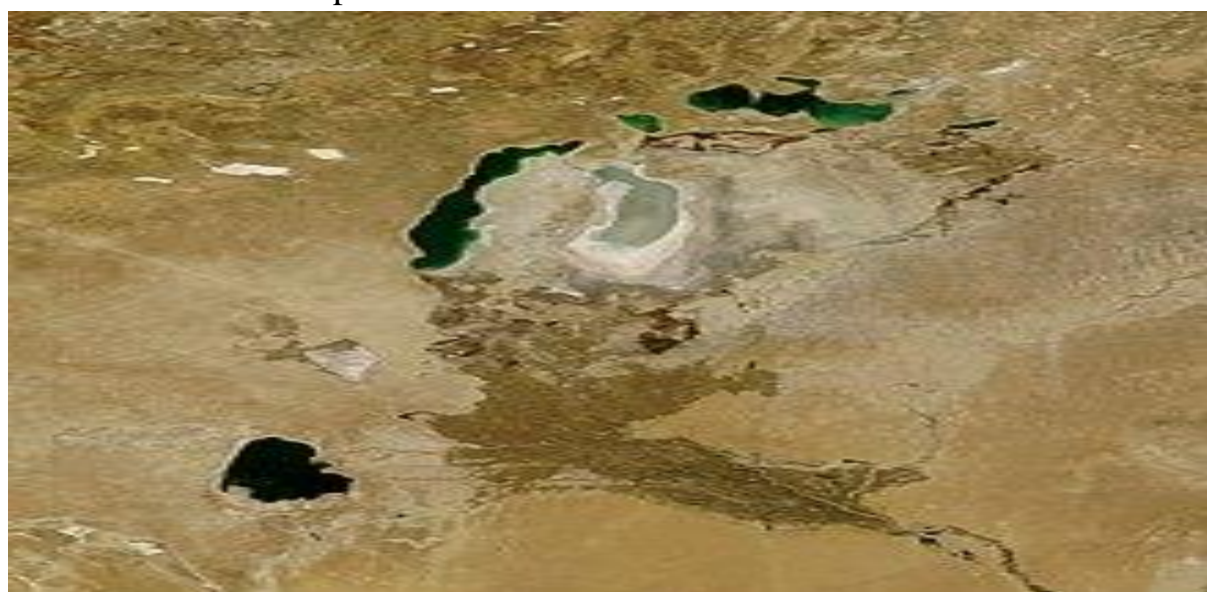
the late 22nd century. In 2001, the Great Aral Sea (South) was divided into West and East. In 2001. In 2003, a quarter of the original area was covered by the Aral Sea and about 10% by sea water. Today, instead of the old deep sea, there are new sand and salt deserts with a total area of 38,000 km². 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, precipitation 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, then 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 water level in the Aral Sea changes throughout the year due to the overflowing of Amudarya and Syrdarya in spring and summer. Spring rains will also cause sea levels to rise. The amplitude of the change of the water level during the year was equal to 25 cm on average. The salinity of its water is on average 10-11%. Most of the salts in the water are table salt and sulfated magnesium salt. According to its chemical composition, its water is similar to the water of the Caspian Sea. The salt content of the water of the Aral Sea is estimated to be about 11 billion tons. These salts are of industrial importance. The sea is clear, especially in the winter. The sea bottom is blue in most parts. The sea is murky. It freezes from mid-December to the end of March. In summer, the temperature at the top reaches 27°. In summer, the temperature drops to 8° at the depth. The average air temperature over the sea is 24-26° in summer, -7° in winter, -13.5°. Aral Sea carp, chorten, sovyon, pikeperch, white bream, pike, taran (leshch), pilmai. A picture of the Aral Sea taken from space (2002). 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.), Bugun po-syolka (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 the water in the sea decreases. Especially since the 60s of the last century, as a result of the expansion of irrigated cropland, the amount of water flowing into the sea from Amudarya and Syrdarya has been decreasing year by year. 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 km³, and the amount of atmospheric precipitation on the sea surface equaled 9.1 km³. The consumption, that is, the output, mainly consists of evaporation, and it averaged 66.1 km³ during this period. During this period, a negative difference in the water balance was noted: the sea lost 1 km³ annually, 50 km³ during 1911-1960.

Currently, the Aral Sea is divided into 3 parts: the first - a small and shallow northern part (salinity - 8-13 g/l); the second - 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.



Current state of the Aral Sea (October 2008)

The Aral Sea (Aral Teñizí, Aral Sea, Aral Sea) is a closed body of water located in Central Asia. It is surrounded by Kazakhstan from the north and Karakalpakstan (Uzbekistan) from the south. Until the 1960s, it was the fourth largest lake in the world with an area of 68,000 km². However, the use of large amounts of Amudarya and Syrdarya waters, which supply it, for irrigation began to sharply reduce its



volume. By 2007, the area of the Aral Sea had lost 90% of its area compared to 50 years earlier, and had become three separate lakes.[1] The increase in salinity caused the destruction of plants and animals in and around the Aral Sea. The local climate has changed; summers became hotter, and winters became drier and colder. According to 2010 data, the area of the Aral Sea is 13,900 km². [2] In January 1996, Uzbekistan, Kazakhstan, Turkmenistan, Tajikistan and Kyrgyzstan signed an agreement on improving the environmental condition of the Aral Sea. The Aral Sea and the region along the Aral Sea are administratively located in the territory of Uzbekistan (Karakalpakstan) and Kazakhstan. More than half of the Aral Sea belongs to the territory of Uzbekistan. The archipelago includes the lower part of the Amudarya and Syrdarya and the areas around the Aral Sea, as well as the Aral desert, which was formed in its northeastern and southern parts as a result of the lowering of the sea level. The Aral Sea is one of the largest salt lakes in Central Asia and the world. In the recent past, its area, including islands, was almost 68,000 square km, and its water volume was 1,000 cubic km. Its basin, with an average depth of 50.5 m, is the fourth largest in terms of size (690,000 sq. km) after the Caspian Sea, Lake Superior in America, and Lake Victoria in Africa. There are more than 300 islands in the Aral Sea, the largest of which are Kokorol, Vozrojenie, and Borsakelmas. Until the 60s of the 20th century, 38.6 cubic km of water from Amudarya and 14.5 cubic km from Syrdarya came to the Aral Sea. 82-170 mm of rain falls annually in the sea area. 5.5 cubic km of underground water was added to the sea. The salinity of the water is 10-11%, and the amount of salts in the water is estimated to be about 11 billion tons. The sea shipping season lasted 7 months. There were large ports such as Aralsk and Moynok. The population around the Aral Sea was mainly engaged in fishing, partly cattle breeding, fur breeding (mustard), and vegetable-polishing. Fishing farms and fish salting factories were operating in the cities of Aralsk and Moynok and several islands. Fishing continued until the 90s of the last century. The water level in the Aral Sea has been rising and falling since ancient times. In the next geological period, the sea water rose and sometimes poured into the Kaspii Sea through the Sarikamish and Uzboy valleys.

References

1. Muhamedov T., Soil erosion is a disaster for agriculture, T., 1973; Mukhitdinov K., Soil erosion in Uzbekistan and measures to combat it, T., 1976; Mirzajonov et al., High yield on eroded soil, T., 1980.
2. O. Ramazanov, O. Yusupbekov. "Soil science and agriculture" T.: Sharq, 2005.



3. H. Atabayeva, O. Kadirhojaev. "Plantology" study guide. T. New age generation, 2006.
4. Sh.Kholikulov, P.Uzokov, I.Bobokho'zhayev "Tuprokhshunoslik" Samarkand: "N.Doba" HT, 2011.
4. Plant science. Growth, Development and Utilization of Cultivated Plants. 2011.
5. A. Akhatov. "Soil resources and their use", T: TIMI publishing house, 2016.
6. Ramazonov, S. Buriyev. "Soil science and farming" T.: Barkamol fayz media, 2018.

