

On the Influence of the Drying Island Sea on the Ecological Situation in the Lower Amudarya District

Kuchkarova Dilbar Pirlapasovna

Urganch State University Geodesy, Cartography, Cadastre Department of Geography teacher

Rakhimova Anamoy Komilovna

Geography teacher of school No. 25, Urganch city

Berdimuratova Nilufar Jonibekova

Biology teacher of school No. 24, Urganch city

Abdullayeva Gavkharoy Khudaynazarovna

Teacher of geography at school No. 6, Urganch city

Annotation. As a result of the drying up of the Aral Sea, various types of salt and dust are causing serious damage to the Lower Amudarya district and its surrounding areas. The article contains brief information about the methods of reducing the negative effects of various types of harmful salts rising from the Aral Sea.

Keywords: Aral sea, dusts, salts, salt storage, sands.

When and why did the Aral Sea begin to dry up? What were the consequences of its construction? To find answers to these questions, it is necessary to first look at a brief history. Since 1960, many irrigation and land reclamation activities have been carried out in Central Asia, many reservoirs and ditch systems have been built and put into operation, as a result of which the country's waters have been used intensively. Amudarya, which flows into the Aral Sea, the water of the Syrdaryas was gradually decreasing. The lowering of the island's level since 1961 has occurred differently in different years. During 1961-1970, the average decrease was 21 cm, in 1971-1980 it was 58 cm, in 1981-1985 it was 80 cm, and in 1986-1995 it was 46 cm. In some years, the water level drop was even higher than 1 m (AAAfikov).

Today, scientists refer to the dry part of the island as Orolqum. Since 2005, Amudarya has stopped pouring water into the island. The part where the Syr Darya flows is blocked by the government of Kazakhstan as a separate water basin. So, "sea" water is decreasing only due to evaporation. According to scientists' calculations, if the Aral Sea continues to dry up like this, it will dry up completely by 2030.[1]

The natural conditions of the dry part of the island are unique, the former sea has been replaced by a sandy region. In sand dunes, there are cherkes, black saxovull, yulgin, one-year shuras and other plants. Sand dunes are gradually replaced by salt marshes.

Accumulation of salt in the dry part of the sea is accelerating. According to the information of the Scientific Research Institute of Hydrometeorology of Kazakhstan, the area drained in 1961-1970 is 6.9 thousand km. kv, the average annual salt accumulation is 4.85 million tons, the dried part in 1971-1980 is 9.6 thousand km. kv, and 2.95 million tons per year, and in 1981-1985, salt was an average of 4.82 million tons per year. Its dry part has become a huge salt storage. This has a strong negative impact on the environment.

Particles of sand, dust and salt from the dry part of the island are scattered in different directions under the influence of the wind. Every year, 25-75 million tons of dust is raised from the dry part of the island. Raised dust is spreading around. Under the influence of winds, salt rain is falling in Lower Amudarya district. 1242 kg of salt falls per hectare per year around Moynok, while 100-150 kg falls around Nukus.[2]

The process of desertification on the Aral coast has a negative impact on human health, leads to soil salinization and a decrease in productivity, as well as a decrease in the productivity of pastures. For example, the productivity of pastures decreased from 10-50 centners per hectare to 0.5-3 centners. Thinning of vegetation increases wind erosion and creates various depressions in the terrain.

The change in the level of the island and the pollution of the rivers even lead to climatic changes. The relative humidity has decreased, the flow of dusty and salt-saturated winds has increased, and the average daily temperature has risen relatively.

In general, with the drying up of the island, an unfavorable geocological situation was created in the Lower Amudarya District. It is impossible to return the Aral Sea to its previous state, and it is even difficult to maintain its current level. It is necessary to take measures aimed at improving the geocological situation here.

In the dry part of the island, it is very important to create an environment of drought-resistant plants such as cherkez and aksaksovil in sand, salty sand and sandy loam soils, and in the residual shorkhoks, plants such as yulgun, karabarak, and karasaksovil. [3]

In the Amudarya delta, lakes and ponds are created artificially by sending a certain amount of water (about 1-1.5 cubic km) to many main hollows every year. This event makes it possible to develop fishing in reservoirs during the summer, and to send water to pastures and hayfields. As a result, it makes it possible to accumulate fodder base in animal husbandry. These measures, in turn, are an obstacle to desertification and allow to preserve the area of orchards to a certain extent. Along with the development of fisheries in the new water bodies that have appeared, these water bodies have become the home of many birds. The relative humidity has increased slightly, creating more favorable conditions for the growth of grasses. But these activities are activities of local residents without any engineering and engineering projects.

List of used literature

1. A.A. Rafikov, "Geocological problems" Tashkent "Ukitchich" 1997.
2. P. Baratov, M. Mamatkulov, A. Rafikov b "Natural Geography of Central Asia" Tashkent "Ukituchy" 1997.
3. Sh.Zokirov, R.Ibragimova "Island natural geographical region" Tashkent 2017