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RAMSAR CONVENTION: ECOLOGY OF THE AYDAR-ARNASOY LAKE SYSTEM

Abstract: Aydar-Arnasoy lake system is a variable ecosystem. Changes in the ecosystem will also affect all components of the landscape, i.e. plants, animals, groundwater levels and mineralization levels. A unique microclimate is formed in the arid region, which also affects the surrounding climate.

Key words: Arid region, ecosystem, geosystem, landscape, chemical analysis, hydrochemical. Ramsar Convention, water area, natural area

Relevance of the topic. Since the Republic of Uzbekistan is located in an arid region, the main problem is water, as our daily life or articles published in the press show. Today, due to the lack of rational use of water resources in the territory of our republic, natural water bodies are drying up (the Aral Sea), and in some areas, the water area of abandoned lakes (Aydar-Arnasoy, Sarikamish and Dengizkol) is expanding, unique ecosystems (geosystems) we see that it is being formed [1]. The Aydar-Arnasoy lake system formed in an arid region is a variable ecosystem. Changes in the ecosystem will affect all components of the landscape, primarily vegetation, fauna, groundwater levels, and the level of mineralization. On the other hand, a unique microclimate is formed in the arid region, which also affects the surrounding climate. Changes in the environmental climate are also affecting the soils, vegetation and fauna in this area. The study, analysis and prediction of these changes are of great scientific and practical importance [2]

The main part. Although more than half of the earth's surface, i.e. 71%, is covered by water, the extensive use of water bodies for industrial and economic needs in recent years has led to the expansion of the range of various impacts on them.

Based on the decision of the Oliy Majlis of the Republic of Uzbekistan on August 30, 2001, the Republic of Uzbekistan joined the Ramsar Convention, and this decision came into force on February 8, 2002 [3]. Currently, Dengizkol and Aydar-Arnasoy lakes system with an area of 31.3 thousand hectares and 527.1 thousand hectares are included in the Ramsar list.

Dengizkol is an important water conservation facility for waterfowl monitoring. More than 170 species of birds can be found there, in particular, 24 species of birds included in the Red Book of Uzbekistan and 2 species included in the list of the International Union for the Protection of Nature and Natural Resources.

In general, the biodiversity of this water area consists of 35 species of mammals, 24 species of fish and reptiles, and 2 species of amphibians. 47 species of plants grow in the lake, 6 of which are included in the Red Book of Uzbekistan, and 16 are endemic to Central Asia.

The second object included in the Ramsar list, the Aydar-Arnasoy lake system, includes Tuzkon, Arnasoy and Aydarkol lakes. Today, the Aydar-Arnasoy lake system has become a huge reservoir with an area of 3702 km² and a water volume of 44.1 km³.

The quantity of sulfate and sodium ions in the composition of Aydarkol waters determines its salty taste. The water color is green-blue. Water salinity varies from 3.2 to 12.2 g/l. The highest salinity level corresponds to the spring months. Gradually, the amount of salt ions in the water of this water body is increasing. Today, the amount of salt in water in different regions of Aydarkol ranges from 4 to 16.5 g/l, with an average of 10.2 g/l. The ionic composition of Aydarkol water is close to that of ocean water. According to the data of the

Central Asian Research Institute of Hydrometrology, in 1990-2005, the water salinity level in the eastern region was 17 g/l, today it is 12.2 g/l, in the western region it is 22 g/l, and it has reached 14.5 g/l. The pH value of water is 8.6 in Aydarkol, 8.8 in Tuzkon, 8.9 in Arnasoy. These indicators indicate that Aydarkol water has an alkaline environment[4,5].

Result and discussion. This Convention protects bird species whose habitats are located not only on the territory of one country, but also nesting, flying, and wintering areas on the borders of different countries, as well as bird species that are included in the Red List of the International Union for Conservation of Nature and Natural Resources and live in the territory of our republic for a certain part of their life. is important.

In order to further increase the efficiency of the rational use of the lakes included in the Ramsar list in our republic and to fulfill the requirements of the Convention in general, it is important to carry out scientific researches focused on the cadastre and monitoring of wetland ecosystems.

The purpose of this international document:

- interdependence of a person and the environment surrounding him;
- economic, cultural and recreational importance of wetlands;
- Recognizing that waterfowl and their conservation should be considered as an international resource;
- is to ensure the coordination of international actions with a far-sighted national policy.

Today, 169 countries are members of this Convention. Tuzkon, Arnasoy and Aydarkol lakes in the Aydar-Arnasoy lake system are among the few objects included in the Ramsar list in our country.

It is known that, the main water sources in our country are inextricably linked with the Amudarya and Syrdarya rivers, which have a transboundary nature.

Taking into account that changes in the water level of inland lakes are inextricably linked with the annual water volume of these rivers, the urgency of this issue is evident[7-8-9].

For this reason, the Ramsar Convention stipulates that the contracting parties should consult with each other regarding the fulfillment of obligations arising from this document, especially when wetlands are located in the territories of more than one contracting party or when the water system is part of the territory of more than one contracting party.

In order to preserve and improve ecological systems, to achieve ecologically safe living of the population, the project “Concept of the Republic of Uzbekistan in the field of ecology and environmental protection and rational use of natural resources until 2030” has been developed is also one of the priorities for sustainable development in our country, and is an integral continuation of work aimed at maintaining a healthy ecological situation in our region [6].

Conclusion. Therefore, one of the priorities for sustainable development in our country is aimed at maintaining a healthy ecological situation in our region. Wetlands have a special place as an important part of the system chain in ensuring the stability and integrity of ecological systems.

Based on the above, it can be said that we are all equally responsible for preserving the ecological stability of the basins for future generations

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