



## ISSUES OF GEOGRAPHICAL ASSESSMENT AND MONITORING OF LAKES OF KHORAZM REGION

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**Annattosia.** *The article analyzes the problems of lakes and their geographical description, the geographical assessment of the lakes of the Khorezm region and the study of their current state as a result of observational work, the effective use of lakes and the purposes for which they can be used.*

**Key words:** *lake, mountain lake, plain lake, fresh water, salt water*

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**Annotation:** *The article analyzes the problems of lakes and their geographical description, the current state of the lakes of Khorezm region as a result of geographical assessment and observation, the effective use of lakes and for what purposes they can be used.*

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Lakes with a unique nature have formed in each of the warm, temperate and cold climate regions around the globe. Studying lakes is very important. Because lakes are very important for the area as a natural object. Lakes are used for various purposes. In particular, it is used for fishing, water supply, water transport, irrigation, mineral salts and healing mud. Also, lakes are a potential source of fresh and ultra-fresh water. To define the term lake, a lake is a natural body of water collected in deep places (Baratov, 1991). Lakes are home to fish, birds, and various animal species, as well as plant life that is suitable for the area and that is formed in the area.

There are hot, dry areas on the surface of the earth. Terrain features are also different. Accordingly, the lakes are divided into types. For example, they are divided into types depending on their appearance, depending on whether their water flows out or not, depending on their temperature (temperature), and depending on their salinity.

Lakes in the territory of Uzbekistan are divided into two types: 1. mountain lakes; 2. plain lakes. (Vahobov, 2005). Khorezm lakes belong to the series of plain lakes. Scientific work on the number of lakes and their characteristics continues, but there are many unregistered and unexplored lakes. It is very important to learn them, use them wisely and effectively.

In recent years, the number of man-made lakes has been increasing in the Khorezm region, especially in the whole of Uzbekistan. Lakes of this type are formed as a result of ditch water flowing from cultivated fields being thrown into natural pits outside the cultivated area. Some of the lake area has been drained and mainly converted into rice fields. As a result, their area was reduced 4-5 times. Most of the lakes are used by farms specializing in fishing and poultry farming.

Lakes actively influence the state of nature. They are of great importance in the management of surface water flow. For example, it is a source of water collection during the wet periods of the year. Lake water can be used during drought. As a result of groundwater and surface water runoff, they can collect mineral and organic substances. The physical and chemical properties of lake water, in turn, have a significant impact on life activities, determine the conditions for the development of aquatic animals and plant organisms.

The share of fresh water on Earth is only 2.5%, of which only 1% can be used. Therefore, lakes are one of the most important water resources, a source of water supply for human consumption, and in general, they account for about 0.3% of the total resources of surface water bodies. The condition of the lakes has been constantly deteriorating due to the increase in anthropogenic activities surrounding them. The quality of lake water is evaluated using different physico-chemical and biological parameters for different purposes. In general, natural lakes are limited bodies of water that do not have strong currents to self-purify the water. That is why various impurities accumulate in the lake. By determining the current characteristics of the lakes and analyzing the pollutants, it is possible to predict the future state of the lake and determine the quality of the lake water. Various modeling techniques are used to predict changes in lake water quality, such as watershed models, groundwater models, and lake models. The ever-increasing population, urbanization and modernization processes, the construction of sewers and roads, and the pollution of underground and surface water are causing problems. Natural water is polluted by rock erosion, soil leaching and mine processing, etc. Water quality temperature, electrical conductivity, nitrate, phosphorus, potassium, can be evaluated by different parameters like dissolved oxygen etc. For example, the increase or decrease of a certain substance in lakes can affect the ecosystem of this area. If the nitrogen and phosphorus in the lake are too high for the conditions of the lake, the nitrogen and phosphorus accumulate in the algae. As a result, algae grow rapidly, and the water ecosystem changes. Overgrown and overgrown algae produce toxins, and oxygen levels decrease. This can damage or kill fish and create poor conditions for recreation. Pollution of lakes with nitrogen and phosphorus is called nutrient pollution. This situation results from wastewater treatment systems

and certain agricultural practices. Streets, asphalt roads, sewers, houses and buildings are all impermeable surfaces. They do not allow water to evaporate to the surface. The flow of water accelerates and discharges into lakes, ponds and lakes with heavy metals, sediments and pollutants. It is necessary to plant trees around the roads, increase the number of trees and plants around the roads, and ensure that water is absorbed by the soil and plants.

Lakes are inland bodies of water that do not have direct exchange with the ocean. Since the boundaries between water and land, water and air are clear, there is a tight connection between many ecosystem components. Some lakes are saline due to evaporation or groundwater intrusion. Although lakes contain 50.01% of all water on Earth, they contain 49.8% of liquid surface freshwater.

Many "goods and services" often depend on lakes, such as fisheries, agricultural irrigation, industrial activities, and recreation. As for the lakes of the Khorezm region, it is scientifically based that there are 18,000 lakes, including very small ones (Matchanov, 2020). According to the current state of the lakes, specific works on lake monitoring have not been carried out. Because the groundwater of Khorezm region is close to the surface of the earth, lakes are formed in the depressions created by humans. Currently, lakes and existing water bodies are being monitored and analyzed based on satellite data. The loss of lakes leads to a disturbance in the balance of nature, and the groundwater level rises, and the process of salinization of the land intensifies.

Kaltakol, Kulonchikol, Otakol, Shorkol, Kokkol, Tokaikol, Ulugshorkol, Hajjali kol, Kepak, Uzunkol, Kurvankol Azorniy, Karakol, Rovotkol in the province , Rovulkol, Dovdon, Davudkol, Obilkol, Tangali, Boyotkol, Kozikol, Kichikol, Kurakkol and other such small lakes. In particular, Yangariq district ranks first in the region in terms of the number of lakes. Fishing is also well developed in the district. Khorezm fishery was formed in Yangariq district. Measures are being taken to develop fisheries in the lakes of Khorezm region. In conclusion, we can say that the importance of lakes is very important for nature. Its correct use is an important resource for human health and, in turn, for the economy.

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