

## THE ROLE OF WATER RESERVOIRS AND THE NATURAL ENVIRONMENT IN THE ECONOMY OF THE REPUBLIC OF UZBEKISTAN

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### Abstract

This article deals with the establishment of water reservoirs in our Republic, the regulation of flow by seasons and years, and the relationship between water reservoirs and the natural environment.

**Keywords:** Water reservoirs, ecological law, geographical environment, environment, groundwater, landscapes.

### Introduction

The reservoir meets the needs of several sectors of the national economy (irrigation, water supply, electricity, shipping, fishing, flood control, etc.). The change of river flows throughout the year and its uneven distribution across the territory make it necessary to build a reservoir. Reservoir regulates the flow seasonally and annually, together with canals and other water transfer structures, allows redistribution across regions [1].

In order to illuminate the relationship between reservoirs and the natural environment, it is necessary to fully reveal the essence of these two concepts. According to the information given in the previous paragraph, we have an understanding of water reservoirs. The task in Gal is to find the right answer to the question of what is the "natural environment".

According to the information given by S.I.Abdullayev (2000), the term "Environment" is very comprehensive and means the interaction and connection of a certain object with external (natural, economic, social) conditions. In the scientific literature of a number of countries in Western Europe and North America, the term "environment", and the terms "environment", "natural environment", "geographic environment" used in our literature are used as their synonyms [2].

The concept of "geographic environment" is one of the most important concepts for geography. This scientific term, which has been used for a long time in the sciences of geography and philosophy, was introduced into the literature by the French geographer and sociologist Jean-Jacques Elise Reclue (1830-1905).

Geographical environment is a complex of rocks and objects (earth crust, lower part of the atmosphere, waters, soil cover, flora and fauna) that are used in material production at a

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certain historical stage of nature and constitute the necessary conditions for the existence of human society.

There are two expressions of the concept of environment - "human environment" and "natural environment". The environment is the living and production environment of a person, which includes the natural environment and the artificial (man-made) environment, that is, objects created from natural substances (buildings, structures, etc.) contains a set of elements that have no analogues.

The human environment is understood as the natural environment, which includes both natural objects and man-made products (buildings, roads, industry, agricultural enterprises, etc.), changed due to human activity. The object of human environmental protection is the person himself, his health, and his future genetic program.

The natural environment refers to the natural environment that has not changed significantly, as well as the natural environment that has been little changed, changed and is being changed due to human activity. The content of this concept includes the complex of all natural components and the human environment and is simply called "environment". The artificially created systems that destroy the environment together with the natural systems in them form the technosphere. From a systemic point of view, the concept of "environment" is a system with special characteristics. In this case, the environment is a system that includes the environment, the natural environment, the technosphere, and the social sphere.

The deterioration of the natural environment creates the need to protect the natural environment, which is a new form of interaction between society and nature.

Reservoirs change all the components of the lithosphere, hydrosphere, atmosphere and biosphere that have already formed in their territory and approach areas, that is, the geodynamic conditions of the place, relief, groundwater regime, climate, soil cover, fauna and flora, and the entire landscape. .

Scientists of the Institute of Geography of the Academy of Sciences of the former USSR divided the impact of reservoirs on the natural environment into three zones - hydrological, hydrogeological and climatic. The impact of reservoirs on the natural environment will continue until the reservoir disappears. This can be attributed to permanent flooding of land, rise in groundwater level, etc. The temporary effect of reservoirs is in the lower part of hydronodes and continues until the construction of the second reservoir in the river or until the reservoir's operational regime changes [3].

Due to the construction of reservoirs, the water level in rivers and their tributaries will rise. This, in turn, causes the groundwater level to rise. The rise of the ground water level depends on the following factors - how much the river water level rises, the mechanical structure of the ground and the ability of water to float in them, as well as the distance to the reservoir.

The rise of the ground water level is gradual and may last from several months to several years. The rise of groundwater level in turn leads to all kinds of negative changes, that is, it can cause waterlogging and salinization of the soil. In the northern regions with sufficient

moisture, waterlogging occurs, and in the southern regions with insufficient moisture, due to strong condensation, it leads to secondary salinization of soils.

Reservoirs also affect the climate of the place. Small reservoirs affect the coastline up to several hundred meters, while large reservoirs affect up to 10-12 km from the coast. Climatic changes related to water reservoirs are reflected in the temperature regime, the amount of precipitation, the humidity of the air, and the winds.

As a result of the effect of reservoirs on the climate, the amplitude of summer and winter temperatures decreases, and the relative humidity of the air increases. A slightly cooler climate in the area around the reservoirs is observed in the spring and summer months, while the autumn and winter months are milder. Because water bodies absorb a lot of heat compared to dry land and spend it slowly. A large amount of water condensation on its surface causes an increase in the relative humidity of the air.

The relative humidity of the air increases by 15-20% up to a distance of 5-7 km from the shores of large reservoirs. Because of the temperature difference between day and night, winds blow from water to land and vice versa from land to water, and they are called local breezes. These winds blow to a distance of 10-15 km from the coast and affect the temperature regime of the place.

Changes in hydrological conditions, microclimate, and soil cover in reservoirs and surrounding areas, in turn, affect the flora and fauna. There are no submerged trees and shrubs and all kinds of grasses, and there are plant and animal species adapted to the watery environment. New species of animals - muskrats and nutrias, waterfowl - ducks, and fisheries development opportunities will be born here.

As can be seen from the above, almost all natural components change to one degree or another. As a result, a new landscape complex is settled, completely adapted to the aquatic environment. Thus, the impact of water reservoirs on the natural environment is complex, and their in-depth study from all angles opens a wide path to efficient and comprehensive use of natural resources, primarily water resources.

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