



Geocological state of geosystems Middle Zarafshan Oasis

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Abstract: This article will cover the geosystems of the middle of the Zarafshan Oasis, which has a unique natural environment and the disclosure of its task of creating factors and stabilization.

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<http://www.sciencepub.net/nature>. 8. doi:[10.7537/marsnsj190421.08](https://doi.org/10.7537/marsnsj190421.08).

Keywords: geosystem, oasis landscape, agrolandshaft, irrigation, agriculture, erosion, salting, degradation, desertification.

Introduction.

The landscapes of the oasis are the main components of the anthropogenic geosystem in Uzbekistan, which will play a leading role in the economy of the republic, especially in the production of agricultural products and occupies 4.2 million hectares of agrolandshaft. The fertility of the landscape oasis is due to the natural geographical conditions of a certain region, and the health of the population living here depends on the ecological state of oasis landscapes.

Oasis are a zone of anthropogenic landscapes that arose in climatic territories. The radical change in the natural components of the desert and semi-desert landscapes, which are a territorial approach, differs from the human resolution control. In oasis landscapes, the interaction of geographic components also occurs differently from the interaction of components in natural landscapes.

Oasis landscapes are an anthropogenic landscaped country that forms a separate genetic anthropogenic landscape, as well as they form a number of specially genetic anthropogenic landscape along with their own formation history [1].

Oasis of landscapes formed during historical periods on the middle of Zarafshang and Samarkand and Kattakurgan agrolandscapes that form their component can serve as key objects for integrated research. Thus, a comprehensive investigation of oasis landscapes, the distribution and cartography of their morphological units plays a special role in modern landscapes, and is also of great importance from a scientific and practical point of view. To date, analyze the above names of the landscape oasis and the history of their formation, study the components of anthropogenic landscapes and classify them, the

creation of medium and large cards, separating the morphological units of oasis landscapes, the development of measures to determine the negative changes occurring in agracaffes and prevent them, developing measures optimization and development of measures on the environmental condition of oasis landscapes is one of the most important issues of the current current issue.

Methods.

The paper uses field, laboratory, compared, cartographic, aerospace, mathematical, statistical analyzes, systematic research methods.

Results. \

Information about the oasis of landscapes of the Zarafshan territory is provided in the scientific papers N. A. Gvozdetsky (1965), L. N. Babushkin, N. A. Kogai (1964), A. A. Abdulkosimov (1998, 2004), L. A. Alibekov (1982), A. S. Saidov (1966, 1972), P. Baratov (1977, 1996), P. N. Gulomov (1985), Yu. Abdurahmonova (2003), O. S. Ruzikulova (2006), A. R. Rakhmatullayev (2018), B. A. Meliev (2018) and others.

The geographical distribution of oasis landscapes formed in the reservoirs of Zarafshan, and the geographical distribution of the Zarafshan river and its flows are inextricably linked. Oasis landscapes built in water bodies were formed in a partial climate with various geological geomorphological and zonal differences. The total area of the existing landscape in the Samarkand region is 2533 km², and in the Katakurgan region is 2174 km². The absolute height of the surface of both oases of the landscape increases from 350 to 500 m in the West and up to 850-900 m in the East.

The current level of the anthropogenic factor in the field of natural and cultural landscapes is also covered on a wide level of influence, which is stronger than the geological process, the exacerbation of the environmental situation leads to environmental impact in some regions. The level of exacerbation and aggression of the ecological balance of urban and agricultural drip irrigation and spring water, but the territory of Zarafshan and the escalation of the ecological balance of agricultural, technogenic, cultural pasture, the irrigation-landscaped complex grows from year to year. The main purpose of our research is the development of geocological problems and events occurring in the Samarkand and Katakurgan landscape oasis.

Pollution sources are factors that pollute the oasis of the landscape and negatively affect their environmental conditions, the use of excessive chemicals in agriculture, household and economic and industrial waste, vehicles, production enterprises of mining industries and others [2].

A. Rakhmatullayev (2018) argues that realistic changes in the ecological balance in the oasis of landscapes are directly related to the long-term and constant interventions of people in oasis geosystems, the contribution of the human effect is great in the working and energy movement of the substance and energy. In particular, it was studied by anthropogenic cargo in the geosystems of the Middle - Zarafshan Oasis, who developed regulatory indicators that correspond to the field unit and the level of pressure, the geosystems of the oasis were identified as the norm of "earthly capacity" for the population and scientific foundations were developed, employment levels Irrigated land with accommodation and other construction facilities was studied as anthropogenic cargo and cards were compiled on different scales pointing to the geocological situation.

Analysis of research and work done indicates that the current geocological situation in the region is mainly developing agriculture and expanding urbanization level from year to year, as well as settlements. As a result of direct and indirect interventions of people to landscapes, the erosion of the soil, soil, increase in water levels, soil salinization, desertification, and so on.

The anthropogenic effects of any geosystem are a potential level of endurance, which exceeds this level, is disturbed in the state of the substance between components and energy in the geosystem, as a result, a change in quality in biotic, and after the abiotic components, which leads to general degradation in the geosystem arises. Their current view in the geosystem has led to a decrease in performance in the soil, an increase in salinity, accelerating erosion processes, deterioration in the surface and underwater quality of the water of the Middle-Zarafshan oasis, as a result, the increase in some diseases in other forms is reflected among the population [5].

It is well known that in nature there is an integral contact between events and processes, one of which leads to the change of others. There will always be a corrected link between the environmental situation and the health of the population. Factors affecting the oasis of landscapes, such as the population density, the degree of soil salinization, soil pollution with various chemical pesticides, water pollution and the total population disease, there is a correlation between the number of death and child mortality to one year. A. Rakhmatullayev, who has done his research in this regard, [4] revealed the degree of salinity of the soil with a disease of the population, the correlation relationship between child mortality to one year. (table 1).

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Table 1. Correlations between salinity in the soils of the oasis with disease and mortality
(According to A. Rakhmatullaev, 2018).

Factors	Effects	Correlation coefficient, r	Recession coefficient, b_{yx}	Criterion of essence $t=r/s_r$	Linear regression equation $y = y + b_{yx}(x - \bar{x})$	Correlation
Salt of Soils	Total incidence	0,41	1,3	1.49	$Y=368,52+1,3x$	The average
	Number of deaths	0,66	0.07	2,89	$Y=18,53+0,07x$	The average
	The death of babies under the age of one year	0,56	0,05	2,24	$Y=17,43+0,05x$	The average

The degree of salinity of oasis soil does not affect the human body directly, but it affects the human body by drinking water and agricultural products. For example, the use of poor and salty water used for consumption, inhale air in which there are salted particles have a negative impact on the human body. As a result, people decrease immunity causing various diseases, especially anemia.

For the development of agricultural development during the former Soviet Union to expand the region of irrigated land, the largest area of the mountain plans in the Middle-Zarafshan territory was assigned. Water and cotton and other cultures were also placed in the environment of oases. Because of the new, recently mastered land, the total volume of cotton has increased throughout the republic, hundreds of new farms were created, many people were provided with work. The negative aspects of this basic positive work began to be revealed. The assimilation of the mountain plains led to an increase in the level of groundwater, deterioration of water quality, the magnitude of the soil salinization. This is especially clearly demonstrated in the Pakhtachi and Narpai regions of the Katakurgan landscape of the Middle Zarafshan, in the territory of Navoi.

Along with the development of agriculture, water and wind erosion also increases in the geosystem of the oasis. According to R. K. Kuziev, the erosion process struck 70-80% of the sowing of the Fergana and Zarafshan Oasis. As a result of erosion from each hectare of Earth, 0.5 - 0.8 tons of gumus 100-120 kilograms of nitrogen and 75-100 kilograms of phosphorus are washed away. [6].

The amount of washed substances from the soils of irrigated lands with cultural plants is greater than substances laid on the ground. For this reason, in all irrigated soils, humus decreased by 40-80% in the next 70-80 years. Reducing the number of humus leads to the poverty of the soil, to the instability of wind erosion and water [3].

Conclusions. We have developed suggestions and recommendations based on a detailed analysis of landscapes providing natural geographic processes, and optimizing the environmental situation based on the landscape of Zarafshan, due to anthropogenic effects. In particular, one of the most optimal ways to reduce the salinity of groundwater, preventing the salinity of soils in the oasis of landscapes, is the correct placement of harvesting for sowing in the Oasis. In addition, we believe that the alternation of crops in the field of oases, the full practice of agrotechnical rules, reducing the use of pesticides, increasing the contribution of organic fertilizers instead of mineral fertilizers, the development and application of measures against water erosion and wind in the landscape, technology reuse of contaminated wastewater, and also, the purification of highly saline waters canvas, carrying out geochemical studies in landscapes, conducting medical and geographical research and other issues to determine the health of the population associated with the environmental situation.

Specialists engaged in land cadastr are scientists of soil science, which are based on the performance and number of humus of soil when evaluating the Earth. Although it is directly related to the indicator of the assessment (points) of the quality of land in each region and its environmental condition.

This means that the land price depends not only on the soil layer in 1.0-1.5 meters thick, but also a layer of soil underground, from a lithological and mechanical composition, from high-quality groundwater indicators associated with this, from environmental situations in Neighboring landscapes and others. In addition, economic and geographical indicators of the region should be taken into account (population density, location of settlements, use of earthy resources, land quality, and so on).

In conclusion, it should be noted that all the geosystems of the Middle Zarafshan Oasis are associated with a chain in the field of valley and besides this, depending on the facilitation of the place in all oases, the Earth below is closely related to the above. When developing reclamation measures against salinization in an oasis, this territorial connection must necessarily be considered. Due to the bundle between the components and regions in oases, new various natural geographic processes are formed, and some substances accumulate is observed, and in some decrease.

The stability of the colorful landscape complexes of Zarafshan territories and maintaining its environmental balance primarily depends on the technology of using nature, urbanization of the region, attracting the mechanism of interdependence between components, using nature with the mind and appropriate in accordance with the use requirements.

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