



## **Analysis of disturbances in the ecological balance and geocological situation in desert landscape complexes of Central Fergana**

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**Abstract:** The article provides information about geo-ecological problems arising in the desert landscapes of Central Fergana, and measures to prevent them. Methodological recommendations for implementing tasks to assess the current geo-ecological situation in desert landscapes are also described.

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**Key words:** desert landscape, geocological situation, ecosystem, landscape, geosystem, landscape complex, natural-anthropogenic, landscape structure, reclamation.

### **Introduction.**

The strength of its anthropogenic influence on the nature of the Fergana Valley, along with the emergence of cultural landscapes, also poses landscape-environmental problems. Unfavorable ecological climate, drought and drought, drought, drought and droughts characteristic of animals, droughts, natural components, droughts, etc. By changing one or two components of nature during human economic activity, it also affects all components, causing its evolutionary state, function and imbalance. Such processes can also be observed in the cultural landscapes and assimilated areas that are formed in the central Fergana deserts. In addition to research, mapping, classification, landscape-ecological or natural – geographical zoning of anthropogenic landscapes in these regions, the problem of optimizing their natural environment is also a process of special attention [2].

### **Main part.**

The Oasis landscapes established in the central Fergana steppes are composed mainly in the plains of the valley adjacent to the desert, in large and small river expanses. And the river arcs are located in different natural and climatic regions of the Fergana Valley.

As a result of the assimilation of land without taking into account the peculiarities of deserts, processes such as soil washing over large areas, various manifestations of erosion phenomena, salinity and salinity are formed as a result of the rise in groundwater levels. This resulted in many degraded landscapes [4]. Consequently, it is necessary to rely on the latest achievements of Science and technology in the use of land and water in the

development and use of deserts and the positive impact of human economic activity [2].

The strength of the anthropogenic influence on the nature of the central Fergana deserts, along with the emergence of cultural landscapes, also poses landscape-environmental problems. These unpleasant environmental problems are inherent in the microclimate of deserts, surface and groundwater, soil, flora and fauna, which means that the interaction of natural components affects all landscapes.

As a result of anthropogenic factors, with the alteration of one or two components of nature, it also affects all components, causing its evolutionary state, function and imbalance. As a result, negative environmental processes can occur in desert landscapes, cutting existing forests leads to increased soil erosion, microclimate changes, reduced freshwater resources, and the disappearance of natural plant and animal species [3].

### **Results and Discussion.**

As a result of non-compliance with the culture of dexterity in the occupied desert areas, the disappearance of the pastures on which the forests and gardens are grazed, the formation of large-scale ploughing areas, causes soil erosion (erosion). Therefore, in order to prevent various manifestations of erosion in the past, various tree and plant plantations have been established in the reclaimed areas of the marshes.

The central Fergana steppe is considered to be one of the landscape types with a wide range in the Valley. According to A.Abdulkosimov (2005) landscape-typological complexes in EOL sandstones 521 kv.km. or

1.6 % of the lowland part of the valley, while the saltwater marshes 1254 kv.km. or 4.4 % of the area occupied [1]. But these landscape types are characterized by a strong anthropogenic repression, the presence of the following number of unpleasant zcological problems in the protection of their nature:

- sizot changing water levels and mineral composition;
- the emergence of secondary salinations and the expansion of the scale of saline lands;

- pollution of water, soil, flora and fauna, as well as agricultural crops, the origin of various diseases in the population due to excessive application of chemical and mineral fertilizers to the norm;

- the fact that natural flora and fauna have almost undergone a transformation and some species are disappearing;
- as a result of inappropriate placement of established industrial enterprises, environmental pollution is observed by their harmful emissions.

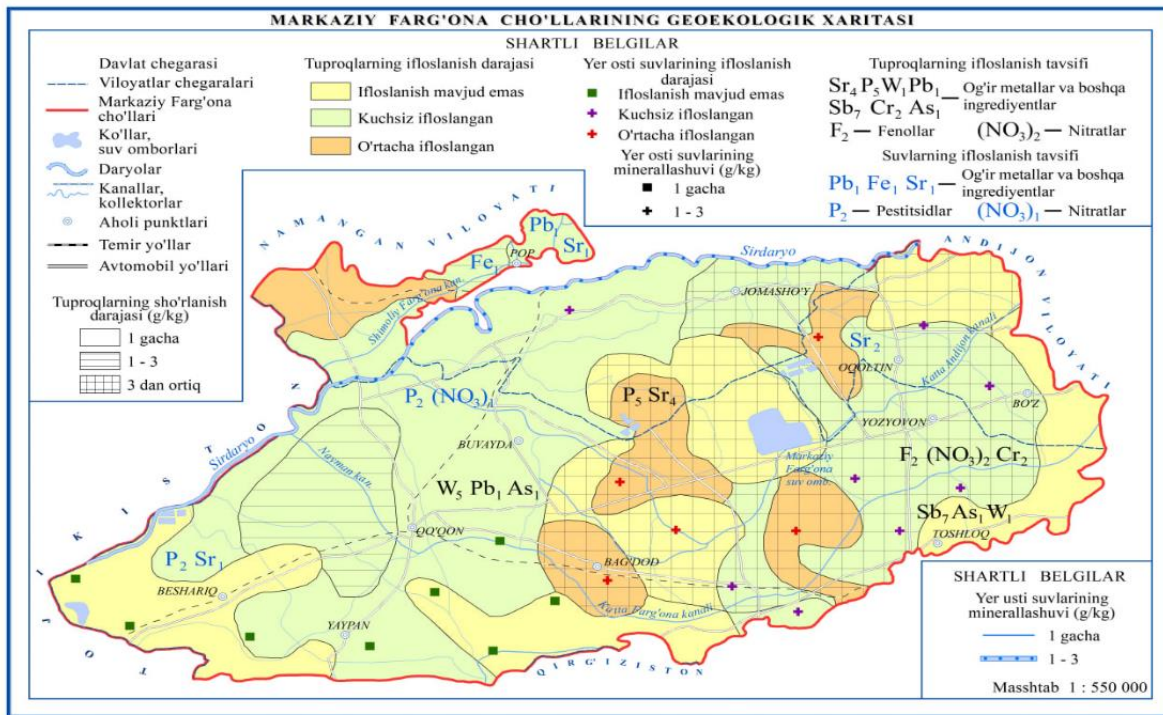


Figure 1. Geocological map of Central Fergana deserts

The following can be included in the sentence of the most important master tasks that are currently carried out in the central Fergana deserts:

- reconstruction of irrigation systems and structures;
- efficient use of appropriated land, placement of agricultural crops in accordance with landscape types, taking into account natural and economic geographical factors;
- recultivation of anthropogenic landscapes created, optimization of geographical complexes unsuitable for use and restoration of their geocological balance;

- creating favorable conditions for the development of desert ecosystems and improving environmental health;

- To establish research in various landscape types of Central Fergana deserts, and to organize special scientific expeditions for this;
- the landscape that has arisen is like strengthening the cooperation of scientists of the Fergana Valley on the elimination of environmental problems.

**Conclusion.**

The concept of Sustainable Development, recognized and implemented in almost all countries of the globe, including our republic, is based on the equality of nature,

economy and social spheres. The rational use of all views of nature, including the natural resources of the central Fergana steppe, their preservation, improvement, protection, finding solutions to existing environmental problems, is the basis of sustainable development. In this regard, the strategic planning of the use of nature and its protection is the most important tool and indispensable link in the formation of sustainable development.

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