

CLASSIFICATION OF DESERT LANDSCAPES AND THEIR GEOECOLOGICAL STATUS

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Abstract: In this article, the characteristics of the natural conditions of the Karshi desert landscapes and the zonal types of their stratification are distinguished. The geoecological issues related to water and wind erosion of the Kara desert and adjacent areas are analyzed.

Key words: desert, plain, alluvial, proluvial, eolian accumulative, wind erosion, water erosion, relief, anthropogenic landscape, limestone, gypsum desert, landscape.

Қарши чўли ландшафтларнинг таснифи ва уларнинг геоэкологик ҳолати

Аннотация: Ушбу мақолада Қарши чўли ландшафтларининг табиий шароитининг ўзига хослиги ва уларни табақаланишининг зонал типлари ажратилган. Қарши чўли ва унга туташ ҳудудлар сув ва шамол эрозияси билан боғлиқ бўлган геоэкологик масалалар таҳлил қилинган.

Калит сўзлар: чўл, текислик, аллювиал, пролювиал, эол аккумулятив, шамол эрозия, сув эрозия, рельеф, антропоген ландшафт, чағир тошли, гипсли чўл, ландшафт.

Kashkadarya basin is located between desert landscapes - 260-500 m hypsometric levels. Alluvial-proluvial plains make up a large part of the plain. The highest points of the desert are in Konhirtog and Saksondara and Oloviddintog hills. The ancient types of relief are made up of hills. (Kongyrtog, Kosontog,

Maimanogtog, Oloviddintog, Doltali, etc.). Among the alluvial-proluvial plains of this desert there are Chorogil, Dengizkol, Shorsoy, Jalovash and other deposits.

The south-western part of the plain of Kashkadarya region is high with the conical spread of Guzordarya, which is divided by the ancient riverbeds of Karasuv, Qiliso, Shuqurbulok, Shurtansoi and other streams. Along the southern edge of the Karshi desert, near the foot of the hills, there is a wide and dry Jalavashsoy alluvium. In the past, Guzordarya flowed along this ridge and Amudarya was placed.

In the western part of the Karshi desert, some areas are occupied by sand dunes and aeolian accumulative relief dominates. In the eolian relief type, the subtypes of relief of sands and ridges can be distinguished.[8]

The northern and southern parts of the Karshi desert are located in the foothills of the Zarafshan and Hisar ridges, and they are divided into undulating, less fragmented and flat parts. The plain part of the Kashkadarya region consists of desert landscapes, and Karshi partially occupies the adjacent areas of Bukhara, Navoi, and Samarkand regions. desert is characterized by unique natural geographical and ecological conditions. [3] The plain part of Kashkadarya region is diverse in terms of landscape structure, developed during historical development, and differs from each other in terms of its formation. The development of plants and the distribution of soil cover occupy a key place in the formation of landscapes.

The cartographic analysis of the distribution of plant-soil cover in the Kashkadarya basin shows that a specific type of plant-soil cover corresponds to each type of wetting. So, the zonation of moisture conditions determines the zonal distribution of vegetation-soil cover, which is the most obvious sign of the stratification of natural landscapes. Wetting types correspond to a separate zonal type of plant soil cover. Based on such specific characteristics of the soil and vegetation, the Kashkadarya basin allows to distinguish zonal types of desert landscapes. [2]

Desert landscapes- In the southern parts of the Nishan district, loess desert landscapes are formed, in which ephemeral and ephemeroid plant communities are widespread, forming light gray and typical gray soils.

Limestone Desert Landscapes- The area belonging to this landscape type is spread around the Tallimarjon reservoir, and mainly on the incompletely developed brownish brown soils and sands, wormwood, cyerovuq, and dye plants are scattered.

Gypsum desert landscapes- The province is spread over the Mirishkor region in the western part of the plain, where it is mostly typical brown Wormwood, cyerovug, and dyeing plants are scattered in the brown soils and sands.

Sandy desert landscapes- The area belonging to this landscape type is also widespread in Mirishkor region of the plain of the region, mainly in the sands, juzung, cherkiz, white saxavul, black saxavul, juzgun, sandy acacia plants are widespread.

Clay desert landscapes- In barren soils and remnants of shorkhok and barrens, cyerovuq hammada ivy and grain plants are distributed in the Mubarak region.

Shorhoksim desert landscapes- In the northern regions of Mubarak and Koson districts, there are typical shorkhoks, and the vegetation communities of yulgun, one-year shora, and sarzazan are scattered.

Anthropogenic landscapes- In Kashkadarya region, mainly irrigated land is divided into semi-arid areas and dry land. [10]

In connection with the natural resource potential of the Kara desert, anthropogenic changes are increasing dramatically. It is of great practical importance to study the natural potential of the Karshi desert and the changes in the geoecological condition of the agricultural lands, especially due to the deterioration of the soil cover due to erosion, and to organize an appropriate evaluation.[9]

We have analyzed the geocological situation caused by wind and water erosion in the Karshi desert. Wind erosion and water erosion in the Karshi desert cause great damage to agricultural production. The degree of wind erosion damage of irrigated lands is related to the mechanical composition of the soil, the amount of humus, moisture, salinity.

One of the main reasons for increased irrigation erosion on irrigated lands in the oasis is the resistance of gray soils to leaching. The distribution and degree of irrigation erosion depends on the slope exposure and forms of the slopes. On the other hand, in many ways, the irrigation technique also has an effect.[6] One of the main reasons for the development of irrigation erosion is the susceptibility of soils to leaching. Water erosion deteriorates soil fertility, causes its structure to deteriorate, and reduces the yield and quality of agricultural products. Irrigation in irrigated lands leads to the formation of ravines without saving water. In order to ensure a favorable land reclamation condition, the following should be implemented;

- to lower the level of seepage waters and ensure that they are at an optimal depth for safe re-salination and to increase productivity;

- creation of conditions for timely implementation of all types of agricultural work.

- reconstruction of the used ditch-drainage networks, regular implementation of cleaning them from muddy and humus deposits and provision of opportunities to improve the flow of mineralized water in them.

It is important to prevent water and wind erosion, to determine the causes of its origin and to implement measures to prevent it in time, to protect the soil cover, and to implement agrotechnical measures in time.[5]

Carrying out agro-irrigation activities increases the productivity of agricultural crops and improves the aesthetic appearance of landscapes.

References:

1. С.И. Абдуллаев Қашқадарё ҳавзаси текислик қисми ландшафтларни табақаланиши//Ўзбекистон география жамияти ахбороти. 23-жилд.-Тошкент,2003.-Б. 50-55
2. А.Маматов. Қарши чўли экосистемаларини географик йўналишда ўрганиш масалалари. // Ўзбекистон география жамияти ахбороти. 23-жилд.-Тошкент, 2003. -Б. 30-34
3. А. Қозоқов., Э. Комилов. Тупроқ эрозияси ва унинг оқибатлари // Табиатдан фойдаланиш ва муҳофаза қилишнинг географик оқибатлари.-Наманган, 2010.-Б. 22-278.
4. Б.Ч.Муртазаев К вопросу изучения физико-географических процессов Юго-Западного Гиссарского хребта на примере Яккабогского лесничества // Экономика и социум. №11 (102), 2022.-518-528 с.
5. М.Г.Назаров. Қашқадарё ҳавзасининг антропоген ландшафтлари ва уларнинг геоэкологик ҳолати // PhD дисс. автореферат. Самарқанд, 2020. 19 б.
6. M.G.Nazarov Facilities of landscapes of Uzbekistan and sustainable development // European science review. Scientific journal. № 2 2018–vienna (Austria)- P. 88-90.
7. М.Г.Назаров Б.Ч. Муртазаев Б. Яхшибоев Антропоген ландшафтларни тадқиқ-этишнинг илмий ва назарий асослари // Экономика и социум.№3(94), 2022. -726-730 с.
8. M.G.Nazarov The variety of anthropogenic landscape and the scientific theoretical basis of their classification// American Journal of Interdisciplinary Research and Development Vol.14. 2023.-P.127–132.
9. И.Х. Жанкобилов., М.Г. Назаров., С.И. Абдуллаев. Қашқадарё вилояти геоэкологик карталарини тузиш (монография).- Қарши: Насаф, 2016.- 104 б.
10. Қашқадарё вилояти Ўлкашунослик атласи .:Т,2016 бт-22