



GEOECOLOGICAL CONDITIONS OF OHANGARON VALLEY.

<https://doi.org/10.5281/zenodo.6497037>

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Abstract: *In this article geoecological conditions of ohangaron valley, its location and maingeographical peculiarities were pointed out. In addation to this, recent data and facts about the region were given.*

Key Words: *urban-type, junction, climate, relief, glaciers, ecotourism, gray soil, atmospheric air, xerophytic spruces, mammals.*

Ohangaron is a [district](#) of [Tashkent Region](#) in [Uzbekistan](#). The capital lies at the city [Ohangaron](#), itself not part of the district. It has an area of 3,180 km² (1,230 sq mi) and it had 97,000 inhabitants in 2021. The district consists of 4 [urban-type settlements](#) (Yon-ariq, Qora Xitoy, Telov, Eyvalek) and 8 rural communities (Uvaq, Birlik, Do'stlik, Qurama, Qora xitoy, Ozodlik, Susam, Telov). The Ugam Range runs from southwest to northeast. It is located between the Piskom and Ugam rivers and stretches for 115 km. This ridge connects with Talas Alatogi near Manas mountain junction. It is also important to analyze the climatic conditions of the area under study in determining the degree of suitability and suitability for ecotourism. An important role in the formation of a very continental, dry climate of the Chirchik-Ohangaron district is played by its geographical location, relief. The expression of the territory from the Low Plains, low, medium and high mountains caused its internal differences. The absolute height in the mountains, the direction, shape of river valleys and mountain ranges, formed for this country a peculiar climate, which differs from the climate of the plains part. These differences are manifested in an increase in altitude, a decrease in air temperature and pressure, a clearness of atmospheric air and an increase in the amount of precipitation.

The constant presence of winter in the mountains allows for a long storage of snow and the occurrence of constant snow and glaciers in very high parts of the mountain. The following indicators that determine the status of the ecotourist and play an important role in the planning of ecotourism routes: attention was paid to the amount of precipitation, the duration of non-cold days, the time of onset of the dry season, the



characteristics of aridity. It is known that the geo-ecological situation of the place is one of the main factors determining the level of development of ecotourism there. Therefore, in our work we found it necessary to consider the geo-ecological situation in the Chirchik-Ahangaron region. The ecological condition of the environment and the disturbance of the ecological balance in the regions largely depend on the state of the atmospheric air and its negative changes under the influence of various industrial wastes. The foothills and lowlands alternate with a region of medium-height brown and brown-colored mountain-forest soils as the gray soil region rises upwards.

The middle slopes of this region consist of brown and brown mountain-forests and brown-colored meadow-steppe and meadow soils of high mountains. The brown soils are located at an altitude of 1200-1300 meters to 2300 meters. These soils are alluvial, and in some places dell vial sandy deposits, and fine-grained soils in terms of mechanical composition. The color of the humus layer is brown, 60-70 cm thick; the amount of humus is 4-6%. Brown-colored mountain forest soils occupy the most moistened slopes of mountain ranges. In the region, these soils are developed in the middle part of the Piskom and Ugom mountains. In areas with brown soils, xerophytic spruces are moderately demanding to moisture, while in brown mountain forest soils, walnut-apple forests belonging to the group of mesophilic plants occupy large areas.

Due to the fact that brown mountain forest soils develop in brown lyossimon sands, their humus layer is 25-30 cm. At the top of the humus layer there is a "forest bed" formed from the branches of forest trees. These soils are richer in humus than mountain brown soils. The amount of humus in the upper layers is 6-8.5%. The area of brown meadow-steppe and meadow soils in the high mountains is located at an altitude of 2300-2800 m. Soilforming parent rocks are composed of low-layer eluvium and deluvium, which have a specific effect on the soil formation process. The humus layer is 25-27 cm. Although the humus layer of these soils is light in color, the amount of organic matter in it is 5-7% and is significantly reduced in the lower layers. High mountain meadow soils develop in moist areas of high mountains, i.e. in front of springs, glaciers and snowfields. The upper layer of meadow soils has a layer of coarse humus grass, which differs from other high mountain soils by its blackish-gray or dark brown color. The amount of humus is 7-10%. Soil types and their distribution characteristics play an important role in ecotourism, as well as their influence on the formation of vegetation. VN Pavlov (1980) divided Western Tianshan plants into arid,



subarid, humid, subnival, petrophilic, hydrophilic types. Chirchik-Ahangaron region is distinguished by the presence of unique objects for fans of botanical species. According to experts, there are 2,200 species of flora in the region from the Turan deserts to the Pamir-Alay highlands, of which 2,150 species are indoor and 6 species are endemic. The Red Book of the Republic of Uzbekistan includes 28 species of plants in this region.

The region of deciduous forests and shrubs is characterized by xerophytes and neophyte forests and shrubs. This region consists of three tiers, and in the first tier of the plant the grasses - wheatgrass, ryegrass, beta, turf, sagebrush, fescue and other grasses are common. In the second tier - thorny almond, hawthorn, barberry-like shrubs and tall grasses grow. In the third tier - birch, elm, willow, poplar, apple, pear, cherry and others. Among deciduous forests, the most common are relict plant-coconuts from the Paleogene-Neogene period. Nuts are especially common in the Ugom and Pskom mountain ranges. In the mountain forests, the living conditions for the animals are much more comfortable, and there is plenty of food for the animals. This region is rich in mammals. However, due to the inconvenience of the mountainous terrain and low temperatures, some animal species, including reptiles, are rare. In the highlands of the pasture you can meet argali, mountain goat, snow leopard and white-clawed bear. These animals are adapted to the harsh winter conditions of the region. Chirchik-Ahangaron district is located in the north-east of Uzbekistan, the north-western edge of which corresponds to the border between Uzbekistan and Kazakhstan and passes through the Kalas Valley, Qorjontag, Ugom ridges.

The border with Kyrgyzstan on the eastern edge passes through the Talas, Piskom and Chatkal ridges. The Qurama Range separates the region from the Fergana Valley in the southeast. In the southwest, the border runs through the Dalvarzin Desert. The region includes the southern foothills of the Karjantag and Ugom ridges, the northwestern foothills of the Piskom and Qurama ridges, the western part of the Chatkal ridge, the Chirchik and Ahangaron valleys. The geological and geomorphological features of the region have been studied by many scientists G.A.Mavlonov, L.N.Babushkin and N.A.Kogay, M.Sh.Shermatov (Sh.S.Zokirov), The scientific researches of G.A. Mavlonov, G.H. Umarova, M.Sh.Shermatov, M.Mamatkulov and others are of great importance. The surface of the Chirchik-Ahangaron region was formed as a result of complex geological and geomorphological processes in different geological periods. Its surface is more complex, consisting of southwestern plain, northeastern and eastern mountains. One of the peculiarities of the Chirchik-Ahangaron basin is



related to the orographic structure of the area, the mountain ranges and the river valleys between them are oriented from north-east to south-west and the absolute heights of the ridges (4500- 4000 to 2000-1500 meters) decrease in this direction (Zokirov, 2008). The mountains in the region are mainly elevated in the Hercynian fold and are composed of Paleozoic, Mesozoic and Cenozoic rocks. In the mountains, granite, Paleozoic limestone, sandstone and shale, on the slopes of mountains and river valleys are widespread layers of Paleogene, Neogene, anthropogenic gravel, sand and clay deposits. The mountain ranges are mainly composed of Paleozoic rocks. The basins and river valleys are filled with MesoCenozoic rocks. The location and thickness of these deposits vary widely in the region due to the nature of the geomorphological structure. The mountain ranges in the region are part of the Western Tianshan system, which is separated from each other by river valleys such as Chatkal, Koxu, Piskom, Ugam, wide ravines, narrow ditches.

To conclude all facts above it should be emphasized that the region has all the resources necessary for the development of ecotourism. The fascinating nature, its diversity is the main factor that attracts Eco tourists. The territory of the region can become an ecotourism center with its togas, oasis and mountain landscapes, mountain streams and springs, lakes, glaciers, caves, reservoirs, canals, underground mineral waters. There is an opportunity to develop all types of ecotourism in the region (scientific, nature history trips, adventure tourism, and trips to nature reserves).

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