

DEGRADATION OF PASTURE RESOURCES AND WAYS TO PREVENT IT

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Abstract: This thesis scientifically analyses the processes of degradation of pasture resources, their main causes and factors. It covers natural and anthropogenic factors that lead to degradation, including overgrazing, improper land management, climate change, and land reclamation. It also outlines the necessary directions for restoring pasture resources and their long-term sustainable use.

Keywords: Land degradation, land reclamation, desert, pasture, vegetation, anthropogenic factors, livestock, climate change.

In the Navoi region, a total of 1.1 million hectares of pasture land, of which 443 thousand hectares are in the Uchkuduk district, 374 thousand in the Tomdi district, 150 thousand in the Konimeh district, 50 thousand in Nurota district, 15 thousand in Kyzyltepa district, 13 thousand in Navbahor district, 9 thousand in Khatirchi district, and 6 thousand hectares in Karmana district, were registered in districts and contours.

A system for alternating grazing of livestock in pastures has been created, and grazing of livestock on degraded areas in the region is prohibited and is not allocated for secondary lease use to livestock breeding entities. It is important to draw up and adhere to fixed-term grazing schedules for pasture types.

Existing vertical wells in degraded areas were registered, and 377 wells were identified. Of these, 215 wells were reconstructed.

To restore the pasture condition, seed production of steppe-pasture fodder plants has been organised on an area of 2.0 thousand hectares in Konimekh district, 1.5 thousand hectares in Kyzyltepa district, and 3.5 thousand hectares in the region. It is planned to sow, Circassian and other steppe-pasture fodder crops on an area of 120.0 hectares in Nurota district, 100.0 hectares in Navbahor, Khatirchi and Karmana districts, a total of 300.0 hectares, and a total of 420.0 hectares in the region, and the reclamation of pasture lands is aimed at restoring their natural fertility and creating opportunities for long-term use.

Since the main part of the region consists of steppe, the territory is not rich in plant species. However, the vegetation period of plants here lasts a long time. It is observed from early spring to late autumn. The main factor in the growth of pasture plants and the long growing season in the region is the air temperature and sufficient humidity [1]. However, the sharp increase in air temperature in the summer season causes the plants to wither. This leads to a shortage of feed for grazing livestock. Herders are forced to migrate seasonally.

Plants growing in the steppe are white and Circassian, kandim, singer, chogon, sand acacia, borjok biyurgun, boylich, wormwood, khayrevuk, yulgun, iloq, quyonsuyak, ajryk, shura and other plants, which are the main source of food for sheep, goats and cattle that graze on them.

The productivity of wormwood pastures is on average 1.3 - 2.7 s / ha. They are widely used throughout the year, especially in autumn and winter for grazing karakul sheep [2]. Wormwood is the main food for karakul sheep. This leads to an increase in demand for karakul farming in the region.

Currently, the total pasture area in Navoi region is 7 million 145 thousand hectares, of which 962 thousand hectares are allocated for reserves and construction. 3 million 131 thousand hectares of pastures are allocated to Karakul clusters. 3 million 183 thousand hectares of pastures are currently unused, that is, they are kept in reserve. 91.5 per cent of the total area of the region is pastures and hayfields, 1 per cent is arable land, 0.4 per cent is perennial trees, and 7.1 per cent is non-agricultural land [3]. However, in recent years, pastures have been degraded as a result of continuous use of pastures.

The primary cause of pasture degradation is land desertification due to natural, climatic, and human activities. This leads to decreased pasture productivity, deterioration of feed quality, destruction of plant cover, and loss of biological diversity [4]. Study results show that both the productivity of pasture plants and the number of their species are sharply declining. This, in turn, reduces the number of livestock on pastures and their productivity. According to I.I. Granitov's studies (1967), the pasture coverage per sheep in the Kyzylkum steppe is 3 - 8 hectares [5]. However, today, the increase in livestock, particularly sheep and goats grazing on pastures, is a major factor in pasture degradation. The district with the largest pasture areas in the region is Nurota, which has 23,599 hectares of pasture and 416,597 hectares of pasture land.

The following land reclamation measures are being implemented in the Navoi region:

- Artificial fertilisation of pasture plants, restoration of resistant plant species adapted to the specific climate [].
- Application of technologies against wind erosion by loosening the soil and breaking down dense layers.
- Effective land use, ensuring soil regeneration through periodic rotation of pastures.
- Creation of additional water sources, digging wells, and construction of structures for collecting rainwater.
- Creation of systems for controlling the flow of rainwater against water erosion.
- Planting desert-resistant plants (Circassian, etc.) to prevent sand drift and improve the microclimate [].

In conclusion, land degradation in the Kyzylkum pastures is a serious problem that disrupts the ecological balance of the region. Although the land reclamation measures carried out in the Navoi region are yielding positive results, this process needs to be expanded systematically, based on modern technologies and scientifically based approaches. Land reclamation is not just a technical measure, but an integral part of sustainable pasture management. Therefore, combating degradation should be a priority in state policy and local governance.

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