

# Measures to Prevent Degradation of Pastoral Lands

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**ABSTRACT:** Rural pastures are the most common type of agricultural land 21-22 million hectares. Depending on the source and classification used, it will cost 15-18 million. The area is covered by desert pastures with an estimated 3-5 million hectares foothill of pastures and 1m. The area is mountainous and alpine. Livestock is closely associated with the production of feed and is distributed in settlements and in areas with irrigated land or artesian wells. The overall pasture degradation rate indicates the depth of the erosion and desertification problems.

**KEY WORDS:** Pasture degradation, erosion, desertification, desert pastures, drought pasture productivity, and possibly natural pastures.

## I. INTRODUCTION

Uzbekistan has 20.8 million hectares of pasture (about half of the country's total area), of which 17.4 million hectares are desert areas. Over the past 15-20 years, nutrient loss due to overgrazing, erosion, overgrazing and other anthropogenic impacts on pastures in the livestock sector has been undermined. Out of 20.8 million pastures, 16.4 million hectares (78%) have been degraded, of which 9.3 million hectares of forage are 20-30%; 30-40% of 5 million square kilometers of pastures have been degraded. 2.1 million, or more than 40%, of which 9.3 million hectares of fodder are 20-30%; 30-40% of 5 million square meters of fodder were deteriorated. Degradation of pastures is mainly observed in Jizzakh, Samarkand, Navoi, Bukhara regions and the Republic of Karakalpakstan. More than 70% of the territory, including one third of it, is in severe depression. Excessive use of mountain pastures, in turn, leads to vegetation degradation, resulting in increased rainfall and increased mudflows. Therefore, flood formation processes in Uzbekistan are well developed.

## II. ANALYSIS

Desert and semi-desert natural pastures constitute 32 million hectares in Uzbekistan. Of these, the area of pastures of Karakul sheep is 17.5 million hectares, and currently 8.2 hectares of pastures are owned by a company owned by Uzbekkorakuli. However, at present, more than 17.0 million hectares of Karakul sheep pastures are used. The pastures are the main source of food for desert animals in our country and are available all year round. Forage for pastures is the cheapest source of fodder. However, the current status of Karakul sheep pastures does not meet the requirements of sustainable development. Because the pastures have low productivity and do not exceed 1.5-3.0 c/ha in dry matter. In addition, the productivity of desert pastures directly depends on weather conditions, so it changes dramatically during the years and seasons. For many years, the amount of precipitation per hectare of arid pastures is more than twice as high as the annual average, and in arid areas it drops to 1-0.5 cps. Long-term observations show that every ten years three years of high yield, four years of low yield and three years of low yield are repeated.



Picture 1. View of the measure works.



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Pasture productivity and nutrient quality vary not only over the years but also throughout the season. For example, pasture feed in winter decreases by 2.5 times. The amount of protein in the diet decreases from 20% to 5%, and the protein content decreases from 13% to 4%. 100 kg of pasture feed contain 80-90 fodder units in spring, but do not exceed 18.3% in winter. (Picture 1)

## III.METHODOLOGY

The low fertility of the steppe and its rapid changes are due to natural and historical factors that have emerged in the region. In recent years, the negative impact of pasture management can also be attributed to poor human activity in the desert. Rapid population growth in the steppe region and the expansion of villages have led to an increase in livestock numbers and increased pressure on rural pastures. The fact that bushes and hemispheres are constantly eaten by animals limits their natural reproduction. Removal of these plants for their own economic needs also leads to the complete extinction of shrubs and hemispherical species from nearby areas. Currently, each rural pasture is heavily affected within a 5-7 km radius.

It is estimated that about 40% of Karakalpak pastures in Uzbekistan are currently experiencing various crises. The area of heavily crumbled pastures around wells is 0.5 million hectares and the area of mobile sand is 2.0 million hectares. Because of the pasture crisis, productivity has decreased by an average of 2.5 c/ha to 1.8 c/ha, or 21%. Increased pressure on pastures can also be caused by water sources. The use of herds on pastures around water source 1 from early spring to late autumn undermines their system of rational seasonal use.

The overall rate of rangeland degradation shows the depth of erosion and desertification. Due to overgrazing and climate change, about 16.4 million hectares (73%) of rangelands are on the verge of degradation. The most affected areas are the Republic of Karakalpakstan, Navoiy and Bukhara regions. According to the Samarkand Institute for Karakalpak and Environmental Studies of Deserts, 40% of deserts suffer from degradation, especially in the Kizilqum desert (44%). Desert pasture management is a viable alternative to pasture protection and rehabilitation.

## IV.CONCLUSION

Due to frequent droughts in recent years, there is a need for massive migration of livestock to remote areas of the steppe, resulting in significant costs for these activities and a sharp decline in industrial efficiency. Decrease in pasture productivity, deterioration of forage quality due to disturbance of vegetation cover due to constant use, deterioration of biodiversity. Studies show that the number of species in rangeland vegetation has decreased dramatically: for example, more than 35 flowering plants were registered in the natural flora of Karnabchul 35-40 years ago. Currently, the number of plant species in one region does not exceed 35-40, which means that biodiversity has decreased by more than 6 times. The vegetation intensity in highly degraded pasture areas does not exceed 5-6 species. More than half of them are nutrients such as malnutrition, almost unhealthy fever, fungi, crustaceans and sequins.

Poor pasture conditions require immediate implementation of measures for their sustainable use, conservation and enrichment of biodiversity, as well as phyto melioration of degraded pastures.

## V.SUGGESTIONS

To increase productivity and improve pastureland, the following tasks need to be carried out:

1. Renovated areas should provide farm animals with highly nutritious food, including greenery, for the required season;
- 2) Provide nutritious food in winter as well;
3. Renovated areas should provide a guaranteed source of feed if necessary;
4. This should eliminate radical changes in pasture productivity over years and seasons.
5. Range vegetation composition should be enriched with new species and sequences.

## REFERENCES

1. Land Code of the Republic of Uzbekistan 2019
2. Law of the Republic of Uzbekistan "On pastures" of 20 May 2019.
3. National report on the state of land resources of the Republic of Uzbekistan. 01.01.2019 y.
4. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated 23 April 2018 № 299.



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5. N.N.Andreev-Lugovoe and Field Feeding Production. M. Kolos 1984.
6. X.Atabaeva, Z.Umarova et al. - Feed (practical classes) T. Mekhnat, 1997.
7. V.Tyuldukov - Workshop on Meadow Production - M.Kolos 1986.
8. D.Abdukarimov et al. - Basics of Agriculture and Feed Production T. Mekhnat 1987.
9. H.Atabayeva - Field sowing of T.TashGAU - 1998
10. A Practical Guide to the Pastures of the Karakul Range and their Effective Use - Samarkand, 2001.
11. Recommendations for rational use and increase of fertility on semi desert (Adir) pastures. International Centre for Agricultural Research in the Dry Areas (ICARDA), Karakul and Desert Ecology Research Institute. Tashkent, 2016.
12. F.SH. Khudoyberdiev. Development of methods for pasture improvement, creation of new pastures and effective use of pastures. Bulletin of the Khorezm Academy of Sciences 2019 - Nos. 2-15 p.
13. E.Karimov, F.Khudoyberdiev. Measures to increase productivity of natural rangeland plants at efficient use of land resources. Land of Uzbekistan. 2019-№1-43c.