



ANALYSIS OF RANGELANDS IN THE REPUBLIC OF UZBEKISTAN BY CLASSIFICATION

Yakubov Azamat

PhD student of the department of "Geomatics Engineering"

Abdurakhimov Sadriddin Sunatjan ugli

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In the context of globalization of the world economy and population growth, it is necessary to transition to sustainable environmental management and rational use of natural resources.

ABSTRACT

"25% of the Earth's land surface is degraded." Therefore, remote sensing is an important tool for preventing degradation processes in arid regions, restoring the productivity of pastures, and effectively using them. In various regions of the world, scientific and practical research is being conducted in priority areas aimed at identifying changes in pastures through remote sensing. In this regard, special attention is also paid to scientific and research work aimed at monitoring pastures..

Pasture lands included in the category of agricultural lands are mainly used for cattle breeding. In most countries of the world, this sector of agriculture is considered an important sector, and pastures, as a natural food source, have a significant impact on the socio-economic development of regions. Monitoring the state of pastures helps us to identify changes early. Therefore, monitoring pastures allows us to identify negative conditions in pastures and manage them.

The condition of the pastures of our republic, the reasons and level of their degradation, improvement of socio-economic and ecological conditions, and creation of stable use of the pastures are urgent.

The main areas of pastures and hayfields are attached to forestry. In these areas, almost no geobotanical research has been carried out over the past 30 years. The lack of pasture monitoring means that the information that clearly analyzes the condition of the pastures and the changes occurring in them is not updated.

Article 8, paragraph 8 of the Law of the Republic of Uzbekistan "On Pastures" specifically stipulates the monitoring of pastures, and the main goal of this is to assess the condition of permanent pastures [2].

According to the land report compiled as of January 1, 2021, the total area of natural pastures and hayfields in our republic is 21.1 million hectares, which is 46.6% of the total land area, of which 18.6 million hectares are irrigated pastures and hayfields.

According to the distribution of pastures and hayfields by the Republic of Karakalpakstan and regions, the smallest pasture area is in the Syrdarya region - 19.9

thousand hectares (0.1%), in Andijan - 21.1 thousand hectares (0.1%), in Fergana - 23.5 thousand hectares (0.1%), the largest pasture areas are in Navoi region - 8893.3 thousand hectares (41.9%), and the next largest area is in the Republic of Karakalpakstan - 5257.3 thousand hectares (24.7%) (Table 1).

Natural pastures and hayfields are characterized by their vegetation. Therefore, when studying them, it is necessary to determine the composition of the vegetation and study its nutritional aspects.

Table 1

Distribution of pastures in the Republic of Karakalpakstan and regions

The names of the regions	Area, thousand hectares	In percentage terms, %
Republic of Karakalpakstan	5257,3	24,7
Andijan region	21,1	0,1
Bukhara region	2558,1	12,0
Jizzakh region	736,5	3,5
Kashkadarya region	1406,8	6,6
Navoi region	8893,3	41,9
Namangan region	150,2	0,7
Samarkand region	796,8	3,8
Surkhandarya region	825,8	3,9
Syrdarya region	19,9	0,1
Tashkent region	445,7	2,1
Fergana region	23,5	0,1
Khorezm region	109,3	0,5
Overall:	21244,3	100

*(Data of the Cadastre Agency under the State Tax Committee, 2021.)

According to the distribution of plants in our country, existing pastures are divided into four regions, taking into account the height above sea level **Desert**– deserts - consisting of plains, as well as mountainous plains, located at a height of 400-500 meters above sea level, annual precipitation does not exceed 300 mm;

Meadow– mountainous area, 1000-1200 m above sea level. located at a height, the amount of precipitation is 300-400 mm per year;

Mountain– mountains, 2500-2700 m above the sea level. is located at a height, the amount of precipitation is 400-500 mm per year;

Pasture – highlands, altitude above sea level is 2500-2700 meters, precipitation amount is more than 500 mm per year.

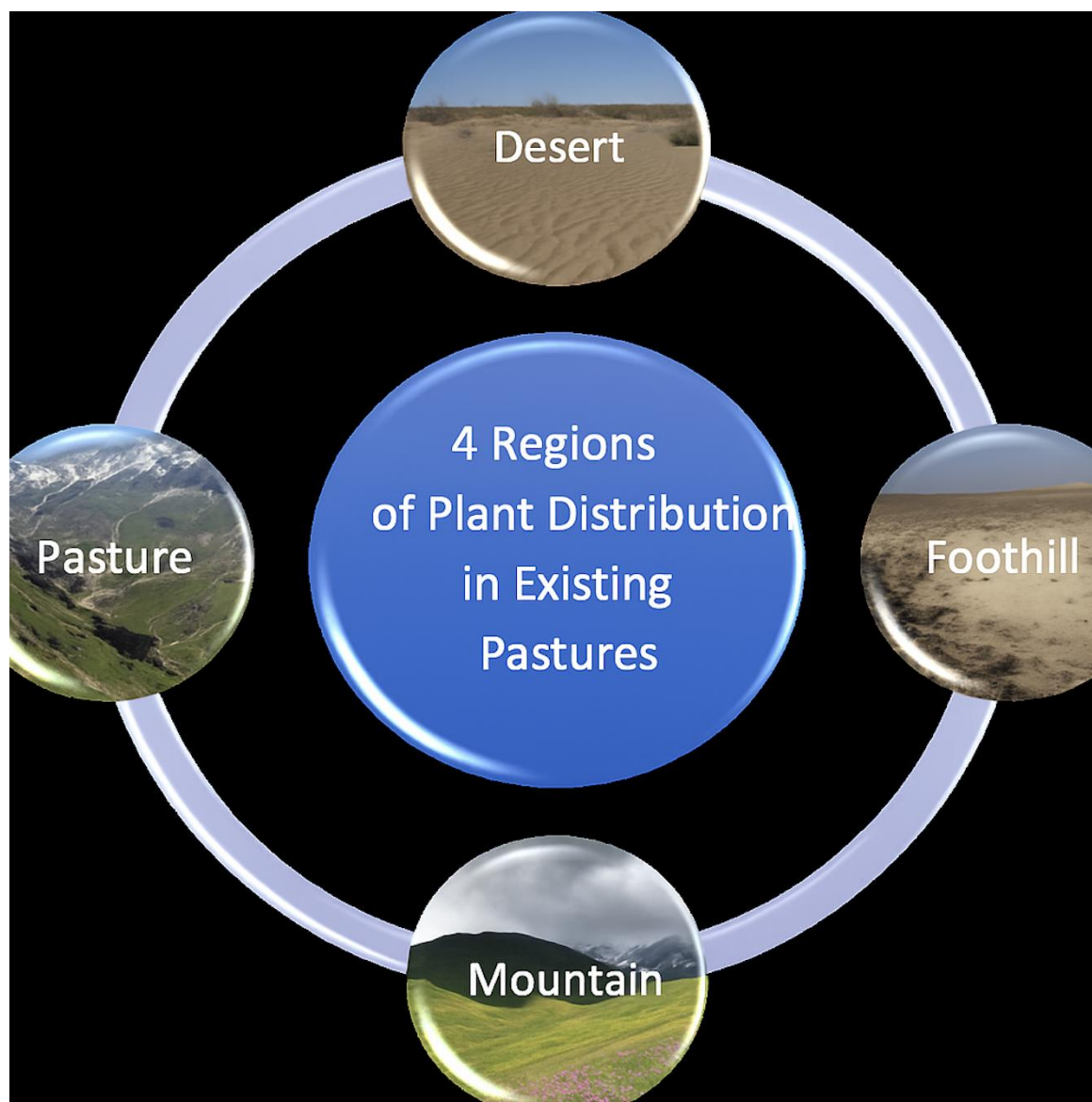


Figure 2. Distribution scheme of plants in our country.

In turn, it is recommended to study each of the above regions into lower and upper levels. In this:

Lower Desert Steppe – 250-330 m above sea level. It is located at a height, the soil is sandy, yellowish brown, salty and barren. Psammophilous, gypsophilic, and halophilous shrubs, dwarf shrubs, perennial herbs, and sometimes annual herbs are scattered in the sparse vegetation cover. Forest plants can also be found in the river beds of the lower desert step as it rises above sea level.

A high desert plateau – It includes lowland plains at altitudes from 250-300 meters to 400-500 meters above sea level and hollow hills in Kyzylkum Desert. The soils belong to the type of light gray and brown soils. The upper desert stage is characterized by a more or less dense vegetation cover of the so-called "ephemeral type" and "loess desert". In weakly saline areas, annual weeds are also found in mixed form.

Lower hill step – It consists of mountain deserts starting from 400-500 m above sea level and reaching 600-800 m above sea level. The soil is typical gray soil. The vegetation

consists of ephemeroids, ephemerals and, of course, large perennial plants: gorse, gorse, carrack, tar, and jusan chala bushes. The plant cover is usually densely packed. Mainly, it occupies the lower areas of dry lands.

Upper hill station – It is located in areas with an altitude of 600-800 meters above sea level and up to 1000-1200 meters. Soils are dark gray soils. The main plants are tall herbaceous plants: wheat, khorduma, yellow sedge, gulkhair, sedge, shashir and various other grasses. The lower layer is made up of ephemeroids. The main part of the area of dry crops also corresponds to this stage.

Lower mountain range – It is located at altitudes from 1000-1200 meters to 1800-2000 meters above sea level. The soils are dark gray soils and brown forest soils. The vegetation cover consists of shrubs - alder, maple; trees - walnut, apple, plane, zerafshan juniper and saur juniper; perennial grasses in the lower tier - wheatgrass and various grasses. In areas where plowing is possible, but not very large, due to the relief conditions, fallow crops are planted.

High ridge – It is located at altitudes from 1800-2000 meters to 2500-2700 meters. Soils are brown soils. The basis of the plant cover is made of trees - Turkestan and saur firs; from the bushes - namatak, zirk, maple; It consists of perennial grasses - sedges and various grasses.

Lower pasture stage – located at altitudes from 2500-2700 meters to 2600-2800 meters above sea level. Soils are light brown soils with brown and gravelly mechanical composition. Vegetation cover mainly consists of various grasses, patchy xerophytes and Turkestan juniper.

Upper pasture stage – 2600-2800 meters above sea level. It consists of gravelly light brown soils. Vegetation: consists of sedge, cabresia, mountain xerophytes, and alpine meadows growing in patchy mountain-meadow soils between stony rocks.

- The relationship between vegetation cover and pasture classification in each region and pasture step is as follows:

- vegetation cover type – a group of pasture types;
- vegetation cover formation – a pasture type;
- vegetation cover association – expressed by pasture species.

In turn, the productivity of pasture types differs from each other. The basic taxonomic unit accepted in pasture science is the term "pasture type", the specific formation of vegetation cover is described as follows.

Pasture type is agricultural land with uniform grazing value, characterized by uniformity of season of use, suitability for certain types of livestock, edifice of vegetation cover, uniformity of climate, relief, soil, moisture and other characteristics.

The purpose of studying vegetation cover is as follows:

- a) collecting information on the quality and quantity of natural fodder areas in the territory of the republic and the state of their use;
- b) to have scientifically based information that will serve to ensure the effective and rational use of pastures and hayfields and to develop projects related to the organization of livestock farms;

c) collection of primary data necessary for the creation and maintenance of the pasture land cadastre.

Therefore, the above circumstances serve as a basis for the monitoring of pasture lands..

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