EUROPEAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND MANAGEMENT STUDIES

VOLUME04 ISSUE05
DOI: https://doi.org/10.55640/eijmrms-04-05-17 Pages: 105-109

ANALYSIS OF THE CURRENT STATE AND USE OF AGRICULTURAL LAND

Nazarov Ibrohim Hasan Ugli
Student Of Direction "Land Cadastre And Land Use" Of TIIAME NRU Bukhara Institute Of Natural Resources Management, Uzbekistan

ABOUT ARTICLE

Key words: Irrigated land, rainfed land, perennial plantations, infertile land, hayfields, pastures, fertile soil, bonus score, desertification, decaying.

Received: 11.05.2024
Accepted: 16.05.2024
Published: 21.05.2024

Abstract: This article is devoted to the development of scientifically based proposals and recommendations on the continuous monitoring of the state of their agricultural land, the prevention and elimination of identified negative conditions, the preservation and increase of soil fertility, conservation and the effective use of land resources.

INTRODUCTION

In recent years, the fertile soil layer has been polluted worldwide as a result of anthropogenic impact, the processes of salinization and desertification have intensified, leading to the destruction of fertile soil layers by water and wind erosion, which is the cause of a number of social and economic problems. The issue of rational use and protection of soils is of great economic and social importance. Because when it comes to people's lives and health, as well as caring for the national wealth of the country, the solution to this issue determines the conditions in which the next generation will live. Thus, the solution of this issue will be possible with constant monitoring of the condition of agricultural lands, prevention of identified negative situations and elimination of consequences, development of scientifically sound proposals and recommendations for the conservation and improvement of soil fertility, their protection and effective use of land resources.

Among the agricultural lands of the republic, a special place is occupied by types of agricultural land, which are divided into arable (irrigated and rainfed) lands, perennial plantations, infertile lands, hayfields and pastures. Currently, the area of agricultural land in our republic is 26232.3 thousand

hectares, of which arable land is 3993.7 thousand hectares (irrigated arable land-3221.2 thousand hectares, rainfed-772.5 thousand hectares), perennial plantations-421.2 thousand hectares, infertile lands-81.5 thousand hectares, natural hayfields and pastures-16709.6 thousand hectares [1].

Object and methods of research: The object of research is irrigated agricultural lands of our republic. The research methodology is based on methods of analyzing data from soil maps of the studied territories, generalizing the results of comparative geographical, soil cartographic, laboratory analytical studies [2].

The reclamation and productivity of soils directly depends on the mechanical composition, and currently 43.6% of agricultural irrigated land consists of soils with medium loamy, 23.9% light loamy, 20.3% heavy loamy, 8.0% sandy loamy, 2.5% Sandy and 1.7% loamy mechanical composition. For soils consisting of loam and loam beds, the mechanical composition of medium loam is better considered. The aggravation and relief of the mechanical composition leads to a decrease in the quality of the soil. 71.0 percent of the Republic's eviction tulips soils are medium loamy, 9.0 percent are heavy loamy and loamy, 19.0 percent are light loamy, and 1.0 percent are loamy and Sandy mechanically composed soils [4].

According to the mechanical composition of the soils of the republic, soils of medium loamy composition prevail, the water-physical properties of such soils are moderate, they are sufficiently moisture-retaining and permeable, salts are easily washed out and processed. As the mechanical composition worsens, a number of unfavorable water-physical properties come to the surface, soils are difficult to wash off from water-soluble salts, exhibit severe resistance to earthmoving tools, and sediment forms on their surface during construction. While light loamy soils retain little moisture, drain quickly, are subject to wind and water erosion, require strict irrigation regime, loamy and sandy loam soils have low fertility and poor water-physical properties, are subject to wind and water erosion.

One of the factors negatively affecting soil productivity and leading to a decrease in their fertility is water erosion. Water erosion is one of the factors that worsen the properties of the soil and reduce its production properties, while with an increase in the degree of inclination, erosion processes intensify, and the rate of erosion increases. The area of eroded soils increases from light gray to mountain brown. Plowing the land further accelerates the erosion process [8].

On the irrigated lands of the republic, the areas subject to varying degrees of irrigation erosion amount to 564.3 thousand hectares, of which 297.4 thousand hectares are low-power, 200 thousand hectares are medium and 66.9 thousand hectares are highly leached soils. Irrigation erosion processes occur

either due to improper irrigation of plots, or due to the intrusion of irrigation on uneven lands. It is observed when watering with a large amount of water, as well as when taking seeders in the direction of large slopes. The most dangerous form of water erosion is the formation of ravines.

In irrigated areas, the low plains in the amudarya and Syrdarya basins in particular do not have the natural flows of groundwater. Due to the dryness of the climate here, the scarcity of atmospheric precipitation and the high evaporation, rapidly soluble salts accumulate in the water in the upper layer of soils. The accumulation of sulfate - chloride salts and the tension of the salinity process have long been observed in the steppe and light-grained Infertile soils region of the Republic of Karakalpakstan, Khorezm, Bukhara, Navoi, Surkhandarya, Kashkadarya, Jizzakh, Syrdarya regions and in the soils of the central Fergana region. Nearly 47.5 percent of irrigated land in the Republic is saline to varying degrees, of which less saline land is 31.22 percent, moderate saline land is 13.63 percent, and strongly saline areas are 2.64 percent.

In more than 70% of our country's irrigated lands, a “hydromorphic” water regime has been formed, the level of grunt Waters has risen above the “critical depth”(1-2 m), the underground flow is almost unsupported or poorly drained, salinity, plastering in the main arable areas, waterlogging processes have accelerated on certain plots, the water-salt balance has changed negatively, huge reserves of salts have accumulated in the upper pens.

Strong dust-salt winds that cause wind erosion, hot wind flows are common on the lower reaches of Tashkent, Syrdarya, Jizzakh, Surkhandarya, Fergana, Amudarya in order to protect crops, sometimes lasting 3-4 days, with speeds reaching 35-45 m/c at certain times.

Another of the factors limiting the fertility of irrigated soils is the decrease in the amounts of humus and nutrients they contain. The amount of humus in the soils of different regions of the Republic is different, it depends on a number of factors such as the origin of these soils, soil-climatic conditions, the use of land that is not in use in agricultural or irrigated agriculture, its duration and the agrotechnological methods used, agricultural culture. The amount of humus of the main soils of our republic and reserves in certain layers can decrease, increase or remain unchanged, depending on the extent to which farms use the land. This will depend on a number of factors, such as the organization of the farming system in each individual farm, the application of organic and mineral fertilizers, the placement of crops and the observance of crop rotation.

The regions of our republic have soil-climatic conditions that differ sharply from each other. For this reason, each of the soils developed on agricultural land is characterized by its own characteristics and

characteristics. The degree of fertility of these soils will depend on their mechanical composition, salinity, depth of location of sizot waters and their characteristics caused by a number of natural and human influences, such as mineralization, erosion of water, wind and irrigation, rockiness, possession of gypsum layers.

CONCLUSION

In order to organize the rational and effective use of the Land Fund, maintain, restore and increase soil fertility, the following agromeliorative, agrotechnical and agrochemical measures should be carried out first of all:

- In agricultural production, the focus is to radically improve the reclamation of intensively used irrigated land, especially to prevent soil salinity;
- Proper and extensive use of local fertilizers, increasing the efficiency of mineral fertilizers;
- Effective use of irrigated arable land, it is necessary to ensure that the level of productivity (bonus scores) of irrigated land is determined every five years and of rainfed land every ten years.

REFERENCES

1. O'zbekiston Respublikasi Yer resurslarining holati to'g'risida milliy hisobot. "O'zbekiston Respublikasi Iqtisodiyot va moliya vazirligi huzuridagi kadastr agentligining davlat kadastrlari palatasi" Toshkent-2023 y. 10-b.
2. "Davlat yer kadastrini yuritish uchun tuproq tadqiqotlarini bajarish va tuproq kartalarini tuzish bo'yicha yo'riqnoma" Yerdan foydalanish, yer tuzish va yer kadastri bo'yicha me'yoriy hujjatlar. Toshkent, 2013 y. 48 b.
3. R.Q.Qo'ziyev, N.Yu.Abduraxmonov Sug'oriladigan tuproqlarning evolyusiyasi va unumdorligi. Toshkent, "Navro'z" nashryoti, 2015 y. 212 b.
4. Shamshodovich, K. F., Utkirovich, B. S., & Mukhtarovich, M. K. (2021). Innovative approach to pasture management and productivity improvement. Academicia Globe, 2(05), 491-494.
5. Худойбердиев, Ф. Ш. (2020). Зарубежный опыт в области пастбищных территорий, возможности и условия их использования в Узбекистане. Землеустройство, кадастр и мониторинг земель, (10), 24-27.
6. Shamshodovich, K. F., Akhtamov, S., Muhammadov, K., & Bobojonov, S. (2021). The importance of the cluster system today. International Engineering Journal For Research & Development, 6, 3-3.

7. Худойбердиев, Ф. Ш. (2019). Научная статья «Улучшение пастбищ, создание новых пастбищ и разработка эффективных методов использования пастбищ». Вестник Хорезмской Академии Мамуна, 17-20.

8. Shamshodovich, X. F. (2022). Tuproq unumdorligini saqlash, oshirish va uni muhofaza qilishning dolzarb muammolari. " xalq tabobati va zamonaviy tibbiyot, yangi yondashuvlar va dolzarb tadqiqotlar", 32-34.