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STRUCTURAL CHARACTERISTICS OF THE LAND FUND IN THE VILLAGES OF QIZILHAJILI (QAZAKH DISTRICT) AND ARABSHAHVERDI AND MALLISHIKHLI (GOYCHAY DISTRICT)

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Abstract: *This article examines the ministructurales of **Qızılhacılı Village (Gazakh District) and Arabshahverdi and Mallishikhli Villages (Goychay District)** the land fund of the municipality of Qızılhacılı Village in the Gazakh District, the distribution of land by categories, and the current state of land use. The main objective of the study is to assess the efficiency of land resource management within the municipality, evaluate the current use of agricultural lands, and identify directions for the sustainable use of the land fund in accordance with the principles of sustainable development. Rational land management plays a significant role in increasing agricultural productivity, preventing land degradation, and maintaining ecological balance. The study also proposes recommendations for strengthening land monitoring, implementing digital land cadastre systems, expanding land protection measures, and improving land management practices at the municipal level.*

Keywords: *land fund, land management, municipal lands, land cadastre, land protection, sustainable development*

INTRODUCTION

Land is one of the main natural resources that plays an important role in the socio-economic development of society. It is considered not only as the main means of agricultural production, but also as a necessary resource for the location of settlements,

industrial facilities, transport infrastructure and other economic sectors. The limited nature of land resources and the long period of their restoration have made the protection and efficient management of this wealth one of the priorities of state policy. In modern times, the purposeful use of the land fund, the preservation of its fertility and the maintenance of ecological balance are considered the main conditions for the sustainable development of agriculture.[1]

The agrarian and land reforms implemented in the Republic of Azerbaijan after gaining independence have led to fundamental changes in land relations. As a result of the transfer of a certain part of state-owned lands to private ownership and management by municipalities, new legal and economic mechanisms have been formed in the field of land use and management. The adopted legislative acts created conditions for the protection of land resources, their proper use, the development of the land market and the expansion of the powers of local self-government bodies in this area.[1.2.]

Municipalities, being an important part of the local self-government system, are responsible for the management, use, protection and accounting of land plots under their control. In this regard, the study of the structure of municipal lands, the analysis of land categories, the assessment of use directions and the identification of existing problems are of urgent importance both from a scientific and practical point of view. Efficient management of land resources has a positive impact on increasing the employment of the rural population, increasing agricultural productivity and the socio-economic development of regions. [3.4.]

Located in the western region of Azerbaijan, Gazakh district is one of the districts distinguished by its favorable natural and climatic conditions, fertile soils and agricultural traditions. Agriculture and animal husbandry are the main areas of employment for the population in the villages of the district. In this regard, proper management of land resources and their proper use are of particular importance. "Similarly, the Arabshahverdi and Mallishikhli villages of Goychay District represent important agricultural settlements where efficient land resource management is essential for sustainable rural development. Their land funds include agricultural, settlement, pasture and reserve lands with characteristics comparable to those of Qizilhajili."[4.]

The land funds of the Qizilhajili (Gazakh District), Arabshahverdi and Mallishikhli (Goychay District) village municipalities" These lands include agricultural areas, settlement lands, grazing and pasture grounds, reserve lands, as well as lands designated for other purposes. The proper management and purposeful use of each category are of great importance for agricultural development, environmental protection, and the preservation of land resources for future generations. [1.2.]

In recent years, climate change, anthropogenic impacts, population growth, and the introduction of intensive production methods in agriculture have taken a special place among the factors affecting the use of land resources. These processes have a negative impact on the quality of the soil cover, leading to the expansion of erosion, salinization,

desertification, reduced fertility, and other degradation processes. Water erosion, especially in areas with foothills and sloping terrain, is one of the main factors reducing soil productivity. Therefore, the protection of the land fund and the prevention of degradation processes are considered important directions of modern land management.

The study of the structure of the land fund is not limited to determining the area indicators of land categories. This process also includes a comprehensive assessment of the quality indicators, directions of use, legal status and economic efficiency of land resources. Modern geographic information systems (GIS), electronic cadastral data, satellite images and digital maps are widely used in land resource management and act as an important source of information in decision-making.

The study of the land fund of the Gizilhajili village municipality is important in terms of assessing the efficient use of existing land resources, identifying changes in the soil structure and substantiating future development prospects. As a result of the conducted analyses, the current state of land plots, their use characteristics, resource potential and measures that can be taken to protect them can be determined. This serves both the improvement of municipal management and the sustainable development of agriculture.[2.]

The main objective of the study is to study the structure of the land fund of the Qizilhajili village municipality of the Gazakh region, analyze the current state of land categories, assess the level of use of land resources and prepare scientifically substantiated proposals for their more efficient management. To achieve this goal, the main tasks were to study the composition of the land fund, conduct a comparative analysis of land categories, evaluate the directions of use, identify existing problems and develop solutions to them.

The results obtained can create a theoretical basis for future scientific research in the field of improving municipal land management, determining directions for efficient use of land resources, and land protection. From a practical point of view, the results of the study can be used by local self-government bodies, land specialists, and organizations operating in the field of agriculture in land management planning and decision-making. Thus, a comprehensive study of the structure and use of the land fund of the Gizilhajili village municipality of the Gazakh region has important scientific and practical significance in terms of protecting land resources, increasing agricultural productivity, maintaining ecological balance, and ensuring sustainable socio-economic development of the region.

Discussion: The conducted research shows that the majority of the land funds of the Qizilhajili, Arabshahverdi and Mallishikhli municipalities consists of agricultural land is not only a means of production, but also an important element of the environment. In this regard, studying the current state of the land fund, analyzing its structure and assessing the directions of use is of great importance for increasing the efficiency of agriculture.

The conducted research shows that the majority of the municipality's land fund consists of agricultural lands. The main part of these lands is made up of arable lands, pastures and pastures. Various cereals, fodder crops and other agricultural products are cultivated in arable lands. Pastures and pastures play the role of a natural feed base for the development

of livestock. Such a structure of the land fund indicates that the main areas of employment of the rural population are agriculture and livestock. In addition, the lands of settlements, road networks, water bodies and other designated areas also constitute a certain part of the land fund and serve the development of the general infrastructure of the village.[3.4.]

Efficient management of land resources plays a decisive role in the development of agriculture. The use of land for its intended purpose allows for increased productivity, reduced production costs and improved quality of agricultural products. On the contrary, unplanned and uncontrolled use of land leads to a decrease in its fertility, reduced productivity and economic losses in the long term. Therefore, land management is of great importance not only for the current period, but also in the interests of future generations.[1.3.]

During the study, a number of factors were identified that negatively affect the use of land resources. One of these problems is the spread of erosion processes. Especially in sloping areas, as a result of the influence of rainwater, the fertile upper layer of the soil is washed away and productivity decreases. In some cases, weakening of vegetation cover or improper cultivation of the soil accelerates erosion processes even more. The loss of the fertile soil layer not only reduces productivity, but also worsens the physical properties of the soil.[1.3.]

Another important problem is soil salinization. As a result of insufficient functioning of irrigation systems, lack of drainage networks and rising groundwater levels, the amount of salts in the soil increases. Salinization weakens the normal development of plants, reduces crop yields and in some cases makes the soil unsuitable for agriculture. To eliminate this problem, it is considered important to introduce modern irrigation methods, reduce water losses and improve drainage systems.

Other factors affecting the land resource are of an anthropogenic nature. The excessive application of mineral fertilizers and pesticides can disrupt the soil's biological balance. At the same time, the overgrazing of pasturelands leads to the thinning of vegetation cover, soil compaction, and accelerated erosion. Failure to adhere to crop rotation practices also results in a gradual decline in soil fertility. For this reason, compliance with agrotechnical guidelines during land use is of particular importance.

Regular monitoring is essential to maintain soil fertility. Soil monitoring determines the mechanical composition of the soil, humus reserves, the amount of nutrients, the level of humidity and other indicators. Based on this information, the condition of the soil is assessed and measures are developed to improve it. Regular updating of monitoring results allows you to track the dynamics of changes in the land fund and make timely decisions.[2.]

The development of modern information technologies has created new opportunities in land management. The digital land cadastre allows for accurate registration of land plots, determination of boundaries and storage of land resources in a single database. These systems, in addition to ensuring transparent management of land ownership, also facilitate control over land use.[2.]

Geographic Information Systems (GIS) provide broad opportunities for mapping and spatial analysis of land resources. Using GIS technologies, soil types, relief, hydrography, cropland and other indicators can be combined into a single electronic map. This makes land resource planning and management more efficient. At the same time, it is possible to identify changes in soils in a short time using satellite images and remote sensing technologies. These methods are more operational and economically viable compared to traditional monitoring methods.[2.]

Strengthening the role of municipalities in land management is also an important issue. Providing local government bodies with modern technologies, increasing the professional training of employees, and regularly updating land databases contribute to more efficient management of land resources. In addition, educating land users, raising environmental awareness, and implementing sustainable agriculture principles make a significant contribution to the protection of land resources. [1.2.]

The land fund of the Gizilhajili village municipality has favorable opportunities for the future development of agriculture due to its existing potential. However, the full realization of this potential directly depends on the proper management of the lands, the preservation of their fertility and the application of modern technologies. The efficient use of land resources will have a positive impact on the increase in the volume of agricultural products, the increase in the income of the rural population and the socio-economic development of the region in general.

Conclusion: Consequently, the implementation of integrated land protection and management measures in the municipalities of **Qizilhajili (Gazakh District), Arabshahverdi and Mallishikhli (Goychay District)** will significantly contribute to sustainable agricultural development, environmental protection and regional socio-economic growth.

The research results show that the proper use of land resources not only increases the efficiency of agricultural production, but also ensures long-term protection of the land. At the same time, erosion, salinization, inefficient irrigation, anthropogenic impacts and non-compliance with agrotechnical rules are among the main problems that negatively affect the quality of the land fund. In order to prevent these problems, it is necessary to expand soil protection measures, introduce modern irrigation systems, properly organize crop rotation and continuously conduct soil monitoring.[1.3.]

The implementation of modern digital cadastral systems, Geographic Information Systems and remote sensing technologies can significantly improve the quality of land management. These technologies allow for accurate accounting of land resources, prompt updating of information and adoption of more substantiated management decisions. [2]

Consequently, the implementation of complex measures for the protection and efficient management of land resources in the Gizilhajili village municipality will make a significant contribution to the sustainable development of agriculture, increasing employment, strengthening food security and socio-economic development of the region. In order to protect the land fund for future generations, it is considered important to apply management

principles based on scientific foundations and implement an environmentally sustainable land use strategy. **[3.4.]**

REFERENCES:

1. Land Code of the Republic of Azerbaijan. Baku, updated edition, 2024.
2. State Service for Property Issues of the Republic of Azerbaijan. Annual report on the State Land Cadastre and Land Monitoring, Baku, 2024.
3. Ministry of Agriculture of the Republic of Azerbaijan. Statistical collection on the development of agriculture in Azerbaijan, Baku, 2023
4. State Statistical Committee of the Republic of Azerbaijan. Regions of Azerbaijan, Baku, 2025.