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LAND RESOURCES MANAGEMENT TOOLKIT OF AGRARIAN ENTERPRISES

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Abstract

The paper considers the composition and substantiates the structure of land resource management tools at agrarian enterprises. The theoretical and methodological approach to determining the composition and structure of land resources management tools at agrarian enterprises, which consists of the allocation of territorial-spatial, production-technological, agro-ecological, organizational-legal, and organizational-economic groups, is substantiated. Indicators of intensity use of land resources at agrarian enterprises were determined, the analysis and evaluation of which is the basis of land resource management at agrarian enterprises. A set of functions of land resource management at agrarian enterprises has been established, which specify the content of land resource management at agrarian enterprises. It was singled out that certain instruments of influence on the process of land resource use at agrarian enterprises lead to the consequences of this process in the form of economic, ecological, and social results. It has been proven that combining the tools of different groups with the aim of their complex application and obtaining the greatest effects of the use of land resources is expedient to be carried out based on a comparison of economic, ecological, and social results, taking into account the production and commodity specialization of agrarian enterprises, as well as their production scales and sizes. It is substantiated that the priority of obtaining certain results of land use at agrarian enterprises determines the combination of management tools and the degree of integration of the management mechanism of the use of land resources into the management of agrarian enterprises.

Keywords: land resources, management mechanism, efficiency, tools, balanced development.

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ІНСТРУМЕНТАРІЙ УПРАВЛІННЯ ЗЕМЕЛЬНИМИ РЕСУРСАМИ СІЛЬСЬКОГОСПОДАРСЬКИХ ПІДПРИЄМСТВ

Полтавець А. М. Інструментарій управління земельними ресурсами сільськогосподарських підприємств. *Український журнал прикладної економіки та техніки*. 2022. Том 7. № 2. С. 403 – 408.

Анотація

У статті розкрито склад та обґрунтовано структуру інструментів управління земельними ресурсами аграрних підприємств. Обґрунтовано теоретико-методологічний підхід до визначення складу та структури інструментів управління земельними ресурсами в менеджменті аграрних підприємств, який полягає у виділенні територіально-просторових, виробничо-технологічних, агроекологічних, організаційно-правових та організаційно-економічних їх груп. Визначено показники рівня інтенсивності використання земельних ресурсів на аграрних підприємствах, аналіз і оцінка яких є базисом управління земельними ресурсами в менеджменті аграрних підприємств. Встановлено сукупність функцій управління земельними ресурсами сільськогосподарських підприємств, які конкретизують зміст управління земельними ресурсами в менеджменті аграрних підприємств. Встановлено, що визначені інструменти впливу на процес використання земельних ресурсів аграрними підприємствами призводять до настання наслідків цього процесу у вигляді економічних, екологічних та соціальних результатів. Доведено, що комбінування інструментів різних груп з метою їх комплексного застосування та отримання найбільших ефектів використання земельних ресурсів доцільно здійснювати на засадах порівняння економічних, екологічних та соціальних результатів із урахуванням виробничої та товарної спеціалізації аграрних підприємств, а також масштабів їх виробництва та розмірів. Обґрунтовано, що пріоритетність отримання тих чи інших результатів землекористування аграрних підприємств визначає комбінацію інструментів управління та ступінь інтегрованості механізму управління використанням земельних ресурсів в менеджмент аграрних підприємств.

Ключові слова: земельні ресурси, механізм управління, ефективність, інструменти, збалансований розвиток.

Introduction

Reproduction of land resources takes place in the economic, agro-ecological and social spheres, which necessitates the implementation of reasonable management of the results of the use of agricultural land by commodity-producing enterprises. The latter envisages the construction of effective mechanisms and tools for managing land resources at agrarian enterprises, which are able to regulate processes in the mentioned areas, establish the proportions of the effects obtained from land use, as well as create conditions for the reproduction of land resources, the implementation of soil protection and soil protection measures, the greening of agrarian production, the systematic implementation of progressive agrarian production technologies, implementation of social development programs, etc.

Research on the mechanisms and tools of land resource management at agrarian enterprises is reflected in scientific works V. Heiets, O. Hutorov, B. Danylyshyn, O. Yermakov, M. Ihnatenko, T. Kalyna, I. Koshkalda, Yu. Lupenko, M. Malik, P. Makarenko, H. Martyn, P. Matvieiev, O. Nazarenko, V. Shyian and many others. However, a significant number of problematic issues of building land resource management mechanisms at agrarian enterprises require further research and search for solutions to issues that make up the essence of the researched scientific problem.

The purpose of the article

The purpose of the article is to determine the composition and structure of land resources management tools at agrarian enterprises.

Presentation of the main research material

The improvement of the productive properties of the land as a result of the management process occurs in the improvement of land relations, the development of scientific and technical progress, the orderliness of the process of soil cultivation and cultivation of agrarian crops, taking into account and using historical experience. Under the influence of these factors, not only soil fertility increases, but also its initial properties change qualitatively.

The task of land resource management and the organization of the land territory of agrarian formations is to create the best economic and production conditions for the implementation of their production activities – the effective use of equipment and labor resources, operational efficiency of management, ease of communication, as well as to obtain the largest amount of products from each hectare for the largest savings of labor costs and resources per unit of production and constant improvement of soil fertility.

In particular, the management of land resources and the organization of land at the enterprise solve a number of issues: establishing the composition and areas of certain types of land; determination of the scope and terms of land transformation and improvement; economic and purposeful allocation of lands.

The effectiveness of the land resources management system at the enterprise is reflected in a number of indicators and criteria, which are divided into economic, ecological and social. When determining the number of economic centers and their sizes, the following should be taken into account: operational management of all production processes: the location of railway and water stations; need and supply of labor force; reduction of farm management costs, etc. Practice shows that incorrectly chosen places for central estates require additional investments every year, and this leads to an increase in the cost of agrarian products.

For effective management and proper use of land, it is of great importance to carry out soil surveys at agrarian enterprises, draw up soil maps and scientifically based recommendations on land use, as well as development taking into account economic and soil-climatic conditions, crop rotation, organization of their territories, central estates, brigade plots, road networks, wood strips, etc.

At each agrarian enterprise, taking into account its specific conditions (types of soils, their mechanical composition, configuration of land plots, their angle of inclination, specialization of production, etc.), it is necessary to develop and implement a system of agronomic, zoo-veterinary, technical and organizational and economic measures that ensure the effective use of land resources. The important place is taken by measures aimed at increasing the potential capabilities of the enterprise to increase the production of agrarian products from each hectare of land. Such possibilities depend mainly on the level of intensity use of land resources. The comparative assessment of intensity indicators in dynamics and in different enterprises will make it possible to identify some directions for further improvement of land use [1, p. 38].

The intensity use of land resources is determined by the following indicators:

- the degree of economic use of land, which is calculated by dividing the area of agrarian land compared to the entire land area of the farm;
- the degree of plowing, which is calculated as a fraction of the area of arable land and perennial crops divided by the area of agrarian land;
- the degree of land reclamation as the ratio of the area of land reclamation (irrigated, drained) to the total area of agrarian land;
- specific weight of intensive crops (sugar beets, flax, potatoes, vegetables, sunflower, grain corn, hemp) in the total planted area at the enterprise;
- the coefficient of repeated use of land, which is determined by the ratio of the sown area together with the area of repeated crops to the sown area of the farm.

Management of land resources at the enterprise includes analysis and evaluation of these indicators. Moreover, it should be mentioned that due to the transformation of land areas and the improvement of their structure, the increase (decrease) of the share of arable land, perennial crops and reclaimed land in the total area of agrarian land, and intensive crops in the structure of crops, the increase in the ratio of land reuse at optimal levels, the company's ability to increase the volume of production (other things being equal) will increase. But here it is important not to go beyond the rational limits of each of the named indicators, as this can lead to deterioration of land use, loss of its fertility. For example, excessive plowing of agrarian land in many farms has led to intensive development of wind and water erosion with all the corresponding negative consequences.

The profitability of agrarian enterprises is also significantly affected by the location of land plots. This is due, first of all, to the fact that with the increase in the distance between the premises of enterprises and the market for the sale of agrarian products and the market for the purchase of material resources, the transport costs of enterprises increase, therefore, the cost price of the goods produced by them increases [2, p. 181].

Accordingly, the management of land resources should provide the most appropriate organizational, territorial and production conditions for the rational development of the economy, the most productive use of all land, the introduction of correct crop rotations, the creation of a strong and stable fodder base for animal husbandry, the effective use of agrarian machinery, obtaining high and stable harvests for the lowest costs of labor and funds per unit of production. The problems of managing the use of land resources, in general, and agrarian enterprises, in particular, are considered in the works of many Ukrainian scientists. The political, legal, social and ecological aspects of land management have been formed. Taking into account the importance of the achievements of scientists, it is appropriate to emphasize the fact that today there are a number of unresolved issues of an economic and managerial nature related to the management of land resources at agrarian enterprises.

The main difference of most studies on the management of the use of land resources is the consideration of the actual land management process. In particular, Mulka M., considering the features of land resource management at agrarian enterprises, claims that its importance lies in managing and ensuring the fertility of the land, and in essence, land resource management is a holistic process of continuous improvement of the land state and forms of

their use. It provides the achievement and further development of rational land tenure, land management and land use, determination of the optimal proportion for the distribution of land between sectors of the economy, taking into account economic and ecological conditions. The main task in the aspect of land resource management in accordance with modern existing trends is to ensure sustainable land use, according to which land, contributing to the achievement of socio-economic results (ensuring the planned volume of agrarian production or placement of industrial, infrastructural, social and other facilities), does not lose its properties, does not deteriorate indicators of fertility, resistance to erosion, etc. [3, p. 24]. Therefore, the management of land resources is considered as a process of rational and effective use of land, maintenance of their fertility and quality.

Researchers Hutorov O.I. and Chereda T.Ye. consider the main functions of land management, land use and mapping, land cadastre management, claiming that «the modern land cadastre plays a new role that relates to a very important problem of today – land management» [4, p. 16]. Furthermore, the authors turn to consideration of land resources management as a system with its inherent general and special management functions, methods, tools and implementation mechanisms.

Regarding the land resources of agrarian enterprises, the social, ecological and economic accents of the purpose of such use are monitored. In such a target orientation, we observe not only the desire for short-term profit, but also the satisfaction of the needs of all participants in land relations. In particular, the desire of land users to preserve the fertility of the land in the long term is monitored; the desire to combine the satisfaction of the economic interests of both land users and landowners, the state and society in general. The satisfaction of such aspirations is reflected in the corresponding components of the efficiency of the use of land resources. Therefore, it can be argued that the purpose of land resource management at agrarian enterprises is to ensure and maintain the efficiency of land resource use as a key factor in agrarian production.

Therefore, under the management of the use of land resources at agrarian enterprises, it is advisable to consider the purposeful influence of owners/employees at agrarian enterprises and/or land owners on land resources in order to ensure their effective use [5; 6].

The given set of functions of land resource management at agrarian enterprises specifies the content of management activities and ensures the purposefulness of the influence on land resource management at agrarian enterprises. Hence, the functions of managing land resources at agrarian enterprises are performed through the implementation of management methods. Methods are an integral part of the management process, since the presence of progressive management methods and their skillful use is a prerequisite for the effectiveness of management and business processes. The methods of managing land resources at agrarian enterprises are designed to create conditions for high-quality and productive work of the company's personnel, aimed at ensuring the efficiency of the use of land resources at agrarian enterprises. The important role in the management of land resources at agrarian enterprises is played by the process of organization, which is implemented with the help of organizational management methods. Their essence in the management of land resources at agrarian enterprises consists of the organization of such management through the implementation of various measures of organizational nature, issuing orders with the mandatory use of the existing legislative framework in the land relations.

Social management methods in general involve the use of levers of influence on personnel, their direction to achieve the goal of the enterprise. Thus, in the land resource management system of agrarian enterprises, it is advisable to consider the implementation of social management methods through the use of a set of levers for stimulating the effective use of land resources. Types of management of land resources use, depending on the management horizon, its scale and duration, involve the implementation of operational, tactical and strategic management. Considering this, operational and tactical management in terms of

implementation time belongs to the short-term, in the economic literature these two types of management are often equated. The important role in the management of land resources use at agrarian enterprises is played by strategic management aimed at the implementation of principles, functions, management methods in order to achieve the goal in the long term.

The defined instruments of influence on the process of land resources use at agrarian enterprises lead to the onset of the consequences of this process in the form of economic, ecological and social results. The priority of obtaining certain results of land use at agrarian enterprises determines the combination of management tools and the degree of integration of the management mechanism for the land resources use in the management of agrarian enterprises. Therefore, establishing the proportions of the achievement of these results is implemented based on the criteria of priority of certain results and is achieved through the establishment of appropriate strategic priorities.

The generalization of scientific approaches to land resource management made it possible to define a theoretical and methodological approach to determining the composition and structure of land resources management tools in the management of agrarian enterprises. Furthermore, territorial-spatial, production-technological, agro-ecological, organizational-legal, and organizational-economic groups of management tools available to agrarian enterprises were selected as a classification of instruments of influence on land resources as an object of management. Thus, it is advisable to combine the tools of different groups with the aim of their complex application and obtaining the greatest effects of land resources use based on a comparison of economic, ecological and social results, taking into account the production and commodity specialization of agrarian enterprises, as well as their production scales and sizes. It is this sequence of selection of management tools and means of influencing the process of using land resources that ensures the stabilization of the functioning and economic development at agrarian enterprises (Fig. 1).

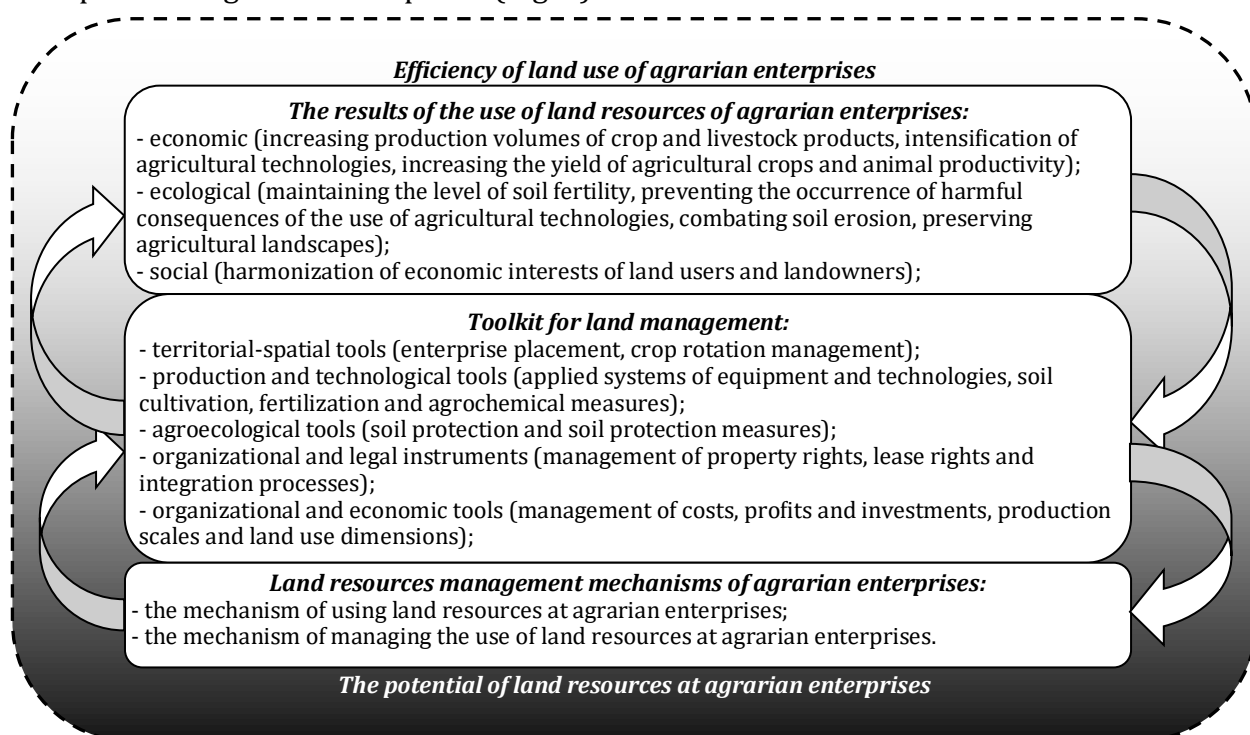


Fig. 1. Criterion, functional and instrumental principles of the use of land resources at agrarian enterprises

The defined instruments of influence on the process of land resources use at agrarian enterprises lead to the onset of the consequences of this process in the form of economic, ecological and social results. The priority of obtaining certain results of land use at agrarian enterprises determines the combination of management tools and the degree of integration of

the management mechanism for the use of land resources in the management of agrarian enterprises.

Conclusions and prospects for further investigations

Thus, the research substantiated the theoretical and methodological approach to determining the composition and structure of land resources management tools at agrarian enterprises, which consists of distinguishing their territorial-spatial, production-technological, agro-ecological, organizational-legal and organizational-economic groups. Moreover, the complex application of the specified tools allows to achieve an increase in the economic, ecological and social results of land use. The degree of rationality of the proportions of their application depends on the production and commodity specialization of agrarian enterprises, their size and scale of production. Therefore, it is advisable to combine the tools of different groups with the aim of their comprehensive application and obtaining the greatest effects of land resources use on the basis of comparing economic, ecological and social results.

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