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FEATURES OF LAND POTENTIAL MANAGEMENT IN THE AGRARIAN SECTOR

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ОСОБЛИВОСТІ УПРАВЛІННЯ ЗЕМЕЛЬНИМ ПОТЕНЦІАЛОМ АГРАРНОЇ СФЕРИ

The article is devoted to the peculiarities of land management potential of the agrarian sector. The essence of the category "land potential" is considered and its ranking in the short and long term is disclosed. It is noted that in the system of assessing the land potential should take into account the land potential of a particular territory (or land), then determine the potential types of land use. The results of effective use of land potential are reflected in the following effects: economic, social and environmental. It is determined that the organization of the use of land potential of the agrarian sector should include a number of areas (increasing the pace of implementation and use of the smart agriculture system; active introduction of informatization in order to effectively use agricultural land; strengthening the role of the state in improving the organization of land use, etc.). The importance and role in the management of land potential of the system of "smart" land use is disclosed, which acts as the main factor of economic growth and is one of the elements of the transition to digital agriculture. The positive consequences for all participants of land relations from the digital transformation of land management are highlighted. The organization of management of the land potential of the agrarian sector is carried out on the basis of the development strategy of the industry, the specifics of production in it and the functions implemented, the level of competence of senior management and a certain methodology for the formation of a management subsystem that reflects approaches to management, a set of provisions and principles that determine the features of building a management system and a set of methods and tools that allow you to effectively manage the processes of development of land potential. It is noted that the main directions of improving the organization and management of the use of land potential of the agrarian sector are strengthening the leading role of the state in the regulation of the land fund; application of smart agriculture systems and expansion of production informatization; work on updating the qualitative and quantitative characteristics of land with their subsequent grouping; renewal in the production of unused agricultural land.

Стаття присвячена особливостям управління земельним потенціалом аграрної сфери. Розглянуто сутність категорії "земельний потенціал" та розкрито його ранжування в короткостроковому і довгостроковому періоді. Зазначено, що в системі оцінки земельного потенціалу слід враховувати земельний потенціал конкретної території (або земельної ділянки), потім визначати потенційні види землекористування. Результати ефективності використання земельного потенціалу відображаються у таких ефектах: економічний, соціальний та екологічний. Визначено, що організація використання земельного потенціалу аграрної сфери повинна включати ряд напрямків (наращування темпів впровадження та використання системи розумного сільського господарства; активне впровадження інформатизації з метою ефективного використання сільськогосподарських угідь; посилення ролі держави у вдосконаленні організації використання земель тощо). Розкрито значимість та роль при управлінні земельним потенціалом системи "розумного" землекористування, яка виступає в якості основного фактору економічного зростання і є одним з елементів переходу до цифрового сільського господарства. Висвітлені позитивні наслідки для усіх учасників земельних відносин від цифровій трансформації управління земельним потенціалом. Організація управління земельним потенціалом аграрної сфери здійснюється виходячи із стратегії розвитку галузі, специфіки виробництва продукції в ній та реалізованих функцій, рівня компетенції вищого менеджменту та певної методології формування керуючої підсистеми, що відображає підходи до управління, сукупність положень та принципів, що визначають особливості побудови системи управління та набір методів та інструментів, що дозволяють ефективно керувати процесами розвитку земельного потенціалу. Відзначено, що основними напрямками вдосконалення організації та управління використання земельного потенціалу аграрної сфери є посилення провідної ролі держави в регулюванні земельного фонду; застосування систем розумного сільського господарства та розширення інформатизації виробництва; проведення робіт з актуалізації якісних та кількісних характеристик земель з подальшим їх угрупованням; поновлення у виробництві сільськогосподарських земель, що не використовуються.

Key words: land potential, agrarian sector, business entity, management, digitalization.

Ключові слова: земельний потенціал, аграрна сфера, суб'єкт господарювання, управління, цифровізація.

INTRODUCTION

One of the most urgent problems at the present stage of development of society is the problem of rational use of land, which is directly related to issues of food security of the state, employment of the population and in general economic stability of the country. Land resources at any stage of economic development do not lose their importance. Despite the fact that the country has quite large areas of agricultural land, the need for their accounting and rational use is relevant to this day, since their irrational use in the process of agricultural production leads to the loss of soil fertility, salinization, waterlogging, intensification of erosion processes, which leads to the withdrawal of land from circulation. Land is the main resource, material basis, means of agricultural production, the efficiency of the use of which directly depends on the volume of agricultural products received and the final financial results of the enterprises of the industry. It is possible to achieve the desired results of

rational and effective use of land resources in the agricultural sector, provided that special attention is paid to improving the mechanism of land management and their reproduction in the industry, when it is necessary to strengthen planning and forecasting in all sectors of the economy, which will contribute to solving economic and social problems.

The features of the development of land relations, management, reproduction and use of land potential are devoted to research: A. Babich, A. Veklich, L. Melnik, V. Mesel-Veselyak, V. Mishchenko, P. Sabluk, V. Yurchishin and others.

The study of the issue of rational reproduction and use of land potential in the agricultural sector of the country's economy is one of the strategic directions of state policy. Therefore, the purpose of the study is to disclose the features of land management potential of the agrarian sector, mechanisms for its reproduction and use, which is of significant importance for the agricultural sector of the economy.

RESULTS OF THE STUDY

The basis for improving the efficiency of land use in agricultural production is its resource potential. Today, due to the almost widespread deterioration of soil fertility, caused by both internal processes (low level of application of organic and mineral fertilizers, low level of capital expenditures for land improvement) and macro-economic processes (mined areas, deterioration of soil quality, etc.) with regard to agricultural land, it is necessary to take concrete measures to preserve and maintain natural fertility both on the part of direct owners or users of land and the state, as well as to increase their economic fertility and rational use of available resources.

Effective management and reproduction of agricultural land is an integral element of the agricultural sector of the economy and is manifested in the constant targeted influence of management entities on land potential. The specific properties of land resources allow us to consider them as the basis of national wealth and a potential source of economic growth of the country. Assessment of land use efficiency in agriculture should characterize the impact of land management on production results and indicators of land use efficiency and reproduction of agricultural land.

In the study of the category of "land potential," it is considered as the calculated maximum possible productivity of the main means of production in agriculture on the basis of a proven set of scientific and technical achievements in the natural and climatic conditions of the region, zone, and really developing enterprises [6]. At the same time, it acts as "a complex category that evaluates not only its level, but also the degree of its use in a particular territory, taking into account the direction of activity in agriculture" [5].

Note that it is very important in the system of land potential assessment to take into account, at the beginning, the land potential for a particular territory (or land plot), then determine the potential types of land use and only then choose what is most sustainable and land should be used with a basis for its potential.

It is possible to achieve this with a ranking of land potential for long-term and short-term. The long-term potential is determined by the sustainability of the generation of ecosystem services, depending on the climate, soil type, topography, fertility level, etc. A high level of land potential have land plots that provide a stable high level of plant production [2]. In a sense, the long-term potential of land can be called the accumulated land potential. In the short term, the land potential is determined by a combination of long-term

potential, specific weather conditions and the current state of the land (fertility, state of vegetation, etc.) [1]. There is a close relationship between the current use of land and its soil layer and land potential [3].

The results of land potential efficiency are reflected in the following effects:

- the economic effect is to increase the profitability and competitiveness of the enterprise, expand internal and external economic relations, etc.;

- the social effect is to increase the interest (motivation) of employees, contributes to increased productivity, increased interest in environmental protection, etc.;

- the environmental effect is to prevent the disposal of land from agricultural turnover, to prevent irrational use of land, preservation and development of ecosystems, etc.

The land structure sets potential vectors for spatial, infrastructural development and the specifics of production activities directly related to the sectoral use of land resources. The optimal composition of land and the rational organization of rural land use within a certain territory will allow achieving targets in a shorter time [4].

The organization of the use of the land potential of the agricultural sector should include a set of measures in the following areas:

- expanding the impact of economic, organizational and environmental measures aimed at the balanced functioning of the land as an agricultural resource;

- increasing the pace of implementation and use of smart agriculture;

- active introduction of informatization in order to effectively use agricultural land;

- strengthening the role of the state in improving the organization of land use.

A set of measures for forecasting and organizing the optimal use of agricultural land should be created on the basis of an analysis of data on the natural zoning of land resources and the optimal structure of acreage, taking into account the needs of food security for its optimal functioning under the conditions of coordination of economic and social interests of agricultural producers.

Particular attention in the study of land management should be paid to the system of "smart" land use, which acts as the main factor of economic growth and is one of the elements of the transition to digital agriculture. Digitalization of the agrarian sector should lead to an increase in the profitability of economic entities due to a verified and reasonable optimization of costs and a more

rational distribution of funds. In agriculture, the reproduction of land resources through the implementation of the "smart" land use system should be aimed at studying proposals for effective land use, as well as substantiating directions for improving the use and reproduction of land resources in the industry. This process in the management of land resources and their reproduction depends on the development and implementation in practice of the principles of "smart" agriculture, which is associated with the direction of its development in direct dependence on the general condition of the industry and the limited land use of a particular business entity, its dependence on production infrastructure, economic and social ties with other participants in economic relations. Digital management of reproduction of land resources in agriculture includes: processing of significant flows of information related to the reproduction of agricultural land, monitoring of property and use rights in relation to land plots, trends in the development of agricultural production and is aimed at implementing comprehensive projects to increase the productivity of land potential. The land management system in the context of the digital transformation of the economy is completely changing its appearance due to the use of large databases, the use of artificial intelligence, IT technologies, software products, etc.

Interest in the digital transformation of land management potential is observed both on the part of individual business entities and government agencies, as it allows:

1) receive real-time data on owners and users of land plots in order to monitor the effectiveness of their use and the possibility of using state support programs. For example, the state could seize and return to economic circulation of land by the following measures: legal control and economic stimulation of the most effective and at the same time careful ways of organizing land use in the areas involved in circulation; formation and updating of the information base on the availability and characteristics of sites that can be used and access to it by any interested parties, etc.

2) obtaining operational, reliable information about the state of crops, perennial plantations, etc.;

3) improve product quality and reduce production and sales costs, etc. Due to the introduction of new technologies in land use, business entities will be able to increase the level of profitability by optimizing costs and more rational and effective redistribution of funds. In modern conditions, making managerial decisions in the production process, business entities must take into account

many factors. Among them are soil fertility, weather and climatic conditions, the condition of crops, the presence of diseases and pests, the labor intensity of production, the workload of agricultural machinery, etc. It is desirable to receive and process some of this information in real time in order to respond quickly and make changes to production plans, and some to accumulate over a certain period (for example, a year) and are used to analyze dynamics.

Proper organization and planning of the use of land potential of the agricultural sector contribute to:

— optimal organization of land use with the possibility of maximum financial return for each entity in the agricultural sector;

— improvement of the algorithm of land distribution in accordance with natural and climatic conditions and socio-economic, ecological development of the relevant region;

— Optimization of the territorial organization of the use of land potential of the agricultural sector;

— the introduction of innovative directions to optimize the use of land potential of the agricultural sector.

Consequently, the organization of management of land potential of the agrarian sector is carried out on the basis of the development strategy of the industry, the specifics of production in it and the functions implemented, the level of competence of senior management and a certain methodology for the formation of a management subsystem that reflects approaches to management, a set of provisions and principles that determine the features of building a management system and a set of methods and tools that allow you to effectively manage the processes of development of land potential.

CONCLUSIONS

Land potential is a complex category that evaluates not only its level, but also the degree of its use in a particular territory, taking into account the direction of activity in agriculture. In the system of assessing the land potential, one should first take into account the land potential of a particular territory (or land plot), then determine the potential types of land use and only then choose what is most stable. At the same time, land potential is considered as long-term and short-term, which, with its effective use, allows an economic entity to obtain an economic, social and environmental effect.

The main directions of improving the organization and management of the use of land

potential of the agrarian sector are: strengthening the leading role of the state in regulating the land fund; application of smart agriculture systems and expansion of production informatization; work on updating the qualitative and quantitative characteristics of land with their subsequent grouping; renewal in the production of unused agricultural land.

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