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# LAND RESOURCES MANAGEMENT AS A FACTOR OF RATIONAL NATURE USE

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#### Key words:

management, land resources, nature management, national wealth, economic growth, sustainable development.

The article the management of land resources as a factor of rational nature management is studied. It is substantiated that regardless of the country's level of development, land resources are a source of economic growth and national wealth. In addition, the state and use of land resources determines the prospects for the development of the agricultural sector of the economy, which forms the country's competitive advantages. It was determined that the management of land resources integrates three dimensions of sustainable development - economic, social and ecological, which involves the assessment of the land resource base (land assessment) and the identification of needs and challenges, the selection and implementation of optimal approaches and decision-making. At the same time, people should be at the center of the management process, and politicians should promote rational land use. It has been proven that in the conditions of European integration, the urgent need is to build effective property relations at the national level, that is, the formation of a new model of land use, which is a symbiosis of the interests of all market participants. At the same time, the capabilities of the national economy are objective conditions that determine the need to create a land market. It is justified that the development of land relations cannot be considered without interaction with ecology, because these two components are inextricably linked, their successful combination will ensure the preservation of nature as one of the important components of the biosphere. The key principles of effective land use are highlighted: promoting balanced relations between people and the environment; ensuring the right of future generations to equal opportunities for development and access to natural resources; adoption of strategies aimed at promoting ecologically safe methods of farming; taking active measures to protect the environment and holding the state accountable for the deterioration of the environment and its pollution; creating an environment conducive to sustainable development and economic progress of the nation.

# УПРАВЛІННЯ ЗЕМЕЛЬНИМИ РЕСУРСАМИ ЯК ЧИННИК РАЦІОНАЛЬНОГО ПРИРОДОКОРИСТУВАННЯ

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## Ключові слова:

управління, земельні ресурси, природокористування, національне багатство, економічне зростання, сталий розвиток. У статті досліджуються управління земельними ресурсами як чинник раціонального природокористування. Обґрунтовано, що незалежно від рівня розвитку країни земельні ресурси є джерелом економічного зростання та національним багатством. Зауважимо, що від ефективності використання земельних ресурсів залежить сталий розвиток країни, рівень та якість життя населення. Крім того, стан та використання земельних ресурсів визначає перспективи розвитку аграрного сектору економіки, який формує конкурентні переваги країни. Визначено, що управління земельними ресурсами інтегрує три виміри сталого розвитку – економічний, соціальний та екологічний, що передбачає оцінку бази земельних ресурсів (оцінка землі) та визначення потреб і викликів, вибір та впровадження оптимальних підходів та прийняття рішень. При цьому люди повинні бути в центрі процесу управління, а політика повинні сприяти раціональному землекористуванню. Доведено, що в умовах євроінтеграції нагальною потребою є побудова ефективних відносин власності на національному рівні, тобто формування нової моделі землекористування, яка є симбіозом інтересів усіх учасників ринку. Можливості національної економіки при цьому є об'єктивними умовами, які визначають необхідність створення ринку землі. Обгрунтовано, що розвиток земельних відносин не можна розглядати без взаємодії з екологією, адже ці два компоненти нерозривно зв'язані між собою, вдале їх поєднання забезпечить збереження природи як одного із важливих складових біосфери. Виокремлено ключові принципи ефективного землекористування: сприяння збалансованим відносинам між людьми та навколишнім середовищем; забезпечення права майбутніх поколінь на рівні можливості для розвитку та доступ до природних ресурсів; прийняття стратегій, спрямованих на просування екологічно безпечних методів ведення сільського господарства; вжиття активних заходів для захисту довкілля та притягнення держави до відповідальності за погіршення стану довкілля та його забруднення; створення середовища, сприятливого для сталого розвитку та економічного прогресу нації.

#### **Problem statement**

Regardless of the country's level of development, land resources are a source of economic growth and national wealth. Note that the sustainable development of the country, the level and quality of life of the population depends on the efficiency of the use of land resources. In addition, the state and use of land resources determines the prospects for the development of the agricultural sector of the economy, which forms the country's competitive advantages.

Challenges related to population growth, increasing demand for limited and already depleted resources by various actors, land degradation, loss of biodiversity and climate change require a rational approach to resource use that maintains and increases productivity and sustains ecosystem resilience.

Land management integrates three dimensions of sustainable development – economic, social and environmental, which involves the assessment of the land resource base (land assessment) and the identification of needs and challenges, the selection and implementation of optimal approaches and decision-making. At the same time, people should be at the center of the management process, and politicians should promote rational land use.

That is, the issue of managing land resources from the point of view of the rationality of nature use is relevant, because it allows reducing the impact of negative consequences and continuing to move in the direction of ensuring development, ensuring the efficiency of the management system at all levels of economic functioning.

#### Analysis of recent studies and publications

From the point of view of theory and practice, the issue of land resource management from the point of view of the rationality of nature use is studied in detail by Ukrainian scientists, namely: Bogira M.S. [1], Velichko O.V. [2], Gutorov O.I. [3], Zerkalov D.V. [4], Martin A. [5] and others. Scientists outline the issue of rational use of land potential from the point of view of the concept of sustainable development.

The mentioned works of scientists represent a significant contribution to the theoretical justification and practical implementation of the principles of rational management of land resources.

# Highlighting previously unsolved parts of the overall problem

Given the need for optimal use of natural resource potential, the issue of management requires deeper research.

### **Objectives of the article**

The purpose of the article is to analyze the management of land resources as a factor of rational nature management.

#### Presentation of the main material

The potential of the national land fund determines opportunities and creates significant prospects, gives competitive advantages at the international level. These potential opportunities can be realized only if an effective model of property relations is developed and implemented, which provides for the balancing of the interests of land market participants and determines the place of Ukraine as a state with a stable competitive position on the world market based on rational nature management and effective use of resources in general.

In the conditions of European integration, there is an urgent need to build effective property relations at the national level, that is, the formation of a new model of land use, which is a symbiosis of the interests of all market participants. At the same time, the capabilities of the national economy are objective conditions that determine the need to create a land market.

Sustainable management of land resources is a key issue of various sustainable development goals. People need land both to support their activities and to obtain vital resources. Land resources occupy a third of the globe.

Land resources in Ukraine ensure the formation of almost 95-97% of the food fund and 2/3 of the consumer goods fund. In the resource provision of social and economic development of our state, the share of land is 40-44%, production capital and working capital -20-21%, labor resources -38-39% [6, p. 30].

Land can be considered one of the main foundations for the formation of a strong country's economy, it is a reliable resource for the country's economic growth. 95% of the total volume of the food fund and two-thirds of the consumer goods fund is formed thanks to land resources.

The development of land relations cannot be considered without interaction with ecology, because these two components are inextricably linked, their successful combination will ensure the preservation of nature as one of the important components of the biosphere.

However, it is important to recognize that land functions as a central element of agricultural production only when it actively contributes to it within the current level of societal development. Even if certain lands seem "unsuitable" for productive use at a certain stage, this does not mean that they will not eventually be used for agriculture.

An increase in the productive capabilities of the land occurs through the improvement of land resource management, the development of scientific and technical progress, the improvement of methods of soil cultivation and plant cultivation, as well as the use of the experience accumulated by mankind. These factors lead not only to an increase in soil fertility, but also to changes in its properties at a qualitative level.

Soil conservation is a critically important issue because it is closely related to several socio-economic problems. These include population growth, hunger, poverty and threats to food security. This figure shows the key factors influencing the development and effectiveness of soil management practices [7].

Population growth combined with limited land resources creates a shortage of available land. This scarcity, in turn, contributes to increasing poverty, which leads to inefficient land use. As a result, harmful land use practices and poor soil management contribute to soil degradation, completing the cycle of socio-economic problems.

The constant dilemma of land degradation has persisted for centuries and is a significant problem. Land degradation remains a serious problem, contributing to the spread of poverty, unemployment, forced migration and inter-ethnic conflicts. In addition, the increasing risks to agriculture due to extreme weather conditions associated with climate change are exacerbating the problem.

Today's realities show negative trends. The UN has identified 110 countries at risk of land degradation. A comparative analysis of the world's regions reveals two distinct groups by the level of soil degradation: one with above-average degradation, including Africa and Asia, and the other with below-average degradation, including South and Central America, Europe, and other countries.

Effective land use encompasses several key principles [8]:

 promotion of balanced relations between people and the environment;

 ensuring the right of future generations to equal opportunities for development and access to natural resources;

 adoption of strategies aimed at promoting ecologically safe methods of farming;  taking active measures to protect the environment and to hold the state accountable for the deterioration of the environment and its pollution;

- creation of an environment favorable for sustainable development and economic progress of the nation.

Land resources are a source of national wealth, sustainable economic development of the country, standard of living and health of the nation depend on their use. The formation of the land market has a prominent place in the agrarian reform, which, in turn, involves reforming property relations and recognizing land as a commodity [9].

The rational use of natural resources is a rather complex category, since its rationality is not considered purely from an economic point of view and is not evaluated on its basis by well-known indicators such as economic effect or economic efficiency. The modern interpretation of rational nature management is considered simultaneously from three positions: economic, social and ecological.

The main components of rational nature management are shown in fig. 1. As can be seen from fig. 1, rational management of the environment should include activities aimed at meeting the needs of people and society as a whole (i.e. production), and activities aimed at preserving natural resources, as well as activities aimed at creating and maintaining an ecologically clean natural environment for health and human life [10].

Therefore, rational nature management is a system of measures designed to ensure economical and effective exploitation of natural resources, optimal mode of their reproduction and preservation of human health.

It seems important that all this activity is carried out taking into account the laws of nature. In a situation where environmental and economic interests collide,

In our opinion, the environment should remain a priority. The interaction between man and the natural environment should be based on the priority of the principles of ecological balance.

This, in particular, is one of the features of the rational use of natural resources: it prioritizes the study and preservation of natural resources, rather than their use, which is characteristic of the traditional "frontal" economy.

Rational use of natural resources directly affects sustainable growth. So, on the one hand, production activity directly depends on the efficiency of the use of development resources. On the other hand, the quality of the environment, which directly depends on the ways of using natural resources, determines the quality of life, which is one of the final, final indicators of the country's economic development.

One of the main principles of rational nature management is environmental friendly and comprehensive processing of raw materials.

There is an ambivalent attitude on the part of man and society as a whole towards the natural environment: on the one hand, a high-quality and healthy natural environment is a human habitat, it determines such parameters of the quality of life as life expectancy, and the level of morbidity. From this position, society is interested in interfering with nature as little as possible. On the other hand, natural resources are the main economic factor, the supply of raw

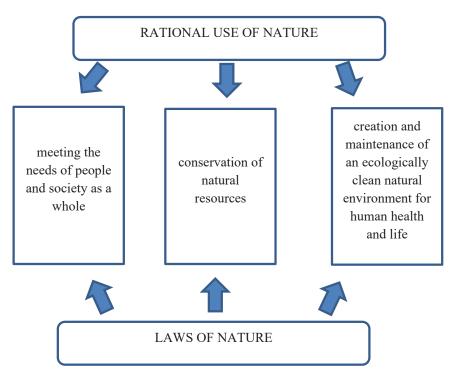


Fig. 1 – The main components of rational nature management

Source: compiled by the authors based on [10]

materials for the production of economic goods. From this position, society is interested in increasing the production of goods to meet its ever-growing needs.

In connection with such a double assessment of the importance of the natural environment for people, conflicting goals arise: to meet the needs of society as fully as possible, to increase the production of goods and services, causing minimal damage to the natural environment [9].

According to various data, the annual growth of the world population is estimated to be increasing by 1.2-1.4%, and according to the forecasts of UN experts, it will reach approximately 8.6 billion people in 2030, and almost 10 billion by 2050 a person consumes on average about 800 g of food and 2000 ml of water just for drinking water supply.

Today, the population of our planet consumes more than 4 million tons of food on average per day, while the rate of production of agricultural products lags significantly behind the rate of population growth. The situation is worsened by various natural disasters, crop failures, as well as the uneven distribution of the population and the corresponding natural resources on the Earth's surface. As a result, the problem of non-renewability of natural resources, which in the future may lead to a number of problems: poverty, hunger and shortage of drinking water.

There is a certain contradiction between the capabilities of the natural environment to provide humanity with water

and food and the latter's need for food, as well as a contradiction between the use of natural resources and environmental sustainability [10]. The problem is exacerbated by the fact that a person needs a certain set of fats, proteins, carbohydrates, trace elements, etc. for full functioning and maintaining a certain quality of life.

#### **Conclusions and suggestions**

Therefore, the priority task of the state is to ensure rational land use, protect the rights of land owners and fair pricing. To do this, it is necessary to take certain measures to create favorable conditions for the sustainable and effective development of the land market, the formation of land relations and the protection of the rights of landowners. This will allow to achieve the necessary level of concentration and integration of agricultural production, rational use of land resources and solving social and economic problems.

That is, it is necessary to create an own model of the land market, which would synthesize positive foreign experience, national features and interests, as well as take into account the needs of stakeholders. Only under such conditions is it possible to ensure effective land use, the basis of which is management, support of the territory where the land plot is located, infrastructure development and replenishment of the budget.

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