

UDC 332.36

**THE CONCEPT OF LAND USE AND PROTECTION IN MODERN
CONDITIONS OF SOCIAL DEVELOPMENT OF UKRAINE**

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Abstract. *The crisis situation in the use of land resources in both agrarian and non-agrarian spheres of land use in Ukraine is stated. One of the main reasons for this situation is identified the lack of a perfect system of legal documents that would really regulate scientifically sound environmentally and economically acceptable land use. The concept of land use and protection in the conditions of development of the digital economy and society in Ukraine which can be used for development of the corresponding state target program is substantiated. The concept defines the guiding direction in the organization and implementation of processes of sustainable land use, protection of lands from depletion, degradation and pollution in market conditions with high priority of monitoring of land and land relations by automated information-analytical systems and remote sensing of the Earth. The principles and approaches to the development of the state target program of land use and protection*

are proposed. Options for solving the problem of ensuring the rational use and protection of land are outlined and analysed. The directions, ways, stages of realisation, innovative component and expected results and efficiency of execution of the state target program of use and protection of lands on the basis of the developed concept are defined.

Keywords: *land resources, rational use of land resources, land monitoring, land and soil protection measures.*

Actuality. The high level of economic development of the territory of Ukraine determines the intensive impact of anthropo- and technogenesis on the environment, including land resources, composition and nature of processes occurring in the field of land use. More than 75% of Ukraine's land fund is used in agriculture, residential and industrial development. The level of plowing of lands in the state reaches on average 54%, and in some areas - 70% and more. Violation of the ecologically balanced ratio of land had a negative impact on the sustainability of agricultural landscapes and caused significant man-made damage to the ecosphere. As a result, land resources are rapidly degrading, polluting and depleting, threatening food security. The crisis situation in the use of land resources is also observed in non-agricultural areas of land use. In general, the current sociological, economic and ecological state of land resources of a large part of Ukraine can be described as tense and sometimes crisis, with a tendency to deteriorate, which significantly reduces the social and economic development of Ukraine and its regions and negatively affects landscape and biological diversity. I and living conditions of the population.

One of the main reasons for the problem of irrational land use and their inadequate protection is the lack of an effective system of legal documents that would directly regulate scientifically sound environmentally and economically acceptable land use. Therefore, there is a need to develop a (general) state target program of land use and protection, which would determine the main directions of land use and protection of the country for a certain period and ensure sustainable development of

land use in Ukraine. According to the current legislation, the development of such a program document must be justified by its concept [1].

Analysis of recent research and publications. This study demonstrates the development of ideas and developments of the author's team, presented in such publications, in particular [2-5]. A review of the list and content of current regulations of land legislation shows the absence of a document of state planning for land use and protection, the rules of which would regulate a set of interrelated tasks and measures aimed at solving the problem of rational use and protection of land. This opinion is expressed by a number of scientists, whose focus is on land use and protection, for example, [6-8] and others. This shows the lack of a single conceptual approach to the problem, which would cover the institutional, legislative, organizational and financial and economic mechanisms to ensure the rational use and protection of all lands within the state, regardless of ownership and use of digital infrastructure in Ukraine. stipulated the purpose of our study.

The purpose of the study is to substantiate the concept of land use and protection, which will determine the basic principles, priorities and key provisions of regulatory and legal support of land protection activities in Ukraine in the development of digital economy and society.

Materials and methods of research. Achieving this goal of the study involved the use of a set of general and special methods of scientific knowledge and is based on the Constitution of Ukraine, Land Code of Ukraine, Laws of Ukraine “On Land Protection” [2], “On Land Management”, “On Land Reclamation”, “On State Control” on the use and protection of land [8], “On environmental protection”, “On resorts”, “On the use of defense lands”, “On the basics of urban planning”, approved programs of state planning documents in the field of land use, other regulations and regulations on land and land use, taking into account the historical, geographical, environmental, economic, as well as demographic characteristics of the regions of Ukraine.

Research results and their discussion. The concept of land use and protection in the digital economy and society of Ukraine is developed to implement “state policy

of Ukraine to ensure sustainable development of land use, environmentally friendly living conditions and economic activity, protection of land from depletion, degradation and pollution, preservation of landscape and biological diversity in a market environment and the need to adapt and mitigate the effects of climate change” [2]. The dynamic integration of digitalization into public policy presupposes a high prioritization of land monitoring and land relations, which is embodied by means of automated information-analytical systems and remote sensing of the Earth. Efficiency, objectivity, purposefulness of information support will play an important role in the implementation of digital processes for land use and protection.

The concept defines the content of the state target program of land use and protection in terms of establishing principles and approaches to program development. We believe that the program should be based on the principles declared by the United Nations Conferences on Environment and Development in Rio de Janeiro in 1992, on sustainable development in 2012, the United Nations Convention to Combat Desertification in those countries suffering from severe drought and / or desertification, especially in Africa (2002), the Laws of Ukraine “On State Forecasting and Development of Economic and Social Development Programs of Ukraine” [3], “On State Target Programs”, “On protection of lands”, other normative legal acts of Ukraine, as we propose to supplement the principles of reliability, relevance, integrity, objectivity, scientificity, environmental friendliness, ecological-landscape and system approach, openness, innovation, legislative support and other principles defined by the current legislation of Ukraine .

The methodological basis of land use and protection are the following approaches:

- 1) “taking into account all aspects of biosphere protection, ie the use of self-renewable resources of the biosphere, which ensures its reproduction, functional balance and evolution as a basis for socio-economic development of society” [2];
- 2) “substantiation not of individual non-systemic actions on environmental protection within the framework of declarative struggle against certain degradation

processes, but taking into account all components of these processes and phenomena on lands of all categories and forms of ownership” [2];

3) “avoidance of both economic (maximum increase in productivity and profitability of land use) and environmental (optimization of agricultural landscapes in terms of natural ecosystems) “extremism”” [5];

4) comparative analysis of possible measures to solve problems with the best option.

The solution to the problem of ensuring the rational use and protection of land is multifaceted, so there are multi-vector and multi-scale options for its solution. To substantiate the optimal, we analyzed three options presented in Fig. 1.

In order to comply with certain principles in the process of developing a program of land use and protection provides:

- to analyze the structure of the land fund, its dynamics within Ukraine in general and in the regions in particular;
- to study the state of land use in terms of land categories, to analyze its condition;
- to analyze foreign experience in the field of land use and protection;
- give a description of degradation processes and their impact on the state of land resources;
- determine the list of developed and approved forecast and program documents on land use planning and protection of individual industries to coordinate actions and measures.

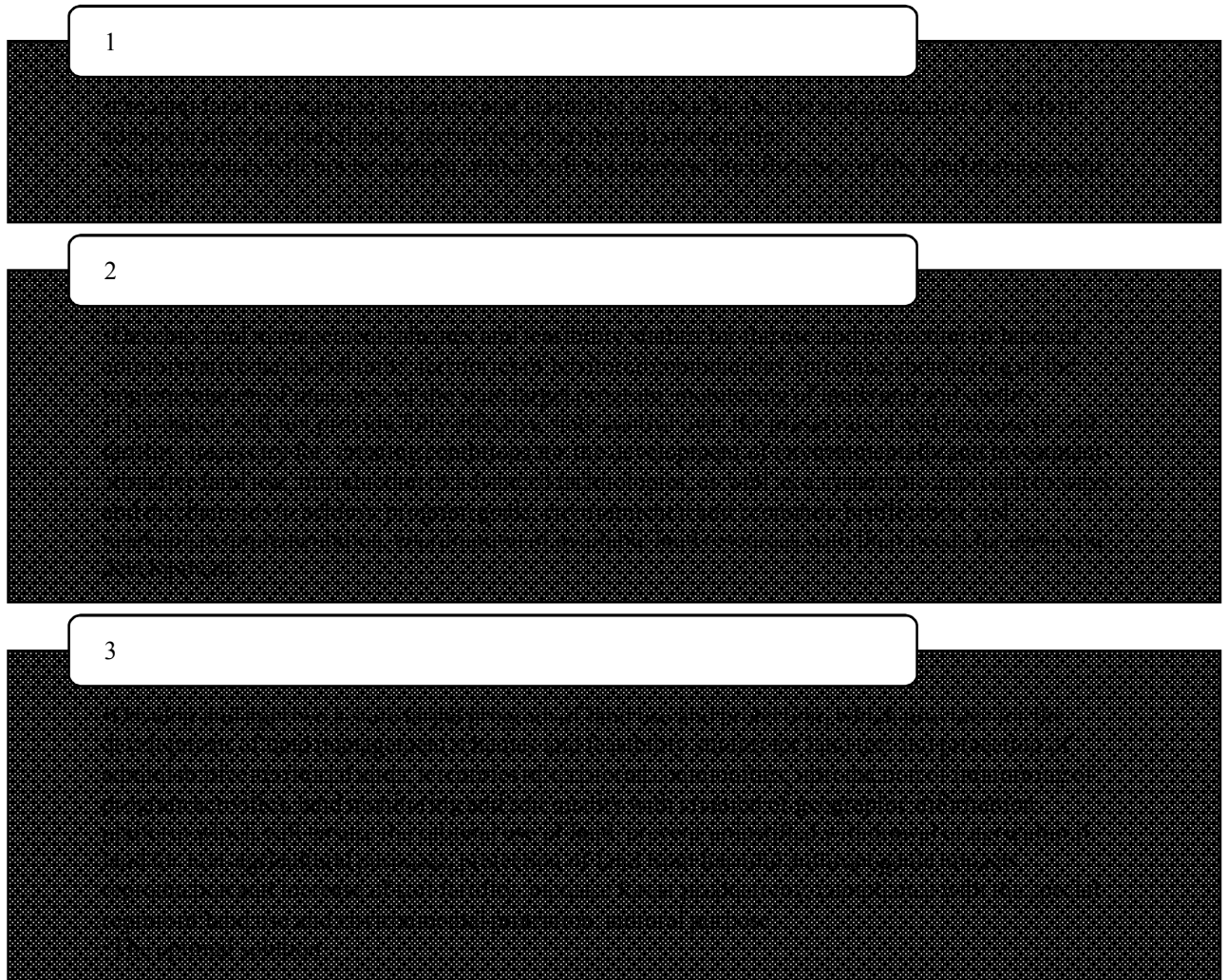


Figure 1. Options for solving the problem of ensuring the rational use and protection of land and assessing their effectiveness

Taking into account national interests, it is necessary to develop:

- forecast and priorities for land use;
- main directions of land use depending on their categories;
- areas of sustainable land use;
- proposals for rational - cost-effective and environmentally safe land use;
- main directions of land resources protection;
- systems of measures to stabilize soil degradation processes, including measures to prevent land desertification;
- ways to protect and restore soil fertility of agricultural lands;
- climate change mitigation and adaptation measures;
- agreed measures for protection of forest and water fund lands;

- directions of protection of lands of nature reserve fund and other nature protection purpose, lands of health-improving, recreational and historical-cultural purpose.

The planned measures should be implemented by developing the necessary pre-project, project and working land management documentation, development of projects, determining the amount and sources of funding, monitoring the results of their implementation.

The state target program of land use and protection is implemented through the development, adoption and implementation of regulations and technical acts: Laws of Ukraine, amendments to the Laws of Ukraine, resolutions of the Cabinet of Ministers of Ukraine, regulations and technical acts of the central body executive power, which ensures the formation of state policy in the field of land relations, state standards and regulations, land management regulations, including through the introduction of economic levers” [1].

To successfully achieve the goal of the program of land use and protection, it is advisable to implement it in stages, in accordance with the urgency of the need, the availability of logistical, financial and labor resources, the level of regulatory and regulatory and technical support. It is important that the first stage should provide for the formation of an integral body of legislation that will regulate the entire complex of use and protection of the main national wealth - land. First of all, during the first stage, draft laws and other regulations should be developed, which should regulate scientifically sound ecologically safe and economically feasible land use in the conditions of land market opening and decentralization, significant fragmentation of small landowners and land users. Such projects should include: improvement of legislative, scientific, informational, organizational support for the rational use of land resources, and their protection, at the national level, as well as the creation of regulatory and technical framework, including classifiers and land regulations, for the program as a whole ; “Development of land management schemes and feasibility studies for the use and protection of lands of administrative-territorial units, territories of territorial communities” [1]; development of criteria for monitoring; principles of monitoring based on automated information systems and artificial

intelligence technologies, including remote sensing of the Earth. At the same time, it is necessary to provide for the implementation of urgent and effective measures for the use and protection of land, which will ensure the achievement of a positive economic and social effect, the cessation of soil degradation.

At the second stage, it is proposed to implement measures provided for by “land management schemes and feasibility studies for the use and protection of lands of administrative-territorial units, territories of territorial communities” [1]; development and implementation of algorithms and technologies for automated collection, processing and transportation of land and spatial information within the geo-information automated platform of the national level. In this automated system, it is also advisable to monitor the implementation of measures outlined in the program.

Given the status of the national program of land use and protection, the relevant regional and sectoral programs are developed for its implementation, taking into account the state of land resources, specifics of land use, material and resource opportunities for the implementation of planned measures through the development and implementation of:

- “land management schemes and feasibility studies for the use and protection of lands of administrative-territorial units, territories of territorial communities” [1];
- digital processes in land management, land monitoring and evaluation;
- criteria and technologies for land monitoring based on artificial intelligence algorithms;
- comprehensive processing of data on land and land plots from various sources of official registers of the country;
- an automated platform for monitoring land and soil quality at all levels of government based on modern digital processes and technologies.

An innovative component of the state target program of land use and protection in the digital economy and society of Ukraine is the development of an automated land monitoring system based on the use of remote sensing data, artificial intelligence, digitization of processes and data to obtain accurate information on land resources and control their use and protection.

The implementation of the measures of the state target program of land use and protection is based on the prompt implementation of the results of fundamental and applied research and development work in the following areas:

- development of conceptual approaches to land use and protection;
- development of scientific bases and methods of land management, land protection when changing land ownership and purpose;
- improvement of the methodology of land use optimization and accounting of land resources in modern conditions;
- planning, forecasting and organization of rational use and protection of lands;
- development of state standards, land management regulations and standards of land use and protection;
- development of scientific and methodological bases for land monitoring based on remote sensing of the Earth, GIS technologies, etc.

It is important to create in the system “a central body of executive power that ensures the formation of state policy in the field of land relations, a scientific center for standardization and regulation of land use and protection” [3].

Conclusions and prospects. The concept of land use and protection in the digital economy and society of Ukraine is the basis for developing a state target program of economic nature, which aims to address the problem of irrational use and degradation, pollution and depletion of land resources that require state support, coordination and local self-government, providing intersectoral and interregional connections of technologically related industries and industries. “Gradual implementation of the program through a set of organizational, legal, environmental, economic and other measures will stop the degradation of soil cover, especially to minimize erosion, create a sustainable system of increasing bioresource potential of land and increase the economic efficiency of their use” [3]. As a result of the envisaged program development measures in the context of digital economy and society of Ukraine a number of results and effects are expected, in particular: development of natural-agricultural, ecological-economic, soil-erosion and other types of zoning of lands of Ukraine. the basis of the information base and justification

of the system of environmental measures; introduction of an integrated system of normative-legal and normative-technical acts in the field of land use, accounting and protection; introduction of land use regime in protection and protection zones; introduction of periodic soil survey; improvement of monitoring on lands of all categories and forms of ownership; introduction of market mechanisms for land use and protection, which will strengthen market principles in the country's economy; strengthening the state character of land management and improving management in the field of land use and protection; development of a model of sustainable land use for natural and agricultural regions of Ukraine and ensuring sustainable development of land use in general; development of scientific and methodological bases for land monitoring based on remote sensing of the Earth, GIS technologies, etc .; introduction of restrictions on land use. The prospect of further development is the detailing and concretization of the measures of the state target program of land use and protection and plans for their implementation.

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КОНЦЕПЦІЯ ВИКОРИСТАННЯ ТА ОХОРОНИ ЗЕМЕЛЬ У СУЧАСНИХ УМОВАХ СУСПІЛЬНОГО РОЗВИТКУ УКРАЇНИ

Констатовано кризову ситуацію у використанні земельних ресурсів як в аграрних, так і неаграрних сферах землекористування в Україні. Однією з основних причин такої ситуації визначено відсутність досконалої системи нормативно-правових документів, які б реально регламентували науково обґрунтоване екологічно та економічно припустиме використання земель. Обґрунтовано концепцію використання та охорони земель в умовах розвитку цифрової економіки та суспільства України, яка може бути покладена в основу

розробки відповідної державної цільової програми. Концепція визначає керівний напрям в організації і реалізації процесів забезпечення сталого розвитку землекористування, захисту земель від виснаження, деградації та забруднення в умовах ринку з високою пріоритизацією моніторингу земель і земельних відносин засобами автоматизованих інформаційно-аналітичних систем та дистанційного зондування Землі. Запропоновано принципи і підходи до розробки державної цільової програми використання та охорони земель. Окреслено і проаналізовано варіанти вирішення проблеми забезпечення раціонального використання та охорони земель. Визначено напрями, шляхи, етапи реалізації, інноваційну складову й очікувані результати та ефективність виконання державної цільової програми використання і охорони земель на основі розробленої концепції.

Ключові слова: земельні ресурси, раціональне використання земельних ресурсів, моніторинг земель, заходи з охорони земель і ґрунтів

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КОНЦЕПЦИЯ ИСПОЛЬЗОВАНИЯ И ОХРАНЫ ЗЕМЕЛЬ В СОВРЕМЕННЫХ УСЛОВИЯХ ОБЩЕСТВЕННОГО РАЗВИТИЯ УКРАИНЫ

Констатировано кризисную ситуацию в использовании земельных ресурсов как в аграрных, так и неаграрных сферах землепользования в Украине. Одной из основных причин такой ситуации определены отсутствие совершенной системы нормативно-правовых документов, которые бы реально регламентировали научно обоснованное экологически и экономически допустимо использование земель. Обоснована концепция использования и охраны земель в условиях развития цифровой экономики и общества Украины, которая может быть положена в основу разработки соответствующей государственной целевой программы. Концепция определяет руководящее направление в организации и реализации процессов обеспечения устойчивого

развития землепользования, защиты земель от истощения, деградации и загрязнения в условиях рынка с высокой приоритизацией мониторинга земель и земельных отношений средствами автоматизированных информационно-аналитических систем и дистанционного зондирования Земли. Предложены принципы и подходы к разработке государственной целевой программы использования и охраны земель. Предложены и проанализированы варианты решения проблемы обеспечения рационального использования и охраны земель. Определены направления, пути, этапы реализации, инновационная составляющая, а также ожидаемые результаты и эффективность выполнения государственной целевой программы использования и охраны земель на основе разработанной концепции.

Ключевые слова: земельные ресурсы, рациональное использование земельных ресурсов, мониторинг земель, мероприятия по охране земель и почв