colloquium-journal

ISSN 2520-6990

Międzynarodowe czasopismo naukowe

Economic sciences

№13(100) 2021
Część 3

colloquium-journal

ISSN 2520-6990

ISSN 2520-2480

Colloquium-journal №13 (100), 2021

Część 3

(Warszawa, Polska)

«Colloquium-journal»
Wydawca «Interdruk» Poland, Warszawa
Annopol 4, 03-236
E-mail: info@colloquium-journal.org
http://www.colloquium-journal.org/

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УДК[338.432+504]: 330.341.1

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DOI: 10.24412/2520-6990-2021-13100-28-36

TARGET BENCHMARKS FOR ENSURING SUSTAINABLE DEVELOPMENT OF THE AGRICULTURAL SECTOR

Abstract

The article examines the directions of development of the agricultural sector, highlights its economic, environmental, social component. The multi-purpose nature of sustainable development of agroecosystems, which is a priority, the transition to a conservation model of development, and the harmonious coexistence of nature and society is shown. It was found that a necessary condition for sustainable development is to ensure a balance of economic and environmental motivations at the level of economic entities, as well as the main leitmotif of sustainable agricultural development - the urgent need to achieve Ukrainian parity of intersectoral exchange of related industries; imperative state solution of problems of intersectoral parity; proposals for their streamlining, which stimulate the process of modernization of the agricultural sector.

A balanced approach to strengthening the competitiveness of agricultural production, both in the country and abroad, taking into account the goals of sustainable development of rural areas and environmental protection. Emphasis is placed on the need to implement good agricultural practices, as provided for in the Association Agreement between Ukraine and the EU.

Key words: *sustainable development, rural areas, economic and environmental motivations, economic growth, good agricultural practice, agroecosystems, association agreement between Ukraine and the EU.*

Actuality of theme. Under conditions of decentralization, the need to take into account the structure of natural and anthropogenic systems, the level of development of productive forces and the nature of production and environmental interaction, the specifics of socio-economic development within a particular area.

Integration processes, processes of transnationalization hinder the development of rural areas, leveling the infrastructure of the village thus complicating the sustainable development of agroecosystems.

Instead, balanced sustainability in the development of agroecosystems, based on ecological agriculture, innovative approaches to work, self-realization, ensures the existence of an optimal agroecosystem that corresponds to the harmonious coexistence and potential of nature, society and economy.

However, large enterprises are not interested in mass employment, environmental protection, rural development, and the state needs it.

Thus, the existing model of development used has exhausted itself and is a threat to the existence of future generations. Changing the nature of the relationship between nature and society changes management methods in the direction of sustainable development. The expediency of the new paradigm of coexistence and interaction of society and nature, due to new approaches, methods and means of forming ecological culture and consciousness, is affected by the development of communicative processes in the context of public consciousness management. Harmonization of the "society - production - nature" relationship requires a balanced approach to strengthening the competitiveness of agricultural production, both in the country and abroad, taking into account the goals of sustainable rural development and environmental protection.

The Association Agreement between Ukraine and the EU provides for the implementation of sustainable development goals, implementation of best agricultural practices. However, the degree of development of these areas of scientific research is different. Over the last decade, the idea of sustainable development of society has received a multifaceted theoretical interpretation. Therefore, ensuring the sustainable sustainability of agroecosystems is a major issue today.

Analysis of recent research and publications. In the study of economic and environmental problems on the sustainable development of argoecosystems and related economic activities, Ukrainian scientists N.M. Andreeva, BV Bukrinsky, ON Verzhikhovsky, G.M. Kaletnik, L.Ye. Kupinets, OL Popova, SK Kharichkov et al.

However, today's realities require research and implementation of the experience of countries, recommendations of international organizations in the application of good agricultural practice, which combines the concepts of "nature and society", which makes it possible to ensure a viable environment.

The purpose of the study is the formulation and systematization of balanced sustainability of agroecosystems.

Presenting main material. The current stage of economic development is the basis for completing the creation and public recognition of the concept of sustainable development as a way to understand this phenomenon, a guiding idea for its coverage, creating conditions and preconditions for macroeconomic stabilization and forming mechanisms for integrating the environmental component into the agricultural sector rural development [2, p.34-67].

The essence of the category of sustainable development has a multi-purpose character and assumes as a priority direction, the transition to a biosphere model

of development of nature use, that is, to the safe state of the development of the technosphere and a stable state of the natural environment, their harmonious coexistence within the established permissible restrictions. This means the transition to a new era of development of civilization, the purpose and values of which are focused on the stability of all spheres of society, preservation for future generations of fundamental right to viable and life-supporting environment [2, p.34-67].

It should be noted that the objective basis for the formation of the concept of sustainable development of agriculture is unresolved problems of a global nature. In particular, there are issues of elimination of hunger and malnutrition, overcoming poverty and poverty of rural population in separate underdeveloped countries, global watering, degradation of land resources, soil water pollution in rural areas, destruction of natural agroecosystems, and others.

In general, the objective circumstances listed are determined by the peculiarities of targeted benchmarks for the provision of sustainable development of agroecosystems at the global and national levels (see Table 1).

Table 1

Institutional Fundamentals and Target Guidelines for Sustainable Development Agroecosystems

Comparison criterion	The level of achieving sustainable development	
	global	national
The body that regulates the development of the agricultural sector	Food and Agriculture Organization of the United Nations (FAO)	Ministry of Economic Development, Trade and Agriculture of Ukraine
Basic documents in the field of sustainable development of agriculture	Declaration of the World Summit on Food Security, Madrid Declaration, Resolution "Agricultural Development and Food Security", RIO + 20 Conference	"Concept of rural development" Order of the Cabinet of Ministers of Ukraine of September 23, 2015 № 995-r Export Strategy of Ukraine: Roadmap for Strategic Trade Development 2017 - 2021 March 28, 2017 Sustainable Development Strategy "Ukraine - 2020" Decree of the President of Ukraine of January 12, 2015 № 5/2015
The purpose of - economic development	Increase of food security and steady increase of volumes of production	Increase of economic efficiency of agricultural sector, increase of export potential
- social development	Ensuring employment and raising income levels, improving nutrition and raising living standards, improving living conditions in rural areas	Increasing the standard of living and quality of life of rural population, comprehensive improvement of rural areas, increasing prestige accommodation in rural areassocial development
- ecological development	Rational use of natural resources and environmental protection	Rational use of natural resource potential of agriculture, preservation and improvement of ecology in rural regions

Source: Developed by the author using [1; 4]

The natural systems of agrarian type should be considered as an object of research of noosphere processes. Then, according to the theoretical founders of the doctrine of the noosphere, these systems that integrate economic, natural and social processes must be controlled. The complexity of solving the problem of achievement of sustainable development of argoecasystems is due to:

- high complexity of the system, the presence of a large number of different interdependent elements that perform various functions;
- Multicriteria of the very concept of "sustainable development";
- an increase in the relationship between the elements of the system as its development, which is manifested in changing the behavior of the system in the variation of the parameters of the external environment, as well as in the impossibility of estimating the entire system on a set of properties of its individual elements and vice versa;
- the specifics of agrarian relations that exhibit themselves in the impossibility of controlling factors that form the effectiveness of the system;
- the presence of nonlinear bonds between the elements of the system, which leads to the emergence of uncertainty between them or "turning ripping moments"[1; 3].

Paradigm of sustainable development of agriculture Ukraine, which is a qualitatively new technical and technological, organizational and economic, socially oriented, ecologically weighed, consistent with the objective requirements of environmental imperatives, system. Its decisive links are: the ecological balance of its elements, priority solution to the problems of restoration of land and agro-salmonary fertility, active state social policy of development of rural communities and territories, which allows consistently to translate the agrarian and agro-products of the country mainly on eco-oriented technologies [2, p.67 - 79].

Thus, a prerequisite for sustainable development is the provision at the level of economic entities of

economic and environmental motivations, as well as the main leitmotifies of sustainable development of agriculture - an urgent need to achieve the Ukrainian economy of the inter-sectoral exchange of branches associated with it; imperative to state solving problems of inter-branch parity; Proposals for their ordering, which stimulate the process of modernization of the agrarian sphere [2, p.67-79].

It is necessary to distinguish between the study of sustainability as an objective properties of the system (desire to preserve its structure, internal and external bonds), along with other attribute properties: integrity, rehabilitation, structural, autonomy, interconnection of the system and external environment, hierarchy , controllability, multiplicity of descriptions, spatiality (territoriality), dynamism and static; and applied research on the problems of ensuring ecological-economic weighing sustainable development of specific ecosystems, especially in the study of ecological and economic balanced development of agroecosystems of various hierarchical spatial levels [4].

Thus, the negative side effects of the functioning of traditional agriculture have led to the need to apply more environmentally safe agricultural management methods, better agricultural practices. New Concepts of Agricultural Development - This is a proper agricultural practice (NSP) (GAP - Good Agricultural Practice), proper farm practice (English GFP - Good Farming Practice) [1].

According to the definition of the UN Food and Agricultural Organization (FAO), the proper agricultural practice is a set of principles that should be applied to the production of agricultural products and processes following production, and lead to safe and healthy food products and non-food agricultural products. In this case, economic, social and environmental factors are taken into account. It is about a wide range of practices in the use of land, water, production of products and feed, plant protection, health protection, and proper abstraction of animals, harvesting and processing on the farm, use of energy and waste disposal, wildlife protection and land protection [5, p.29-34].

Application of proper agricultural practice makes it possible to obtain safe food products, and combines experience both in the field of rational use of mineral fertilizers and methods of monitoring the presence of pests, and as a consequence minimizes the negative impact on the environment.

In general, the realization of proper agricultural practices should facilitate sustainable agriculture and rural development, based on such factors: economic capacity, environmental sustainability, social progress, safety and quality of food products. The main objective of the NSP (GAP) is the introduction and implementation of such a management strategy that would provide a corresponding understanding and monitoring at each stage of the production process. It is based on the following principal principles:

- economical and efficient production of sufficient number of safe and useful food products;
- preservation and multiplication of natural resources;
- support for viable agricultural enterprises;
- satisfaction of society's requests [5, p. 23-24].

The purpose of proper agricultural practices depends on the implementation of the normative and trade requirements by the state, as well as more specific requirements of specialized or niche markets. Purchasing products in the foreign market, in addition to the mandatory requirements established in the EU legislation, can nominate special requirements for the processes of production, safety and quality of products, its packaging, marking, etc. For example, compliance with GLOBAL GAP (proper agricultural practices) or standard of food safety management system ISO 22000 [7; 8].

As you know, in the new UN program "Sustainable Development: Objectives and Agenda 2030" for agriculture provides tasks - to double the productivity of agriculture. In Ukraine, there is still a choice between the productivity (increasing gross agricultural products) and ecologization most often took place in favor of productivity. But the European integration desire of the state force to put these tasks in the complex and to look for approaches to balanced solutions.

Among the expected results of execution of sustainable development goals for the period up to 2030, it is envisaged as a traditional increase in the production of gross agricultural products and export volumes, as well as improving the structure of agricultural land, reducing the area of degraded lands, ensuring environmental safety, preservation of biodiversity and formation of the environmental network. Obviously, increasing the production volumes of agricultural products at any price can not be an end in itself for the agrarian sector. If the productivity will pursue only economic interests and accompanied by the terracid - the destruction of land, as well as pollution of water, excessive agro-ecological load on the environment, then questioned the existence of the industry, food security, will undermine the stability of social life [6; 18].

However, according to the World Bank estimates, the Ukrainian economy, which is largely focused on exporting low-added products, is not effective and therefore, in terms of gross national income per capita, the country is part of a group of countries with income below the average level (amounted to 7810 USD for PCS in 2015). The high degree of depreciation of fixed assets (83.5% in 2014) and outdated technologies, especially in the mining and metallurgical complex, determine the raw materials, materials, energy sources. Energy intensity of GDP (0.34 tons. / 1 thousand dollars. USA in 2013 according to MEA) exceeds the average figure of EU countries by 1.5 times.

Today, Ukraine faced a number of serious problems associated with the escalation of the conflict in the east of the country, the occupation of the Crimea, the economic crisis. Along with the accumulated structural problems, this led in 2015 to the fall of GDP by 9.9% and industrial production by 13.4%. In conditions of rigorous resource restrictions and external threat, the change in the economic model of development and structural restructuring are issues of survival of the country.

The need to introduce sustainable development strategy in Ukraine is due to the factors of internal and external nature:

- In connection with the adoption at the UN summit on sustainable development, the global goals of sustainable development for the period up to 2030 requires an actualization of the Sustainable Development Strategy "Ukraine - 2020";

- in Ukraine as a result of domination over many years of resource and energy-intensive industries and technologies, raw material orientation of exports and excessive concentration of production in industrial regions, such a structure of development management, which is generally ineffective and environmentally hazardous;

- the level of economic development and well-being does not correspond to the natural, scientific and technical, agrarian and industrial capacity of Ukraine and the qualification and educational level of the population, socio-historical and cultural traditions of the people of Ukraine;

- Ukraine has international sustainable development obligations specified by the UN strategic documents;

- The basis for introducing innovative transformations in Ukraine in the direction of sustainable development is the Association Agreement between Ukraine and the European Union [18].

Consequently, economic growth will not be associated with the operation of natural resources, but with the widespread use of "green" economy models. The waste accumulated in the past will gradually be processed and disposed of, which will reduce the scale and eliminate a large quantity of landfills. Export will be transition from raw materials and products of its primary processing to predominance of products with a high degree of value added.

Sustainable Development Strategy and the Implementation Plan for the Association Agreement between Ukraine and the European Union contain a volume package of tasks in the direction of green transformation of the economy. The green transformation of the economy is expected to affect:

- creation of less resource-intensive sectors of the economy, new markets and jobs;

- introduction of modern energy-efficient technologies, innovative activity;

- improving productivity and business competitiveness thanks to the efficient use of energy, resources and minimization of waste volumes.

The potential for the development of green activities in Ukraine is, in the first place, Ukraine has significant prospects for the development of organic agriculture. In 2018, the land area under organic products reached more than 460.8 thousand hectares, the number of certified organic products producers amounted to 186 enterprises, and its sales is estimated by more than 16.5 million euros.

Implementation of two strategic documents adopted in 2015: "The agenda for the period up to 2030" at the Summit on Sustainable Development South Africa in New York City, as well as a new climate agreement in Paris December 12, requires the signatory countries to review its obligations in these areas.

In this regard, in Ukraine, at the expert level, the scenarios and target guidelines of several projects of development of the country's development: the energy strategy of Ukraine until 2035, in addition, amendments to the current environmental strategy for the period up to 2030 began to work on the strategy Low-carbon development by 2050 and the development strategy of the industrial complex until 2025. These documents are closely interconnected and to promote Ukraine's transition from a false consumer model in the direction of a more green growth based on the effective use of all factors of production and implementation of energy and resource efficient technologies, eco-innovation [19].

The stable development of the agrarian sector depends on the effective use of natural resource potential involved in the production of agricultural products, as well as compliance with agricultural producers of rational environmental requirements and the preservation of environmental components of the environment. Therefore, it is necessary to develop mechanisms for state policy to improve agro-ecological languages of the functioning of agriculture, which will ensure stable ecological and balanced development of the industry, as well as rural areas, which are carried out by agricultural activities. The current ecological state of Ukraine is characterized by "Responsibility" of natural resources. Thus, in Ukraine per unit of GDP, almost ton of natural resources are spent, while in - US only 3 kg. General energy consumption per unit GDP in Ukraine is 1.8 times higher than in Russia, 3.5 times - than in Poland, 8.3 times - than in developed countries in Europe[11].

In the process of land use land resources as an important environmental component of the environment undergo a significant environmental load, the coefficient of ecological stability of land use in Ukraine is 0.41, that is, land use on the territory of Ukraine is evaluated as "steadily unstable". Agricultural production affects the state of other environmental components of the environment - water and atmospheric air. Thus, mineral fertilizers are introduced, as well as plants protection products from pests and diseases of agricultural plants are partially washed out and fall into water objects [13; 14].

Thus, in terms of land resources, the Land Code of Ukraine and the Law of Ukraine "On Protection of Lands" distinguish major measures for economic stimulation of protection and use of lands and increase soil fertility and land users:

- provision of tax and credit privileges to individuals and legal entities that carry out measures to protect land from erosion, increase of soil fertility and other measures envisaged by national and regional programs of use and land protection;

- the release of landowners and land users from the Earth's fees and lands, which are carried out work on melioration, reclamation, land conservation and other work on land protection for the period of temporary conservation, construction and agricultural devel-

opment of land in accordance with the approved land management documentation;

- Competition of agricultural commodity producers of an underestimate share of income as a result of preserving degraded, unproductive, as well as technological contaminated lands;

- application of accelerated depreciation of fixed assets of land-camping and environmental purposes.

At the same time, the practical implementation of the above measures is restrained by the absence of a legally defined procedure for stimulating land users who carry out land-guards measures.

In order to stabilize and improve the state of the environment in Ukraine, the strategy of state environmental policy of Ukraine for the period up to 2030, whose tasks, in particular, are defined:

- preservation of such a state of the climatic system that will make it impossible to raise risks for health and well-being of people and the environment;

- achievement by Ukraine of sustainable development goals (CSP), which were approved at the United Nations Summit for Sustainable Development in 2015;

- promotion of balanced (sustainable) development by achieving the balance of components of development (economic, environmental, social), orientation to priorities of balanced (sustainable) development;

- integration of environmental requirements during the development and approval of documents of state planning, sectoral, regional and local development and in the process of decision making on the implementation of planned activities of objects that may have a significant impact on the environment;

- inter-sectoral partnership and involvement of interested parties;

- prevention of emergency situations of natural and man-made character, which involves analyzing and forecasting environmental risks based on the results of a strategic environmental assessment, environmental impact assessment, as well as complex monitoring of the state of the environment;

- Ensuring environmental safety and maintenance of environmental equilibrium on the territory of Ukraine, increasing the level of environmental safety in the exclusion zone;

- ensuring the inevitability of responsibility for violation of environmental legislation;

- application of the principles of warning, preventiveity (prevention), priority to eliminating sources of harm to the environment, "polluter pays";

- responsibility of executive authorities and local self-government bodies for availability, timeliness and reliability of environmental information;

- stimulating the state of domestic business entities that reduce greenhouse gas emissions, reducing energy and resource content, modernization of production aimed at reducing the negative environmental impact, including improving the environmental tax system for environmental pollution and payments for use. natural resources;

- Implementation of the latest means and forms of communication and effective information policy in the field of environmental protection [19].

Implementation of the strategy will create conditions for guaranteeing an environmentally safe environment for the life and health of the population, the introduction of an environmentally balanced system of nature management, preservation of natural ecosystems. Ukraine should use the world experience in conducting economic activity, taking into account environmental environmental requirements.

Thus, world practice distinguishes the following principles of ecological-directed agricultural production:

1) establishing rules for agriculture - the Code of Property Agricultural Practice (UNDP / GEF project reduction of environmental pollution through changes in agricultural policy and demonstration of pilot projects "for the Danube River basin); The Good Agricultural Practice Code (regulated by the EU directives "to protect water resources from pollution with nitrates from agricultural facilities"; "Good conditions of agriculture and the environment" (EU Directive 1782/2003 / EEC); "Joint standards of good farm practice" (EU Directive 1257/1999 / EEC), etc.;

2) Distribution of low-cost (balanced, compromise, adaptive) systems of production: analogues Lisa / Leisa (Low (External) Input Sustainable Agriculture - low-costly supportive agriculture), mini-agriculture (Biointensive mini-Farming), Biodynamic Agriculture (BioTynamic agriculture), EMFECTIVE MICROORNISM TECHNOLOGIES [10; 12], etc. The largest distribution in the world and state support in this group acquired Lisa / Leisa technology;

3) development of organic (biological, ecological) production - provides for the widespread use of biological approaches in agricultural production (manure, side rates, minimization of soil treatment, biological loosening and structuring of soil, biological transfer of nitrogen to organic compounds, biological weed fighting, pathogens of diseases and pests), refusal to use pesticides or regulated their use only when processing seeds, prohibition to use genetically modified organisms, etc. [13]. In the European Union, organic production is regulated by Directives No. 2092/91 and No. 834/2007 dated 28.06.2007 of organic products and its marking, basic standards of the International Federation of Organic Agricultural Movement (International Federation of Organic Agriculture Movements, IFOAM), Food and Standard UN Agricultural Organization (FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, FAO) and World Health Organization - Alimentarius Code;

4) a combination of agricultural production technologies with environmental measures (hereinafter referred to as submissions or seeds in fields of plants that support the feed chain of local animals)[20].

The need to combine the production and environmental component in agricultural production is due to the specifics of agrarian production, which is observed by a prolonged operating cycle, a wide territorial dispersal and close connection with biotic and

abiotic environmental factors, which complicates the implementation of environmental measures is separated from the production process.

For Ukraine, it is extremely important to regulate agricultural activities to ensure environmental safety of agrarian production and reduction of man-made-agricultural load on the environment. In this context, it is advisable:

- to structure agricultural land towards the establishment of optimal ratios of arable land, pastures and haynogies;

- ensure implementation and compliance with the principle of "cross-responsibility" (Cross Compliance) in the implementation of budget support of agricultural commodity producers (Single Payment Scheme subsidies, implemented in the EU countries) for implementing certain requirements for reducing the harmful effects of agricultural activities on the environment. After the reform of the EU joint agricultural policy in 2003, the requirements of Cross Compliance became mandatory for EU countries and are divided into: national-good agricultural and environmental conditions (Good Agricultural and Environmental Condition, EU Directive 1782/2003 / EEC) , which aims to prevent inappropriate handling of agricultural land, regardless of whether agrarian production is carried out or not;

- pan-European - requirements of 19 EU directives and regulations on environmental protection, animal maintenance, human health, plants and animals, are united in the "Statutory Management Requirements" (Statutory Management Requirements), defined by the EU Regulation 1782 / 2003 / EEC;

Potential - provided by the legislation of individual countries, but are not currently included in the requirements of Cross Compliance (for example, the Ministry of Environment, Food and Rural Affairs of the United Kingdom introduced requirements for agricultural producers regarding the presence of land (pastures) that can not be included in the crop rotation during the presence of agricultural producers. 5 or more years) [15];

- at the state level, develop and implement a complex of agricultural rules in accordance with the Codes of Good and Property Agricultural Practices implemented in the EU. In Ukraine, such rules should include items in relation to fertilizers, anti-erosion measures, requirements for storage and use of manure, etc. and to be the basis for making decisions on the provision of state support to business entities that perform these rules. This will reduce the negative impact of agricultural production on the environment, increase the yield of agricultural crops by rationalizing fertilizers, to increase the general culture of agriculture;

- promote the introduction of new technologies of agricultural production, which maximally involve environmental requirements, and are focused on achieving environmental balance (non-precious soil cultivation, the contour-melioration organization of land use, organic agricultural production, etc.).

An important and promising direction is the environmental diversification of agricultural production, which involves the development of types of economic activity in rural areas and aims to reduce agricultural risks, as well as a saving attitude to the environment. This is primarily:

- production of biofuel and energy based on raw materials obtained in agriculture (such raw materials, in particular, are energy plants, rape, straw, biogas, etc.), which will increase the level of income of rural population, reduce emissions into the atmosphere of heavy metals, reduce Ukraine's energy dependence. ;

- development of environmental and agro-tourism in rural areas, which envisages the creation of economic conditions in the countryside in which environmental protection becomes necessary and beneficial for local communities. This is indirectly contributing to the circulation of eroded land by means of their release and transformation into natural meadows, preserving the purity of the environment, reducing the intensity of agricultural land and others. [14].

In general, promoting the state level to solve the problem of improving agro-ecological conditions of agricultural functioning in Ukraine will satisfy the individual economic, social and environmental interests of the state and society:

- at the national level - to improve the state of natural resources involved in agricultural production, an increase in export potential due to the production of environmentally friendly products;

- on public - to meet the needs of net environments and high quality products;

- in business - to provide an increase in profitability and raising social responsibility of business [16].

In the development of land use rules in the practice of EU countries proceed from the fact that land relations can not be a self-sufficient economic and legal category - they are the foundation of agrarian economic and socio-ecological policy that comes to change the policy of economic growth. Since land reforms are not separated from agrarian, but, conversely, the latest "grow" from land relations, multifunctional (ie economic-socio-ecologically oriented) agriculture can only be subject to subordination to this orientation and land relations that form under the influence of forms ownership of agricultural lands, forms of organization of agricultural production and land use, rules of circulation of agricultural land (buying, sale, lease, inheritance, gift) and other factors.

Consequently, all transformational transformations in land relations should take into account both features of land - the main means of producing agricultural products, and the multifunctional nature of agriculture, that is, its economic function (production of goods in order to profit), social (provision of food security and food independence of the country, Promoting the employment of the rural population in conditions of limitation of spheres of labor in rural settlements, which maintains humanity of villages and promotes the colonization of rural areas) and environmental (preservation of the human environmental environment's life, support of local agrolandshafts, soil protection against pollution and degradation, etc.).

This is provided by a high level of legislative regulation of all aspects of land relations, starting with the recognition of persons who are endowed with the right to acquire (lease) agricultural land, ending with the functions of state institutions that control the movement of land in the market.

However, in the implementation of land reform in Ukraine, the multifunctional appointment of agriculture and land was not taken into account. As a result in Ukraine:

- formed two diametrically opposite and equally disastrous for the village of land use model - Latifundist-oligarchic and parcel. The first is accompanied by a concentration of dozens and hundreds of thousands of hectares of agricultural land in the hands of individual agroholding companies registered, as a rule, abroad (in the hands of agroholdings are already concentrated to half of the agricultural land of enterprises (from 50 thousand to 600 thousand hectares in each). The second model is embestered by low-earth's personal farms. Parking farms can not expand their land use by lease (Agroholdings always offer a higher rent), their capabilities have been resolved in the acquisition of grounds for soil cultivation limited, since there are no state support for them, no loans of commercial banks;

- destroyed crop rotation and livestock breeding, production of plant production in large enterprises has become an export-oriented monocultural and exhausting nature, which is accompanied by the destruction of local agro-ecosystems and traditionally agricultural spheres of rural population (from enterprises displaced about 2 million people, which enhances unemployment and poverty in the village;

- accelerated the processes of degradation and depletion of soils. Erosia is affected by more than 40% of Ukraine's agricultural land. The total area of eroded lands per year increases by 80-100 thousand hectares. As a result of erosion, about 500 million tons of productive upper ground layer are washed out annually, 24 million tons of humus, 1 million tons of nitrogen containers, 0.7 million tons of phosphate and 10 million tons of potassium. According to calculations, the annual loss of agricultural land from soil erosion exceeds an average of 200 billion UAH;

- the return of nutrients made with a crop is only 30-50%. The deficit of nutrients reached 120-130 kg hectares and is characteristic even for the best chernozems, the humus deficiency reaches 600-700 kg per ha. As a result, their content in Ukrainian chernozems is 2.5-3 times lower than in the soils of Western European countries (as of 1990 we had a deficient balance of nutrients, and in terms of phosphorus we had expanded reproduction. The farms were introduced on hectare 140 -160 kg D.R. and within 280 million tons of organics (8-9 t / ha)) [16; 21 22].

The Agreement on a Free Trade Area involves the legalization of the National Code of Sustainable Agrowment, in which, in particular, requirements for crop rotation agriculture, the production of competitive environmentally safe products, the preservation of fertility of agricultural land, introducing programs of mandatory temporary preservation of the most degraded lands with them soil-proof Measures and output of parts of them with cultivation, environmental protection and biodiversity, other land use rules in combination with sanctions for their violation.

Development and implementation in the practice of legislative and regulations in the context of implementation of the Agreement will maintain the productive power of Ukrainian lands and will provide food security and food independence in the future.

The settlement of land relations in Ukraine on the European principles provides that the Parties cooperate to convergence policies and legislation in the field of economic development of rural areas, agricultural development, an open market of agricultural land. Realize these tasks in Ukraine should be balanced and maximize the interests of land relations entities and taking into account the strategic goals of agrarian and rural development. The main ones are such.

1. Support for family farms. Strategic issues of land relations development are the definition of priority forms of management, given the realization of economic and social functions, ensuring sustainable agrarian land use.

The system for regulating land leasing in the EU countries in different proportions combines two main vectors: the first is restrictions and regulation aimed at protecting the rights of tenants, the second to protect the rights of owners. The first is a priority for the Netherlands and Belgium, the second - for Hungary and Poland.

In countries that joined the EU during the latest waves, the principle of prioritization of the rights and interests of local landowners, small farmers living at the place of agricultural activity is generally implemented. However, in countries where the support of tenants dominates, it also means supporting family farms, since they are the main tenants of agricultural land. In Ukraine, the main tenants are corporate enterprises that are often imposed by the peasants of the terms of transactions in the absence of other alternatives. These realities make an inappropriate strengthening of tenants. The establishment of a minimum lease term is an example of a reasons-based reasons for protection of the rights of tenants, which will additionally strengthen the imbalance in favor of realizing the interests of domestic small landowners.

Significant growth of the welfare of the rural population, which possesses millions of hectares of land, can be ensured not at the expense of rent, but to stimulate the expansion of farms and development of commercial family farming on these lands.

2. Implementation of the interests of landowners in relations with tenants. Many problems of landlords (low level of payments, limited impact on tenants, depletion of land leased) are due to the lack of consolidated position of landowners and mechanisms for the implementation of common interests. It is necessary to develop institutions representing the interests of landlords in relations with tenants by creating public organizations to coordinate owners, legal support, etc.

Since many landowners live remotely or for other reasons can not represent their own interests in the lease market, such a representation can be realized,

delegating the state structures or authorities of the right to dispose of land (search of tenants, conclusion of transactions). The relevance of this will continue after removing restrictions on the purchase of land. Similar representative functions carry out state structures in Spain, such practices introduce some countries in the process of European integration, such as Turkey.

3. Mechanisms of redistribution of lands to solve public priorities. EU experience shows: regulation of land turnover, in addition to realizing the interests of owners and users, is strategically aimed at preserving the rural deposit as an important component of the development of society. In the EU there are instruments and mechanisms of redistribution of lands to solve public priorities. The need to optimize the structure of agrarian land use exists constantly. In Ukraine, this problem is relevant for agricultural lands of all forms of ownership as a result of their excessive fragmentation, unsatisfactory environmental situation, etc. The most complicated moment is redistribution and change the purpose of private land.

In the EU, the most common mechanism for alienation of land for public needs and environmental purposes has long been expropriate with the appropriate reimbursement or provision of owners of other plots. Modern approaches stimulate the voluntary participation of owners in redistribution, are labor-intensive and time-cost, but socially more efficient, since they take into account the interests of owners and minimize public expenses (compensatory payments).

In the Association Agreement between Ukraine and the EU, the implementation of the Council Directive No. 91/676 / EEC of December 12, 1991 on the protection of water from pollution caused by nitrates from agricultural sources, with changes and additions made by the Regulation (EC) No. 1882/2003 (see Appendix XXX to Chapter 6 "Environmental Environment" of Section V). The relevant norm-forming, institutional and organizational measures are set forth in terms of implementation of this Directive [17], approved by the order of the Cabinet of Ministers of April 15, 2015 No. 371-P [18]. The provisions of the Directive were not taken into account in national legislation and are attributed to the primary directions of harmonization with the legal norms of the EU.

Implementation of the EU directive (it is also called nitrate) will have positive effects, first of all, to improve the quality of water resources (their current state of disadvantaged), in particular drinking water, and will meet the goal of the national target program "Drinking Water of Ukraine". Implementation of the norms of the Directive will also contribute to improving the life environment in rural areas. A positive aspect is that from the point of view of the globality of water quality problem, it is possible to rely on EU financial assistance to the introduction of the Nitrate Directive.

Challenges and negative consequences of the implementation of the indicated directive will apply, firstly, the need for a large scale of work, given the number of economic entities in Ukraine, which are engaged in livestock, which is 3,500 agricultural enterprises (in half of them a farm from 100 to 1000 goals) and 1300 thousand rural households (in a third of them contains 2-4 or more livestock heads). Secondly, the problem of lack of own funds in agricultural producers and limited sources of attracting financial resources for the arrangement of capacities and areas for the storage of organic fertilizers, the acquisition of appropriate vehicles and mechanisms. Banks, as a rule, refuse to provide loans to these goals (as unproductive investments). Thirdly, compressed timing of the requirements of the Directive: it is envisaged to implement within 3-4 years from the date of entry into force.

For successful implementation of the norms of Directive 91/676 / EEC, it is recommended, firstly, to accelerate the development and approval of the implementation of normative legal acts envisaged in terms of determining vulnerable zones nitrates. Secondly, it is urgent to develop and massively extend among the agricultural producers code of the best methods of agricultural work as management guidance in vulnerable areas to nitrates. In order to organize large-scale free training and manufacturers, it is necessary to form appropriate educational courses, develop a web resource, to activate advisory service. Thirdly, it is necessary to provide agricultural producers to budget support for the construction of organic fertilizer complexing facilities, the acquisition of vehicles and mechanisms for their proper introduction into zones vulnerable to pollution. The Government of Ukraine is also expedient to initiate the implementation of the relevant thematic project on the principle of co-financing (public funds, funds of peasants and self-government bodies) with the help of European funds, as well as international institutions. The agricultural producers themselves, at the expense of their own funds, are not coped with this work [21].

Conclusions. Consequently, the Ukrainian specificity has a great importance for our country, as well as the determination of the real state of the agrarian sphere of the country with a detailed study and disclosure of factors that influenced its removal from the vector of sustainable development of agro-ecosystems. That is, the radical change in the paradigm, in which the innovative processes are called, first of all, to solve the imperative settings, referring to the provision of ecological - economic balanced functioning of agro landscapes, the transfer of emphasis on intensive factors of economic growth for the empative cultivation of innovative technologies, consistent with imperative environmental settings.

In this regard, agriculture in the country has significant reserves, since it is essentially the principle of priority of the environmental friendliness of innovative processes. Reproduction of agro landscapes with environmentally balanced components against the background of innovative development of the agrarian economy, which should be formed on a qualitatively new basis, is imperative installations. The main contours of the new paradigm of the innovation type of development are formed, in our opinion, in the context

of the priority development of the ecological and economic component.

Also, it should be monitored that only for compliance with the established environmental requirements for agriculture (in particular, proper storage of organic fertilizers, preventing the degradation of soils, observance of crop rotation) an agricultural producer can count on financial support for any state programs. For non-compliance with such requirements, manufacturers will be deprived of state support. A similar approach will provide a "double winning" from the provision of budget supports - the simultaneous implementation of agricultural producers of economic and environmental problems.

It is advisable to develop a national code of sustainable agriculture as a generalized document on various environmental aspects of management, which describe generally accepted requirements and rules for conducting proper agricultural practices (Good Agricultural Practice). Compliance with this practice is the basis of management in EU member states and the main condition for the provision of agricultural producers of direct support within the framework of the EU SAP and national programs.

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УДК: 338.28

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О ПЕРСПЕКТИВАХ И РИСКАХ РЕАЛИЗАЦИИ ШЕЛЬФОВЫХ ПРОЕКТОВ В РОССИИ

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ON THE PROSPECTS AND RISKS OF OFFSHORE PROJECTS IN RUSSIA

Аннотация

В статье представлены основные риски при реализации шельфовых проектов, а также рассмотрим варианты, которые позволят их минимизировать или полностью исключить при добыче углеводорода из недр.

Abstract

The article shows the main risks in the implementation of offshore projects, and consider options that will help to minimize or completely eliminate them in the extraction of hydrocarbons from the subsurface.

Ключевые слова: *риски, шельф, импортозамещение, отечественные технологии.*
Key words: *risks, offshore, import substitution, Russian technologies,*

Проекты на континентальном шельфе имеют особую важность для России, поскольку они напрямую взаимосвязаны с комплексным развитием страны и повышением качества жизни всего населения. Добыча углеводорода из недр с помощью инновационных проектов влияет напрямую как на национальную безопасность, так и на развитие энергетической и транспортной сферы. По прогнозам аналитиков, нефтяные и газовые проекты на арктическом шельфе займут к 2050 г. в секторе долю до 30% от всей нефтедобычи РФ. [2]

Однако за этими перспективами скрываются значимые проблемы. Ключевой проблемой нефтегазовой отрасли на сегодняшний момент является сильная зависимость нефтегазового комплекса России от импортного оборудования. Зарубежные технологии по глубоководной добыче, разработке трудноизвлекаемых запасов и повышению коэффициента извлечения нефти – все это в дальнейшем могло привести к снижению динамики в отрасли. Волна санкций, направленных западными государствами, привела к запрету на поставки такого оборудования и технологий, что поспособствовало росту негативного воздействия на нефтегазовый комплекс в связи с постоянными технологическими ограничениями. В рамках защиты нефтегазового сектора было принято решение о внедрении политики импортозамещения. Она позволит как избавить отрасль от зависимости в зарубежном оборудовании и импортируемом сырье, так и повысить общую самодостаточность страны, не оглядываясь на давление, импортные счета, инфляцию валюты и прочее.

То, как работает политика импортозамещения в нефтегазовом комплексе России, можно увидеть на региональных уровнях. Простой пример – Сахалин. Но такая политика сопровождается рядом значимых проблем [3].

Если говорить о развитии отечественных инновационных шельфовых проектов, то каждый этап сопровождается 6 ключевыми рисками [1]:

- **Геологические**. Сюда относятся землетрясения, оползни, пр. Хоть они и не влекут за собой прямой угрозы для общества, но есть риск нанесения ущерба производственным сооружениям, а также добывающим конструкциям.
- **Инвестиционные.** Здесь оказывает свое влияние повышенная капиталоемкость шельфовых проектов. Для того, чтобы освоить российский шельф, требуется в разы больше инвестиций в сравнении с той же добычей ресурсов на суше. И для любого капиталоемкого проекта главная черта – невозвратность инвестиций.
- **Технические**. Любые современные объекты топливно-энергетических комплексов сопровождаются техническими рисками. Добыча углеводородов ежегодно требует вложений, суммы которых превышают десятки миллиардов рублей. Технологии усложняются, а само конечное сырье на выходе уже становится наукоемким продуктом, поэтому разработка и добыча на шельфе всегда будет связаны с высокой степенью опасности и постоянными техническими рисками.
- **Транспортные.** Здесь все просто и очевидно. В нефтегазовом секторе ключевым вопросом всегда остается транспортировка добытого сырья. Если речь идет о перевозке углеводородов с континентального шельфа, то это, само собой, подразумевает и создание сложной транспортной инфраструктуры. И реализации этого вопроса на практике оказывается самой сложной в техническом и финансовом плане.
- **Экологические.** Для континентальных шельфов характерны ограниченные свойства по самоочищению. Такие районы считаются наиболее уязвимыми по отношению к любому техногенному воздействию. Добавьте сюда еще и специфичные природного-климатические условия. Все это в комплексе приводит к рискам нанесения значимого ущерба природной среде, который еще не в каждом случае удастся ликвидировать, не говоря уже о компенсации.