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DOI <https://doi.org/10.26661/2414-0287-2023-4-60-12>**ECOLOGICAL-ECONOMIC MECHANISM OF ENTREPRENEURIAL DEVELOPMENT
BASED ON ENVIRONMENTAL MANAGEMENT****Babmindra D.I., Slobodiannyk I.M., Smetanko A.A.***Zaporizhzhia National University**Ukraine, 69600, Zaporizhzhia, Zhukovsky str., 66*

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Key words:

eco-economic mechanism, environmental economics, entrepreneurial economics, land relations, land reform, land resources, land resource potential, rational land use, sustainable development, green economy, economic eco-systemization, state environmental expertise, environment, environmental management, eco-economic assessment, strategic planning, development strategies, mechanisms for supporting land relation development, stimuli mechanisms, institutions

The article is dedicated to examining scenarios and strategies for the development of land relations, designing an effective eco-economic mechanism for the functioning of environmental management and entrepreneurial development based on land market principles, taking into account the rating evaluation of the investment attractiveness of administrative-territorial peculiarities of land resources, environmental economics, and directions that stimulate the economy and entrepreneurial development in Ukraine. The article investigates the directions for the utilization of land resource economics, development trends, and mechanisms to support the functioning of environmental management with consideration of state incentives for the investment attractiveness of land resources. It also discusses strategies for the development of land relations aimed at improving the mechanisms for supporting the economy of entrepreneurship based on land market principles, as well as the socio-economic development formed through investment attractiveness, the character of their distribution, and the efficiency of utilization, all while considering eco-friendly technologies and institutional support. The article explores the goals and tasks of eco-economic environmental management by forming the investment attractiveness of land resource potential as a scientific prerequisite for entrepreneurial development based on environmental management in Ukraine. It outlines the challenges of transitioning the country to a sustainable development model, proposes ways to address them, and highlights the eco-economic direction of entrepreneurial development based on land market principles, which is a significant and powerful instrument for the revival of Ukraine's economy. The article suggests improvements to the strategy of socio-economic and eco-economic development of land relations in Ukraine and identifies the directions for regulating environmental nature utilization, which are powerful platforms for regional investment attractiveness.

**ЕКОЛОГО-ЕКОНОМІЧНИЙ МЕХАНІЗМ РОЗВИТКУ ПІДПРИЄМНИЦТВА
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Стаття присвячена розгляду сценарію та стратегій розвитку земельних відносин, проектуванню ефективного еколого-економічного механізму функціонування природокористування та розвитку підприємництва на засадах ринку землі, з урахуванням рейтингової оцінки інвестиційної привабливості адміністративно-територіальних особливостей земельних ресурсів, економіки довкілля та напрямів, які стимулюють економіку, розвиток підприємництва в Україні. В статті проведено дослідження напрямів використання економіки земельних ресурсів, тенденцій розвитку та механізмів підтримки функціонування природокористування з урахуванням державного стимулювання інвестиційної привабливості земельних ресурсів. В процесі дослідження розглянуто стратегії розвитку земельних відносин, які направлені на удосконалення механізмів підтримки економіки підприємництва на засадах ринку землі, соціально-економічний

Ключові слова:

еколого-економічний механізм, економіка довкілля, економіка підприємництва, земельні відносини, земельна реформа, земельні ресурси, земельно-ресурсний потенціал, раціональне землекористування, сталий розвиток, зелена економіка, екологізація економіки, державна екологічна експертиза, довкілля, природокористування, еколого-економічна оцінка, стратегічне проектування, стратегії розвитку, механізми підтримки розвитку земельних відносин, механізми стимулювання, інституції

розвиток, які сформовані за рахунок інвестиційної привабливості, характеру їх розподілу та ефективності використання з урахуванням еколого-безпечних технологій та інституційного забезпечення. Досліджено цілі та завдання еколого-економічного природокористування за рахунок формування інвестиційної привабливості земельно-ресурсного потенціалу, як наукової передумови розвитку підприємництва на засадах природокористування в Україні. Окреслено проблеми переходу країни до моделі сталого розвитку, запропоновано шляхи їх вирішення, висвітлено еколого-економічний напрям розвитку підприємництва на засадах ринку землі, який є важливим та потужним інструментом відновлення розвитку економіки України. Запропоновано удосконалення стратегії соціально-економічного, еколого-економічного розвитку земельних відносин в Україні. Визначено напрями регулювання екологічного природокористування, які є одними з потужних платформ розвитку інвестиційної привабливості регіону.

Statement of the problem

The United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992, adopted the concept of sustainable development. Sustainable development is understood as the creation of a socially-oriented economy based on the rational use of resource base and the protection of the natural environment, which does not endanger future generations. Two decades later, in 2012, the United Nations Conference on Sustainable Development (Rio+20) took place in Rio de Janeiro, where the results of humanity's 20-year efforts to change the traditional development model were reviewed. The conference emphasized the need to transition to the formation of a green economy for achieving sustainable development. According to the United Nations Environment Programme (UNEP), a "green" economy is one that ensures long-term prosperity for people while allowing future generations to avoid significant environmental risks [1]. A simpler understanding of a "green" economy involves reducing emissions of pollutants into the natural environment while using resources, materials, and energy comprehensively, an economy that serves the interests of society as a whole [2; 9]. The need for transitioning to a "green" economy is illustrated by the forecasts of the Organization for Economic Cooperation and Development (OECD), which, under current methods of production and consumption, predicts that by 2050, compared to the beginning of the 21st century, 61 to 72 percent of flora and fauna will disappear worldwide. Irreversible damage will be inflicted on areas that can be compared to the territory of Australia.

Ukraine, like other former Soviet states, lags significantly in the development and improvement of relations concerning environmental management, green economy, and sustainable development as a whole. This is due to the low rates of economic growth during the "reconstruction" period and the relegation of ecology to a secondary role in the creation of economic and industrial development strategies. All of this subsequently leads to the deterioration of natural conditions for labor force reproduction, worsening of the environment, reduced birth

rates, and decreased average life expectancy. Such policies have resulted in five significant negative consequences: firstly, there are increasing losses of societal labor due to the irrational use of fuel, materials, and raw materials in production; secondly, additional societal labor is required to eliminate the negative consequences of production's impact on the environment; thirdly, there is a growing deficit of natural production resources; fourthly, there is an increasing deficit of natural conditions for production; fifthly, total labor costs for extracting elements of the natural environment for production are increasing. Unfortunately, these problems remain unsolved in Ukraine. All of this necessitates the urgent improvement of the economic mechanism for environmental protection or the development of an eco-economic mechanism for entrepreneurship based on environmental management.

Analysis of recent research and publications

Land relations, land reform, the concept of an effective model of agricultural land use, and "green" agriculture in Ukraine, along with a wide range of issues related to land resources, sustainable development, and green reform in Ukraine, are significant subjects of scientific discussions, research, and improvement among scientists, land management experts, and land users. The establishment of an eco-economic mechanism for entrepreneurship based on environmental management is a strategic issue for Ukraine, sparking numerous debates among scientists and experts in the field of green entrepreneurship. Ukrainian scientists who dedicate substantial attention to this issue include D.S. Dobryak, T.O. Semenko, D.I. Babmindra, T.I. Honcharuk, N.S. Vengerska, O.P. Kanash, I.A. Rozumnyi, and A.M. Tretyak. Their works shed light on topics such as land resources and their utilization, green tourism, rural tourism, green economic development in Ukraine, green entrepreneurship, achieving sustainable development, and the classification of agricultural lands as a scientific prerequisite for their environmentally safe use. Significant emphasis is given to the ecological study and classification of land resources. This classification is

primarily aimed at implementing environmentally safe land use systems, which, in turn, form the basis for the rational, progressive, and comprehensive utilization of land resources, contributing to the establishment of an eco-economic mechanism for entrepreneurship based on environmental management.

Objectives of the article

The main objectives of the article are as follows: to examine scenarios and strategies for the development of land relations; to design an effective eco-economic mechanism for the functioning of environmental management and entrepreneurial development based on land market principles; to investigate the goals and tasks of eco-economic environmental management through the formation of investment attractiveness of land resource potential as a scientific prerequisite for entrepreneurial development based on environmental management in Ukraine; to outline the issues of land relations and land use and propose ways to address them; to highlight the eco-economic direction of entrepreneurial development based on land market principles.

Presentation of the main research material

If you open the Land Code of Ukraine, the first thing that catches the eye is the definition of “land”: “Land is the basic national wealth under the special protection of the state.” Firstly, land is the territory of the state, demarcated by borders from other states. All lands within the territory of Ukraine, including islands and lands occupied by water bodies, are subject to this definition, which categorizes them based on primary intended uses [17]. The common feature for all lands is that they constitute an object of social relations regulated by land law norms. The value of land lies in its status as a natural resource, and therefore, the protection of land creates favorable conditions for the preservation of natural objects, forests, bodies of water, flora and fauna, minerals, and atmospheric air. Land is a unique natural object since it provides a supportive environment for the existence of all living organisms, including humans. The unique properties of land demonstrate its extraordinary value for human existence, for the establishment of society, and for the development of the economy and economic relationships as a whole. As a means of production, a means of creating conditions for societal development, land is used for the placement and construction of objects of social and economic purpose, for the production of agricultural products, and for the development and support of the national economy. Given the importance and significance of land resources as a whole, the question of defining the rating evaluation of the investment attractiveness of administrative-territorial features of land resources and the question of determining the rating evaluation of the investment attractiveness of administrative-territorial features of land resources, environmental economics, and directions that stimulate the economy and entrepreneurial development in Ukraine become particularly relevant.

As society transitions to sustainable development, special attention is given to industrial production, which

is the primary source of anthropogenic impact on nature. According to the Concept of Transition to Sustainable Development, economic objectives of production activity can be achieved through a type of management that is organically embedded in the dynamics of biospheric processes. According to the proposed approach, an industrial enterprise is part of the socio-ecological-economic complex, which includes:

- An ecological subsystem that sets threshold limits determined by the conditions for preserving the natural environment within which economic activities can be conducted.
- A technological subsystem that supports the economic activities of the enterprise.
- An economic subsystem that manages the circulation of resources, goods, monetary income, and expenses.

In order to achieve sustainable development, there needs to be a balanced interaction among all subsystems. The stability of the entire socio-ecological-economic complex is determined by the stability of the ecological subsystem, which is fundamental in relation to the technological and economic subsystems.

According to Ashby’s law, if one subsystem within the system behaves without coordination with others, the stability of the entire system is disrupted. Inconsistencies between the goals of the economic subsystem and the capabilities of the surrounding natural environment, as well as the dominance of “economic benefit,” contribute to the loss of stability in all subsystems [6].

In modern conditions, a consistent greening of economic activities is necessary. This process involves managing the environmental protection measures of an enterprise based on contemporary scientific and technological achievements, with a focus on minimizing anthropogenic impact on the environment [4].

The main directions of production greening include:

- Environmental quality management.
- Comprehensive utilization of available resources at the enterprise: raw materials, materials, electricity, secondary resources.
- Raising the technical and organizational levels of production that allow the minimization of waste generation.
- Incorporating planning procedures and considering ecological aspects into the life cycle of the enterprise.
- Evaluating the ecological characteristics of production for compliance with the environmental strategy of the enterprise.
- Assessing the eco-efficiency of management through environmental audits.

All directions of industrial enterprise greening utilize eco-economic mechanisms for rational environmental management. These mechanisms form a system of economic measures based on regulatory acts that ensure environmental protection and rational environmental management.

The organization of activities related to production greening can be carried out according to the proposed organizational scheme (Fig. 1).

At the first stage of production greening works, an ecological and economic assessment of the anthropogenic impact of an industrial enterprise on the environment is

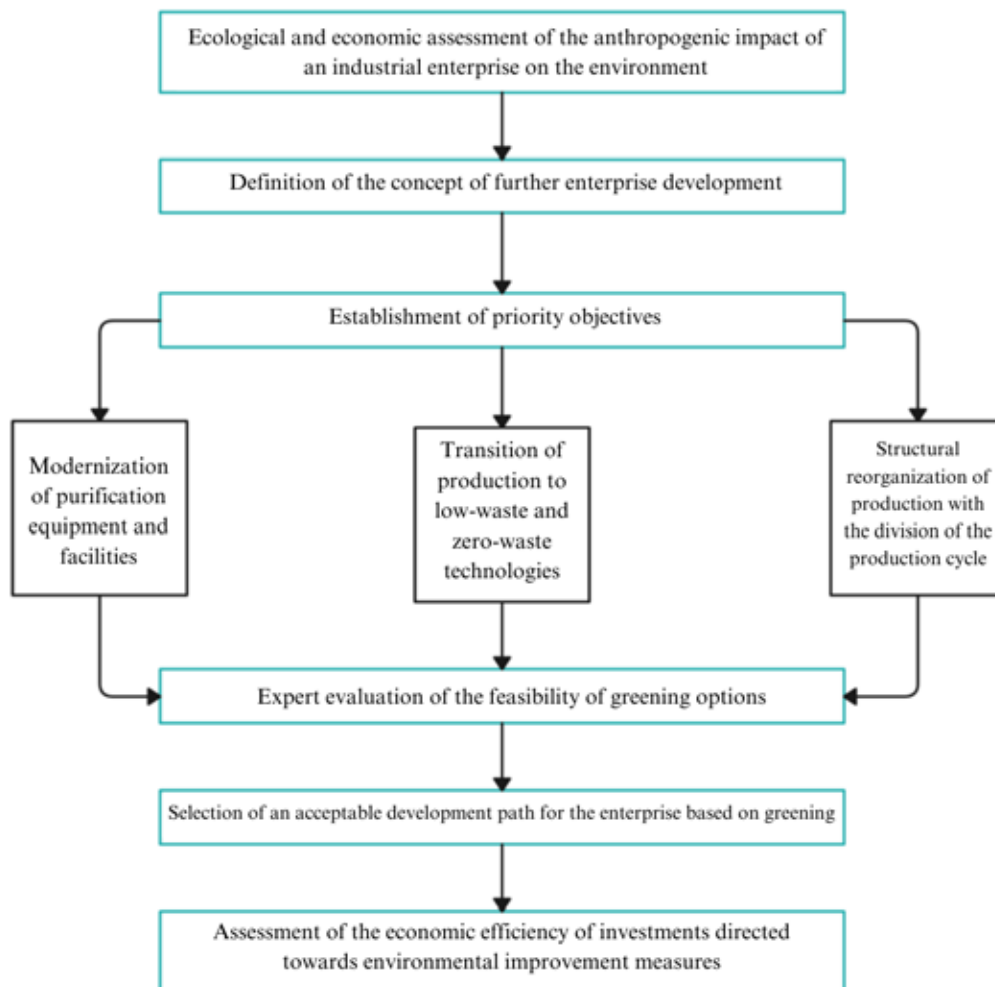


Fig. 1 – Organizational diagram of production greening

carried out. For this purpose, mechanisms of environmental regulation such as ecological expertise and environmental impact assessment (EIA) are used to determine the concept of further enterprise development [7].

The tasks of environmental expertise include determining the level of environmental hazard posed or carried out by economic activities that may directly or indirectly affect the state of the environment.

In modern literature devoted to the issues of greening the economy, emphasis is placed on the necessity of an ecological and economic project assessment. Most economists acknowledge that the ecological and economic assessment of the impact of an industrial enterprise on the environment is one of the key directions of the enterprise's environmental activities, as preventing negative consequences on the environment through the implementation of environmental measures is much cheaper than compensating for them [3; 9].

The ecological assessment is carried out by the investor who invests financial resources in the project's implementation (Fig. 2) [5]. Thus, the ecological and economic assessment method allows determining the degree of anthropogenic impact of an industrial enterprise on the environment.

After proposing options for greening production, a preliminary feasibility analysis of their implementation is carried out by the method of expert evaluations. Experts assess each greening option based on a range of factors:

- The availability of financial resources for implementing options.
- Adequacy of production and construction capacities.
- Reduction of anthropogenic impact on the environment.
- Improvement of the enterprise's economic indicators.
- Duration of implementing the greening option in production.
- Possibility of achieving economic benefits.

Based on expert evaluations, the most promising greening option is chosen. The last stage of production greening is determining the economic efficiency of investments necessary for the implementation of the selected greening option.

When improving legal methods, conditions for satisfying the reasonable personal interests of all participants in the production process, such as owners, enterprise managers, tenants, and other users, should be created with a focus on organizing types of activities beneficial to society that do not disrupt the ecological balance.

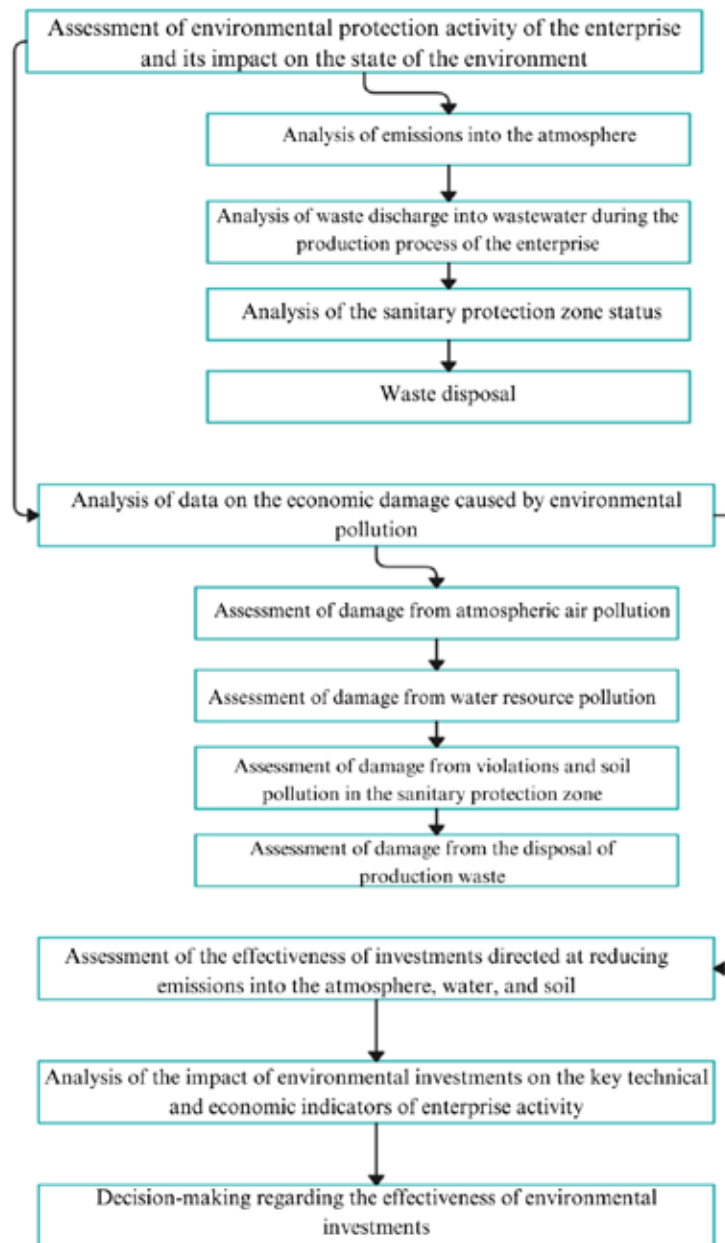


Fig. 2 – Procedure for conducting an eco-economic assessment of the anthropogenic impact of an industrial enterprise on the environment

Conclusions

Thus, the transition of Ukrainian enterprises towards sustainable development compels entrepreneurs to fundamentally change their approach to environmental protection and rational environmental management. The actions of eco-economic management mechanisms become a driving force for industrial enterprises to meet the requirements of sustainable development. Administrative regulation of economic activities using the environmental

impact assessment procedure allows for decision-making that takes into account the environmental capabilities of the territory; payments for natural resources, including environmental pollution, incentivize entrepreneurs to make economic decisions that lead to the greening of production. Improving eco-economic management mechanisms for rational environmental management and environmental protection is the right path to achieving sustainable development for an industrial enterprise.

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