Law. Human. Environment

Journal homepage: https://environmentalscience.com.ua/en
Law. Human. Environment, 16(4), 158-176

UDC 346.2
DOI: 10.31548/law/4.2025.158

Ways to improve the regulatory and legal framework for the activities of scientific institutions in the agro-industrial complex in the field of sustainable development and environmental protection

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Article's History:

Received: 10.07.2025
Revised: 25.10.2025
Accepted: 27.11.2025

Abstract

The aim of the study was to assess the regulatory and legal framework for the functioning of scientific institutions and ways to improve their effectiveness in addressing key environmental issues. The following methods were used in the study: content analysis of regulatory and legal acts governing sustainable development of economic activity in Ukraine; comparative analysis of the activities of scientific institutes in Ukraine, France, Germany and Switzerland in the field of sustainable development and environmental safety; and contextual analysis of the implementation of a

Suggested Citation:
Lepekha, V., & Slyusarenko, S. (2025). Ways to improve the regulatory and legal framework for the activities of scientific institutions in the agro-industrial complex in the field of sustainable development and environmental protection. *Law. Human. Environment*, 16(4), 158-176. doi: 10.31548/law/4.2025.158.

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codified regulatory framework in the management of national research institutes in the agro-industrial segment. It was found that research in the field of sustainable development is a key prerequisite for the effective development of the agro-industrial segment. In Ukraine, the activities of research institutes in the agro-industrial complex are hampered by a fragmented regulatory and legal framework, the lack of a universal definition of sustainable development in the national legal field, the lack of incentives for conducting relevant research in the segment, and the limited adaptation of European and international standards in sustainable development management, in particular environmental protection. Based on the experience of individual European Union member states – France, Germany and Switzerland – the following recommendations have been developed: the development of a single legislative act to regulate the activities of scientific institutions in the agro-industrial complex, the integration of pan-European standards of sustainable development into the Ukrainian regulatory framework, introduction of mechanisms to stimulate research in the field of sustainable development and environmental protection, as well as the introduction of a unified system for monitoring and controlling research on sustainable development in the agro-industrial complex. The results of the work can be used to improve the effectiveness of research in the agro-industrial complex

Keywords: Triple Bottom Line model; rational use of resources; food security; economic benefits; systematisation; codification; resource management

Introduction

The agro-industrial sector's development in Ukraine is being hampered by numerous environmental problems: a reduction in cultivated areas and a decrease in their fertility, pollution of soils, water bodies, and air, soil erosion, and the reduction of natural biodiversity, among others. The environmental problems that have been recorded in the agrarian segment over many years have been exacerbated since the start of the full-scale military invasion. The resolution of existing problems is possible through the activities of research institutes, which study the causes, consequences, and strategies for combating environmental problems, thereby promoting the sector's sustainable development. The activity of Ukrainian scientific institutions in the agro-industrial complex is governed by a regulatory and legal framework that, as of 2025, is fragmented, inconsistent, and unadapted to the challenges of wartime. Based on this, studying the regulatory and legal framework and the ways to align it with generally accepted European and international standards is a relevant task.

S.O. Ametepey *et al*. (2023) noted that although the concept of sustainable development is one of the most widely used in international academic discourse, its definition remains a problematic issue. The statements of A. Lelechenko (2020), who emphasised the inconsistency of definitions of the concept of sustainable development in the regulatory and legal documents of Ukraine, are consonant. M. Fischer *et al*. (2023) asserted that at the international level, the definition proposed in the "Our Common Future" memorandum (UN, 1987) has received the most recognition. According to this definition, development is sustainable if it meets the needs of the present generation without sacrificing the ability of future generations to meet their own needs. M. Ogryzek (2022) argued that planning for sustainable development involves taking into account three components: the environment, society, and the

economy. E. Nogueira *et al*. (2023) underlined that the quoted components are the basis of the Triple Bottom Line model, which is an integral part of the strategic planning of companies and institutions aimed at long-term development.

Not only individual companies but also entire segments of the economy are oriented towards sustainable development, understanding its advantages. W. Wang *et al*. (2023) indicated in their research that sustainable development is the key to economic progress. Using the method of regression analysis, the cited researchers concluded that a 1% increase in renewable energy consumption led to a 0.12% rise in Gross Domestic Product (GDP). In the opinion of Q. An *et al*. (2024), the link between sustainable development and economic growth is moderated by innovations aimed at the rational distribution and use of limited resources. Drawing on statistical data collected in 268 Chinese cities during the period 2011-2020, the cited researchers suggested that the philosophy of sustainable development is a driving force in the segment of green innovations and the digital economy, which lead to increasing GDP figures.

Academic research also proves the positive impact of the philosophy of sustainable development on solving acute societal problems, particularly inequality. According to R. Lima and M.G. Guedes (2024), the concept of sustainable development involves cultural transformations, which are the driving force behind long-awaited social changes. The authors emphasised that the implementation of the concept of sustainable development will allow, in particular, solving the issue of gender pay inequality. In a broader sense, the impact of sustainable development was considered by A.O. Tenorio and M.O. Tenorio (2024), who studied sustainable development as a way to support social equity.

In addition to the aforementioned benefits, sustainable development is a prerequisite for solving environmental problems, including those within the agro-industrial sector. Confirmation of this opinion was found, in particular, in the work of M. Türkeş (2024), who emphasised that achieving the seventeen internationally approved goals contributes to solving key environmental problems, notably restoring arable lands and preserving natural biodiversity. The importance of the sustainable development philosophy for resolving environmental issues was also underscored in the work of M. Pathak *et al*. (2024), whose conclusions are based on an analysis of 433 scientific studies on the topic. Thus, sufficient academic material has been accumulated to confirm the importance of sustainable development as a key element of national strategic development.

The implementation of sustainable development ideas into specific economic segments, including the agro-industrial complex, remains a problematic issue. According to L. Horbata (2024), the problem lies in the imperfection of the regulatory and legal framework and the fragmentation of legal norms. As of 2024, there was no single law in Ukraine regulating key aspects of sustainable development across different segments of the economy. The cited researcher also highlighted the inconsistency of certain national provisions regarding sustainable development with European and international standards. In the opinion of H. Hreshchuk (2022), problems with regulatory and legal control affect the functioning of the agro-industrial complex, which is one of the main sources of state budget revenue.

As of 2025, there is a lack of academic research into the regulatory and legal foundations of the activities of scientific institutes in specific countries focused on the sustainable development of the agro-industrial sector, which confirms the relevance of the proposed work. Thus, the aim of the study was to conduct a comparative analysis of the regulatory and legal framework governing the activities of agricultural research

institutes in selected European Union member states and Ukraine. The objectives of the work were to analyse the factors that determine the sustainable development of the agro-industrial complex; to study the European experience in creating a regulatory and legal framework for the activities of economic entities in the context of sustainable development; and to investigate the possibilities for implementing this experience in Ukrainian realities.

Materials and Methods

The main materials of the study were the regulatory and legal acts of Ukraine governing the activities of Ukrainian research institutes in the agricultural sector. In particular, the following materials were used: Economic Code of Ukraine (2003), Law of Ukraine No. 1602-III "On State Forecasting and Development of Programs for the Economic and Social Development of Ukraine" (2000), Law of Ukraine No. 2411-VI "On the Principles of Domestic and Foreign Policy of Ukraine" (2010), Decree of the President of Ukraine No. 722/2019 "On the Sustainable Development Goals of Ukraine for the Period Until 2030" (2019) and Strategy for Introducing Sustainable Development Reporting by Enterprises (2023). The annual report of the International Trade Administration (2023, 2024), materials from the Agrohub scientific and analytical platform (2025) and statistical data from the Bundesamt fur Statistik (2023) were also used as supporting materials. These materials were examined through content analysis in order to define the concept of sustainable analysis and outline its principles in the context of the development of the Ukrainian economy. Contextual analysis was conducted to study external factors that influence the activities of scientific institutions in the agro-industrial complex in the field of sustainable development and environmental protection.

The work also used the method of contextual analysis, which involved studying the current state of development of scientific institutions in the agro-industrial complex – the National Scientific Centre "O.N. Sokolovsky Institute of Soil Science and Agrochemistry", the Institute of Agroecology and Environmental Management of the National Academy of Agrarian Sciences of Ukraine, and the Institute of Plant Protection of the National Academy of Agrarian Sciences of Ukraine. Sokolovsky Institute of Soil Science and Agrochemistry, the Institute of Agroecology and Nature Management of the National Academy of Agrarian Sciences of Ukraine, and the Institute of Plant Protection of the National Academy of Agrarian Sciences of Ukraine. The study also involved conducting a PESTEL analysis to identify political, economic, social, technological, environmental, and legal factors that influence the functioning and further development of the above-mentioned scientific institutions of the agro-industrial complex of Ukraine.

A comparative analysis was conducted to examine the regulatory and legal features of sustainable development in selected European Union (EU) countries: Germany, France and Switzerland, whose experience can be adapted to Ukrainian realities. The choice of countries was based on the following inclusion criteria: EU member status; the existence of a regulatory framework for sustainable development in various sectors of the economy; and the key role of the agro-industrial complex in the country's economic development. The exclusion criteria were the small share of the agro-industrial complex in the country's economic development and the lack of up-to-date information on the implementation of sustainable development strategies in the agro-industrial segment. The task of the comparative analysis was to identify strategies for the effective implementation of the philosophy of sustainable development in the agro-industrial segment of EU member states and to explore opportunities for implementing these strategies in the Ukrainian context.

Results

Features of sustainable development of Ukraine's agro-industrial complex. Sustainable development in various segments of the economy, including the agro-industrial sector, is one of Ukraine's priority goals. At the legislative level, the state's commitment to sustainable development is defined in a number of regulatory acts approved by the Verkhovna Rada of Ukraine since 2000. For example, Law of Ukraine No. 1602-III (2000) defines the legal, economic and organisational foundations for the formation of a system of forecast and programme documents. This document plays an important role in ensuring the sustainable economic and social development of the country, emphasising its importance in various spheres of society and forming the philosophical foundations of such development.

The Economic Code of Ukraine (2003) is a codified act that regulates the basic principles of economic management in the country. In particular, Article 6 of the Code defines the principles of economic diversity, freedom of entrepreneurial activity and free movement of capital, which generally corresponds to the key ideas of sustainable development, contributing to the creation of an economic model focused on long-term growth, taking into account environmental and social factors.

Law of Ukraine No. 2411-VI (2010) establishes a system of priorities for state policy, among which environmental and technological safety occupy an important place. This provision is directly related to the environmental dimension of the sustainable development model known as the Triple Bottom Line, where environmental aspects are given equal weight alongside economic and social aspects. Foreign policy also includes integration into European structures through the adaptation of key sustainable development standards.

Decree of the President of Ukraine No. 722/2019 "On the Sustainable Development Goals of Ukraine for the Period Until 2030" (2019) supports the UN General Assembly resolution and takes into account national development characteristics. The decree defines 17 national sustainable development goals and proposes tools and strategies for their implementation. The document emphasises the need to involve scientific research in the process of implementing sustainable development principles, which indicates the integration of international experience into national policy.

Strategy for Introducing Sustainable Development Reporting by Enterprises (2024) is a relevant policy document that contains 101 tasks and 309 indicators for assessing the effectiveness of sustainable development in the economy. The strategy provides a comparative analysis of Ukrainian and European legislative initiatives, which ensures that national policy complies with international standards and informs the process of planning and evaluating results in various sectors of the economy.

Based on the analysis, it was concluded that there is a regulatory framework to support sustainable development in various segments of Ukraine's economy. However, a limited number of regulatory acts were identified that regulate sustainable development exclusively in the agricultural sector of the national economy. The analysis of existing acts also revealed the existence of legislative acts to bring the sustainable development of the Ukrainian economy into line with European standards. The study, however, highlighted the lack of a single definition of sustainable development that could bring the existing regulatory framework into line. The lack of a universal definition is somewhat compensated for by the articulation of seventeen key sustainable development goals for the state until 2020, outlined in Decree of the President of Ukraine No. 722/2019 (2019). However, the existence of generally accepted goals does not guarantee the absence of discrepancies in the interpretation of

sustainable development strategies in different segments of the national economy.

The sustainable development of the Ukrainian agro-industrial segment is taking place in conditions of uncertainty and under the influence of various external factors. Key external aspects of development include political, economic, social, technological, environmental and legal factors.

Ukraine's agro-industrial complex operates under conditions of large-scale armed aggression by the russian federation, which significantly reduces its stability and makes long-term planning impossible. Recovery and sustainable development are only possible with active international partnerships aimed at finding new export routes, rebuilding infrastructure, preserving labour potential, and providing support in the post-war period. Despite the loss of certain export routes and attacks on energy infrastructure, the agro-industrial sector is showing its ability to recover. In 2024, the use of new sea routes made it possible to increase agricultural exports by 20% compared to 2023 (Nehrey & Trofimtseva, 2022). The total volume of exported agricultural products reached $41.7 billion, demonstrating the flexibility and resilience of the sector.

Ukraine remains one of the world's leading exporters of agricultural products, including sunflower oil ($6.4 billion), corn ($5.9 billion), wheat ($5.2 billion) and rapeseed ($1.7 billion) (Borko & Jammal, 2024; Prokopova *et al*., 2024). A decline in exports could have negative consequences for global food security. In addition, ensuring sustainable development requires skilled personnel, which is complicated by military action and population migration from affected regions.

Modern digital technologies, including databases and monitoring systems, facilitate the effective management of information on the status and prospects of sustainable development (Chub, 2021). Their implementation in the agricultural sector allows for the optimisation of processes, resource planning and the adaptation of strategies to new conditions.

Full-scale war has led to a significant deterioration in the environmental situation in agriculture. As of 2024, approximately 5 million hectares of agricultural land are unusable due to mining or contamination (Skydan *et al*., 2024). Solving these problems will require considerable time and resources, which affects the prospects for sustainable development. Legal regulation of sustainable development in the agricultural sector is carried out through national documents, in particular Decree of the President of Ukraine No. 722/2019 (2019), as well as through the implementation of European and international regulatory acts (Sokolska *et al*., 2024). This allows for the harmonisation of national goals with global practices and ensures a systematic approach to the development of the industry.

Based on the analysis, Ukraine is striving for sustainable development of the agro-industrial sector, despite the challenges of full-scale invasion and restrictions associated with the legal regime of wartime. Full-scale military aggression by the russian federation has led to the loss of control over certain agricultural territories and the deepening of environmental problems in territories under Ukraine's military-legal control. Despite this, Ukraine continues to implement sustainable development strategies in the agro-industrial sector by approving the national sustainable development strategy declared in Decree of the President of Ukraine No. 722/2019 (2019). Technological progress, including the use of databases for information storage and exchange, modelling of sustainable development scenarios, etc., is a prerequisite for the further development of the national agro-industrial complex.

The functioning of scientific institutions in the agro-industrial complex in the field of sustainable development and environmental protection: A comparative analysis. As of 2025,

there are several research institutes operating in Ukraine's agro-industrial complex that study issues of sustainable development and environmental protection. One of the most well-known is the O.N. Sokolovsky National Scientific Centre "Institute of Soil Science and Agrochemistry", whose history began in 1924 as a national research laboratory of soil science at the Kharkiv Agricultural Institute. The centre has several areas of research activity, including scientific support for the rational use of land resources, the development of modern agricultural technologies, and the coordination of research on soil science, agrochemistry, and soil protection (National Scientific Centre..., 2025). Compliance with European standards of sustainable development is important for the centre, whose specialists participate in international initiatives, in particular, the Global Soil Partnership with the Food and Agriculture Organisation (FAO) of the United Nations. Between 2019 and 2023, the centre's experts participated in improving the regulatory framework for sustainable development by working on documents such as Irrigation and Drainage Strategy in Ukraine for the Period Until 2030 (2019) and Concept of the National Target Programme for Land Use and Protection (2022).

Experts from the Institute of Agroecology and Nature Management also contribute to the formation of the regulatory framework for sustainable development. Founded in 1992, the institute is a leading research institution for determining the scientific basis of state policy on rational nature management (Institute of Agroecology..., 2025). The institute's research activities contribute to the creation of scientifically based standards for natural resource use, the improvement of the regulatory framework for sustainable development of the agro-industrial sector, and its alignment with European requirements. Since 2006, research activities have taken various forms, including the following: preparation of monographs and textbooks (>30), development of scientific and methodological recommendations (>100), holding of all-Ukrainian scientific conferences (25), organisation of round tables (65), obtaining Ukrainian patents and copyright certificates (32), etc.

In addition to the above-mentioned research institutes of the agro-industrial complex of Ukraine, the activities of the Institute of Plant Protection, founded in 1946 as part of the Academy of Sciences of the Ukrainian Union of Soviet Socialist Republics, are also relevant. The Institute has several departments whose scientific activities are directly related to sustainable development and environmental protection: a forecasting laboratory, a laboratory of analytical chemistry and pesticide toxicology, a laboratory of pesticide application technology, and a laboratory of plant ecological genetics and biotechnology. The Institute's research activities include organising national and international conferences and seminars and preparing publications for scientific journals. The Institute's specialists also oversee the work of the scientific school of entomology, which focuses on the rational use of natural resources and the preservation of natural diversity.

Until 1991, the activities of the above-mentioned research institutes took place in the context of the Soviet approach to natural resource use, which differed from European standards of sustainable development. The idea of corporate social responsibility, which, in particular, provides for rational nature management and environmental protection, emerged in the 1960s and became widespread in the European Union. This means that individual member states of the union, in particular Germany, France and Switzerland, have accumulated sufficient experience in the field of sustainable development, including through the regulatory and legal regulation of research in the agricultural sector. This experience can be adapted to the realities of the Ukrainian agricultural sector, whose commitment to

sustainable development has been declared since the 2000s.

France was used as one of the countries focused on sustainable development, whose agro-industrial sector is one of the key sources of national GDP, as well as one of the largest employers. According to a report by the International Trade Administration (2024), France's agro-industrial sector, which comprises 17,372 enterprises, generates annual revenue of $207.97 billion and is the main place of employment for 459,803 workers. The scale of the agro-industrial complex and production volumes underscore the importance of its sustainable development. France has several scientific institutions whose activities contribute to ensuring sustainable development and environmental protection in the country's agro-industrial segment.

In France, leading agricultural institutions play an important role in ensuring sustainable development and environmental protection. The National Institute for Agricultural Research (INRAE) specialises in scientific research in the field of agroecology and the rational use of natural resources (Institute for European Environmental Policy, 2024). AgroParisTech trains specialists in agricultural sciences and actively implements innovations for sustainable agriculture. The main training and research department of the French Ministry of Agriculture is responsible for integrating environmental components into education and the development of agricultural innovations (Wezel & David, 2020).

Thus, there are several research institutes in France whose activities are aimed at supporting sustainable development and solving environmental problems in the agro-industrial sector. Further research indicates that these institutions are actively involved in international projects to exchange practical experience and promote the philosophy of sustainable development. An example of such an exchange is the decentralised cooperation project between the Vinnytsia region (Ukraine) and the Burgundy-Franche-Comté region (France), aimed at creating an innovative scientific and practical platform called "Agrohub" based at the Vinnytsia National Agrarian University (Haisyn District State Administration, 2021). This platform brings together the scientific potential of the university, agricultural enterprises and local authorities to conduct scientific research aimed at ensuring the sustainable development of the agricultural sector and reducing the negative impact on the region's environment.

Sustainable development is also a priority for Germany, which has a large and well-developed agro-industrial sector. According to the International Trade Administration (2023), Germany is one of the world's largest exporters of consumer-oriented agricultural products, after China and the United States. According to the Federal Ministry of Food and Agriculture (2025), Germany's agro-industrial complex consists of 270,000 enterprises employing over 1 million people and producing goods worth a total of €50 billion.

In Germany, the Helmholtz Centre for Environmental Research, founded in 1991, conducts fundamental and applied research focusing on biodiversity conservation, land and water management, and the study of the impact of chemicals on the environment and human health (Helmholtz Centre..., 2025). The University of Sustainable Development in Eberswalde, which dates back to 1830, specialises in areas such as forestry, sustainable tourism, nature conservation, organic farming and climate change adaptation, actively collaborating with international partners (International Associations of Universities, 2025). This university is distinguished by its innovative approach to teaching and is one of the pioneers of sustainable development in the German education sector. Weihenstephan-Triesdorf University of Applied Sciences focuses on green technologies, climate change, and applied biology, implements

practical training oriented towards environmental, economic, and social sustainability, and became the country's first state higher education institution to receive the EMASplus certificate (Weihenstephan-Triesdorf University..., 2025).

Based on the cited data, conclusions were made regarding active research work aimed at sustainable development and environmental protection in Germany's agro-industrial sector. Two of the research institutes considered – the University of Sustainable Development in Eberswalde and the Weihenstephan-Triesdorf University of Applied Sciences – have more than a century of history, meaning they have accumulated significant experience in solving pressing problems in the agro-industrial segment of the economy. By actively participating in international cooperation, these institutes contribute to the promotion of sustainable development ideas and the resolution of environmental problems in the agro-industrial sector.

In addition to the above-mentioned countries, the experience of Switzerland was also analysed, which has an effectively differentiated agro-industrial sector that actively functions in conditions of sustainable development. According to the Bundesamt fur Statistik (2023), the country's agro-industrial complex comprises 48,000 enterprises and 160,000 employees, which annually produce goods with a total value of 12 billion euros. Although the agro-industrial complex accounts for only 1% of the national GDP, Switzerland's experience is valuable in terms of rational nature management and sustainable development. The implementation of these tasks is possible, among other things, thanks to the functioning of the research institutes listed below.

The Research Institute of Organic Agriculture (FiBL), founded in 1973, is one of the world's leading centres for organic farming, conducting interdisciplinary research and developing innovations together with farmers and the food industry, with offices in Switzerland, Germany, Austria and France (FiBL Switzerland, 2025). The institute also actively promotes the exchange of knowledge and experience in the field of organic production. Agroscope is a Swiss agricultural research institute under the Federal Office for Agriculture that promotes the sustainable development of agriculture and the food sector while ensuring the preservation of a healthy environment (Agroscope, 2025). Agroscope has several research centres throughout Switzerland, including in Avenches, Cadenazzo, Changins and other cities, and focuses on issues such as crop production, animal husbandry, agroecology and sustainability assessment.

Based on the above information, it can be argued that Swiss research institutes are highly effective in accumulating scientific and practical experience in supporting sustainable development in the agro-industrial sector. Research centres and institutes also actively participate in disseminating this experience through interdisciplinary international cooperation. For example, as part of a cooperation programme funded by the Swiss Confederation through the State Secretariat for Economic Affairs (SECO), support is provided for the development of the organic and dairy sectors in Ukraine (Agro Review, 2025). The programme aims to create business opportunities in both sectors, improve product quality and safety, and promote employment and income growth in rural areas. The programme is implemented by FiBL in partnership with the consulting company SAFOSO AG.

Implementation of European experience in improving the regulatory framework for the activities of scientific institutes in the agricultural sector of Ukraine. Based on the analysis, problematic issues in the regulatory framework for the functioning of scientific institutions in the agro-industrial complex were identified and recommendations for overcoming

them were developed. The key problems of development included the fragmentation and inconsistency of legislation, the lack of financial and organisational incentives, the insufficient level of integration of science and production, and the limited adaptation of European and international standards. The essence of the identified limitations in the activities of scientific institutions in the agro-industrial complex of Ukraine is revealed in Table 1 below.

Table 1. Problems of the current regulatory framework for the activities of scientific institutions in the agro-industrial complex of Ukraine

No.	Problem	Essence
1	Fragmentation and inconsistency of legislation	The activities of scientific institutions in the agricultural sector are regulated by various regulatory and legal documents that are not coordinated with each other. The lack of coordination is manifested, in particular, in the absence of a universal definition of sustainable development in the agro-industrial segment.
2	Lack of financial and organisational incentives	As of 2024, Ukraine has a limited number of mechanisms for state stimulation of research in the field of sustainable development. The most well-known of these mechanisms is Decree of the President of Ukraine No. 722/2019 (2019), which emphasises the priority of academic research in the field of sustainable development and environmental protection.
3	Insufficient integration of science and production	Scientific developments are not always effectively applied in the agro-industrial sector due to a lack of resources, insufficiently developed interdisciplinary interaction and other factors
4	Limited adaptation of European and international standards	The first steps towards harmonising Ukrainian legislation with EU standards and international agreements were taken in 2019 and separately recorded in the Strategy for Introducing Sustainable Development Reporting by Enterprises (2030). The integration of European and international standards into the Ukrainian regulatory framework may take some time

Source: developed by the author

The table shows that the effectiveness of the current regulatory framework for scientific institutions in Ukraine's agro-industrial sector is limited by a number of external factors. Understanding these factors, as well as analysing the relevant experience of individual EU member states, allows to develop recommendations for improving the work of research entities in Ukraine's agro-industrial sector in the field of sustainable development and solving environmental problems.

The key recommendation is to codify and systematise the current legislation in order to avoid contradictions in the definition of sustainable development and its key principles in the context of Ukraine's agro-industrial complex. Key steps towards modification and generalisation could be the adoption of a single legislative act to regulate the activities of scientific institutions in the agro-industrial complex and the harmonisation of environmental standards with EU norms. The following examples of universal standards applicable to all EU member states can serve as examples: the European Green Deal (2019) and the European Climate Law (2021). The first document is unique in that it articulates the concept of sustainable development from an environmental perspective and declares a pan-European obligation to support such development. The European Climate Law (2021) articulates generally accepted standards of sustainable development in the field of environmental protection, in particular the climate neutrality of countries by 2050, mandatory medium-term targets, accountability of economic entities and segments of the economy, and sanctions for non-compliance, as well as providing tools with which EU member states can assess their progress in achieving sustainable development goals.

The effectiveness of the unified legislative framework governing the activities of research institutes in France, Germany, Switzerland and other European countries is an argument for bringing Ukrainian legislation into line with EU standards.

Another recommendation was to provide financial incentives for research into sustainable development and environmental protection in the agro-industrial sector. Based on the above analysis, there is a discrepancy between the idea put forward in Decree of the President of Ukraine No. 722/2019 (2019) about the priority of academic research in the field of sustainable development and environmental protection and the lack of a clear mechanism for stimulating such research. A recommended mechanism for financial incentives could be the provision of tax breaks for companies that implement environmentally friendly technologies and other innovations in the field of sustainable development. The link between theory and practice can also be ensured through cooperation between research institutes and agribusiness companies to create effective environmental protection strategies. An illustration of the effectiveness of such cooperation is the work of the University for Sustainable Development in Eberswalde, whose staff implement practice-oriented training to address current sustainable development issues in the agro-industrial sector.

In addition to the proposed strategies, monitoring and control of sustainable development could also be introduced, including the creation of a unified environmental monitoring system for the agro-industrial complex. Based on the results of monitoring, liability for violations of sustainable development principles, including non-compliance with environmental standards set out in Ukrainian and European legislation, could be increased. An example of compliance with standards is the gradual reduction of carbon dioxide emissions under the European Effort Sharing Regulation (European Environment Agency, 2025). Compliance with European regulations is advisable, as Ukraine has not yet developed nationwide requirements for permissible carbon dioxide emissions in the agricultural sector. The effectiveness of such a strategy can be confirmed in the context of the European Climate Law (2021), which proposes to increase the responsibility of EU member states for violations of environmental standards.

The proposed recommendations represent a comprehensive three-level plan for achieving sustainable development of Ukraine's agri-industrial complex, focused on European integration. They begin with fundamental reform – the codification of legislation and its harmonisation with EU standards, which will ensure a single legal field. The second level involves financial incentives for scientific research and innovation (tax breaks), which transforms academic priorities into real economic action and strengthens the link between science and practice. The third level is to strengthen control and accountability by creating a unified environmental monitoring system, which is a necessary mechanism for ensuring compliance with standards and gradually reducing emissions in line with European regulations. These steps are consistent, strategic and necessary for the modernisation of Ukraine's agro-industrial complex.

Discussion

One of the key ideas proposed in this work was that sustainable development is a complex phenomenon consisting of several components. Although addressing environmental issues is a priority in the agro-industrial sector, it is recommended to also consider the economic and social aspects of sustainable development. Confirmation of this idea was found in the work of Y.I. Purnama (2024), who considered the advantages of sustainable development in the context of the Triple Bottom Line model. According to the cited researcher, the key tasks of sustainable development are to address environmental, economic

and social issues. Y.I. Purnama (2024) emphasised that planning economic activities according to the principles of sustainable development creates long-term value for the company and reflects its commitment to overall development. Based on a contextual analysis of the 17 goals set by the United Nations (UN), M.A. Rosse and F.A.I. Gonzalez (2024) emphasised that planning activities in accordance with the requirements of sustainable development creates a competitive advantage for companies in an ever-changing market. The cited study confirmed the opinion presented in the current work about the need to comply with sustainable development standards, despite challenges, including the uncertainty of wartime. After analysing the realities of the food market, F.S.Y. Thaher and A.A.M. Jaaron (2022) recommended the implementation of sustainable development principles in the strategic planning of enterprises. A correspondence was noted between the cited recommendation and the Decree of the President of Ukraine No. 722/2019 "On Sustainable Development Goals" (2019) presented in this work, which is a key standard for strategic planning in the Ukrainian agricultural sector. A similar idea was noted in the work of L. Li (2024), who argued that the integration of generally accepted sustainable development standards required the following components to be taken into account: the implementation of innovation-oriented initiatives, the dissemination of green development practices, the promotion of social responsibility initiatives, rational financial management, and the cultivation of talent. Thus, the idea of the strategic importance of sustainable development presented in the work has been confirmed by previous studies.

A comparative study of the activities of research institutes in Ukraine, Germany, France and Switzerland also confirmed the importance of adhering to the principles of sustainable development in the agro-industrial complex, which is one of the key segments of the economy in various EU countries and around the world. The idea of the priority of sustainable development in the agricultural segment has also been substantiated in previous studies, including the work of A.A. Atapattu *et al*. (2024). The cited experts concluded that the implementation of sustainable development goals, in particular the rational use of resources, the transition to renewable energy sources and the preservation of natural diversity, is the driving force behind the development of the agro-industrial sector and an effective solution to the problems of poverty, insufficient food security and inequality. A.A. Mahfudz and L. Mataali (2024) analysed empirical data collected in the city of Madiun, France, and concluded that sustainable agriculture plays a critical role in addressing global challenges, promoting environmental protection and supporting socio-economic progress in line with the UN goals. J. Frątczak-Müller *et al*. (2024) concluded that the agro-industrial sector is ready to implement sustainable development ideas by seeking a balance between demand and consumption, investing in safety and improving working conditions, developing experimental science, and applying the knowledge of local farmers. Based on the cited studies, the topic of implementing sustainable development principles to solve economic, social and other problems in the agro-industrial segment is relevant.

The relevance of comparing research institutes has also been confirmed by previous studies on the role of research and development in supporting the sustainable development of the agro-industrial complex. One such study is the work of S. Vyas and S. Singh (2022), which highlights the existence of a strong link between scientific activity, innovation and the management of India's agro-industrial complex. In the European context, the importance of research activities in the development of the agro-industrial segment was confirmed by N. Shvets *et al*. (2023),

who analysed 44 priority areas of development in 12 countries of Central and Eastern Europe. According to the cited experts, interdisciplinary research in the agro-industrial segment focuses mainly on the planning and dissemination of innovative bio- and digital technologies in agri-food systems. Such research contributes to the rational use of resources to support sustainable development in the European agricultural segment. The importance of research activities for the sustainable development of the agro-industrial complex was also emphasised in the work of J.G. Kindangen *et al*. (2023), who considered such activities as a prerequisite for increasing agricultural productivity. According to the cited experts, efficiency is improved by optimising the use of available resources and introducing innovative management technologies. This opinion was confirmed in this work, which emphasised the need to adopt advanced European experience for more effective management of research in the agricultural sector of Ukraine. M.G. Gicheha *et al*. (2023) emphasised that scientific research helps to identify the most pressing issues of sustainable development in the agro-industrial complex and plan solutions to them. R. Abdullah *et al*. (2024) emphasised that scientific research in the field contributes to the creation of an interdisciplinary network for addressing pressing issues of sustainable development in the agro-industrial complex, in particular, the lack of resources and their inefficient distribution, capital outflow, etc. The semantic links between the presented work and previous studies confirm the importance of scientific research in the management of sustainable development of the agro-industrial segment as a subject of discussion.

According to the presented work, one of the tasks of research institutes is to study obstacles to sustainable development management and find ways to overcome them. The existence of obstacles to the sustainable development of the agro-industrial segment has also been documented in previous studies, in particular in the work of M. Nemenyi *et al*. (2022). The cited experts put forward in their work the idea that the effectiveness of sustainable development in the agro-industrial sector is reduced due to the existing gap between theory and practice, which manifests itself in the fact that the proposed innovative strategies are not implemented or are implemented incompletely. A correspondence was noted between the results of the cited study and the recommendation proposed in this work to establish interdisciplinary cooperation between research institutes and enterprises for the management of sustainable development in the agro-industrial segment. O. Shebanina *et al*. (2024) emphasised that the achievement of certain sustainable development goals, in particular overcoming food insecurity, is hampered by a lack of effort in the field of scientific research. This conclusion partly corresponds to the idea presented in the current work about the slow development of research activities in the agro-industrial complex of Ukraine during the legal regime of wartime and related restrictions. Based on the cited studies, it can be argued that the proposed recommendations for improving the effectiveness of research activities are relevant and scientifically sound.

Despite the significance of all the obstacles listed above, the presented work emphasised that the inconsistency of the regulatory framework is a key obstacle to the activities of research institutes in the agro-industrial sector in the field of sustainable development and environmental protection. This opinion was confirmed in the work of S. Liu (2023), who argued that research in the field of sustainable development is hampered by the lack of a universal definition of such development. The cited author expressed the opinion that the lack of a generally accepted definition can be compensated for by the introduction of uniform principles, standards and objectives of sustainable development in the agro-industrial

segment. A similar idea was explored in the present work during a content analysis of the regulatory framework governing the activities of research institutes in the agro-industrial sector in the field of sustainable development and environmental protection.

Based on the analysis, it is possible to highlight the similarities between the ideas presented in this work and previous studies. Key correspondences were found in the context of the importance of the philosophy of sustainable development for the effective functioning of the agro-industrial segment, the role of research work in managing sustainable development, and the identification of factors that hinder it. The similarities found between this work and previous studies emphasise the relevance and feasibility of the proposed recommendations.

Conclusions

The study analysed the regulatory and legal framework for the activities of scientific institutions in Ukraine's agro-industrial complex in the context of ensuring sustainable development and environmental protection. It was found that Ukraine has a certain regulatory and legal framework governing sustainable development, but the number of documents regulating the activities of research institutes and sustainable development in the agricultural sector is limited. The complexity of the regulatory framework can also be a disadvantage, as the lack of a single definition of sustainable development complicates the implementation of relevant policies and mechanisms.

The study emphasised that sustainable development is a key factor for the effective functioning of the agro-industrial complex, as confirmed by the European experience of France, Germany and Switzerland. These countries have powerful research institutions, including the National Institute for Agricultural Research (France), the University of Sustainable Development in Eberswalde (Germany) and the Research Institute of Organic Agriculture (Switzerland), which play an important role in the implementation of sustainable development strategies. Particular attention was paid to the system of financing research in the field of sustainable development, state regulation of environmental standards and mechanisms for monitoring the impact of the agro-industrial complex on the environment.

Based on the analysis, the main problems in the regulatory and legal regulation of the activities of scientific institutions in the agro-industrial complex of Ukraine were identified, namely: fragmentation of legislation, insufficient integration of science and production, lack of financial and organisational incentives for scientific research in the field of sustainable development, and limited adaptation of European and international standards. To overcome these problems, a number of recommendations have been proposed, including the development of a single legislative act to regulate the activities of scientific institutions in the field of sustainable development, the harmonisation of Ukrainian legislation with European standards, the creation of mechanisms for state stimulation of scientific research, the financing of environmentally safe innovations, and the introduction of a system for monitoring and controlling sustainable development.

It has also been proven that international cooperation and Ukraine's integration into global environmental and scientific initiatives can contribute to improving the efficiency of scientific institutions in the agro-industrial complex. The exchange of experience, the involvement of international donors and participation in joint research programmes will contribute to the adaptation of best practices in sustainable development to the Ukrainian context.

Further research could focus on analysing the effectiveness of implementing specific sustainable development strategies in individual

regions of Ukraine and developing adapted mechanisms for their implementation.

Acknowledgements

None.

Funding

This study was not funded.

Conflict of Interest

None.

References

[1] Abdullah, R., Najim, M.M.M., & Esham, M. (2024). Agriculture for sustainable development to empower smallholder farming communities. *The Journal of Agricultural Sciences*, 19(3), 462-474. doi: 10.4038/jas.v19i3.10831.

[2] Agro Review. (2025). *Switzerland supports the development of Ukraine's organic and dairy sectors*. Retrieved from https://agroreview.com/content/shvejcariya-pidtrymuye-rozvytok-orhanichnoho-ta-molochnoho-sektoriv-ukrayiny.

[3] Agrohub. (2025). *Analyzing millions of numbers to help you earn millions of dollars*. Retrieved from https://agrohub.ua/en/about/.

[4] Agroscope. (2025). *Agroscope: Good food, healthy environment*. Retrieved from https://www.agroscope.admin.ch/agroscope/en/home.html.

[5] Ametepey, S.O., Aigbavboa, C., Ansah, S.K., & Gyadu-Asiedu, W. (2023). Meaning, evolution, principles, and future of sustainable development: A systematic review. *Preprints*. doi: 10.20944/preprints202302.0158.v1.

[6] An, P., Wang, R., Wang, Y., & Pavel, K. (2024). The impact of the digital economy on sustainable development: Evidence from China. *Frontiers in Environmental Science*, 12. article number 1341471. doi: 10.3389/fenvs.2024.1341471.

[7] Atapattu, A.J., Ranasinghe, C.S., Udumann, S.S., & Nuwarapaksha, T.D. (2024). Sustainable agriculture and sustainable development goals. In *Emerging technologies and marketing strategies for sustainable agriculture* (pp. 1-27). Hershey, PA: IGI Global. doi: 10.4018/979-8-3693-4864-2.ch001.

[8] Borko, T., & Jammal, M. (2024). Role of agriculture in the development of Ukrainian socio-economic potential. *Agrarian Black Sea Region Agrarian Science*, 28(3), 78-86. doi: 10.56407/bs.agrarian/3.2024.78.

[9] Bundesamt fur Statistik. (2023). *Agriculture*. Retrieved from https://www.aboutswitzerland.eda.admin.ch/en/economy-agriculture.

[10] Chub, A. (2021). Current state and development trends of the agro-industrial complex of Ukraine. *Azov Economic Bulletin*, 5, 34-43. doi: 10.32840/2522-4263/2021-5-5.

[11] Decree of the President of Ukraine No. 722/2019 "On the Sustainable Development Goals of Ukraine for the Period Until 2030". (2019, September). Retrieved from https://zakon.rada.gov.ua/laws/show/722/2019#Text.

[12] Economic Code of Ukraine. (2003, January). Retrieved from https://zakon.rada.gov.ua/laws/show/436-15?lang=en#Text.

[13] European Climate Law. (2021, June). Retrieved from https://surl.li/yiesjg.

[14] European Environment Agency. (2025). *Greenhouse gas emissions from agriculture in Europe*. Retrieved from https://surl.li/fnrzws.

[15] European Green Deal. (2019, December). Retrieved from https://surl.li/xptoum.
[16] Federal Ministry of Food and Agriculture. (2025). *Farming*. Retrieved from https://surl.li/cubljv.
[17] FiBL Switzerland. (2025). *FiBL in Frick*. Retrieved from https://surl.li/vridbf.
[18] Fischer, M., Frece, J., Hillebrand, K., & Foord, D. (2023). The concept in sustainale development. In *Sustainable business* (pp. 17-27). Cham: Springer. doi: 10.1007/978-3-031-25397-3_2.
[19] Frątczak-Müller, J., Rychła, A., Winiwarter, W., & Amon, B. (2024). Social conditions of smallholder dairy farmers influence their environmental decisions. *Scientific Reports*, 14. article number 31020. doi: 10.1038/s41598-024-82120-4.
[20] Gicheha, M.G., Mwashi, V., Mbindyo, P., Maina, R.A., & Mugodo, C. (2023). Role of research and innovation on sustainable development. *Journal of Agriculture, Science and Technology*, 22(1). doi: 10.4314/jagst.v22i1.1.
[21] Haisyn District State Administration. (2021). *The establishment of the French right to manage water resources and technologies for land expansion for Vinnytsia is de facto factual*. Retrieved from https://surl.li/wupmfo.
[22] Horbata, L.P. (2024). Regulatory and legal support for the sustainable development of territorial communities. *Successes and Achievements in Science*, 9(9), 468-478. doi: 10.52058/3041-1254-2024-8(8).
[23] Hreshchuk, H.I. (2022). Normative and legal regulation of sustainable use of agricultural lands. *Herald of the Economic Sciences of Ukraine*, 1(42), 26-31. doi: 10.37405/1729-7206.2022.1(42).26-31.
[24] Institute for European Environmental Policy. (2024). *Supporting a transition to sustainable farming systems*. Retrieved from https://ieep.eu/wp-content/uploads/2024/07/Supporting-a-transition-to-sustainable-farming-systems-IEEP-2024.pdf.
[25] Institute of Agroecology and Environmental Management of the National Academy of Agrarian Sciences of Ukraine. (2025). Retrieved from https://agroeco.org.ua/.
[26] International Association of Universities. (2025). *Eberswalde university for sustainable development (HNEE)*. Retrieved from https://surl.li/nsykda.
[27] International Trade Administration. (2023). *Germany. Agricultural sector overview*. Retrieved from https://www.trade.gov/country-commercial-guides/germany-agricultural-sector.
[28] International Trade Administration. (2024). *France. Agricultural sector overview*. Retrieved from https://www.trade.gov/country-commercial-guides/france-agricultural-sector.
[29] Kindangen, J.G., Kairupan, A.N., Joseph, G.H., Bawung, J.B.M., & Indrasti, R. (2023). Sustainable agricultural development through agribusiness approach and provision of location specific technology in North Sulawesi. *E3S Web of Conferences*, 444, article number 01003. doi: 10.1051/e3sconf/202344401003.
[30] Law of Ukraine No. 1602-III "On State Forecasting and Development of Programs for the Economic and Social Development of Ukraine". (2000, March). Retrieved from https://zakon.rada.gov.ua/laws/show/1602-14?lang=en#Text.
[31] Law of Ukraine No. 2411-VI "On the Principles of Domestic and Foreign Policy of Ukraine". (2010, July). Retrieved from https://zakon.rada.gov.ua/laws/show/2411-17#Text.
[32] Lelechenko, A. (2020). Evolution of regulatory framework for ensuring sustainable development of Ukraine. *Investytsiyi: Praktyka ta Dosvid*, 15-16, 132-137. doi: 10.32702/2306-6814.2020.15-16.132.

[33] Li, L. (2024). The impact of sustainable development strategies on corporate performance. *Proceedings of Business and Economic Studies*, 7(1). doi: 10.26689/pbes.v7i1.6075.

[34] Lima, R., & Guedes, G. (2024). Sustainable development goals and gender equality: A social design approach on gender-based violence. *Sustainability*, 16(2), article number 914. doi: 10.3390/su16020914.

[35] Liu, S. (2023). Towards a sustainable agriculture: Achievements and challenges of sustainable development goal indicator 2.4.1. *Global Food Security*, article number 100694. 37. doi: 10.1016/j.gfs.2023.100694.

[36] Mahfudz, A.A., & Mutaali, L. (2024). The role of agricultural sector in sustainable development: Analysis of data availability and achievement of sustainable development goals indicators for Goal 2 (Zero Hunger) – case study of Madiun Regency and Madium City. In *4th international conference in social sciences (4th ICONISS): Governance and poverty alleviation* (pp. 322-333). Malang: KnE Open. doi: 10.18502/kss.v9i27.17116.

[37] Ministry of Finance of Ukraine. (2024). *Strategy for introducing sustainable development reporting by enterprises*. Retrieved from https://mof.gov.ua/storage/files/UKR_Presentation_Strategy%20of%20sustainability%20reporting.pdf.

[38] National Scientific Center "O.N. Sokolovsky Institute of Soil Science and Agrochemistry". (2025). Retrieved from https://issar.com.ua/.

[39] Nehrey, M., & Trofimtseva, O. (2022). Analysis of the agricultural sector of Ukraine during the war. *Bulletin of V.N. Karazin Kharkiv National University Economic Series*, 102, 49-56. doi: 10.26565/2311-2379-2022-102-06.

[40] Nemenyi, M., Kovacs, A.J., Olah, J., Popp, J., Erdei, E., Harsanyi, E., Ambrus, B., Teschner, G., & Nyeki, A. (2022). Challenges of sustainable agricultural development with special regard to the Internet of Things: Survey. *Progress in Agricultural Engineering Sciences*, 18(1). 95-114. doi: 10.1556/446.2022.00053.

[41] Nogueira, E., Gomes, S., & Lopes, J.M. (2023). Triple bottom line, sustainability. And economic development: What binds them together? A biometric approach. *Sustainability*, 15(8), article number 6706. doi: 10.3390/su15086706.

[42] Ogryzek, M. (2023). The sustainable development paradigm. *Geomatics and Environmental Engineering*, 17(1), 5-18. doi: 10.7494/geom.2023.17.1.5.

[43] Order of the Cabinet of Ministers No. 70-2022-p "On approval of the Concept of the National Target Program for Land Use and Protection". (2022, January). Retrieved from https://zakon.rada.gov.ua/laws/show/en/70-2022-%D1%80?lang=en#Text.

[44] Pathak, M., Patel, S., & Some, S. (2024). Climate change mitigation and sustainable development goals: Evidence and research gaps. *PLOS Climate*, 3(3), article number e0000366. doi: 10.1371/journal.pclm.0000366.

[45] Purnama, Y.I. (2024). Implementation of the triple bottom line concept to improve sustainable marketing performance. *Journal of Economics and Business Letters*, 4(2), 40-50. doi: 10.55942/jebl.v4i2.284.

[46] Resolution of the Cabinet of Ministers of Ukraine No. 1015-p "Strategy for Introducing Sustainable Development Reporting by Enterprises". (2024, December). Retrieved from https://zakon.rada.gov.ua/laws/show/1015-2024-%D1%80#Text.

[47] Resolution of the Cabinet of Ministers of Ukraine No. 688-p "Irrigation and Drainage Strategy in Ukraine for the Period Until 2030". (2019, August). Retrieved from https://zakon.rada.gov.ua/laws/show/688-2019-%D1%80?lang=en#Text.

[48] Resolution of the Cabinet of Ministers of Ukraine No. 70-p "Concept of the National Target Programme for Land Use and Protection". (2022, January). Retrieved from https://zakon.rada.gov.ua/laws/show/70-2022-%D1%80#Text.

[49] Rosse, M.A., & Gonzalez, F.A.I. (2024). The impact of sustainable practices on the financial performance of companies: A review of the literature. *Vision de Future*, 28(1), 221-240. doi: 10.36995/j.visiondefuturo.2023.28.01.006.en.

[50] Shebanina, O., Poltorak, A., & Chorniy, D. (2024). Global food security: Challenges in achieving the sustainable development goals. *Ukrainian Black Sea Region Agrarian Science*, 28(4), 9-20. doi: 10.56407/bs.agrarian/4.2024.09.

[51] Shvets, N., Shevtsova, H., Pidorycheva, I., Prokopenko, O., & Maslosh, O. (2023). Sustainable development of agriculture based on the smart specialization approach: Cases of the central and eastern European countries. *Agricultural and Resource Economics: International Scientific E-Journal*, 9(1), 260-282. doi: 10.51599/are.2023.09.01.12.

[52] Skydan, O., Bugaychuk, V., Grabchuk, I., Sych, K., & Kubrak, S. (2024). Growth of value added as a factor in the development of Ukrainian agriculture in the context of accelerated integration into the EU. *Scientific Horizons*, 27(5), 143-158. doi: 10.48077/scihor5.2024.143.

[53] Sokolska, T., Polischuk, S., & Osypenko, B. (2024). Ukraine agricultural policy adaptation to the natural environment challenges. *Public Administration Aspects*, 12(1), 29-36. doi: 10.15421/152404.

[54] Tenorio, A.O., & Tenorio, M.O. (2024). Relationship between sustainable development, economy and poverty. *IgMin Research*, 2(7), 611-618. doi: 10.61927/igmin224.

[55] Thaher, Y., & Jaaron, A.A.M. (2022). The impact of sustainability strategic planning and management on the organizational sustainable performance: A developing-country perspective. *Journal of Environmental Management*, 305(494), article number 1143381. doi: 10.1016/j.jenvman.2021.114381.

[56] Türkeş, M. (2024). The role of sustainability and sustainable development in climate change mitigation and adaptation. *Sustainable Social Development*, 2(1), article number 2407. doi: 10.54517/ssd.v2i1.2407.

[57] United Nations. (1987). *Report of the World Commission on Environment and Development "Our common future"*. Retrieved from https://surl.li/svcvpx.

[58] Vyas, S., & Singh, S. (2022). Role of innovation for sustainable development in agriculture: A review. *Agricultural Reviews*. doi: 10.18805/ag.R-25360.

[59] Wang, W., Wei, K., Kubatko, O., Piven, V., Chortok, Y., & Derykolenko, O. (2023). Economic growth and sustainable transition: Investigating classical and novel factors in developed countries. *Sustainability*, 15(16), article number 12346. doi: 10.3390/su151612346.

[60] Weihenstephan-Triesdorf University of Applied Sciences. (2025). *Research at HSWT*. Retrieved from https://www.hswt.de/en/research/research-profile/research-projects.

[61] Wezel, A., & David, C. (2020). Policies for agroecology in France: Implementation and impact in practice, research and education. *Landbauforschung. Journal of Sustainable and Organic Agricultural Systems*, 70(2), 66-76. doi: 10.3220/LBF1608660604000.

Шляхи вдосконалення нормативно-правових основ діяльності наукових установ агропромислового комплексу в галузі забезпечення сталого розвитку та охорони довкілля

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Анотація

Метою роботи було оцінити нормативно-правові основи функціонування наукових установ та шляхи до покращення їхньої ефективності у вирішенні ключових екологічних проблем. У дослідженні були використані наступні методи: контент-аналіз нормативно-правових актів, що регламентують сталий розвиток господарської діяльності в Україні;порівняльний аналіз діяльності наукових інститутів України, Франції, Німеччини та Швейцарії в галузі сталого розвитку та екологічної безпеки; та контекстуальний аналіз впровадження кодифікованої нормативно-правової бази в управління національними дослідними інститутами в агропромисловому сегменті. Було виявлено, що дослідження в сфері сталого розвитку є ключовою передумовою для ефективного розвитку агропромислового сегменту. В Україні діяльності дослідних інститутів агропромислового комплексу, гальмується фрагментарною нормативно-правовою базою, відсутністю універсального визначення сталого розвитку в національному правовому полі, браком стимулів для проведення актуальних досліджень в сегменті та обмеженою адаптацією європейських та міжнародних стандартів в управління сталого розвитку, зокрема, охорони довкілля. Спираючись на досвід окремих країн-членів Європейського Союзу – Франції, Німеччини та Швейцарії – були розроблені наступні рекомендації: розробка єдиного законодавчого акту на регулювання діяльності наукових установ агропромислового комплексу, інтеграція загальноєвропейських стандартів сталого розвитку в українську нормативно-правову базу, впровадження механізмів стимулювання досліджень у сфері сталого розвитку та охорони довкілля, а також впровадження уніфікованоїсистеми моніторингу та контролю за дослідженнями сталого розвитку в агропромисловому комплексі. Результати роботи можуть бути використані для підвищення ефективності дослідної роботи в агропромисловому комплексі

Ключові слова: модель потрійної нижньої межі; раціональне використання ресурсів; продуктова безпека; економічна вигоди; систематизація; кодифікація; управління ресурсамицифровізація моніторингу; європейські стандарти