# Legal Support for Sustainable Agroecological Development: Evidence from Ukraine

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#### ABSTRACT:

This article is dedicated to characterizing laws regarding Ukrainian agroecological development. Researched existing approaches to the interpretation of the concepts of "agroecology", "ecologization of agricultural production", "agroecological law", "sustainable development". Definition of the category of "agroecological development" is formulated. It is determined that in modern Ukrainian realities the weight of international acts in the implementation of agroecological development has significantly increased. This stems from the European integration prospects of our country. The need to account for best international practices in regulating the functioning of both modern and post-war agriculture.

It is established that Ukraine has already developed a fairly solid legal framework that establishes environmental requirements for agricultural production. Further effective application of these requirements depends on the formation of the state agrarian policy and the planning and implementation of agro-ecological measures at the local and regional levels. Therefore, an update of documents regarding development of Ukrainian economy and agricultural sector for the period up to 2030. Key measures for agroecological development at the regional level have been identified, which is recommended to be included in local programs of economic development.

Keywords: agriculture, agricultural production, legal support, sustainable development, greening of agricultural production, agroecology, agrarian policy.

## 1. Introduction

Agriculture is an industry inextricably linked with the environment, the natural environment. The basis of agro-production activity is the use of natural resources – from soils, waters, subsoil to objects of fauna and flora, the proper condition of which is an indisputable condition for obtaining agricultural products that meets safety requirements and products of their further processing. At the same time, in the modern world with the current level of development of society, the technique and technology of agricultural production significantly pollutes the environment. Traditionally, agriculture has been positioned as one of the largest polluters of nature. According to the latest data from the

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FAO, the global agricultural sector consumes 70% of the total volume of water in aquifers and surface water bodies. At the same time, it is agricultural practices that cause pollution of water bodies with pesticides and agrochemicals, fuels and lubricants, etc. Intensive water use depletes water resources. The use of chemicals, plowing, monoculture cultivation, fragmentation of landscapes cause biodiversity loss. The consequence of biomass combustion is air pollution. Non-compliance with environmental requirements for tillage leads to land degradation. Finally, agriculture produces almost a quarter (23%) of anthropogenic greenhouse gas emissions (Larbodière et al., 2020).

These global trends are also characteristic of the agricultural sector of our country. In addition, environmental problems associated with the activities of the domestic agricultural sector have been exacerbated many times due to the ongoing war for the second year with active hostilities in a large part of Ukraine.

To solve those world problems, the formation of so-called agroecological innovations is beginning to gain momentum, the leitmotif of which is to maintain a balance between the economic benefits of agricultural production, social justice and the environment.

Ukraine joins the agroecological movement. In order to implement it, development of appropriate laws is needed. The quality of the latter largely depends on the theoretical background. Therefore this article is relevant.

# 2. Literature Review

Despite the importance of legal regulation of environmentally safe agricultural activities, the issue of agroecological development as a separate category is only beginning to be studied in the Ukrainian scientific literature. For example, P.F. Kulinych (2012) promotes the idea of separating agroecological law, distinguishing it from agrarian (agro-production) law proper. In dissertation, Y.P. Bosniuk (2023) expresses an opinion on the positioning of agroecological law as the next stage in the transformation of modern agrarian law. More illuminated scientists (representatives of agricultural sciences and environmental law) are related categories, in particular the greening of agriculture. Thus, social relations formed during the introduction and implementation of the principle of ecologization of agricultural production became the object of the dissertation research of N. Kravets (2015). Theoretico-methodological and methodical approaches to the ecologization of agricultural production were considered at the level of the monograph by S.Y. Kovalchuk and T.K. Overkovska (2012). The study of key terms and concepts in the field of ecologization of agricultural production was carried out by A.A. Krasnoselska (2023). The study focused on the current state and possible directions for further development of agricultural greening in Ukraine (Lozo et al., 2022). The work of G.B. Pogrischuk (2016) reflects the innovation-oriented agricultural production development based of ecologization. Problems of land usage during increasing ecologization regulations of agricultural production were studied by V.P. Stanislavsky (2022). It is worth noting the works of I.V. Kovalchuk (2019), T.V. Kurman (2018), N.V. Ilkiv (2020), in which agroecological aspects are considered from sustainable rural development point of view. Interesting from the point of view of the possibility of use in agricultural production are the achievements described in another work (Yermolenko et al., 2021) in which

ecologically balanced nature management is considered through the prism of the landscape approach. Positively assessing the contribution to legal science made by the above-mentioned scientists, the authors of this article believe that the existing developments in no way negate the need for further research of legal support for agroecological development of Ukraine. Arguments in favor of this are both changing political, socio-economic conditions and the dynamics of changes regulatory and legal support, and new standards and requirements for the proper ecological requirements to agricultural production.

Referring to the scientific achievements of foreign scientists, it is worth noting a significant array of work performed in recent years on various aspects of agroecological development, including the risks of agroecological transition. Interesting for this research are the developments in terms of agroecological transition in Europe in general and in the European Union in particular. Thus, scientists (Schiavo et al., 2023) analyzes the impact of the EU agroecological transition on land use, market relations, the situation with food security at the global level. It is concluded that there is no harm to global food security in the event of a deep agroecological transition in the EU, provided decrease in meat consumption. Scientists researched practical aspects - indicators of agroecological transition (Raigón Jiménez et al., 2023). In particular, the authors identified ten parameters that reflect quantitative indicators of food security. We will also give examples of narrower (in the substantive sense) works. For example, some particular scientists focused on studying the experience of implementing agroecological practices in the creation and operation of innovation hubs, concluding that farmers are interested in implementing agroecological practices, the significant role of new models of economic activity in this area, and the need to create innovative ecosystems (Lianu et al., 2023). The agroecological perspectives of EU pesticide legislation have been studied in the work of Garcia-Caro D. (2023). As a result, the author substantiates the expediency of consolidating agroecological principles at the level of law, which will be key to achieving future goals of European policy on the use of pesticides, as well as eliminating the "gap" between the existing realities and prospects for sustainable development. Possible ways to overcome such problems of the agricultural sector as climate change, chemicalization of production processes, monoculture of crop production were also studied by scientists. As a result, the authors proved the possibility of overcoming them with the help of agroecological practices, highlighting the advantages of the latter for society and the environment (Elouattassi et al., 2023). There are scientific articles regarding problems of agroecological transition in a separate area – the European wine industry. It is interesting to find differences in the views of stakeholders - wine producers in different countries: French and Portuguese winemakers express doubts about achieving a reduction in pesticide emissions by switching to agroecological practices, while Italian producers emphasize the importance of regulatory restrictions (Beber et al., 2023). Of course, these works very indirectly affect the normative component of agroecological transition/development, however, their results can be taken into account in the development of the content of legal acts in the field of agroecological development, determining possible vectors of movement of our state, building action plans for the implementation of ecologically-oriented agroproduction practices.

#### 3. Methods

The purpose of this article is to define the concept of agro-ecological development and to study the current state and determine the prospects for legal support of relations in the field of greening of agricultural production in Ukraine.

The achievement of this goal was facilitated by the appropriate methodological tools - a set of methods of scientific cognition. The study is based on the dialectical (philosophical) method, which allowed for a comprehensive analysis of the current state of legal support for the greening of agricultural production and agro-ecological development. The authors of the article used the method of analysis throughout the entire work, in the course of studying the doctrinal approaches to the definition of the concepts of "agroecology", "sustainable development", "greening of agricultural production", and "agroecological development". The content of the provisions of regulations in the field of agroecological development was clarified using the formal legal method. The monographic method of scientific cognition made it possible to study the state of development of the issue of agro-ecological development and related categories in the scientific works of domestic and foreign researchers. The use of the abstract and logical method made it possible to summarize the results of the study and formulate final proposals for solving problematic issues.

# 4. Results and Discussions

The need to rethink the methods of agricultural activity with a shift in emphasis towards reducing its negative impact on the environment has been reflected at the world level, primarily through the definition of the basic principles of agroecology in regulatory documents. In 2018, at the second FAO International Symposium on Agroecology, the framework programme "Ten Components of Agroecology" was officially presented. It articulates the following benchmarks for sustainability agri-food systems (The 10 elements of agroecology..., 2018). These benchmarks correlate with the Sustainable Development Goals (Transforming Our World ..., 2015). At the same time, experts point out that agroecological approaches contribute to the achievement of all 17 Sustainable Development Goals – from Goal 1 "Poverty alleviation" (by supporting food producers to reduce production costs, which in turn increases incomes, increases economic stability and resilience of poor rural people) to Goal 17 "Strengthen and intensify the means of implementation of the Global Partnership for Sustainable Development" (through increased interaction between countries, social actors, sectors and branches of production) (Agroecology and the sustainable development goals). This is positioned as a strong argument in favor of the expediency of introducing agroecological approaches in the world and in Ukraine. In the development of the above conceptual provisions at the level of the European Community, agroecological practices, measures are declared in a number of documents. First of all, the European Green Deal (The European Green Deal, 2019) and the EU Biodiversity Strategy until 2030 (EU Biodiversity Strategy for 2030), the EU Zero Air, Water and Soil Pollution Action Plan (Action Plan: "Towards Zero Pollution ...). Although these documents relate to the greening, conservation and restoration of nature in general, they also contain relevant plans for agriculture. For example, the EU Biodiversity Strategy until 2030 envisages incentives for the development of sustainable

and organic development as measures to reduce the negative impact on natural ecosystems and conserve pollinators agriculture, as well as a 50% reduction in the use of harmful pesticides. And these are just the basic documents, related to agroecological development at European and world level.

Narrowing down to the agroecological development of Ukraine and its legal support, it is worth noting the following. At present, the existence of such a principle of agrarian production as the "principle of ecologization of agricultural production" has been substantiated. Its definition at the monographic level is given by N.V. Kravets (2015). The scientist considers it as a guiding provision-requirement regarding the consolidation in regulatory legal acts and strict implementation of environmental requirements by all subjects of agricultural production activity. The purpose of this principle N.V. Kravets (2015) defines as environmental protection, reduction of harmful anthropogenic impact on environment, preservation of ecological systems in a stable balance, environmentally balanced use of natural resources. Moreover, according to N.V. Kravets (2015), this environmental component is combined and contributes to the production agricultural products that comply with quality standarts.

The term "agroecology" is currently considered in various aspects. First of all, as a science that "studies the agricultural sphere as a whole, studies the basics of balanced land use in order to obtain agricultural products of crop and animal husbandry, products of its processing while preserving natural objects and resources, biodiversity, as well as protecting the human environment and manufactured products from pollution" (Dictionary of Agroecology..., 2012). Agroecology is also positioned as a social movement, as an agricultural practice, based on the ecological principles of functioning and development of agri-food systems, rural areas, and individual communities. And in this process, the key feature is to maintain a balance between three components: economic benefit, social justice, and safety for the environment (Agroecology: resilience that each..., 2023).

If we consider not purely "agroecology", but "agroecological development", then the latter is a process as a result of which certain changes occur. A key sign of such changes is an increase in quality indicators. There is a transition from one (lower) level/state to the next (higher). And here we focus on the integration of agroecology into the general concept of sustainable development (as described above in the paper).

Taking this into account, agroecological development should be understood as "the direction of qualitative growth of the agri-food sector, improving the quality of life of the rural population, increasing the level of food security of the state, taking into account the environmental requirements for agricultural activities, minimizing the impact of the latter on the environment, ensuring ecologically balanced use of natural resources and sustainable balance of ecosystems".

The process of formation of the legal framework for the ecologization of agricultural production, which can be considered as a normative basis for agro-ecological development, has been going on in Ukraine for more than a decade. Scientists distinguish several levels of regulatory and legal support for the greening of agricultural production in Ukraine (Figure 1).

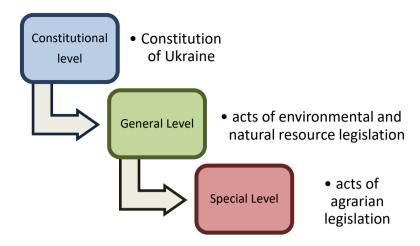


Figure 1: Levels of regulatory and legal support for the greening of agricultural production in Ukraine (compiled by the author, based on the Kravets N.V. (2015).

Such an approach, while generally appropriate, still requires some adjustment, taking into account the significant increase in the importance of international acts in the implementation of agro-ecological development. This stems from the European integration prospects of our country, the need to take into account international standards in the formation of both modern and post-war agriculture.

The Ukraine–European Union Association Agreement, defines the issue of agricultural development in Chapter 17. Article 403 of the Agreement contains direct obligations on cooperation between the parties to the Agreement in terms of the development of agriculture and rural areas. The spheres of such cooperation are also defined (Article 404). The priority is to increase the pace of organic production, the widespread introduction of biotechnology, the application of the best practices of agricultural production, confirmed in the world (On ratification of the Association Agreement between Ukraine…, 2014).

Without aiming to review the entire process of Ukraine's implementation of the Association Agreement in terms of agriculture, we will focus only on the current situation. In January 2024, the process of screening Ukrainian legislation for compliance with European Union law began as a preliminary stage in the start of negotiations on our country's accession to the EU. If we talk about the overall progress of the implementation of the Association Agreement, we have the latest official data as of the beginning of 2023. And in the field of "Agriculture" this figure is 63% (Report on the implementation of the Association..., 2022).

As for the approximation of Ukrainian legislation to European Union legislation directly in the field of agro-ecological development, over the past year we have had some progress only in terms of the introduction of European standards for regulating the management of genetic resources. We are talking about plants, microorganisms and animals that are used or can be used in agriculture – on 23.08.2023, the Law of Ukraine

"On State Regulation of Genetic Engineering Activities and State Control over the Placement of Genetically Modified Organisms and Products on the Market" (2023) was adopted. In general, positively assessing this step, we note that the effectiveness of this law can be seen only after the entry into force of all its provisions (and this is August 2026) and subject to the development of an array of by-laws.

Thus, Ukraine already has an extensive legal framework that establishes environmental requirements for agricultural production. However, the degree of compliance with these requirements leaves much to be desired, and one of the main reasons for this, the scientists emphasize, is the lack of an effective mechanism for their implementation (Kurman, 2018). Conceptual acts play an important role here, which are designed to determine the vectors of movement, directions of the relevant state policy and are the basis for the development of specific agroecological measures development.

At the same time, we have the opposite picture. Basic strategic documents defining as priorities rational agricultural land use, reduction of the technogenic load of agricultural production on the environment, development of the organic farming industry, rational use of natural resources in the agricultural sector, do not contain specific indications on the ways of implementation of such measures.

The National Economic Strategy for the period up to 2030, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 03.03.2021 No 179, outlines the strategic course of policy in the field of development of the agro-industrial sector, which should include the following measures/directions directly related to agro-ecological development.

The first is the declared support for the production of agricultural organic products. The development of programs to support agricultural producers in the field of organic production has been announced. Attention is paid to the information component of the development of organic agricultural production – activities for familiarization, training of agricultural producers in the features of organic crop production, animal husbandry, and other sub-sectors.

Secondly, measures for the implementation of the state policy in the agroindustrial sector of direct environmental content have been formulated, which should have a positive impact on the state of the environment, promote rational use of natural resources. Such measures include the gradual introduction into the legislation of Ukraine of those standards and practices that have already proven themselves positively in European countries; gradual harmonization of the state agricultural policy with the EU Green Deal in agriculture; development and monitoring of indicators of the impact of agricultural activities on the state of ecosystems; developing, facilitating the implementation and implementation of monitoring of compliance with minimum environmental standards; introduction of a report in Ukraine that would illustrate at the state level the quantitative indicators of agricultural production of greenhouse gases and the volume of their emissions into the atmosphere. Attention is also paid to the "positive" stimulation of the introduction of environmental practices in agricultural production. First of all, through economic incentives for rational, non-exhaustive, ecologically balanced use of land and water resources; carrying out restoration activities in ecosystems changed as a result of anthropogenic impact.

Thirdly, measures to ensure the development of sustainable production are allocated. Here, the emphasis is again placed on increasing organic agricultural production in Ukraine and spreading the use of biotechnology as an alternative to the traditional intensive way of farming. The need for transition to "climate-smart" agricultural production (On approval of the National Economic Strategy..., 2021).

Thus, in general, the National Economic Strategy for the period up to 2030 meets modern needs for agro-ecological development.

However, as of March 2024, there is no action plan for the implementation of this Strategy, which makes it difficult or even impossible to achieve its goals. In the absence of clearly defined deadlines, executors of certain measures, it is impossible for interested parties to determine the effectiveness of the Strategy, to promptly respond to the need for changes.

It is impossible to ignore another important act - an effective tool for implementing the principles of balanced development at the level of the state and regions of Ukraine - the Strategy for Sustainable Development of Ukraine until 2030. Back in 2018, a draft of the relevant Law of Ukraine was developed. It provided for the provision of the creation of such food production systems and such methods of farming that would be balanced, would increase productivity and production volumes, on the one hand, and on the other hand, contribute to the preservation of ecological systems, would be adaptive to climate change, extreme natural phenomena, and would also contribute to the gradual improvement of the quality of land and soil (On the Strategy for Sustainable Development..., 2018). However, this Strategy was never adopted.

Thus, in the pre-war period, a fairly powerful legal framework for agro-ecological development was formed in Ukraine. The state policy in the field of agro-ecological development was also determined at a satisfactory level and corresponded, among other things, to international requirements.

However, despite the above, the analysis of statistical data shows that the area of agricultural crops treated with pesticides has remained virtually unchanged in Ukraine over the past 5 years (Table 2). The only exceptions are Luhansk, Donetsk, Kharkiv, and Kherson regions, where this figure for 2022 has rapidly decreased. However, this is due to active hostilities in these regions, the impossibility of carrying out agricultural activities in pre-war volumes.

Table 2. The area of agricultural crops treated by pesticides in enterprises by regions, thsd.ha

Region	2018	2019	2020	2021	2022
Ukraine	15908,8	16092,4	16144,6	16600,1	12883,3
Vinnytsya	995,6	934,3	955,7	946,3	980,3
Volyn	216,7	227,7	244,5	246,4	254,4
Dnipropetrovsk	1029,3	1058,8	1052,1	1057,8	1015,4
Donetsk	573,4	608,1	605,4	640,9	163,8
Zhytomyr	547,7	540,4	536,8	570,7	517,7
Zakarpattya	25,0	28,4	30,9	27,7	34,2

Zaporizhzhya	973,2	997,7	1022,9	1060,9	227,9
Ivano-Frankives	144,1	146,0	144,4	158,1	149,9
Kyiv	754,5	764,5	757,9	767,8	736,1
Kirovohrad	972,9	1001,9	957,4	956,9	949,2
Luhansk	553,9	555,2	577,1	601,8	6,8
Lviv	309,7	325,8	324,8	348,6	372,3
Mykolayiv	791,2	787,6	789,9	801,7	614,6
Odesa	1050,5	1030,9	969,3	1095,8	1048,4
Poltava	1024,8	1073,6	1080,5	1082,3	1027,5
Rivne	239,4	244,5	263,2	282,0	277,3
Totals	877,1	860,8	896,4	910,4	827,9
Ternopil	505,2	509,0	486,1	517,6	535,6
Kharkiv	1129,3	1123,9	1137	1116,3	538,2
Kherson	620,8	668,5	697,2	742,4	46,7
Khmelnytskiy	806,7	810,7	810,7	820,3	836,3
Cherkasy	772,3	774,6	780,9	783,5	789,6
Chernivtsi	91,6	89,8	90,2	87,4	90,5
Chernihiv	903,9	929,7	933,3	984,7	834,5

<sup>\*</sup>Source: compiled by the author, based on the «Environment of Ukraine. (2023). Statistical publication».

The levels of application of mineral fertilizers for the harvest of agricultural crops tend to increase significantly (Table 3).

Table 3. Use of inorganic fertilizers for the harvest of agricultural crops in enterprises

	2010	2015	2020	2021	2022
Inorganic fertilizers, used of under	1064,2	1415,0	2488,7	2584,1	1831,9
the harvest reporting year, thsd.t					
including					
nitrogen	776,6	985,0	1716,1	1769,9	1214,4
phosphorus	158,2	223,2	432,7	450,8	324,0
potassium	129,4	206,8	339,9	363,4	293,5

<sup>\*</sup>Source: compiled by the author, based on the «Environment of Ukraine. (2023). Statistical publication».

On the other hand, the amount of organic fertilizers applied to crop crops, on the contrary, decreased in the period from 2010 to 2022 (these are the latest available statistics), Table 4.

Table 4. Use of organic fertilizers for the harvest of agricultural crops in enterprises

	2010	2015	2020	2021	2022
Organic fertilizers, used of under the	9963,6	9662,7	10222,9	10745,9	9728,2
harvest reporting year, thsd.t					

\*Source: compiled by the author, based on the «Environment of Ukraine. (2023). Statistical publication».

Also, due to the full-scale war, there was a significant shift in priorities. Nowadays, during wartime main attention is focused to economical and social parts of sustainable development. Ecological part is currently less important. The environmental component has so far receded into the background to some extent, supplanted by more urgent needs for food security, solving social problems, etc. At the same time, in the plans for the recovery of Ukraine, in the perspective of the post-war period, the sphere of agroecological development again occupies an important place.

In July 2022, the New Agrarian Policy Working Group presented the Draft Ukraine Recovery Plan. This document identified the main measures for the recovery of the agricultural sector until 2032. These measures included: development of organic production; implementation of the world's best practices for the control and distribution of GMOs; development of bioenergy taking into account the EU REPowerEU plan; development of the Smart Green Deal (gradual adjustment of requirements for Ukrainian agricultural producers in compliance with the requirements of the EU Green Deal, taking into account Ukrainian national specifics); large-scale training of Ukrainian producers on the requirements of European legislation in the field of agriculture, sanitary and phytosanitary requirements, the EU Green Deal (Draft Ukraine Recovery Plan, 2022). From the above list, we conclude that the Recovery Plan of Ukraine in terms of the agricultural sector is focused on agro-ecological development, as it covers its main elements. In the post-war perspective, a significant role in ensuring agro-ecological development is assigned to persons directly involved in the agricultural production. We assess this as a positive step, since it is agricultural producers, who have the best understanding of the existing problems, who can choose the most effective ways to solve them. At the same time, it is necessary to carry out active information and explanatory work among people engaged in agricultural production (first of all, peasants - members of personal peasant farms). Explain to them the advantages, prospects, feasibility of agroecological practices.

A complication for the implementation of agroecological practices is bureaucratic barriers, which the researchers emphasize (Negrey et al., 2022). Moreover, during the war, there have already been legislative initiatives aimed at simplifying bureaucratic requirements. This is the Law of Ukraine "On Amendments to Certain Laws of Ukraine on Uninterrupted Production and Supply of Agricultural Products during Martial Law" of 12.05.2022, which, among other things, provides for the possibility for those domestic producers of organic agricultural products that produced them according to EU standards to switch to production standards determined by Ukraine without an additional transition period. Contributes to the gradual transition to more simplified procedures for obtaining certain services for the functioning of the Diia portal. For example: it is possible to apply for financial support to start an agricultural business online.

It is impossible to ignore the problem of low effectiveness of legal responsibility, primarily administrative, for non-compliance by persons with the requirements of the legislation in the field of environmental protection, requirements for the use of natural resources. For example, the Code of Ukraine on Administrative Offenses of 07.12.1984, No. 8073-X in Art. Article 52 establishes a fine for individuals in the amount of 20 to 80 non-taxable minimum incomes of citizens (from 340 to 1360 UAH) for damage to land, including agricultural land, its pollution with chemical, radioactive substances, industrial waste, other waste, oil, oil products, untreated sewage. For individual entrepreneurs, the amount of fine for this offense ranges from 50 to 100 non-taxable minimum incomes (from 850 to 1700 UAH). For violation of the rules for the use, storage, transportation, neutralization, liquidation and disposal of pesticides and agrochemicals, toxic chemicals and other preparations (Article 83), the amount of fine for citizens is from 3 to 7 tax-free minimum incomes of citizens (from 51 to 119 UAH), and for officials - from 7 to 10 taxfree minimum incomes of citizens (from 119 to 170 UAH). Under such conditions, the purpose of administrative liability is negated. Small fines, which are not burdensome for violators, to some extent encourage the latter to continue to neglect legislative provisions.

It was stated above in the paper that the condition for agroecological development is to achieve a balance between the economic benefits of agricultural production, social justice and the environment. An illustration of the need to achieve it is the protest movement of farmers in Poland, Belgium, France, Spain and other EU countries against the EU Green Deal (The EU's green course has driven ..., 2024). The latter obliges agricultural producers to switch to the use of new, more expensive biological products, provides for a ban on the use of a number of pesticides and agrochemicals, and the transition to new technologies and breeding methods. This entails additional costs, increases the cost of production, creates risks in the agricultural market, reduces the level of income of farmers and thereby exacerbates social problems. In addition, the European Commission has put forward a proposal to allocate at least forty percent of the total budget of the Common Agricultural Policy to climate action during 2021-2027. Thus, reducing funding for other areas. It is important to take this experience into account in Ukraine. Because in today's difficult realities of the functioning of the agricultural sector, automatic "copying" of European requirements can have negative consequences and lead to diametrically opposite results. At the initial stages, the state should take on a key role in ensuring an environmentally oriented restructuring of agricultural production, including through economic incentive mechanisms.

# 6. Conclusions

Summarizing the above, we propose to define agroecological development as "the direction of qualitative growth of the agri-food sector, improving lives of rural population, increasing the level of food security of the state, taking into account the environmental requirements for agricultural activities, minimizing the impact of the latter on the environment, ensuring ecologically balanced use of natural resources and sustainable balance of ecosystems".

Ukraine has a well-formed regulatory framework that defines environmental requirements for agricultural production – from constitutional provisions to the requirements of

domestic environmental and agrarian legislation. Further improvement of the legal support for agro-ecological development of Ukraine directly depends on the requirements of the world and European levels, the need for our state to fulfill its obligations as a member of international institutions.

A prerequisite for agro-ecological development is a balanced state policy, objectified in acts of a strategic and programmatic nature. To improve this level of legal regulation, it is necessary to: revise the National Economic Strategy for the period up to 2030 as one that does not take into account the realities of the war and the prospects of the post-war period; to develop the Concept of Agroecological Development of Ukraine, taking into account which to adopt the Strategy for the Development of the Agrarian Sector of the Economy for the period up to 2030 and the State Target Program for the Development of the Agrarian Sector of the Economy for the period up to 2030. Develop plans for the implementation of the above acts with the definition of specific measures, responsible executors and deadlines. To ensure the availability of information on the state of implementation of the planned for the general public, the conditions for public control. When forming economic development programs at the level of territorial communities, it is necessary to provide for measures to: determine the needs of a particular community in the field of agro-ecological development, including through the analysis of the state of soils, waters, and other natural resources; information and advisory assistance and support, expert support of interested persons in the choice of more environmentally friendly methods, methods, techniques of agricultural activity; financial support for the implementation of agroecological solutions and/or additional incentives for such innovations.

An additional guarantee of compliance with the legislation on the greening of the agricultural sector should be the improvement of the regulatory framework for administrative liability for violations in this area. In particular, it is time to revise the amount of sanctions upward for administrative violations of environmental legislation and legislation on the use of natural resources.

The results obtained are of theoretical importance, filling the gap in scientific research on the issue of agro-ecological development of Ukraine in the current conditions. They are valuable in terms of their practical application in the further development of legislation in the field of agricultural greening. The results of the study will be useful for representatives of state authorities, local governments, and agribusiness as a basis for developing action plans for agroecological development at various levels - from national to local.

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