

Strategic Priorities and Effectiveness of the Implementation of the State Policy for Sustainable Agricultural Development in Ukraine

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DOI:10.13165/VPA-19-18-2-02

Abstract. *Solving the current economic, social and environmental problems in the domestic agricultural sector requires a comprehensive strategic approach mutually coordinated at the national and regional levels that will promote balanced development of the agricultural industry through the principles of social justice, environmental safety and resource-saving economics. In this regard, monitoring and forecasting implementation of the strategic priorities defined at the state level becomes relevant. Effective monitoring requires improvements in methodological support and the analytical framework, which is why writing an article on this topic is apt.*

This article investigates the current state of the Ukrainian agricultural sector's transition to a model of sustainable development, as well as the problems associated therewith. The analysis and forecasting of the implementation of the integrated strategy for the development of agriculture in the context of sustainable development goals are substantiated using gap analysis. The current and strategic tasks for the socio-ecological and economic development of the Ukrainian agricultural sector are presented.

Key words: *sustainable development, strategic goals, integrated strategy for agricultural development, forecasting, extrapolation, gap analysis.*

Raktažodžiai: *tvari plėtra, strateginiai tikslai, integruotoji žemės ūkio plėtros strategija, prognozavimas, ekstrapoliacija, GAP analizė.*

Introduction

Contemporary global trends, the need to increase the competitiveness of domestic products in world markets, and Ukraine's international commitments require radical change in the concept and vector of development of the agro-industrial sector towards balanced functioning. Strategic documents have been developed that define the priorities for the gradual transition of agricultural production to a model of sustainable development at the national level. However, most of the documents are not approved at the legislative level, and the tasks specified in these documents are declarative and not developed from a financial, regulatory or legislative point of view. In addition, there is no single integrated system for monitoring and controlling implementation of the strategic goals for sustainable development. One of the ways that the strategic management system for the development of agricultural production can be improved is to create a comprehensive system for monitoring and forecasting agricultural development opportunities in the context of the balanced harmonization of economic and social consequences while reducing the environmental burden.

The purpose of this article is to forecast and analyze the effectiveness of the implementation of the strategic state priorities for sustainable agricultural development in Ukraine.

The basic methodological approaches used for the article are explanation and contextual analysis of the features of sustainable agricultural development, the extrapolation method of forecasting, and gap analysis.

Literature review

“Scientific and technological progress was also causing terrible damage to the natural environment. During the period of unprecedented industrial and commercial expansion after World War II people became aware of the threats which rapid population growth, pollution and resource depletion posed to the environment and their own survival as humans.” (Jacobus, A. Du Pisani, 2006, p.85)

In modern conditions there is a gradual change in the paradigm of social development from an industrial model, which prioritizes economic growth due to industrial methods of production (including agricultural) and profit at any cost, to a post-industrial model based on the organic trinity of economic, social and environmental development priorities.

The 1972 Conference on the Human Environment in Stockholm, Sweden, attended by 113 states and representatives from 19 international organizations, was the first truly international conference devoted exclusively to environmental issues. The key outcome of the Stockholm Conference was the creation of the United Nations Environmental Program (UNEP), which was given the mission “to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.” (Paul, B. D., 2008, p. 577)

According to the authors of “Governing for the Future: The opportunities for mainstreaming sustainable development” (2011), sustainable development is a journey rather than an appointment. Therefore, the key features of sustainable development are harmoniously combined economic, social and environmental goals, as well as the organization of the movement of all systems in the right direction on this basis.

Given the considerable resource and human potential where there is insufficient development (and in most cases – deterioration) of the material and technical base of industrial production, the modernization of which requires significant investment, agriculture remains one of the basic directions of Ukraine’s sustainable development and competitive potential.

At the same time, development of the competitiveness of domestic agriculture depends primarily on the following priorities: specialization in organic products, diversification of markets, resource conservation, innovation, and economic efficiency in production. The implementation of these priorities is only possible with a transition to an innovative concept of development based on environmentally-friendly and resource-saving agricultural production.

Ukraine is one of the richest countries in the world in terms of natural resources, yet the use of these resources in the national economy is inadequate. Today, Ukraine is one of the most polluted and environmentally vulnerable countries in Europe and the former Soviet Union. In fact, the degree of environmental degradation and pollution puts the country among the most ecologically vulnerable countries in Europe: the environmental load is four to five times higher than in other countries, emissions of harmful substances is six times higher per unit area, wastewater discharges to surface water is four time higher, and annual waste storage is seven times higher (National Environmental Policy of Ukraine: Assessment and Development Strategy, 2008).

With globalization and Ukraine’s gradual integration into the European economic system, solving the problems related to long-term effectiveness and agricultural competitiveness requires optimization of the agricultural sector management system and a comprehensive transition to an innovative model of sustainable development.

According to T. Galushkina (2011, p. 7), the solution to the current economic, social and environmental problems lies in the implementation of the “green economy” doctrine, which is considered to be a “system of long-term actions detailing resource capabilities, justification of the importance of the green growth of the Ukrainian economy and the formation of a favorable business environment both at the state and regional levels.”

Introduction of the concept of a “green economy” and transition to a resource-saving model of agricultural production requires a comprehensive strategic approach. For example, the Europe 2020 strategy (European Commission, 2010) presents three key priorities for the development and implementation of national strategies for EU Member States: knowledge and innovation as the basic foundation for economic development and competitiveness, resource conservation and reduction of harmful emissions, and development of a high-employment economy delivering social and territorial cohesion.

EU leaders are acutely aware that the environmental impact of national economies can be manifested through third world countries as a result of transboundary pollution and direct transportation of adverse environmental impact (for example, with river water), and through the operation of unstable international trade patterns (National Paradigm of Sustainable Development of Ukraine, 2016, p. 6).

In comparison to other sectors of the national economy, agriculture has greater dependence on social interests and natural factors. Intensification of agricultural production causes a disturbance in the environment if it is not accompanied by environmental protection measures. The urgency of shifting the industry to the principles of a green economy is therefore obvious. One aspect of the principles of a green economy is using organic agricultural production as an alternative economic model that can influence the development of agricultural production and reduce the anthropogenic load on the environment and natural resources (Smolenyuk R. P., 2013, p. 37).

We agree with the authors of the “Strategy for the Development and Prospective Directions of Scientific and Scientific-Technical Activity” (2017) that the urgent need to integrate Ukraine into the global architecture of sustainable development, as required by the Sustainable Development Goals, makes it necessary to consider the prospects for the transition of the national economy to a model of sustainable development.

The transition of the national economy to a model based on resource saving and environmental protection is conditioned both by the internal realities of socio-economic development and the state of the environment, as well as by external commitments. Ukraine officially supported a number of international decisions on sustainable development, including the Johannesburg Declaration and the Plan of Implementation of the World Summit on Sustainable Development (2002), the Future We Want (2012), and the Sustainable Development Goals adopted at the United Nations Sustainable Development Summit (2015). However, there is currently no national strategy for sustainable development with a clear action plan for its implementation.

The first steps towards implementing a concept of sustainable development were taken by the Government of Ukraine in September 2017 when it issued the “Sustainable Development Goals: Ukraine” national report, which provides benchmarks for sustainable development through 2030 (Ministry of Economic Development and Trade of Ukraine, 2017). The report presents the results of the adaptation of 17 global sustainable development goals, taking into account Ukraine’s specific context and predictive trends of socio-economic development. The positive outcome is the establishment of target indicators for sustainable development within the main spheres of the national economy. Among other things, this report identifies conceptual foundations and targets for the development of agriculture. As a result of the concept of sustainable development of agriculture being implemented for the 2015–2030 period, Ukrainian agricultural productivity should increase twofold, which will lead to a significant improvement in the standard of living and an average increase of 80% in the per capita consumption of basic products. At the same time, the main factor for this growth is precisely the introduction of innovations in agricultural production and modernization of the material and technical base and infrastructure.

For the purpose of fulfilling the strategic tasks for sustainable agricultural development, the Ministry of Agrarian Policy and Food of Ukraine – with the support of the European Union – prepared the single and comprehensive Strategy for Agriculture and Rural Development 2015–2020, which defines the long-term concept of agricultural development and provides the basis for a stable, predictable and transparent legal system aimed at improving the business climate, combating corruption, and stimulating investments in modernization of the agricultural sector. It also provides the basis for the institutional reform necessary for effective monitoring and implementation (Ministry of Agrarian Policy and Food of Ukraine, 2017).

The strategy contains a number of land, tax, administrative, judicial and reforms that should promote the sustainable development of agriculture. However, the strategy has not yet been approved by the Ukrainian parliament; the terms of implementation of the main tasks have been violated, and the parliament has adopted some laws which contradict the goals set forth in the strategy. The main obstacles to the implementation of the strategy include political and financial conflicts, existing corruption mechanisms, and the growth of external risks. In addition, the action plan developed will require additional analytical and predictive substantiation and the establishment of appropriate quantitative and qualitative indicators on the basis of the implementation of individual planning tasks, which will stimulate increased efficiency and responsibility for their implementation.

The problems with strategically transitioning agriculture in developing countries to a model of resource-saving and environmentally-friendly development are evident. Therefore, different models have been developed by scientists for assessing, monitoring and forecasting agricultural development in countries, regions and industries. Evaluating the effectiveness of rural agricultural industries with extrapolation methods and factor analysis was proposed by Cervantes-Godoy, D. and J. Dewbre (2010),

Nagyová L. et al. (2017) and Passel S. V. et al. (2007). The tools for preparing, conducting, monitoring and reporting the processes of implementing public administration reform and sectoral strategies are presented in studies by Vági, P. and E. Rimkutė (2018). According to the latter, one of the elements of analyzing and monitoring the effectiveness of strategy implementation at different levels of government is developing strategic goals and forecasting their implementation in the face of external and internal challenges.

The proposed methods are supposed to be adapted for monitoring and forecasting fulfilment of the sustainable development goals for agriculture in Ukraine. This article addresses the important task of identifying methodological approaches and developing comprehensive tools to monitor the effectiveness of the implementation of the strategic goals for sustainable agricultural development at the level of the Ukrainian government.

Methodology

Methodological approaches and gap analysis tools have been proposed for implementing the strategic priorities of sustainable agriculture in accordance with the goals established in strategic documents through 2020. This makes it possible to calculate the gap between actual data and planned indicators, identify the possible causes for these gaps, and make operational decisions to either correct them (in the case of negative values) or take advantage of them (in the case of positive values).

The proposed methodology is widespread in the current practice of strategic analysis and forecasting in enterprises, industries and individual sectors of the economy. An example of the application of this methodology for the strategic monitoring of agricultural development is the 2014 analysis conducted by experts from the Food and Agriculture Organization (FAO) of the gap between the required level of agricultural production and consumption to account for natural resources and climatic conditions in the context of the regions and countries of Africa, which made it possible to develop practical recommendations for the strategic development of agricultural production in this area. This analysis is used by FAO experts in monitoring and forecasting the yield of individual crops under the influence of various factors (FAO, 2015). Gap analysis methodology is also presented by the Global Harvest Initiative (GAP Report, 2016) as an effective tool for monitoring the efficiency of agricultural development in different regions of the world. The combination of gap analysis and extrapolation methods makes it possible not only to monitor the ongoing process, but also to predict the implementation of sustainable agricultural development goals in the strategic perspective.

The gap analysis method identifies gaps between the actual and planned values of the selected indicators at a certain point in time in absolute and relative

terms, which is followed by a factor analysis of the gaps revealed, as well as decisions on how to either correct or take advantage of the existing trends.

In our opinion, use of the strategic gap method can be an effective tool in the management of sustainable agriculture, provided that the relevant methodological and analytical tools are improved. We have accordingly adapted methodological approaches for the analysis of strategic gaps in the management of sustainable national agricultural development.

Adapting the proposed toolkit for sustainable agricultural production development involves the following steps:

1. Determination of planned (Tp) trends in the main indicators for agricultural development, which will serve as a basis for comparison.

The target indicators in this study were determined on the basis of the system of indicators presented in the single and comprehensive Strategy for Agriculture and Rural Development 2015–2020. In the absence of intermediate indicators to be achieved during the forecast period, the planned indicators were evenly distributed over the five years. 2015 figures were used as the starting point for the calculations, since that is what experts used for calculations in the development of the Strategy for Agriculture and Rural Development and the Sustainable Development Goals for the Ukrainian economy.

2. Calculation of forecast indicators for agricultural development taking into account economic, social and environmental priorities, subject to the continuation of existing trends (Te).

3. Calculation of strategic gaps between the forecast and planned trends in agricultural development according to the formula:

$$GAP = \Delta Q^{Te} - \Delta Q^{Tp} \quad (1)$$

The resulting gaps can have a null, negative, or positive value:

Gap = 0 – Describes a situation where there are no gaps, i.e., the process is progressing according to the trajectory specified in the strategy.

Gap > 0 – The emergence of positive deviations, which may be due to the influence of external opportunities that were not taken into account. A gap of more than 10% will require an additional analysis of the causes and consequences of such an increase in the development of the system as a whole.

Gap < 0 – The emergence of negative deviations from the trajectory specified in the strategy. This requires taking corrective decisions and performing additional analysis of the factors and causes of said deviations. If there is a deviation of more than 10%, the system of interconnected scheduled indicators will have to be adjusted.

These definitions are for indicators which are meant to be maximized. For indicators which are meant to be minimized, interpretation of the values will be switched.

Analysis and forecast of the implementation of strategic priorities for sustainable agricultural development in Ukraine

An important stage in the analysis of strategic gaps is the definition of planned trends in the development of key indicators, provided that the current policy in the industry will be maintained. Forecasting was done in accordance with the trends in the development of indicators for the 2010–2016 period using the extrapolation method according to separate blocks: economic, social and ecological. If the existing trends continue through 2020, the growth forecast for agricultural production will exceed the indicators provided in the strategy (10%) by 5%, and the growth forecast for labor productivity will exceed the planned indicators by 1%. However, agricultural exports will only increase over the forecast period by 12%, as opposed to the 30% indicated in the strategy.

Based on the analyses conducted and using the formula specified above, the strategic gaps in the main indexes of strategic development in the agricultural sector of the national economy were calculated (Table 1).

Table 1. Calculated gaps between extrapolation and planned indicators for economic development in agriculture

Indexes	Gap	Period					Total Gap, %
		2016	2017	2018	2019	2020	
Agricultural production volume	Gap, million UAH	10,383.9	-15.2	14,573.2	10,423.9	11,462.7	5.0
	Gap, %	4.3	-4.2	5.8	-1.7	0.3	-
Labor productivity in agriculture	Gap, thousand UAH	0.1	-4.4	12.9	5.8	2.1	1.0
	Gap, %	0.1	-2.0	7.6	-2.9	-1.5	-
Exports of Ukrainian agricultural products	Gap, thousand USD	-82.2	1,293.5	-223.8	-1,999.5	-2,699.5	-17.8
	Gap, %	-1.1	8.5	-9.6	-10.9	-4.2	-

Source: calculated by the authors

It should be noted that the indicators for 2016 and 2017 show the actual gaps between planned and achieved indicators, that is, they establish the effectiveness of the government's actions in implementing the agricultural development strategy. In 2016, these indicators were over-fulfilled, but in 2017, agricultural growth and productivity in the industry underperformed. In terms of export volumes, there was a minor negative gap of USD 82.2 million in 2016, but the target figures were exceeded by 8.5% in 2017. In order to avoid extrapolation trends that may prevent implementation of the

strategy in the long run, a more active policy should be pursued for foreign market penetration of domestic products.

In the context of sustainable development, social factors are of considerable significance. Based on the methodology developed by the authors and data provided by the State Statistics Service of Ukraine, a forecast was made of the main indicators characterizing the impact of agriculture on the state of the social sphere.

At the same time, social indicators are conditionally divided into two groups. The first group includes indicators for supply of the most vulnerable foodstuffs (meat, milk, fruit and berries), the current Ukrainian per capita consumption of which is below the norms defined by the Ministry of Health. Figure 1 shows estimated forecast data on the gap between the planned indicators and food consumption trends.

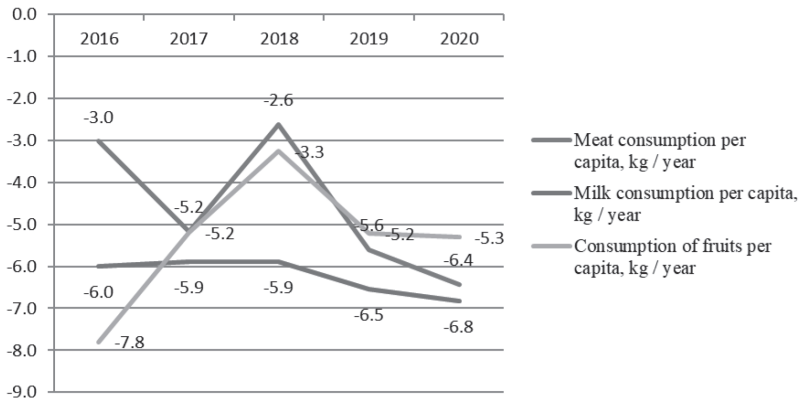


Figure 1. Expected gaps between planned indexes and food consumption trends

Source: calculated by the authors based on data (Balances and consumption of the main food products by the population of Ukraine: Statistical publication, 2017)

In 2016 and 2017, the average gap in food consumption was approximately -5%. In particular, meat consumption per capita in 2017 was 51.2 kg, which was almost 40% lower than the established norm, and milk consumption per capita was 209 kg, which was 55% of the established consumption rate; at 49.8 kg, fruit and berry consumption was also 55% of the established rate. In other words, food supply in Ukraine is in dire straits, and will worsen if the current situation persists. According to the forecast, the per capita consumption of meat, milk, fruit and berries will continue to decline, leading to an overall decrease in their consumption by an average of 2.5%, as opposed to the planned 20–29% growth.

The second group of social indicators reflect the influence of industrial development on employment levels and personal income. The indicators for social development in Ukrainian agriculture, calculated on the basis of extrapolation, are shown in Table 2.

Table 2. Forecast indicators and gaps in the social development of the Ukrainian agricultural sector

Indexes	2016	2017	2018	2019	2020	2020 vs. 2015
Number of people employed in agriculture, thousand	16,276.9	15,923.9	14,640.5	13,352.4	12,191.9	-4,085.01
Te	-1.0	-2.2	-8.1	-8.3	-8,7	-26
Tπ	1	1	1	1	1	5
Gap, thousand persons	-331.5	-850.6	-2,301	-3,759.3	-5,090.9	-31
Gap, %	-2.0	-3.2	-9.1	-6.8	-9.2	-30
Average salary in agriculture, UAH	5,183	6,638	6,640	7,058	7,799	2,616
Te	24	28	0	11	11	74
Tπ	10	10	10	10	10	60
Gap,UAH	568.50	1,562.05	1,031.1	1,006.729	1,137.304	568.80
Gap, %	13.6	18.1	-10.0	-1.5	0.8	21.0

Source: calculated by the authors based on data (Agriculture of Ukraine: Statistical publication, 2017; Agriculture of Ukraine: Statistical publication, 2016)

An important focus of the strategy for agricultural development is the implementation of environmental priorities in close symbiosis with the economic and social outcome of economic activity. The actual problem is the formation of a new sense of ecological justice and new society-nature relations on the basis of resource-saving technology as well as technologies which focus on the use of mineral raw materials and energy resources, as well as by maximizing the attraction of waste products and their use in economic circulation. However, the regulatory provisions for the conservation of resources currently in place in Ukraine are only of a recommendatory nature and do not actually help in achieving sustainable development of nature and society (Stehney, M. I., 2015, p. 19).

Even though agricultural land produces relatively low pollution and carbon dioxide emission levels compared to industrial enterprises, the emissions per hectare exceeded the European standards in 2015 by 15%. In subsequent years, emissions have dropped by 1.5%, but the Strategy for Agriculture provides for a further reduction to 20% over the 2015–2020 period.

The main obstacles to sustainable land use continue to be anthropogenic factors (mechanical and chemical treatment of soil or changing its intended purpose, reclamation) and natural factors (wind, water flows) (Uzhva A. M., 2017, p. 110).

The comprehensive Strategy for Agriculture and Rural Development singles out the key areas for heightening the ecological component in the agricultural sector of the national economy: increasing the volume of organic production and the total area

of agricultural land used for organic farming, gradually reducing pesticide use and the area of agricultural land where pesticides are used, and introducing resource-saving technologies, especially ones which help reduce water consumption.

The forecasted trends and strategic gaps for implementing the basic environmental indicators for agricultural development are presented in Table 3.

Table 3. Calculated gaps between extrapolation and planned agri-environmental indicators

Indexes	2016	2017	2018	2019	2020	Growth forecast
1. Total area under organic farming, thousand ha	476.3	475.7	498.3	509.1	515.7	39.4
Te	7.8	-0.1	4.7	2.2	1.3	15.9
Tp	2.6	2.6	2.6	2.6	2.6	13.0
Gap, thousand ha	23.3	11.7	22.3	21.1	15.7	-
Gap,%	5.2	-2.7	2.1	-0.4	-1.3	2.9
2. Emissions of carbon dioxide and greenhouse gases, thousand tons	879.0	878.5	960.1	946.2	939.6	962.0
Te	-0.6	9.3	-1.5	-0.7	2.4	9.5
Tp	-4.0	-4.0	-4.0	-4.0	-4.0	-20.0
Gap, thousand tons	35.5	150.1	169.2	193.6	246.0	-
Gap, %	3.4	13.3	2.5	3.3	6.4	-29.5
3. Areas of agricultural land where pesticides are used, ha	13,798	14,113	14,517	14,777	14,975	1,177.8
Te	10.7	2.3	2.9	1.8	1.3	18.9
Tp	-2.0	-2.0	-2.0	-2.0	-2.0	-10.0
Gap, ha	1,578	2,138	2,781	3,276	3,704	-
Gap, %	12.7	4.3	4.9	3.8	3.3	29
4. Water consumption for agricultural production, million m ³	1,595	1,639	2,018	1,226	1,014	-580.8
Te	-1.6	2.8	23.1	-39.2	-17.3	-32.3
Tp	-2.0	-2.0	-2.0	-2.0	-2.0	-10.0
Gap, million m ³	6.4	82.6	492.3	-269.1	-451.1	-
Gap, %	0.4	4.8	25.1	-37.2	-15.3	22.3

Source: calculated by the authors based on data
 (Environment of Ukraine: Statistical publication, 2017)

According to the calculations done by the authors, the indicators for water consumption for agricultural production will amount to a 22% decrease if the existing trends persist. However, it must be taken into account that the existing trends are influenced by a partial decline in agricultural production in 2014–2016. More precise forecasting of water consumption requires factor analysis and forecast changes in correlated indicators – climatic ones in particular. Indicators for increasing the amount of land under organic farming are also demonstrating positive dynamics. If the existing trends continue until 2020, the area will grow to 515,700 hectares (+ 2.1%).

In 2016, total emissions decreased by 35,500 tons (-0.06%) compared to the previous period, which created a gap between the planned and actual figures of -3.4%. If the existing trends continue until 2020, the total volume of harmful emissions into the air will increase by 9.5% instead of decreasing by 20% as planned. To counteract this, the priority task at this stage is the formation of an effective mechanism for motivating agricultural producers to reduce emissions.

There is also an alarming trend in terms of the total area of arable land using pesticides and other harmful substances. Despite the targets set, the total area of land where pesticides were used increased by 10% in 2016. If the existing trends continue until 2020, the total area of agricultural land where pesticides are used will increase by 18.9% instead of decreasing by 10% as planned. To remedy the situation, a system of normative indicators must be developed for the maximum residue level, and penalties must be established for exceeding these indicators – this will have a positive effect not only on the state of the environment, but also on the health of the population.

Conclusion

The methodical tools have been improved and an appropriate analytical framework has been developed for assessing and forecasting implementation of the priorities for sustainable agricultural development using gap analysis. The proposed method has made it possible to monitor the trends of the processes identified in the priorities for sustainable development of the agricultural sector in the Ukrainian national economy. The “gaps” in the implementation of the plans and the reasons for them have been determined, which has made it possible to predict the possibilities of realizing the goals under action external factors and depending on the decisions made in strategic perspective.

The calculated forecast of economic indicators for the implementation of the integrated strategy for sustainable development of the agricultural sector has made it possible to establish that, if the existing trends continue through 2020, the growth forecast for agricultural production will exceed the indicators provided in the strategy by 5%, and the growth forecast for labor productivity will exceed the planned indicators by 1%. However, agricultural exports will only increase over the forecast period by 12%, as opposed to the 30% indicated in the strategy. In addition, there were some gaps in 2016 and 2017 between planned and actual indicators, which may negatively

affect implementation of the strategy. It is proposed that efforts be intensified to stimulate foreign market penetration of domestic products, which will increase production volumes and improve the financial position of enterprises.

Based on the study, it can be concluded that if the current state of affairs continues – especially inaction in the field of environmental and food security – sustainable agricultural development is in jeopardy. In particular, the negative trends in the consumption of basic foodstuffs per capita, the number of people employed in the agricultural sector, and the amount of emissions and pesticides in the environment are projected to continue. A comprehensive solution of these problems requires additional research on the overall influence of economic, environmental and social aspects of sustainable development in the sectoral and regional context in order to find their most optimal correlation.

Important factors that will stimulate strategic growth in agriculture in the vector of sustainable development include continuing land use reforms, reducing corruption, and attracting investment in innovation and resource-saving technologies.

References

1. European Commission (2010). Europe 2020 strategy.
2. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>
3. Agriculture of Ukraine: Statistical publication (2016). State Statistics Service of Ukraine, Kyiv.
4. Agriculture of Ukraine: Statistical publication (2017). State Statistics Service of Ukraine, Kyiv.
5. Balances and consumption of the main food products by the population of Ukraine: Statistical publication (2017). State Statistics Service of Ukraine, Kyiv.
6. Cervantes-Godoy, D. and J. Dewbre (2010). Economic Importance of Agriculture for Poverty Reduction, *Agriculture and Fisheries Working Papers*, No. 23. <https://doi.org/10.1787/18156797>
7. Environment of Ukraine: Statistical publication (2017). State Statistics Service of Ukraine, Kyiv.
8. Food and Agriculture Organization of the United Nations (2015). Yield gap analysis of field crops: Methods and case studies. <http://www.fao.org/3/a-i4695e.pdf>
9. Galushkina, T. (2011). “Green” vector of economic development of Ukraine. *Economist*, No. 11, 4-7.
10. Gap analysis of national and regional fisheries and aquaculture priorities and initiatives in western and central Africa in respect to climate change and disasters (2014), *FAO Fisheries and Aquaculture Circular*. <http://www.fao.org/3/a-i3753e.pdf>
11. Global Harvest Initiative GAP Report (2016). www.globalharvestinitiative.org
12. Jacobus, A. Du Pisani (2006). Sustainable development – historical roots of the concept, *Environmental Sciences*, Vol. 32, 83-96. <https://doi.org/10.1080/15693430600688831>
13. Ministry of Agrarian Policy and Food of Ukraine (2015). Strategy for Agriculture and Rural Development 2015–2020 (draft). <http://minagro.gov.ua/node/16025#join>

14. Ministry of Economic Development and Trade of Ukraine (2017). Sustainable Development Goals: Ukraine (National Report). http://un.org.ua/images/SDGs_NationalReportUA_Web_1.pdf
15. Nagyvová, L., Holienčinová M., Rovný P., Dobák D., Bilan Y. (2016). Food security drivers: Economic sustainability of primary agricultural production in the Slovak Republic, *Journal of Security and Sustainability Issues*, Vol. 6, No. 2, 258-274, [https://doi.org/10.9770/jssi.2016.6.2\(6\)](https://doi.org/10.9770/jssi.2016.6.2(6))
16. National Environmental Policy of Ukraine: Assessment and Development Strategy (2008). Assessment of national capacity in the field of global environmental management in Ukraine, 8-9.
17. Passel, S.V., Nevens, F., Mathijs, E., Van Huylenbroeck, G. (2007). Measuring farm sustainability and explaining differences in sustainable efficiency, *Ecological Economics*, Vol. 62(1), 149-161. <http://dx.doi.org/10.1016/j.ecolecon.2006.06.008>
18. Paul, B. D. (2008). A history of the concept of sustainable development: Literature review. The Annals of the University of Oradea, *Economic Sciences Series*, 17(2), 576-580.
19. Miles, R. (2011). An Ecosystem Approach to Sustainable Production. *Earth & Environment*, Vol. 6, 161 – 189. http://www.see.leeds.ac.uk/misc/ejournal/issue6_files/6%3B%20161-189.pdf
20. Seibel, H. D. (2005). Food and Agriculture Organization (FAO) of the United Nations.
21. Smolenyuk, R. P. (2013). Development of Agriculture on the Basis of the Green Economy, *Sustainable Development of the Economy*, No. 4 (21), 37-44.
22. Institute of Environmental Economics and Sustainable Development of the National Academy of Sciences of Ukraine (2017). Strategy for the Development and Prospective Directions of Scientific and Scientific-Technical Activity. <http://ecos.kiev.ua/share/upload/strategy.pdf>
23. Institute of Environmental Economics and Sustainable Development of the National Academy of Sciences of Ukraine (2016). National Paradigm of Sustainable Development of Ukraine, Kyiv.
24. State Statistics Service of Ukraine. <http://www.ukrstat.gov.ua/>
25. Stehney, M. I. (2015). Environmental priorities of rural areas development, *Economy and the state*, Vol.1., 17-21.
26. Sustainable Development Commission (2011). Governing for the Future: The opportunities for mainstreaming sustainable. http://www.sd-commission.org.uk/data/files/publications/SDC_SD_Guide_2011_2.pdf
27. Uzhva, A. M. (2017). Estimation of ecological indicators of sustainable development of agriculture in the region, *Ukrainian Journal of Applied Economics*, Vol. 2, No. 3, 107-114.
28. Vági, P., Rimkutė, E. (2018). Toolkit for the preparation, implementation, monitoring, reporting and evaluation of public administration reform and sector strategies: Guidance for SIGMA partners, *SIGMA Papers*, No. 57. <https://doi.org/10.1787/37e212e6-en>

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**Strateginiai prioritetai ir efektyvumas valstybės
politikos subalansuotos plėtros žemės ūkio Ukrainos**

Anotacija

Dabartinėms vidaus žemės ūkio sektoriaus ekonominėms, socialinėms ir aplinkosaugos problemoms spęsti reikalingas visapusiškai koordinuojamas strateginis požiūris nacionaliniu ir regioniniu lygiais, kuris skatintų subalansuotą žemės ūkio pramonės plėtrą pagal socialinio teisingumo, aplinkosaugos bei išteklių tausojančios ekonomikos principus. Šiuo požiūriu aktualūs tampa valstybės lygmeniu apibrėžtų strateginių prioritetų įgyvendinimo stebėsenos ir prognozavimo klausimai. Šio straipsnio aktualumas grindžiamas poreikiu tobulinti metodinę paramą ir analitinę sistemą siekiant veiksmingos stebėsenos įgyvendinimo.

Straipsnyje nagrinėjama dabartinė Ukrainos žemės ūkio sektoriuje pereinamojo laikotarpio į tvaraus vystymosi modelį situacija ir problemos. Integruotosios žemės ūkio plėtros strategijos realizavimo galimybių analizė ir prognozavimas, siekiant tvarios plėtros tikslų, pagrįsti remiantis GAP analizės metodinėmis priemonėmis. Taip pat pasiūlyti dabartiniai einamieji ir strateginiai Ukrainos žemės ūkio sektoriaus socialinės-ekologinės ir ekonominės plėtros uždaviniai.

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