European Journal of Sustainable Development (2020), **9**, 2, 291-303 ISSN: 2239-5938
Doi: 10.14207/ejsd.2020.v9n2p291

Methodology for Assessing the Harmony of Economic Relations Between Participants of the Agrofood Market

Assoc. Prof., PhD Olha Kravchenko[1], Assoc. Prof., PhD Anatolii Kucher[2],
Assoc. Prof., PhD Tetiana Yanchuk[3], Assoc. Prof., PhD Yuliia Stavska[4]

Abstract
The purpose of the paper is to summarize the principles of harmonization of economic relations between participants of the agrofood market of Ukraine, in particular, the livestock products market, and to create a system of criteria for socio-ecological and economic assessment of the level of harmony of these relations with adherence to the principle of inclusivity. The results of a systematic review convincingly show that the basic principles of harmonization of economic relations between the livestock market participants shall be as follows: the principle of inclusivity, maximizing the mutual benefit of all parties to relationship, the consistency of their economic interests (or the principle of consensus), the principle of systematization, controllability, social fairness, openness and scientific validity. With the help of three indicator systems, namely: (1) criteria for assessing the socio-economic conditions of the livestock market entities, (2) criteria for assessing the development effectiveness and efficiency of the specified market entities, (3) criteria for assessing the harmonious relations of agricultural producers with other participants in relations on the product market animal husbandry, it is possible to systematically explore the economic environment in which modern economic relations between the livestock production market participants are formed, developed and transformed, and to find mechanisms for harmonizing such relations.

Key words: economic relations, sustainable development, agrarian policy, harmonization, livestock products market, inclusivity, agrofood sector, Ukraine.

1. Introduction

The mechanism of economic space development of any branch of the national economy in terms of extended reproduction is built on the principles of economic relations harmonization by agreeing the interests of subjects of these relations. The sustainability and consistence of the socio-ecological-economic system of each country depends on the effectiveness of each participant in the livestock production agrofood chain. Recently, the shadow economy, corruption, differentiation of population income, poverty growth, lack of motivation for innovations development, especially in countryside, and many other negative phenomena in Ukraine transform the economic space of livestock production market entities and lead to the disruption of harmonious economic relations between this market participants. The peculiarities of economic relations between the livestock products market participants have already been studied by us [11; 12], but the issue of principles and criteria for assessing the consistency of such relations between the participants remains open. The lack of common principles

[1]Kharkiv Petro Vasylenko National Technical University of Agriculture, Kharkiv, Ukraine.
[2]V. N. Karazin Kharkiv National University, Kharkiv, Ukraine.
[3]Donetsk National University named after Vasyl Stus, Vinnytsia, Ukraine.
[4]Vinnytsia National Agrarian University, Vinnytsia, Ukraine.

and assessment criteria makes it difficult to take and implement management decisions at all levels of the country's operations regarding the harmonious, calculated, long-term, controlled development of the socio-economic system of Ukraine.

Therefore, there are two issues in the context of the development of the livestock products agrofood chain participants: what principles of harmonization of economic relations between the participants shall be basic and by what criteria the level of harmonization of these relations can be assessed.

However, there are still some attempts to create a system of indicators for assessing and analyzing the state of economic relations between the agrofood market participants. For example, O. Kotykova and A. Bogoslavska developed an original methodology for researching the indication of economic state of sustainability of agricultural land use development in Ukraine, including the field of animal husbandry [10]. The authors included the following impact indicators in the economic block values: level of investment in agricultural production; load of livestock and poultry per 100 ha of land; labor productivity indices; availability of power supply and fixed assets. The authors included the following to the result indicators: share of agriculture in total gross value added; cumulative index of agricultural production costs; land reclamation; agricultural production indices; output of gross agricultural products (at constant prices in 2010) per 100 ha of farmland; cattle and poultry productivity; production of livestock products per 100 ha of land; crop yields; level of agricultural enterprises profitability. The authors emphasize that "the studies performed allow to assess the level of fulfillment of relevant tasks for achieving the sustainable development goals in Ukraine in 2016–2030, in particular the second objective (overcoming hunger, achieving food security, improving nutrition and promoting sustainable agricultural development)" [10]. But the authors, in our opinion, miss the role and place of such producers of agricultural products as households. Based on the authors' conclusions, both participation and further actions, and, in general, the fate of small producers, especially farms and households, which now produce more than 55 % of marketable agricultural products, remain unknown.

Despite the scientific achievements, as to the system of indicators for determining the sustainability of the country's development, in particular agriculture, Yu. Lopatinsky and S. Todoriuk emphasize that "… harmonization of economic, social and environmental determinants of sustainability, the level of development of which in the agricultural sector of the national economy is insufficient, as well as balancing the interests of producers and consumers, taking into account sectoral, regional and national priorities, are still the areas of concern" [13, p. 170].

Continuing the analysis of literary sources in order to find criteria for assessing the level of economic relations harmony, we note that the concept of "sustainable development" declared by Ukraine, which follows from Vernadsky's doctrine on the noosphere, systematically united three main components: economic, social and environmental (nature protection) [20; 22]. Ukraine-2020 Strategy for Sustainable Development was developed and approved in 2015 [18]. Later, in 2017, the National Report "Sustainable Development Goals: Ukraine" was presented for the period until 2030 [21]. And since 2018, a new concept of inclusive development (growth) is gaining momentum [28]. The works of A. Tsapko-Piddubna "The Principle of Inclusiveness in Modern Concepts of Economic Growth" [25] and I. Bobukh and S. Shchegel "Strategic Milestones of

Economic Growth of Ukraine: Inclusiveness as a Key Priority" [4] are presented.

Notwithstanding the above, society is not sufficiently aware of new concepts, especially as regards the basic indicators of social, economic, environmental and inclusive development of an average person; business representatives do not have a vision of the proper organization of strategic, in particular export-oriented, sectors of the economy, as the problem of "survival" is being solved; and most importantly, unfortunately, inclusive, sustainable, long-term, managed development and food and environmental policies are not a priority for the Ukrainian authorities. This is especially true of agricultural production, because it is the agricultural sector (in the context of the international division of labor) that shall become the main vector of the future economics of Ukraine.

The given issue was reflected in the following national scientific works: "The Current Crisis in the Context of Socio-Economic Development Logic" [9]; "National Paradigm of Sustainable Development of Ukraine" [17]; "Theory and Model of Rapid Economic Development in the System of Public Strategic Needs" [14]; "On Changing the Model of Economic Development" [29]; "Risks of Forming the Model of Antisocial State in Ukraine" [5]; "State Insolvency Index for Measuring Sustainable Development" [26]; "Sustainable Development Analysis – Global and Regional Contexts" [2]; "Economic Indicators of Agricultural Land Use in the System Monitoring of Sustainable Development of Ukraine" [10] and many others.

V. Onegina and L. Batiuk note that the need to overcome the systemic challenges the Ukrainian economics faces and to ensure sustainable, inclusive, harmonious development of territories requires the formation of new effective mechanisms and forms of interaction between government and business structures based on a balance of interests and principles of maximizing mutual benefits [16].

Among foreign sources, the work of Sustainable Consumption and Production developed under the United Nations Environment Program (UNEP), which is a global publication and a guide for socio-environmental policy makers, is worth noticing. The key to achieve sustainable development is the transition to sustainable consumption and production. The basic principles of such transition are as follows: first, adherence to the ideas of "green growth" and, secondly, achievement of "green economics" [23]. Representatives of the Food and Agriculture Organization of the United Nations (FAO) reviewed the literature on frameworks and methods for measuring and monitoring sustainable agriculture [1].

Among contemporary foreign scholars, P. Canning, A. Weersink and J. Kelly are researching issues related to assessing the level of harmonious interests of economic relations participants within the agrofood market [6]. The work of Polish researchers on the relationship between agro-environmental, economic and social dimensions of farm sustainability is worth noticing. P. Sulevski, A. Klochko and V. Sroka measured and assessed the interdependence between the values of farm sustainability. The research was conducted with the participation of 601 farms that are members of Poland Farm Accountancy Data Network (FADN). Based on many variables, the researchers compiled economic, environmental, and social indicators of sustainability. From correlation and correspondent analyzes, it was concluded that farms achieve balance of all three dimensions at the same time, while the level of sustainability dimensions is average. A high level of stability in one dimension makes it difficult to achieve a high

level in other ones [19].
Researchers from Iran have also assessed the sustainability of Iran's agriculture. The authors proposed a comprehensive framework for sustainability assessment and presented the empirical application of the proposed framework in southeastern Iran (Kerman province) [7].
A sufficiently large database (more than 5,000) on sustainable (stable) development regarding all countries of the world is available on the World Bank website [24]. In addition, the scientific justification of the methodology for integrating the above and any other dimensions, indexes and indicators into a single database was made by representatives of the World Data Center for Geoinformatics and Sustainable Development and posted on the website [27].
At the same time, under the guidance of M. Zgurovsky, academician of the NAS of Ukraine, the methodology was considered and a set of works was performed to predict (foresee) the development of the future economics of Ukraine in the medium-term (2015–2020) and long-term (2020–2030) periods. Using the Delphi method, major clusters of the country's new economics were identified, including the agricultural sector. Harmonization of agro-industrial production, according to the foresight, can provide the greatest contribution to the stabilization of the economics and contribute to successful integration of Ukraine into the international cooperation of labor on these periods [8, p. 75].
According to researches of the World Data Center for Geoinformatics and Sustainable Development, the theoretical basis of which is a systematic approach, the following indicators are the basis for analyzing a country's development: Fragile States Index (FSI); Economic Measurement Index (IEC); Social Dimension Index (IS); Environmental Measurement Index (IE); Index of Sustainable Development (ISD) [26]. Based on the given development indicators, it is difficult to conclude on the "harmony" or "disharmony" of development, especially to find the reasons of the disharmony of the socio-ecological-economic system.
Therefore, generalization of quantitative and qualitative indicators of well-being of all participants of economic relations, which are understandable for society, business and government of every country of the world, in particular in Ukraine, becomes relevant. The importance of such generalization is that each participant in the relationship operates in certain socio-economic and environmental conditions, has its own development features (in terms of efficiency and effectiveness of management) and on its activity depends the general level of achieving sustainable development of the country's economics on the principles of inclusivity.

2. Materials and Methods

The purpose of the article is to summarize the principles of harmonization of economic relations between participants of the agrofood market of Ukraine, in particular, the livestock products market, and to create a system of criteria for socio-ecological and economic assessment of the level of harmony of these relations with adherence to the principle of inclusivity.

The methodological basis of the research is the systematic approach to the study

of economic processes, the fundamental provisions of modern economic theory, scientific works domestic and foreign scientists on economic relations between participants of the agri-food market for livestock products. The methods of generalization, induction, deduction, analysis, synthesis, monographic and comparison were used to achieve this purpose.

3. Results

As an important aspect of the methodology for assessing the harmony of economic relations, it shall be noted the lack of common principles, criteria and indicators of assessment. There is a certain number of scientific developments related to the assessment of sustainability and stability of the development of the entire country. For example, representatives of the Ministry of Economic Development and Trade of Ukraine (2015), coordinated by Natalia Gorshkova, prepared the National Report "Sustainable Development Goals: Ukraine". The report contains the benchmarks for achieving Ukraine's Sustainable Development Goals (hereinafter the "SDG"), which were approved at the United Nations Sustainable Development Summit 2015. The national SDG system was developed (86 national development tasks and 172 indicators for their monitoring) taking into account the principle of "no one left behind", which is the basis of the inclusive process of the SDG adaptation, and using a wide range of information, statistical and analytical materials. The proposed system of indicators, in line with the concept of developers, will provide a solid basis for further planning of the development of Ukraine and monitoring the state of achievement of the objectives, in particular regarding the development of both agricultural and rural areas [21].

The basic principles of activity of state and public institutions in the direction of economic growth, according to the National Report, are as follows: focus on the use, first of all, of own resources, minimization of external borrowings and their use solely for the purpose of development, rather than maintaining the current existence, comprehensive promotion of development business activity, guaranteeing and protecting property rights, stability, transparency and simplicity of the tax system, eradicating corruption at all levels and unshadowing the economics [21, p. 10]. Unfortunately, these principles are limited in their legal and economic content, while the condition of harmonious development of social systems is a moderate social, economic and environmental development of them based on the principles of inclusivity.

We have outlined the following principles of harmonization of economic relations between participants of the agrofood market, which shall be understood as the initial provisions determining the rules of management, which shall not be changed significantly over a long period (Fig. 1).

The principle of inclusivity, the adherence to which helps to overcome the challenges of balancing the interests of market participants and the country sustainable development, to ensure maximum growth of well-being of all segments of population, especially in the context of reducing poverty, by eliminating economic inequality, in particular the challenges associated with the uneven development of rural economy subjects in terms of a dynamic economic space. The application of this principle is due to the need of scientists to focus on the search, development and implementation of effective

mechanisms for wide dissemination of a real increase in the general well-being of all business entities on the condition of ensuring their equal, fair access to markets and resources in the long term.

The principle of maximizing mutual benefits as a result of the dominants of economic equality and cooperation of business entities. Content of the principle is formed by the relevant interests of economic relations subjects. It is the level of coordination of interests, we believe, that acts as the criterion by which it was possible to evaluate whether the principle of mutual benefit in specific economic relations was observed or not. This principle is intended to ensure that the legitimate interests of all subjects of economic relations, different in nature and direction, are actually taken into account, despite the declaration of their equality from a formal and legal point of view. The concept of maximum mutual benefit cannot be reduced only to certain material benefits that parties to relationship shall receive. Therefore, in our opinion, the level of satisfaction (balancing, agreement, harmonization) of interests is the primary criterion for determining benefits. Therefore, all interests of economic relations participants shall be identified, but it should be borne in mind that new interests of economic entities may emerge in the process of cooperation, and some of them may change their character, be transformed and even cease to exist. Thus, in order to harmonize the economic relations between the livestock market participants, it is necessary to define, clearly formulate and evaluate the economic interests of each participant. In the course of cooperation (long term is more appropriate), it is necessary to constantly monitor and adjust them, thereby achieving the highest possible level of satisfaction of each participant's own economic interests. In this sense, the harmonization of agricultural producers' relations with other participants of the agrofood market shall ensure the achievement of economic and social and environmental efficiency of rural economic activities.

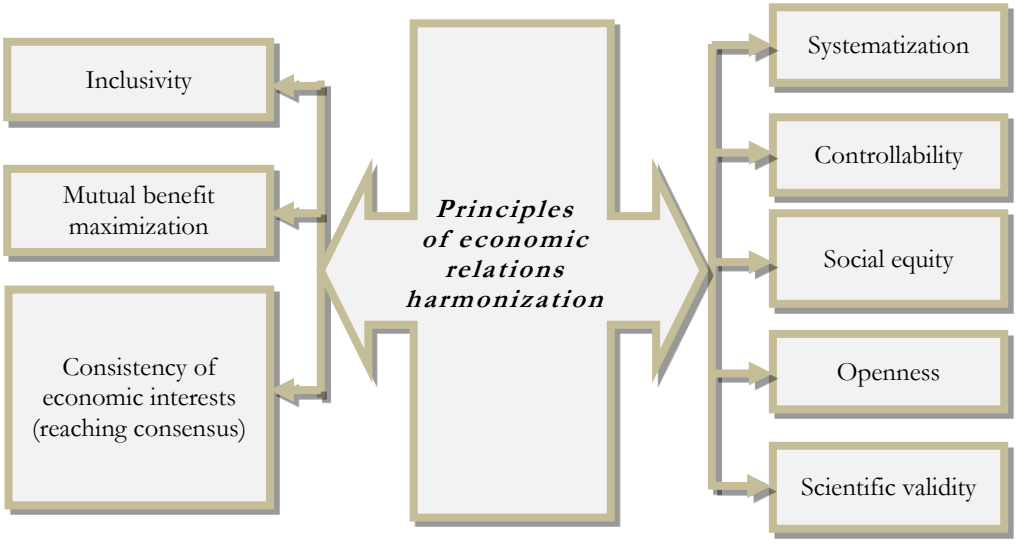

Figure 1. Principles of harmonization of economic relations between participants of the livestock products market
Source: developed by the authors.

The principle of agreement (satisfaction, balance) of economic interests or the achievement of consensus between the producer and the consumer. In the scientific literature, we see a spread of discussion about the level of satisfaction of interests of participants of the agrofood market. More precisely, the lack of such satisfaction among agricultural producers, especially households, and end consumers (population) of livestock products. Both of them are price recipients, which, at first glance, do not contradict market pricing mechanisms. But the price received by agricultural producers is largely independent of the cost they incur, which prevents primary meat and dairy producers from making extended production reproductions. The price paid by consumers does not allow them to bring the level of consumption of livestock products to scientifically sound standards.

Therefore, the principle of consistency of economic interests shall be at the heart of the harmonization of economic relations between all participants of the agrofood livestock products chain. The unwillingness or inability of individual market participants to adhere to this principle within economic relations, especially during crises (economic, social, financial), may call into question the stability of the agrofood sector, and, as a result, the national economic system, leading to negative socio-economic consequences, especially regarding food and environmental safety.

The principle of systematization. The system of mechanisms of economic relations harmonization between the livestock products market participants shall meet a number of requirements, the main of which are as follows: integrity of the system (the system as a separate unit, which can be divided into components, subsystems); compliance of system components with each other and its mission; emergence (goals of components do not always have to coincide with goals of the system); purposefulness (operation of the system and its components shall be aimed at achieving a specific strategic goal); synergy of the system (unidirectional action of individual components of the system increases the efficiency of the entire system); multiplicity (endogenous and exogenous interaction effects of components provide multiplication of components, rather than their addition); continuity of operation and evolution; adaptability (characterizes the desire for a stable balance based on the principles of inclusivity); optimality and rationality of the combination of centralized and decentralized management; alternative ways of operation, development, achievement of mission and goals (intermediate, basic, strategic, etc.).

The principle of controllability. Some research papers on the issues of finding harmony consider such principles of harmonization as planning, coordination, stabilization, etc. [3]. These principles are directly related to the main functions of management. Therefore, we consider it appropriate to combine them into one principle – the principle of controllability, since the process of harmonization of economic relations is a justified, coordinated, purposeful, and, accordingly, managed process.

The principle of social fairness is the fair distribution of added value among all participants of economic relations in order to ensure harmony within both the agrofood market and the entire socio-economic system. The above is explained by the enormous importance of human (labor) resources in the national economy. Problems of human capital management, creation of adequate organizational culture, system of motivation and remuneration, allowing to satisfy interests (and needs, accordingly) of all participants

of social and labor relations, are actualized in terms of modern economic environment, especially with the adoption of the Law of Ukraine "On Social Dialogue". According to the Law, social dialogue means the process of defining and converging positions, reaching common agreements and taking agreed decisions by social dialogue parties that represent the interests of employees, employers and executive bodies and local self-government bodies in creation and implementation of state social and economic policy, regulation of labor, social and economic relations [15].

The principle of openness. In the context of economic relations between the livestock market participants, the principle of openness shall mean the subjective right of an unlimited number of persons to obtain reliable and timely information on the quality and safety of products of animal origin, including the activity of producers of such products in accordance with the statutory rules of conduct, on the one part; openness and willingness to engage in various forms of economic relations in the decision-making process, on the other part.

The principle of scientific validity, which is necessary during the development of a system of indicators of harmonious economic relations, further monitoring of changes in key indicators and public control over the process of implementation of mechanisms of harmonization of economic relations between the livestock products market participants.

Summarizing the list of principles of harmonization, it shall be noted that it is not final and exhaustive and can be supplemented.

The second part of the study is the need to generalize the indicators of harmonization of economic relations between the agrofood market participants, in particular, the livestock products market, which can be measured and will be of practical importance when taking decisions on achievement of balance of the socio-ecological and economic system of Ukraine based on the principles of inclusivity. Since a viable strategy shall be based on a clear analysis of disharmony in the economic, social and environmental spheres. Especially in the development of agriculture as an industry and rural areas, in which live 31 % of the population of Ukraine, or almost 13 million people (2018), and which own 100 % of the country's main natural resource – agricultural land.

We have formalized three systems of indicators by which it is possible to systematically research the economic environment in which modern economic relations between participants of the livestock products market are formed, developed and transformed, and to find mechanisms for harmonizing such relations.

The first indicator system can be used to study the economic conditions of all livestock products market participants by analyzing the main socio-economic indicators of Ukraine and the place of agriculture, in particular, the livestock sector, in the economics of the country (Fig. 2).

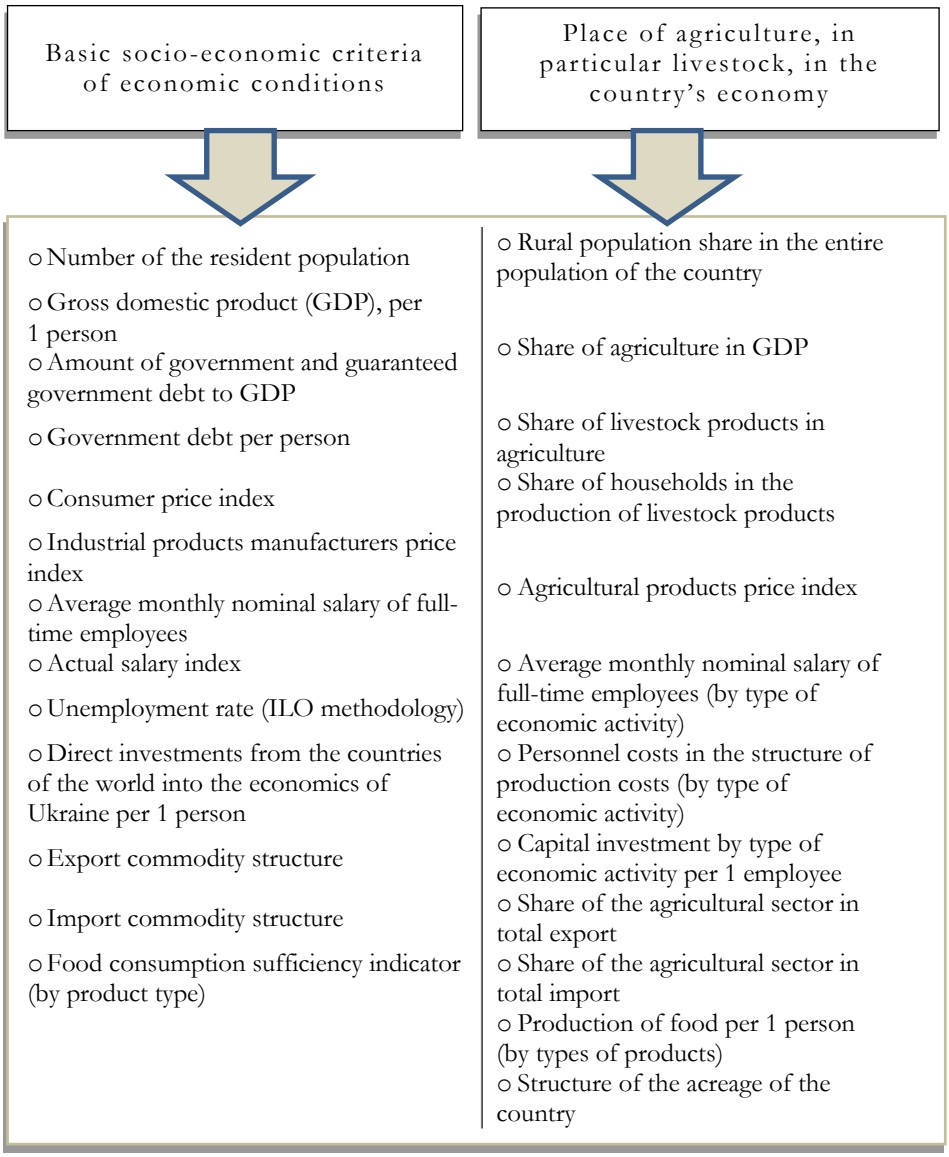

Figure 2. Criteria for assessing the socio-economic conditions of the livestock market entities
Source: developed by the authors.

The second indicator system reveals the criteria for assessing the efficiency and effectiveness of managing the main participants of the livestock products agrofood chain (economic entities by type of economic activity). We include the following indicators in this system: property status and security; efficiency; liquidity and solvency; profitability (Fig. 3).

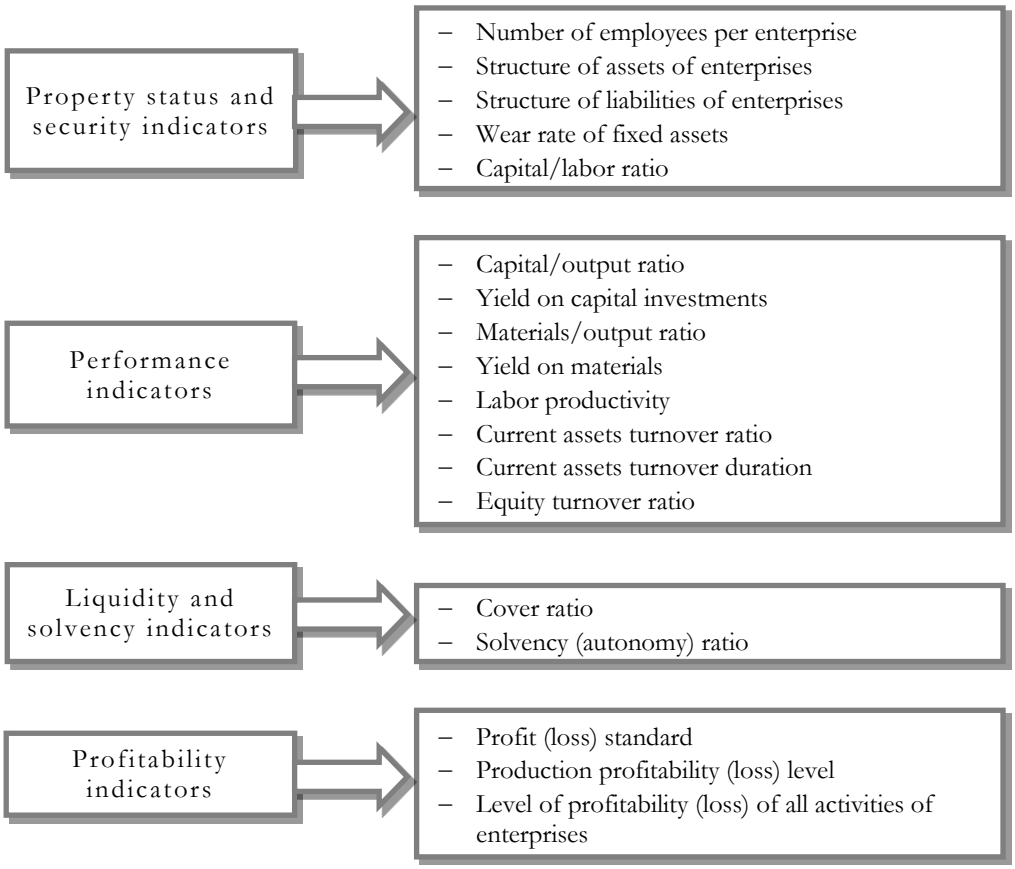

Figure 3. Criteria for assessing the efficiency and effectiveness of the development of livestock market entities (by type of economic activity)
Source: developed by the authors.

The third indicator system contains indicators of the harmonious economic relations of producers of livestock products with other participants of the agrofood chain. Analyzing the parameters of the criteria for assessing the harmony of relationships, it is possible to determine the level of consistency (balance, satisfaction) of interests of all the relation subjects. The criteria for assessing the harmony of agrarian producers' relations in the livestock market shall be divided into three blocks: block of inclusivity criteria; block of socio-economic criteria; block of environmental criteria (Fig. 4).

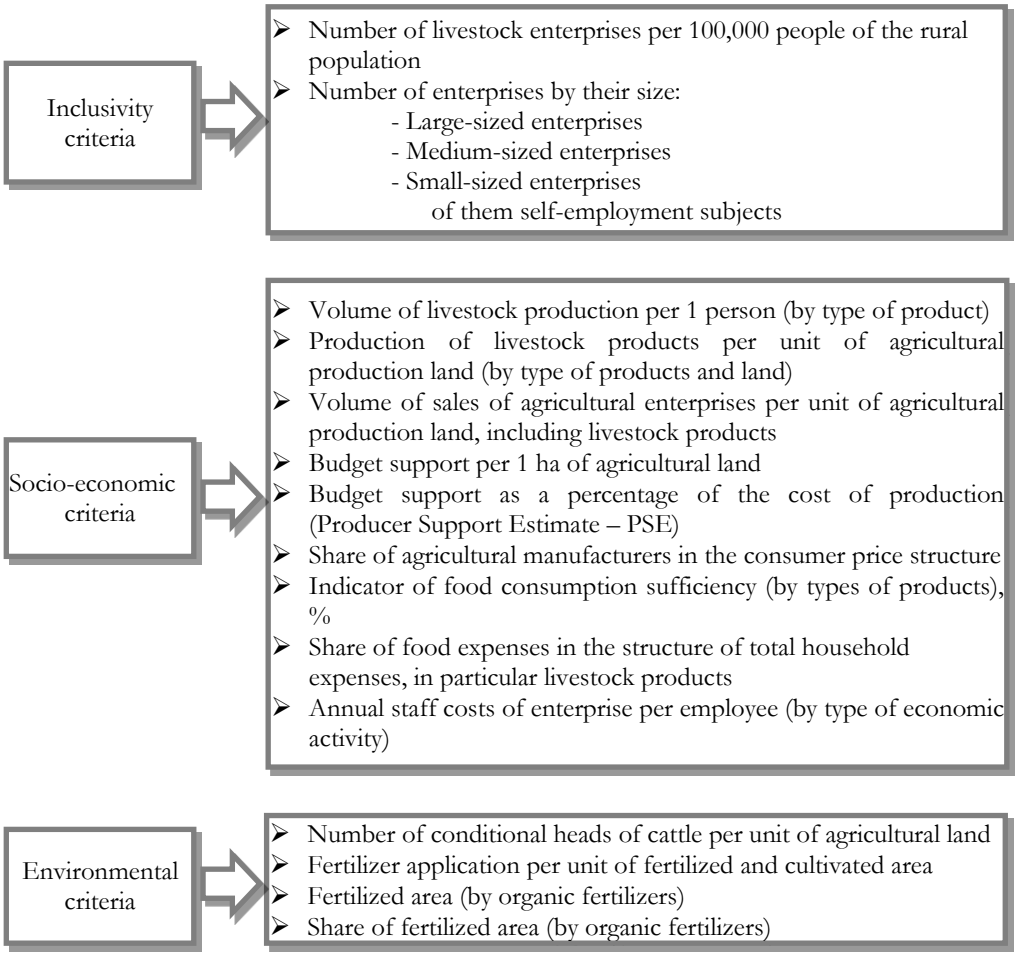

Figure 4. Criteria for assessing the harmony of agrarian producers' relations in the livestock products market
Source: developed by the authors.

Conclusions

As a result of the study knowledge about methodology for assessing the harmony of economic relations between participants of the agrofood market was expanded. Thus, the results of a systematic review of criteria for assessing the harmony of economic relations between livestock market participants convincingly show that balancing the inclusive, economic, social and environmental components is a huge challenge for society, business and government in each country. The basic principles of harmonization of such relations between the livestock market participants shall be as follows: the principle of inclusivity, maximizing the mutual benefit of all parties to relationship, the consistency of their economic interests (or the principle of consensus), the principle of systematization, controllability, social fairness, openness and scientific validity.

With the help of three indicator systems, namely: 1) criteria for assessing the socio-economic conditions of the livestock market entities, 2) criteria for assessing the development effectiveness and efficiency of the specified market entities, 3) criteria for assessing the harmonious relations of agricultural producers with other participants in relations on the product market animal husbandry, it is possible to systematically explore the economic environment in which modern economic relations between the livestock production market participants are formed, developed and transformed, and to find mechanisms for harmonizing such relations. Therefore, our next scientific research will be devoted to quantifying and analyzing the listed criteria in order to find effective mechanisms for harmonizing economic relations between the agrofood market participants.

References

1. A Literature Review on Frameworks and Methods for Measuring and Monitoring Sustainable Agriculture (2017), available at: http://www.fao.org/3/a-br906e.pdf.
2. Analysis of sustainable development – global and regional contexts: in 2 parts (2010). Part 1. Global analysis of the quality and safety of people's lives. Kyiv: NTUU "KPI". 255 p.
3. Barmashov, K. S. (2018). Methodology for the harmonization of industrial and trade policies at enterprises producing goods of daily demand. Economics: Yesterday, Today and Tomorrow, 8(9A): 7–19.
4. Bobukh, I. M. and Shchehel, S. M. (2018). Strategic environments of economic growth in Ukraine: inclusiveness as a key priority. Bulletin of the National Academy of Sciences of Ukraine, 7: 55–70.
5. Burlai, T. V. (2015). Risks of forming the model of antisocial state in Ukraine, 6(634): 92–97.
6. Canning, P., Weersink, A. and Kelly, J. (2016). Farm share of the food dollar: an IO approach for the United States and Canada. Agricultural Economics, 47: 505–512. https://doi.org/10.1111/agec.12250.
7. Fallah-Alipour, S., Boshrabadi, H. M., Mehrjerdi, M. R. Z. and Hayati, D. A. (2018). Framework for Empirical Assessment of Agricultural Sustainability: The Case of Iran. Sustainability, 10(12): 4823. https://doi.org/10.3390/su10124823.
8. Forsyth of Ukraine's economy: medium-term (2015-2020) and long-term (2020-2030) time horizons. Kyiv: NTUU "KPI". 136 p.
9. Hrytsenko, A. A. (2015). The current crisis in the context of socio-economic development logic. Economy of Ukraine, 6(634): 18–37.
10. Kotykova, O. I. and Bohoslavska, A. V. (2017). Economic indicators of agricultural land use in the system monitoring of sustainable development of Ukraine. Ahrosvit, 9: 3–11.
11. Kravchenko O. M. (2016). Harmonization of agricultural production as a basis for sustainable development socio-economic system of Ukraine's *in* Information aspects of socio-economic systems' development, eds. O. Ostenda, T. Nestorenko. Katowicach: Katowice School of Technology, 228–237.
12. Kravchenko O. M. (2019). Special aspects of economic relations between participants of the market for livestock products. Agricultural and Resource Economics, 5(1): 71–91. https://doi.org/10.22004/ag.econ.287145.
13. Lopatynskyi, Yu. M. and Todoriuk, S. I. (2015). Determinants of sustainable development of agricultural enterprises. Chernivtsi: CNU. 220 p.
14. Moskalenko, O. M. (2014). Theory and model of rapid economic development in the system of public strategic needs. Kyiv, KNEU. 550 p.
15. On social dialogue in Ukraine (2011). Law of Ukraine, available at: https://zakon.rada.gov.ua/laws/show/2862-17.
16. Onegina, V. M. and Batyuk, L. A. (2017). State-private partnership and rural development. Actual problems of innovative economy, 2: 64–71.

17. Paton, B. Ye. ed. (2012). National paradigm of sustainable development of Ukraine, 2nd ed. Kyiv: PI «Institute of Environmental Economics and Sustainable Development of the National Academy of Sciences of Ukraine». 72 p.
18. Strategy for Sustainable Development "Ukraine – 2020" (2015), available at: http://zakon2.rada.gov.ua/laws/show/5/2015.
19. Sulewski, P. Kloczko, A. and Sroka, W. (2018). Relations between Agri-Environmental, Economic and Social Dimensions of Farms' Sustainability. Sustainability, 10(12): 4629. https://doi.org/10.3390/su10124629.
20. Sustainable (balanced) development of Ukraine (2019), available at: http://cd.greenpack.in.ua.
21. Sustainable Development Goals: Ukraine (2017). National report. Ministry of Economic Development and Trade of Ukraine. 176 p.
22. Sustainable Development / World Data Center for Geoinformatics and Sustainable Development (2019), available at: http://wdc.org.ua/uk/sustainable-development.
23. Sustainable Consumption and Production. A Handbook for Policymakers. Global edition (2015). United Nations Environment Programme, available at: https://sustainabledevelopment.un.org/content/documents/1951Sustainable%20Consumption.pdf.
24. The World Bank. Data & Research (2020), available at: http://data.worldbank.org.
25. Tsapko-Piddubna, O. I. (2018). The principle of inclusion in modern concepts of economic growth. Problems of economy, 3(37): 29–36.
26. Voitko, S. V. and Tsymbalenko, Ya. Yu. (2015). State insolvency index for measuring sustainable development. Efektyvna ekonomika, 1, available at: http://wdc.org.ua/sites/default/files/Voytko-4-2014.pdf.
27. World data center (2020). For geoinformatics and sustainable development. http://wdc.org.ua/uk/data.
28. World Economic Forum. The Inclusive Development Index 2018 Summary and Data Highlights. World Economic Forum. 2018, available at: http://www3.weforum.org/docs/WEF_Forum_IncGrwth_2018.pdf.
29. Zvieriakov, M. I. (2015). On changing the model of economic development. Economy of Ukraine, 6(634): 41–49.