

Sustainable International Trade in Agricultural Goods: Emerging Markets Perspectives

Nataliia V. Stukalo*

Department of the International economics and International finance, Oles Honchar Dnipro National University, Dnipro, Ukraine

Nataliya O. Krasnikova

Department of the International economics and International finance, Oles Honchar Dnipro National University, Dnipro, Ukraine

Olena V. Dzyad

Department of the International economics and International finance, Oles Honchar Dnipro National University, Dnipro, Ukraine

Olga G. Mihaylenko

Department of the International economics and International finance, Oles Honchar Dnipro National University, Dnipro, Ukraine

Abstract

Preservation of the environment, the sphere of the vital activity of the population, cultural heritage, promotion of the healthy lifestyle movement, the implementation of the “green” and resource saving technologies create more active demand for organic goods in the international trade. The ecological, social, economic and institutional merits of organic goods compared with traditional and genetically modified goods as well as the high pace of the growth of the international trade in organic agricultural goods enhance their role in the achievement of the goals of sustainable development. The article considers the international trade in organic goods as sustainable international trade. Based on the authors’ methods of the calculation of the integrated index of development of organic market of 15 developing countries, the positions, factors, prospects and conditions of the development of national markets of organic agricultural goods were identified. It was found that the market of organic goods of the Czech Republic is the most developed and balanced due to the high payment capacity of the population, the policy of the producer’s support, existence of the relevant certification of the produce during delivery to the EU market. The markets of the countries of Europe and Middle East (Poland, Romania, Turkey, and Ukraine) are growing mainly under the influence of supply factors; the markets of Asia and America (China, Brazil and Peru) – under the influence of demand factors, including the demand in the global market. The internal markets of China and India are developed insufficiently. The prospects of the development of markets of organic goods of Mexico, Brazil, India, China, Russia and Chili are related to the stimulation of the internal production of organic goods. In Ukraine, Peru, India, Chili, Mexico and Turkey, it is appropriate to popularize consumption of organic goods. Romania, Czech Republic, Brazil, Turkey, Ukraine and Russia have to facilitate the promotion of their own organic goods to the world market. It was found that a relatively high payment capable demand in the internal market is a necessary condition, and the growth of the share of organic goods in the export structure of the countries is an obligatory condition to enhance the positions of the countries in the global market of organic goods. The condition of an increase in the role of the countries developing in the world market of organic goods and the transition of the world economy to the principles of sustainable development were substantiated.

Keywords: Sustainable development; Organic goods; World market; Developing countries; WTO.



CC BY: [Creative Commons Attribution License 4.0](https://creativecommons.org/licenses/by/4.0/)

1. Introduction

At the modern stage of development, the international trade takes the key place in the system of the global economic connections because it intermediates almost all kinds of the international cooperation and is one of the most important forms of the international economic relations. It is considered as one of the main manifestations of globalization. In the structure of the world trade in goods, the share of agricultural goods makes up 9%, and for the developing countries agriculture remain a structure-forming industry that forms from 10% to above 30% of GDP (The World Bank, 2019). The international trade in any agricultural goods contributes to the achievement of the goals of sustainable development: it solves the problem of hunger and food safety, improves the infrastructure and enhances the level of living in rural areas. But the international trade in organic goods has a special social significance, since it indirectly influences the ecosystem state and the biological diversity, rational use of water, land, forest resources and the climate change.

A growth of the income of population in the developed countries, focus of attention on the issues of health and safety of agricultural goods, as well as formation of the healthy lifestyle philosophy, preservation and protection of the environment contributed to the development of organic farming, including in the countries with emerging economy. Within the last twenty years, organic farming has been developing dynamically. The volumes of the

international trade in organic goods have increased by five times (from 17.9 bln USD in 2000 to 97.0 bln USD in 2017) (FiBL and IFOAM, 2019).

The balance of the characteristics of goods, on the one hand, and of demands, on the other hand, gives grounds to consider the international exchange of organic agricultural goods as the sustainable international trade. For the countries with the emerging economy, there are the possibilities for improving their positions in the world market of organic goods. The countries can attain their goals due to determining strengths and weaknesses of the development of the national organic markets and promotion of the goods to the external markets with the use of the allowed tools of the international trade policy.

2. Literature Review

The world community recognized the international trade as the mechanism of implementation and making the global partnership more active by the UN General Assembly resolution on the agenda in the field of sustainable development for the period till 2030 (General Assembly, 2015). Transparent, non-discriminating and fair rules of trade regulation, measures for promotion of the exports of developing countries, duty-free and quota-free access to the markets of the least developed countries must contribute to achieving the goals of sustainable development. The vast majority of scientists and practical specialists recognize an important role of the instruments of international trade policy for agriculture (Ching and Khor, 2013; Kaplinsky, 2004; Waeyenberge *et al.*, 2010; Watkins and Mahmood, 2005; Wilcox and Abbott, 2004; Young and Burton, 1992) and consequences of their application for attaining the goals of sustainable development of the countries (Andreeva and Kharichkov, 2004; Felber, 2006; Lee, 1994; Moltke, 1999; Nordstrom and Vaughan, 1999; Robins and Roberts, 1998; Stukalo and Simakhova, 2018; Vaughan *et al.*, 1999). Such approach does not take into account the properties of agricultural goods and their special capacity to meet the environmental needs of consumers. Therefore, it can not be identified with the “sustainable international trade in agricultural goods”. In our opinion, international markets play the role of a ground for the trade in agricultural goods with the environmental, social and economic characteristics.

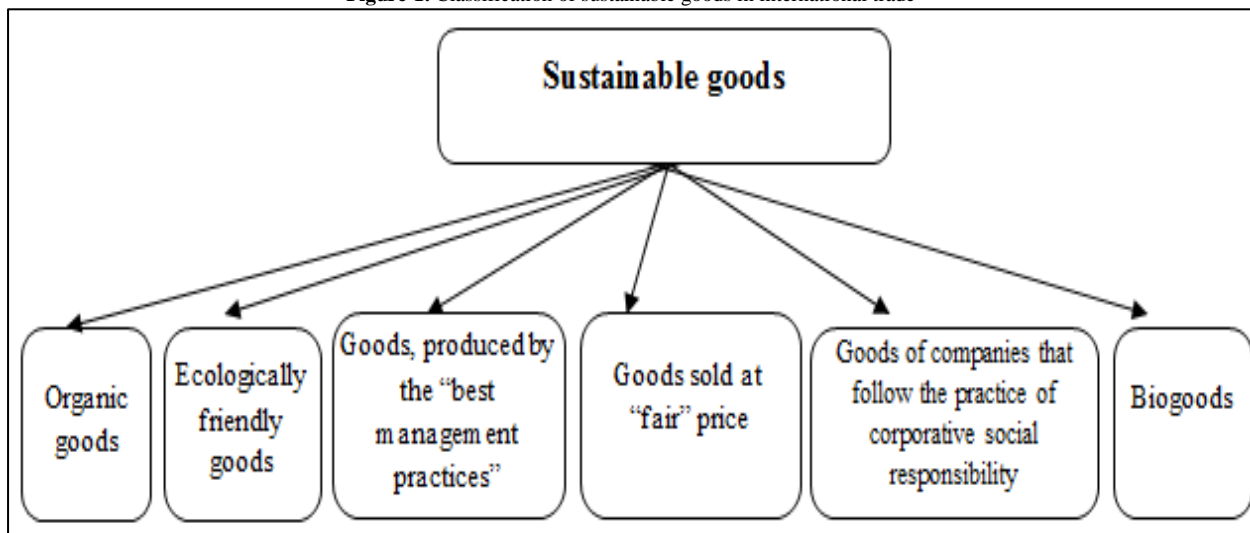
The specificity of agricultural goods is associated with multiple functions of agriculture. 58 countries of the world in the report “International Assessment of Agricultural Knowledge, Science and Technology for Development” (OECD, 2008) acknowledged that in addition to the production of foods, agriculture forms the raw material base for the processing industry, ensures the production diversification, food products safety, vital activity of rural areas, the population employment scope, preserves cultural heritage, prevents natural disasters, performs a recreational function, preserves biological diversity and environment. We share the position of O. Borodina that existence of multiple functions creates a new nationwide significance of agriculture and requires a fundamentally new approach to ensuring rural development that is based on sustainable development not only on the national, but also on the international level (Borodina, 2006). In this context the task of the governments is to coordinate economic, social, and environmental goals, to find compromises on environmental issues and protection of the environment and trade, “to focus them on the mutual support” (Shpylova and Shpylovyi, 2012) and to introduce the mechanisms for their implementation. It is not easy to do it in practice, because there appear the contradictions between the environmental, social and economic dimensions of the sustainable development at different stages of the reproduction of agricultural goods.

The activity of the International centre for trade and sustainable development (ICTD), of the International institute of environment and development (IIED) is concentrated on the challenges of the international trade for the purposes of sustainable development and the trade in sustainable goods. The environmental and social consequences of the production and exchange of agricultural goods are discussed in UNCTAD. The rules and instruments of the international trade policy for agricultural goods are considered at the Doha round of the WTO. The issues of food products safety remain the focus of attention of FAO. The problems of the environmental protection are considered in UNEP. Green (2005), emphasized the leading role of the trade in agricultural goods for the sustainable development of developing countries.

UNEP considers the “sustainable international trade” in the context of the transition to the green economy as the trade that “does not deplete natural resources, does not inflict harm to environment, nor worsens social conditions, but promotes the economic growth”. That is, the trade can be considered sustainable if: it has positive social, economic results from the international exchange of goods and services and does not harm the environment; generates economic profit, reduces poverty and social inequality, reduces the environmental impact of the trade-related types of economic activity; promotes replenishing of natural resources (UNEP, 2013). Leading role in this process is played by sustainable agricultural goods.

Food and Agriculture Organization of the UNO (FAO) considers the sustainable agricultural goods as the ones that were produced in healthy ecosystems and with the support of sustainable management of land, water and natural resources and ensure the world food products safety. It was recognized in UNCTAD (2006) that sustainable agricultural goods are produced with the use of the environmentally friendly farming methods that allow growing crops and livestock without any damage to the ecosystem, i.e. without a negative impact on land, water and natural resources and biodiversity.

Revenko (2002), distinguished three kinds of agricultural goods in the world market of food products – traditional, genetically modified and environmentally friendly. On the whole, we agree with the position of the author, but believe that environmentally friendly goods are a special case of “sustainable” goods. The classification of sustainable goods in the international trade is shown in Figure 1.

Figure-1. Classification of sustainable goods in international trade

Source: Green (2005)

Organic goods dominate in the international trade in sustainable goods. By the definition of UNCTAD (2008), “organic agricultural goods are the goods that are produced in organic agriculture in compliance with the following principles: local renewable power sources are used in their production; efficient use of solar energy and production potential of biological systems is ensured, soil fertility is maintained and improved; the maximum recirculation of nutrients for plants and organic substances is ensured; alien to nature organisms or substances (for example, GMOs, chemical fertilizers or pesticides) are not used; diversity in the production system is maintained; the living conditions that meet the environmental role and do not limit the natural behavior are created for farm animals”.

According to the European Council Regulations No. 834/2007, “organic production is an integral system of management of agricultural products and food manufacturing, which combines environmental protection, a high biodiversification level, conservation of natural resources, a high standard of living of animals, as well as the production method meeting the request of certain groups of consumers to receive the products, manufactured and recycled in a natural way” (EU, 2007). In the United States, according to the Decree of the Federal NOP (7 CFR 205), it is considered that the product is organic if it is produced and processed without the use of synthetic chemicals, except for those permitted by the standards for Organic Foods Production Act (OFPA), it (with the exception of livestock) must be grown on the fields that were not treated with the use of the prohibited substances, including synthetic, for the last 3 years. Such products must meet the requirements determined by the agreement between producers and the certifying institution. Requirements for the contents of organic ingredients in organic products in the United States are more loyal in comparison with those in the EU. According to national standards of organic production, for example, in Switzerland, organic products are the ones that include not less than 90% of the raw materials of ecologically clean production. Organic agricultural products in Japan must be produced based on the use of compost with prohibition of agricultural chemicals and fertilizers not less than 2 years before sowing and planting (Eroshina, 2012).

The results of the study (Kremen and Miles, 2012) indicate that the best methods of management are capable of maintaining biodiversity, the quality of water and soil, energy efficiency, resilience to climate change much better than traditional ones.

The goods that are sold at a “fair price” reflect the “actual” worth of the goods based of fair standards of environmental, social and labor legislation, (Fairtrade Labelling Organizations International, 2018). According to Elzakker and MEyhorn (2010), the goods do not necessarily have to be certified, but certification will confirm the integrity of the production cycle and will inform consumers about it. Commodities of the companies that adhere to the practice of corporate social responsibility (CSR) characterize the manufacturer as responsible for the impact of the company's activity on consumers, employees, environment in all aspects of his activities.

3. Methods

To carry out the research, the general scientific and special methods were used, such as: the system approach, the abstract-logical and graphic approach to generalize theoretically the role of organic goods in attaining the aims of sustainable development; the method of integrated estimates to determine the positions of countries in the world market of organic agricultural goods. The integrated index of development of the organic market of countries, developed by Mihaylenko (2017), takes into account the state of production and consumption of organic goods as the main spheres of the reproductive process and the volumes of the international trade. It makes it possible to determine the rating of countries, to establish the direction of strengthening the role of the international trade for achieving the aims of sustainable development through the influence on supply – production, demand – consumption or the international exchange with the help of the tools of the international trade policy.

To determine this index, we applied the method of point estimates, based on the technique for calculating the mean multi-dimensional for three areas: supply, demand and international exchange. A group of indicators was used for each area. Group 1 of production indicators includes: specific weight of organic agricultural lands in the total

area of agricultural land (%), which shows how well the market for organic agricultural goods is developed relatively to the traditional goods (B1); the volume of organic agricultural production per capita, ha/1000 people (B2). Group 2 of consumption indicators includes: average annual volume of consumption of organic food products per capita, EUR/person (C1); specific weight of monetary costs of organic food products in the food budget of an average resident (%), which shows the level of the culture of organic products consumption in the country (C2). Group 3 of the indicators of promotion to the world market includes: the number of exporters of organic agricultural products, units (M1); the volume of exports of organic agricultural goods, EUR (M2).

For each group of indicators, the mean multidimensional was calculated from the formula:

$$\bar{p}_{in} = \frac{\sum_{j=1}^k \frac{x_{ij}}{\bar{x}_j}}{k} \quad (1)$$

where \bar{p}_{in} is the mean multidimensional for the i-country; i is the number by order of the country; j is the number of indicator; k is the number of indicators in the sphere; x_{ij} is the value of the j-indicator for i-country; \bar{x}_j is the mean value of j-indicator.

Based on the mean multidimensional, the point indicator was calculated with the use of the proportional method, according to which the 1st place gets 10000 points, while the other countries get their points in proportion to the share of their indicator \bar{p}_{in} in the indicator of the 1st place, from the formula:

$$p_{in} = \frac{\bar{p}_{in}}{\max \bar{p}_{in}} * 10000 \quad (2)$$

where p_{in} is the value of the point indicator for n-sphere for i-country; \bar{p}_{in} is the mean multidimensional for i-country for n-sphere of indicators; $\max \bar{p}_{in}$ is the value of the highest indicator of the mean multidimensional for n-sphere of indicators.

The integrated index by three groups of indicators is calculated as arithmetic mean of the point indicators for i-country from the formula:

$$K_i = \frac{\sum_{n=1}^m p_{in}}{m} \quad (3)$$

where K_i is the integrated point indicator for i-country; i is the number by order of a country; n is the number of the sphere of indicators; m is the number of spheres of indicators; p_{in} is the value of the point indicator by n-sphere for i-country.

4. Results

In our opinion, organic products have common features with biogoods and the goods produced by the best practices of management. Organic products are sold at higher (fair) prices, companies-exporters can follow the CSR practice, and therefore, it is difficult to delineate the kinds of sustainable agricultural goods. Instead, there are certain features of organic goods compared to other sustainable goods. Organic products are manufactured according to the best practices of management. Additional research is required to study and disseminate them. Environmentally friendly goods, unlike organic ones, are not the result of the production process in agriculture. They only either create conditions, or contribute to the solution of the environmental (social) problems, prevent pollution and measure it, reduce the negative impact on the environment, act as systems and services of the management of production process and exchange, that is services are provided. Trade in goods produced and sold in accordance with the CSR principles, and fair trade requires conformity, first of all, the certification of goods, technology or manufacturers.

Therefore, organic agricultural goods as a kind of sustainable agricultural goods, presented in the material and physical form, are the result of agricultural production and have all the properties of goods and satisfy consumers' needs.

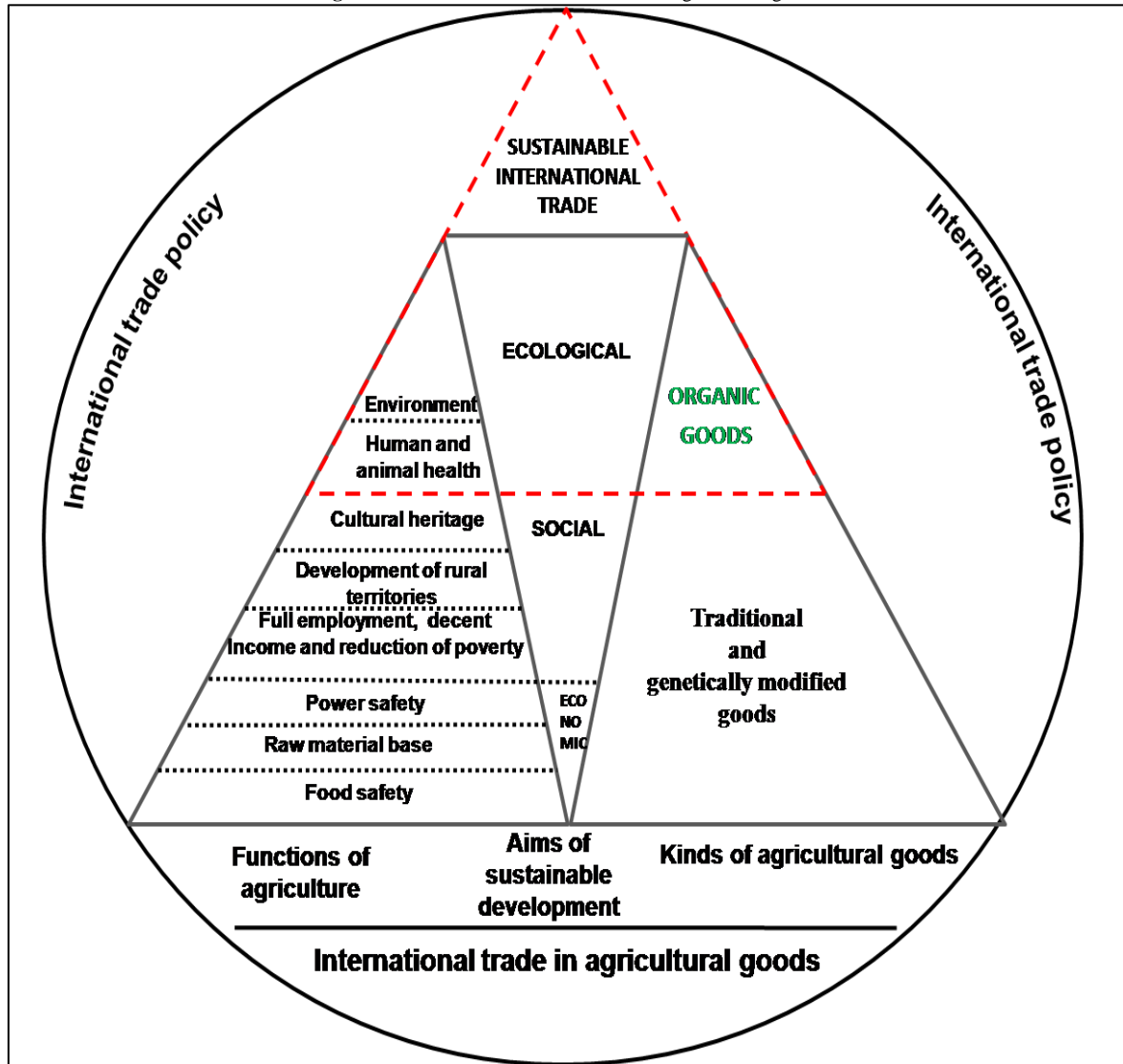
Mihaylenko (2016), performed the comparative analysis of organic and genetically modified goods compared with the traditional ones, which allowed establishing the benefits of organic goods in the international trade. The benefits of the institutional-organizational nature are the following: formation of the better institutional-legal base of the international exchange regulation, availability of environmental and social standards, and existence of certification and labeling of goods.

The classifications of goods according to the method of production and existence of the environmental features (traditional, genetically modified and organic products) and according to the kinds of goods in the international trade (traditional, genetically modified and sustainable goods), proposed by the authors, allow taking into account, first of all, the ecological properties of goods and determining their conformity with the economic and social dimension of sustainable development.

Thus, the sustainable international trade in agricultural goods is the trade, first of all, that meets the ecological needs of consumers in agricultural goods, manufactured and processed without any damage to the environment, does not lead to negative social consequences, allows solving modern problems of the society with the use of the tools of

the international trade policy; takes into account the issues of economic, social and environmental development of the countries. The results are presented in Figure 2.

Figure-2. Sustainable international trade in agricultural goods



Source: the authors' calculation

As it can be seen from Figure 2, international trade in any agricultural goods aims to contribute to attaining the goals of sustainable development. Traditional and genetically modified goods first of all meet the economic (economic growth, food and energy security) and social goals (ensuring full employment, generation of decent income of rural population, decrease in poverty, development of rural areas, improvement of the life quality of rural population, preservation of the cultural heritage). Only international trade in organic agricultural products provides for achieving the environmental goals, i.e. is the sustainable international trade. Sustainable international trade in agricultural goods mediates and forms a new management philosophy based on the principles of sustainable development, is a “catalyst” of formation and development of the world market of organic goods.

For the study, we selected 15 countries with emerging markets from three continents: the countries of America (Peru, Mexico, Brazil, Colombia, Chile), of Asia (China, India, Vietnam, and Thailand), of Europe and the Middle East (Croatia, Poland, Romania, Turkey, Ukraine, The Russian Federation) (The Inclusive Development Index, 2018). In the sample of the countries, India (15.47%) and Vietnam (15.34%) had the largest share of agriculture in GDP, while Poland (2.78%) has the lowest share. The selected countries taken together account for more than a quarter of world export of agricultural goods (The World Bank, 2019). International trade acts as a factor of economic development for the countries with emerging markets. The improvement of the positions of these countries in the global market of organic goods will contribute to the transition of their economy to the principles of sustainable development. It is necessary to aim the activity in the WTO to the improvement of the conditions of trade in sustainable agricultural goods.

The calculations of 6 indicators in three spheres (supply, demand and international exchange) were based on the official international statistical sources: Research Institute of Organic Agriculture (FiBL) & International Federation of Organic Agriculture Movements (The World Bank, 2019), which ensured us the data commensurability and reliability (FiBL and IFOAM, 2019). The results are presented in Tab. 1. Measurement units and the essence of the indicators are determined in the methodology section.

Table-1. The group of indicators for the calculation of integrated index of organic market development of countries

Spheres	Sphere of supply		Sphere of demand		Sphere of international exchange	
Countries/ indices IDI	B1	B 2	C 1	C 2	M 1	M 2
America						
Colombia	0.1	0.64	0.2	0.08	45	13
Chile	0.1	1.08	0.1	0.01	88	213
Mexico	0.6	5.22	0.1	0.01	48	373
Brazil	0.4	5.43	4.0	0.45	44	126
Peru	1.3	9.81	0.4	0.04	153	347
Europe, Middle East						
Croatia	6.1	23.42	24.0	1.12	6	3
Poland	3.4	13.03	6.0	0.52	216	180
Romania	2.0	13.20	2.0	0.12	6	200
Turkey	1.4	6.45	0.5	0.04	69	182
Ukraine	0.7	6.45	1.0	0,12	30	99
the Russian Federation	0.3	4.55	1.1	0.08	28	145,5
Asia						
India	1.0	1.33	0.2	0.04	669	582
Vietnam	0.5	0.61	0.2	0.03	32	77
China	0.6	2.18	5.5	0.78	1198	1049
Thailand	0.4	1.32	0.2	0.02	51	28

Source: compiled by FiBL and IFOAM (2019), p. 42-43, 46-47, 64-67, 72-73, (Zagreb, 2018).

In our opinion, all three spheres have an equally strong influence on the value of the integrated index of organic agricultural market development in the countries. A large amount of production of organic agricultural products in the countries with emerging markets does not mean that the goods are consumed in this country. The fact that the supply of organic goods exceeds the demand due to low solvency of the population in the country creates the stimuli for the development of the international trade and accelerates the transition of agriculture to the principles of the sustainable development. Exceeding consumption of organic products with the limited volume of their production, on the contrary, leads to dependence of a country on imported supplies, which is likely to slow down the pace of the transition to the principles of sustainable development. No doubt, the production of organic goods, in particular, agricultural, on the territory of the countries is determined by the natural-climatic and spatial-environmental factors. However, the share of organic lands in the total area of agricultural lands in the countries of the world is insignificant. This fact leaves no doubt regarding the possibility of its increase both in relative and in absolute dimensions. Globally, the mean value of the share of organic agricultural lands in the total area of agricultural lands is approximately 1.2% (FiBL and IFOAM, 2019). The mean value for the selected countries is 1.6 %.

5. Discussion

Ranking of countries was compiled in accordance with the obtained value of the integrated point index K_i for each country in descending order: the highest value of index K_i corresponds to the 1st place (Table 2).

Table-2. Ranking of countries by integrated index of organic market development

Ranking of countries by correspondent sphere	Sphere of supply	Sphere of demand	Sphere of international exchange	According to general integrated index (value of integrated index, 10000 -max)
1	Croatia	Croatia	China	Croatia (6681)
2	Poland	China	India	China (5010)
3	Romania	Poland	Peru	Poland (3555)
4	Peru	Brazil	Poland	India (2194)
5	Turkey	Romania	Mexico	Romania (2004)
6	Ukraine	Ukraine	Chile	Peru (1781)
7	Mexico	the Russian Federation	Turkey	Brazil (1540)
8	Brazil	Colombia	Romania	Turkey (1262)
9	India	Turkey	Brazil	Mexico (1073)
10	the Russian Federation	Peru	the Russian Federation	Ukraine (1011)

	Federation		Federation	
11	China	India	Ukraine	the Russian Federation (793)
12	Thailand	Thailand	Vietnam	Chile (530)
13	Vietnam	Vietnam	Thailand	Vietnam (395)
14	Chile	Mexico	Colombia	Thailand (366)
15	Colombia	Chile	Croatia	Colombia (271)

American countries
countries of Europe, Middle East
Asian countries

Source: authors' own processing

The results of calculations indicate leadership in the sphere of supply of the European countries, which occupy the 5th out of 6 first places of the ranking, which fully meets the desires of the US regarding expansion and promotion of the production of goods of organic origin, especially in the countries – new members of the Union. The new EU members, such as Croatia, Poland and Romania occupy three first places. Turkey and Ukraine demonstrate their orientation to Eurointegration in relation to organics. The only country among the European countries under consideration that is not developing in the Eurointegration direction is the Russian Federation, which occupies the 10th place in the sphere of production due to the lack of the stimulation and development of the organic market. We will note that the EU countries, Italy and Spain are at the top of the sphere of supply, according to the calculation of the corresponding ranking for the developed countries of the world.

In the sphere of demand, there is a relatively even distribution of positions of the countries among all regions of the world, which, in our opinion, indirectly refers to the desire of all countries to consume the useful organic agricultural products. It should be noted that the demand for organic products in the countries with emerging markets is at a very low level, compared with the developed markets of Germany, the United States and France. The sphere of the international circulation is topped by the countries of Asia and America: China, India, Peru, and Mexico.

The Croatia occupies the first place by the value of the integrated index of the organic market development thanks to the balanced policy aimed at supporting production, consumption of international exchange of organic goods. India is characterized by a certain warp towards the international circulation and insufficient development of the internal market and the consumption of organic products. An increase in well-being of China during the last years led to an increase in the consumption of organic products and improvement of the position of China in the demand sphere. That is, the large size of the country is a significant but not the sole factor in the organic market development.

Thus, it would be appropriate for Asian countries, Colombia, Russia and Chile to stimulate domestic production of organic goods in order to enhance the organic market development. Peru, India, Chile, Mexico, Vietnam and Thailand should popularize the consumption of organic goods. Ukraine has made advances in the consumption sphere due to an increase in the average volume of consumption of organic food products per capita. Colombia, Croatia, Ukraine, Russia, Vietnam and Thailand need, first of all, to promote their own organic goods to world markets. Colombia, Vietnam and Thailand are the outsiders by the integrated index in all three spheres, because they almost do not use the existing potential for the organic market development.

Figure 3 shows the disposition of the countries in accordance with the integrated index of the organic market development in countries and their GDP per capita. In most cases, the countries with higher income per capita have better positions in the global organic market. The countries that are located below the line do not sufficiently use the potential of their own organic market for the economic development of the country.

An increase in the share of organic products in the structure of agricultural products export predictably improves the country's position in the global organic market (Fig. 4). Thus, promotion of the idea of the sustainable international trade in agricultural goods and prevention of restrictions for such trade will both improve the positions of the countries and actively facilitate the transition of the global economy to the principles of sustainable development.

The countries with emerging markets can try to use their potential for production and export of organic products in order to improve their own economic situation due to the sustainable trade in agricultural goods. That is, they can enhance the effectiveness of their own development through the use of the competitive advantages related to the objective opportunities of production of organic products. In this case, adjustment of the rules of the international trade in agricultural goods to the goals of the sustainable development could lead to the growth of prosperity of agrarian countries with a low level of income for the benefit of the world development.

Figure-3. Disposition of the countries with different level of GDP per capita by the integrated index of the organic market development of the countries in 2017

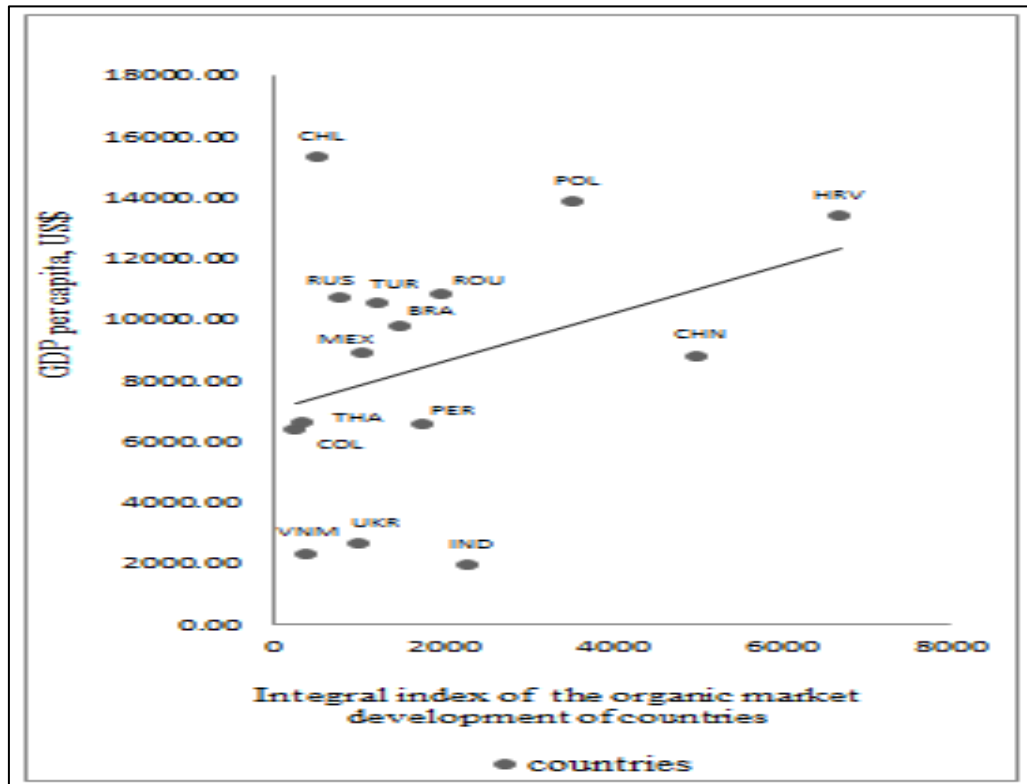
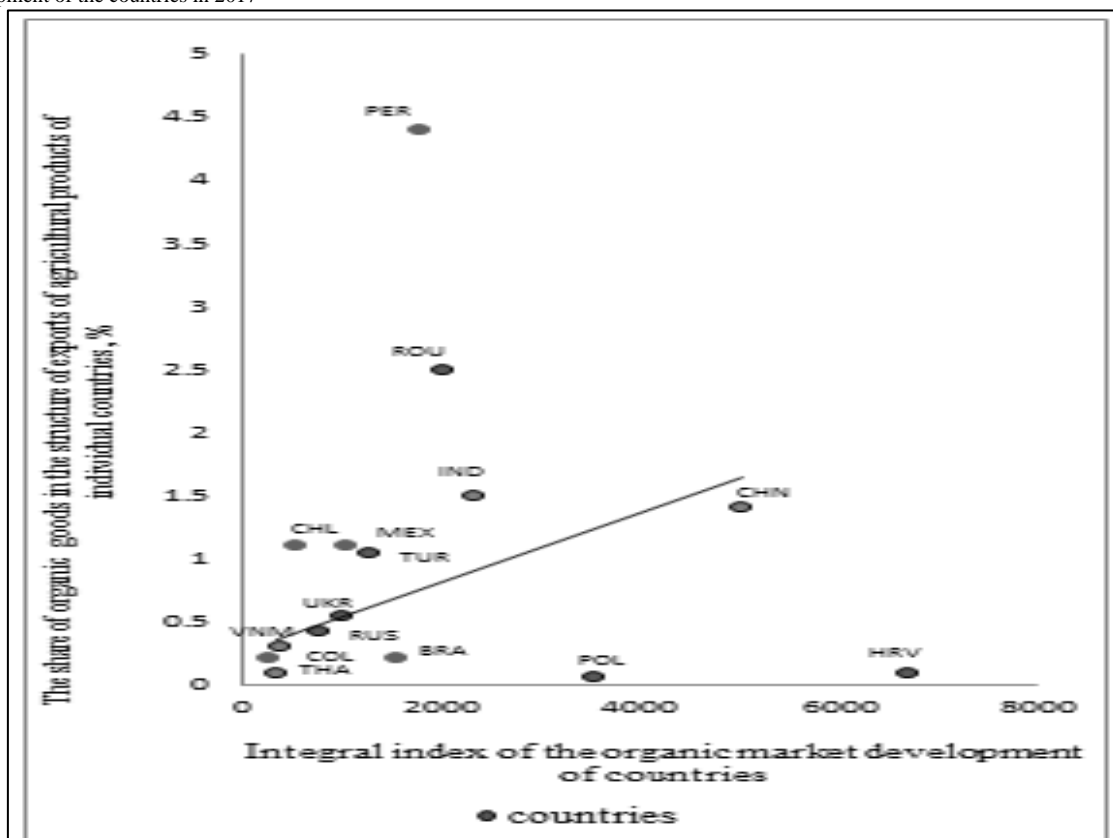


Figure-4. Disposition of the countries with different share of organic goods in the export structure by the integrated index of the organic market development of the countries in 2017



Source: (FiBL and IFOAM, 2019; The World Bank, 2019), Data Stream, the authors' calculation

Taking into account the goals of sustainable development, it would be advisable: to prohibit the export stimulation in the developed countries as a means that openly discriminates the sustainable trade of less developed countries, which objectively do not have the financial capacities to subsidize their own producers; to spread in the WTO rules the use of special products (SP) and special protective mechanism (SPM) for developing countries, which would enable such countries less painfully to adapt to fluctuations in the world agricultural markets, and to

simplify the reorientation to organic production under the pressure of foreign competition. It would also be advisable to harmonize the standards according to the goals of sustainable development with a formal indication of the use of environmentally friendly technologies. Certainly, the transformation of the trading rules requires their understanding and acceptance by the countries that have already achieved a high level of development. These countries can strengthen the tendencies of the sustainable global economic development using their experience and non-discriminating policy.

6. Conclusions

Recognition of the international trade as a mechanism for global partnership for attaining the goals of sustainable development by the UNO countries has put on the agenda the theoretical and practical issues of the development of the markets of goods, capable to meet the environmental, social and the economic needs of consumers. Sustainable international trade in agricultural goods was defined as the trade that, first of all, meets the ecological needs of consumers in agricultural goods, manufactured and processed without any damage to the environment, does not lead to negative social consequences, allows solving modern problems of society, using the tools of the international trade policy; takes into account the issue of the economic, social and environmental development of the countries. The international trade in organic goods can be considered as sustainable trade.

The authors revealed a high potential of organic markets of emerging countries. The most advanced markets are the markets of the European countries (the Croatia, Poland, Romania), the advantages of which were formed in the sphere of supply and partially in the sphere of demand. Only the market in the Croatia is balanced and this country leads in the ranking. The development of the international trade in organic goods and the demand in the domestic market of these countries, limited by low solvency of the population is characteristic of the countries of America (Peru, Mexico) and Asia (China, India). Ukraine and Turkey develop the internal market of organic agricultural goods, have the potential for export development. An increase in supply and exports of emerging countries is possible under the following conditions: actual prohibition of the stimulation of export of agricultural goods in developed countries; making the use of allowed tools of supporting national producers more active, taking into account the financial capacities of these countries; expansion of the scope of using the WTO rules regarding special goods and a special protective mechanism. The inclusion of non-trade issues in the WTO rules and formation of non-discriminating rules of international trade in sustainable goods can be an additional stimulus for the growth of welfare of emerging countries and for acceleration of the transition of the global economy to the principles of sustainable development.

References

- Andreeva, N. and Kharichkov, S. (2004). Influence of the ecological factor on the formation of a modern system of international economic relations. *Scientific and Practical Journal Regional Economy*, 2: 142–53.
- Borodina, O. (2006). State support of agriculture: concept, mechanisms, efficiency. *Journal Economics and Forecasting*, 1: 109–25. Available: <http://dspace.nbu.gov.ua/handle/123456789/19803>
- Ching, L. and Khor, M. (2013). *The importance of international trade, trade rules and market structures*. Trade and environment review of United Nations: U.N. 5: 251–62.
- Elzakker, B. and MEyhorn, F. (2010). *The organic business guide, developing sustainable value chains with smallholders. Ifoam and collaborating organisations*. Agro Eco Louis Bolk Institute, ICCO, UNEP: Helvetas. 83–95. http://unep.ch/etb/publications/Organic%20Agriculture/Organic%20Business%20Guide%20publication/Organic_Business_Guide_Eng.pdf
- Eroshina, T. (2012). Ecologically pure products of the agroindustrial complex: the essence of the concept, socio-geographical approaches to research. *Ukrainian Geographic Journal, Institute of Geography of the National Academy of Sciences of Ukraine*, (2): 33–37.
- EU (2007). Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labeling of organic products and repealing Regulation (EEC) No 2092/91, Objectives and principles for organic production. *Title II, Official Journal of the European Union*: 1–23. Available: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32007R0834>
- Fairtrade Labelling Organizations International (2018). Available: <https://www.fairtrade.net/standards.html>
- Felber, C. (2006). *50 vorschläge für eine gerechtere welt. Gegen konzernmacht und kapitalismus*. Deuticke: Wien. 334.
- FiBL and IFOAM (2019). The world of organic agriculture. Statistics and emerging trends, ed. By helga willer and julia lernoud, research institute of organic agriculture (fiBL) and international federation of organic agriculture movements (ifoam). 356. Available: <https://www.organic-world.net/yearbook/yearbook-2019.html>
- General Assembly (2015). *Resolution adopted by the general assembly on 25 September 2015. A/RES/70/1. Transforming our world: the 2030 Agenda for sustainable development*. General Assembly: United Nations, New York. http://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf

- Green, D. (2005). *Conspiracy of silence: Old and new directions on commodities. Agricultural commodities, trade and sustainable development*. Edited by Thomas Lines. Green, D., Lee, B., Morrison, J. and Werth A. (2005). ednICTSD and IIED. 2. 93–128. <https://pubs.iied.org/pdfs/16500IIED.pdf>
- Kaplinsky, R., 2004. "Competition policy and the global coffee and cocoa value chains», institute of development studies university of sussex, and centre for research in innovation management, university of brighton." In *Paper prepared for United Nations Conference for Trade and Development (UNCTAD), May 2004*. pp. 2–29.
- Kremen, C. and Miles, A. (2012). Ecosystem services in biologically diversified versus conventional farming systems: benefits, externalities, and trade-offs. *Ecology and Society*, 17(4): 40. Available: <http://dx.doi.org/10.5751/ES-05035-170440>
- Lee, J. (1994). Process and product: making the link between trade and the environment. *Int. Environ. Affairs*, 6(4): 320–47.
- Mihaylenko, O. (2016). Analysis of the global agricultural market of diversified production in the context of sustainable development concept. *Journal Agrosvit*, 4: 43–52. Available: http://www.agrosvit.info/pdf/4_2016/9.pdf
- Mihaylenko, O. (2017). Analysis of the development of international trade in organic agricultural products. *Herald of the Odessa National University Series Economy*, 22(5(58)): 33–38.
- Moltke, K. (1999). Trade and environment. The linkages and the politics. *Canberra*: 2–25. Available: <https://www.iisd.org/pdf/canberra.pdf>
- Nordstrom, H. and Vaughan, S. (1999). *Trade and environment. Special studies 4*: World Trade Organization: Geneva. 24–66. https://www.wto.org/english/res_e/booksp_e/special_study_4_e.pdf
- OECD (2008). *Agriculture at a crossroads. The international assessment of agricultural knowledge, science, and technology for development, global report*. Edited by Beverly D. McIntyre, Hans R. Herren, Judi Wakhungu, Robert T. Watson: Washington. 606.
- Revenko, L. (2002). *The world food market in the epoch of the "gene" revolution*. Economics: Moscow. 302.
- Robins, N. and Roberts, S., 1998. "Environmental responsibility in world trade." In *Materials of the British Council International Conference, London*. pp. 34–39.
- Shpylova, Y. and Shpylovyi, I. (2012). Sustainable development of Ukrainian retail trade. *Herald of the Eastern University of Economics and Management*, 1(11): 108–20.
- Stukalo, N. and Simakhova, A. (2018). Global parameters of social economy clustering. *Problems and Perspectives in Management*, 16(1): 36–47.
- The Inclusive Development Index (2018). Summary and Data Highlights. WEF_Forum_IncGrwth_2018. 21: 14-15. Available: http://www3.weforum.org/docs/WEF_Forum_IncGrwth_2018.pdf
- The World Bank (2019). Available: <https://data.worldbank.org/indicator/NV.AGR.TOTL.ZS?view=chart>
- UNCTAD, 2006. "Trade and environment review." In *United Nations Conference on Trade and Development. United Nations, New York and Geneva*. pp. 141–80.
- UNCTAD, 2008. "Best practices for organic policy what developing country governments can do to promote the organic agriculture sector." In *The United Nations Conference on Trade and Development, United Nations Environment Programme. United Nations, New York and Geneva*. pp. 3-36.
- UNEP (2013). Green economy and trade: Trends, challenges and opportunities. Full report, unep. 35–36. Available: <http://www.unep.org/greeneconomy/GreenEconomyandTrade>
- Vaughan, S., Nordstrom, H., Abhyankar, S. and Sørensen, J. (1999). *Trade and environment, special studies 4*. WTO. 24–45.
- Waeyenberge, V. E., Bargawi, H. and McKinley, T. (2010). *Standing in the way of development? A critical survey of the IMF's crisis response in low income countries. A Eurodad and Third World Network report in cooperation with the Heinrich Böll Foundation*. EURODAD. 7–43.
- Watkins, K. and Mahmood, A. (2005). *WTO negotiations on agriculture: What can be achieved? Agricultural commodities, trade and sustainable development*. Edited by Thomas Lines. ICTSD and IIED. 2: 41–66.
- Wilcox, M. D. and Abbott, P. C., 2004. "Market power and structural adjustment: The case of west african cocoa market liberalization." In *Paper presented at Agricultural and Applied Economics Association (AAEA). Annual Meeting Denver, Colorado*. pp. 1-4.
- Young, T. and Burton, M. P. (1992). *Agricultural sustainability: Definition and implications for agricultural and trade policy*. FAO: Rome. 34–56.
- Zagreb (2018). Organic market in Croatia. Gain report number hr 1808. 3–4. Available: https://agfstorage.blob.core.windows.net/misc/FP_com/2019/02/11/Organic%20Market%20in%20Croatia_Zagreb_Croatia_10-3-2018.pdf