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Problems of functioning and directions of agro-food chains development in the conditions of turbulence strengthening

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The article substantiates scientific and methodological approaches and principles of distribution, formation, effectiveness, efficiency of functioning and development of agri-food chains. It is determined that agro-food chains have acquired the most significant economic and social importance for the inclusion of small producers in the processes of practical production cooperation, which prompted the requirements related to the specifics of the technology of production of finished food products.

The main factors that provoke the emergence of extremely contradictory and diverse phenomena in the development of agri-food chains include: globalization of international relations, intensification of turbulent phenomena and processes in the world economy, the entry of advanced countries to new economic frontiers.

For the current stage of development of the national economy, the practical implementation of one of the key objectives of the Association Agreement between Ukraine and the European Union was of paramount importance. For the purpose of periodic audit of HACCP-certified food processing enterprises, the specified structure of business entities that ensure the production of finished food and other products is highlighted.

These calculations show that in 2018 in Ukraine the producers of agricultural raw materials were 49550 farms/enterprises and 23822 natural persons-entrepreneurs who are officially registered and represent the primary link in the food chain. The next link in the agri-food chain are processors of raw materials of primary production, which in Ukraine in 2018 were 5872 enterprises and 10845 individual entrepreneurs, of which 157 enterprises and 1016 sole proprietors produce non-food products.

The analysis allows us to conclude that now the producers of food raw materials have the following situation: a) flexible or simplified permanent procedures, certified (or tested) their facilities for compliance with the minimum requirements of basic programs; b) the second part, mainly FOPs and PF, continue to operate traditionally, ie without paying special attention to the time requirements for the implementation of systematic security procedures.

It is established that in practice, some producers of food raw materials, with different levels of tightness, depth of processing and value creation, are already included in agri-food chains.

Taking into account the objectively existing tendencies of spontaneous, at the initial stage mainly seasonal occurrence, and further deepening and strengthening of interrelations between actors, the hierarchy of formation and sustainable development of food chains is offered.

Key words: agro-food chains, economic turbulence, agricultural raw materials, personal farms, processing and food enterprises, sustainable development, added value.

Problem statement and analysis of recent research. One of the important characteristics of the current stage of development of the agricultural sector of Ukraine's economy is the spread, formation, effectiveness, efficiency of functioning and development of agri-food chains. However, changes in climatic conditions, globalization and increasing turbulence in the international economy and social relations greatly complicate economic activity. At the same time, society's requirements for economic, social, environmental and other directions regarding the results and consequences of management, which are included and ensure the functioning of various food chains, are increasing.

In this regard, additional efforts are needed from producers not only to keep up with the results achieved, but also to ensure the sustainable development of food chains in the future.

The aim of the research. Substantiation of directions of development and functioning of agro-food chains in the conditions of turbulence of external and internal environment, and also systematization of characteristics of the main types of chains on complexity of structure, forms of legal relations between participants and efficiency of functioning.

Material and methods of research. During the study, the theory of the chain approach was used as a method of scientific cognition, the fundamental developments of which were carried out by such well-known Western scientists as M. Porter [1], G. Dzhereffi [2], M. Morris and R. Kaplinski [3].

The main research methods are abstract-logical – for the study of agri-food chains in terms of changes in external and internal factors, taking into account the form of legal relations between its participants; methods of analysis and synthesis - to identify the dynamics and structure of economic entities by type of economic activity in the primary production and processing and food industry of Ukraine.

Research results and discussion. The problems of network production structures, intersectoral cooperation and vertical integration, and later agri-food chains, gained practical significance in Soviet times.

However, agri-food chains have gained more significant economic and social importance for the inclusion of small producers in the processes of practical production cooperation, which, on the one hand, placed specific requirements for growing quality and safe food raw materials and its sale in accordance with contractual agreements, and on the other , - included them in real production processes and economic relations. This was extremely important in the context of a catastrophic reduction of employment in the public sector in rural areas (in various production structures), and also prompted the implementation of those requirements that were due to the specifics of the technology of production of finished food products.

It should be noted that since almost half of food raw materials are grown in private farms and farms, and a significant part of it goes to processing and food facilities, the inclusion of small, small and medium producers in food chains is a necessary condition for meeting the primary needs of domestic consumers. the potential of the agro-industrial complex and strengthening the country's food security.

As noted by O.M. Borodina, “agri-food chains are not just interconnected parts of one process, but also (first of all) mutually beneficial relations between groups of producers, sellers, processors and service companies, which unite together to increase productivity and create added value. based on the understanding of mutual benefit and fair distribution of the achieved result…” [4, p. 75].

At the same time, it is necessary to draw attention to the processes taking place in the agricultural sector. Since the 2000s, after the national economy emerged from the recession, the processes of consolidation of production structures and reduction of the contingent of small-scale producers of the agricultural sector have been quite active. In particular, for the period 2002-2015 (this period was adopted to ensure the comparability of quantitative indicators): in the processing sector, the number of food processing enterprises decreased by almost 1.7 times, including large and medium – 2.7 times (up to 1 thousand units), and small - one and a half times (up to 4.5 thousand units); in agriculture, the number of enterprises, including peasant (farmer) farms, decreased almost 1.4 times (up to 52.5 thousand units), of which farmers - by a third (up to 32.3 thousand units), and personal peasant farms (PF) – 1.3 times (up to 4.1 million units). Regarding the participation of small producers in the production of marketable agricultural products, the following structure of PF was formed: 19% of producers are fully market-oriented, semi-commercial small farms – 41%, and the rest produce products for their own consumption [4, p. 82]. Approximately, this covers about 780 thousand commercial and 1680 thousand semi-commercial PF. Thus, the presence of these trends indicates the sectoral, production and territorial concentration that occurs in the agricultural sector.

At the same time, extremely powerful changes are taking place in the external environment, which directly, as well as through a number of indirect and diverse transmission mechanisms, provoking the emergence of new phenomena and processes have an extremely contradictory and diverse impact on Ukraine's agricultural sector. Such factors traditionally include the following: the globalization of international relations, the intensification of turbulent phenomena and processes in the world economy, the entry of advanced countries into new economic frontiers.

Favorable natural and climatic conditions have also become extremely important for world and domestic agriculture. However, nature is the least prone to permanence. The current period is marked by a number of abrupt and even shocking changes in key weather parameters during the year, which are unpredictable for a long period of time and which cannot be avoided or limited (global warming, melting glaciers, shrinking permafrost, expansion of ozone "holes" in the Earth's Earth's crust, a gradual change in the position of the magnetic poles). In general, they all have a contradictory impact on the processes of growing food raw materials and the ability of producers to ensure compliance with technological requirements of production.

As for changes in natural and climatic conditions in Ukraine in general, they should include: warm and light snow winters, increasing the sum of annual temperatures, increasing periods of soil moisture deficit and rainfall on the surface, shifting the onset of the sowing period to earlier terms, etc.

Of particular concern in recent decades has been the trend of imports of dangerous weeds, pathogens and dangerous pests from abroad. Unfortunately, in order to prevent their spread, those measures that are carried out in accordance with quarantine phytosanitary requirements on the territory of Ukraine are not enough and quite often they are implemented too late. As a result, pests contaminate the crop, complicate its harvest, reduce the quality of primary and final products, and therefore require additional costs for cleaning them. Thus, harmful organisms cause significant damage to agriculture with heavy losses.

For the current stage of development of the national economy, the practical implementation of one of the key objectives of the Association Agreement between Ukraine and the European Union, [6] which entered into force in September 2017, but preparations for its implementation began almost twenty years before [7 , with. 11–12].

Of the full range of tasks that have arisen in connection with the practical implementation of the course of European integration, the problem of implementing permanent procedures (PP) by economic entities in primary production, as well as periodic audits of HACCP-certified food processing enterprises is still relevant. In general, the solution to this problem is associated with such a key condition as the inclusion of agricultural producers in food chains. To this end, it is appropriate to disclose the structure of business entities that ensure the production of finished food and other products (Table 1).

The calculations in Table 1 show that in 2018 the producers (growing, harvesting, fattening, milking, restoration, breeding and related services) of agricultural raw materials (the amount of NACE 01 + 02.3 + 03) are 49,550 one. (48653 + 29 + 868) of farms / enterprises and 23822 (20943 + 437 + 2442) of natural persons-entrepreneurs (PE), who are officially registered, operating in the branches of primary production. Therefore, the above operators represent the primary link in the food chain. In addition, as noted above, marketable products are produced by a significant number of PFs that have not been registered as sole proprietors.

The next link in the agri-food chain are processors (Table 1 - the amount of NACE 10 + 11 + 12 + 14.11 + 14.2 + 15.1) raw materials of primary production, theoretically can act 5872 one. (5715 + 27 + 23 + 107) enterprises and 10845 (9829 + 338 + 216 + 462) natural persons-entrepreneurs, of which 157 enterprises and 1016 sole proprietors produce non-food products. But for the production of such products, they use the skins of farm animals, which, after fattening, are sent to meat processing plants and slaughterhouses, and the fur of animals, which after the end of the cycle of breeding in animal farms, are sent for slaughter and receive raw fur and delicatessen meat products. and valuable production waste.

It is established that in practice some producers of food raw materials, but with different levels of density, the depth of its processing and creation of added value, are already included in agri-food chains [9, p. 79].

Based on this, it would be appropriate to disclose the degree of inclusion of agricultural producers in existing organizational schemes, which are formed to enable uninterrupted production and sale of final products, ie food chains. These, in our opinion, include:

1) producers of food products exported to the EU and other countries. These are 128 domestic food producers [10], to whom the European Commission, based on the results of inspections by the Office of Veterinary and Food Inspections, concluded that the food safety systems formed at enterprises are equivalent to the European model of food safety [11].

Table 1 – **Dynamics and structure of economic entities by type of economic activity in primary production and food processing industry of Ukraine**

Code for NACE-2010	Total			Including: enterprises			Individual entrepreneurs (PE)		
	2010	2018	2018 to 2010, %	2010	2018	2018 to 2010, %	2010	2018	2018 to 2010, %
1	2	3	4	5	6	7	8	9	10
A. AGRICULTURE, FORESTRY AND FISHERY (extract from it)									
01 Agriculture, hunting and related services									
including:	72697	69596	95,9	49060	48653	99,2	23637	20943	88,6
01.1 cultivation of annual and biennial crops	57521	54812	95,3	x	x	x	13380	12393	92,6
01.2 cultivation of perennial crops	1228	2434	198,2	x	x	x	710	1074	151,3
01.3 reproduction of plants	400	411	102,7	x	x	x	323	257	79,6
01.4 animal husbandry	5170	4506	87,1	x	x	x	2610	2185	83,7
01.5 mixed agriculture	1012	1576	155,7	x	x	x	633	529	83,6
01.6 ancillary activities in agriculture and post-harvest activities	7027	5418	77,1	x	x	x	5970	4489	75,2
01.7 hunting, animal recovery and related services	339	439	129,5	x	x	x	11	16	145,4
02 Forestry and logging									
including:	3315	3422	103,2	x	x	x	2449	2439	99,6
02.3 harvesting of wild non-wood products	252	466	184,9	41	29	70,7	211	437	207,1
03 Fisheries									
including:	4309	3310	76,8	740	868	117,3	3569	2442	68,4
03.1 fishing	2276	1589	69,8	x	x	x	1858	1124	60,5
03.2 fish farming (aquaculture)	2033	1721	84,6	x	x	x	1711	1318	77,0
C. PROCESSING INDUSTRY (extract from it)									
10 + 11 + 12 Manufacture of food products, beverages and tobacco									
10 + 11 + 12; of them:	17323	15544	89,7	6551	5715	87,2	10772	9829	91,2
10 Food production									
10; including:	15128	14681	97,0	5706	5148	90,2	9422	9533	101,2
10.1 production of meat and meat products	1907	1707	89,5	x	x	x	946	932	98,5
10.2 processing and canning of fish, crustaceans and molluscs	521	416	79,8	x	x	x	259	243	93,8
10.3 processing and canning of fruits and vegetables	604	588	97,3	x	x	x	206	251	121,8
10.4 production of oil and animal fats	1437	1521	105,8	x	x	x	1021	894	87,6
10.5 production of dairy products	650	709	109,1	x	x	x	201	308	153,2
10.6 manufacture of products of flour-milling-cereal industry, starches and starch products	1868	1604	85,9	x	x	x	1108	922	83,2
10.7 production of bread, bakery and flour products	5733	5302	92,5	x	x	x	4234	4227	99,8
10.8 production	1887	2281	120,9	x	x	x	1158	1480	127,8
other food products	521	553	106,1	x	x	x	289	276	95,5
10.9 manufacture of prepared animal feeds									
11 Manufacture of beverages	2183	844	38,7	833	548	65,8	1350	296	21,9
including:	139	60	43,2	x	x	x	0	1	x
11.01 distillation, rectification and mixing of alcoholic beverages	122	59	48,4	x	x	x	26	7	26,9

Continuation of Table 2

1	2	3	4	5	6	7	8	9	10
11.02 production of grape wines	4	14	350,0	x	x	x	0	7	x
11.03 production of cider and other fruit wines	30	8	26,7	x	x	x	26	7	26,9
11.04 production of other undistilled beverages from fermented products	191	152	79,6	x	x	x	129	56	43,4
11.05 beer production	41	14	34,1	x	x	x	26	2	7,7
11.06 production of malt	1656	537	32,4	x	x	x	1143	216	18,0
11.07 production of soft drinks, mineral waters and other waters									
12 Manufacture of tobacco products	12	19	158,3	12	19	158,3	0	0	x
12 manufacture of tobacco products									
14 Manufacture of wearing apparel	14337	11701	81,6	x	x	x	12075	9936	82,3
including:	494	365	73,9	23	27	117,4	471	338	71,8
14.11 manufacture of leather clothes	413	239	57,9	38	23	60,5	375	216	57,6
14.2 manufacture of articles of fur									
Manufacture of leather, leather products and other materials	2446	2128	87,0	x	x	x	2009	1764	87,8
including:	572	569	99,7	130	107	82,3	442	462	104,5

Source: compiled and calculated according to the State Statistics Service of Ukraine for the relevant years [8].

In Ukraine, about 500 market operators are engaged in organic products, of which more than 300 producers are already certified [12]. Farms have passed the appropriate certification of agricultural lands (about 300 thousand hectares) and technologies for compliance with national [13] or international standards [14] and received a certificate of producer of organic products.

2) market supermarket operators - a number of limited liability companies (LLC): "ATB-Market", "Fozzy-Food", "Metro Cash & Carry Ukraine", "Food Merezha", "Fora", "Novus Ukraine" , " ECO ", "Big Pocket" and others that have been certified for compliance with the voluntary standard GLOBAL GAP [15]. To date, about 50 farms in our country have already received this certificate.

According to the requirements of the Law of Ukraine on Food Safety [16], as of 20.01.2020, all food processing enterprises had to implement the HACCP system or ensure compliance of small capacities with the minimum requirements of basic programs [17] or other recommendations, in particular for animal products. origin and processing of vegetables and fruits [18]. Exceptions may be primary production farms.

The analysis allows us to conclude that now the producers of food raw materials have the following situation:

a) one part of primary production farms, which grow products of animal origin or are organizationally engaged in the sale of their own products to processing enterprises, have already prepared and implemented flexible or simplified permanent procedures (PP), certified (or tested) their facilities for compliance with minimum requirements of basic programs;

b) the second part, mainly PEs and PF, continue to operate traditionally, ie without paying much attention to the time requirements for the implementation of systemic security procedures (permanent procedures), although legally they have the right to do so.

That is, on the one hand, there is a huge array of territorially dispersed PF and a significant part of PEs, which are virtually isolated. They operate in a turbulent environment and are therefore subject to various external influences due to the lack of permanent links with intermediary structures that are interested in the procurement of products and its further sale.

On the other hand, there are functioning agri-food chains, mainly in the existing organizational and legal structures, whose members have already gained significant experience in both synchronous and coordinated work in technologically related processes, and in initiating and developing mutually beneficial relations.

Given the objectively existing trend of spontaneous, initially mostly seasonal occurrence, and further deepening and strengthening of relationships between actors, we propose such a hierarchy of formation and sustainable development of food chains (Table 2).

Table 2 – **Systematization of key characteristics of the main types of agri-food chains and their detail by the complexity of the structure, formation and efficiency of operation**

The degree of complexity and formation, length and extent of FC	Key factors * FC	Forms of legal relations between participants	Logistics of material flows:		Scope of coverage market	Effectiveness of functioning	Efficiency of functioning
			internal	External			
1	2	3	4	5	6	7	8
I. INTERNAL (DOMESTIC)							
The simplest	BPPpdo; BPP + BFI	Oral agreements (seasonal); Agreements between BE on a permanent basis	Movement of purchased raw materials by transport BE	Transfer of processed raw materials by BFI or / and TS transport	Local markets with the organization of outlets in places of mass placement or movement of consumers	Unregulated compliance with the requirements for safety and quality of primary products and their initial processing, violation of the agreed terms of supply of raw materials for further processing at BFI or its processing by producers for further sale to consumers	Efficiency is low, as it is limited by the initial level of agri-food formation and only the primary processing or processing of agricultural raw materials (packaging, packaging and formation of transport and trade batches of products ready for consumption)
(single-, double-link)	BPP + BFI + SS + (LS) + (TS)	Agreements between BE; forward and futures contracts between BE and BFI; BFI contracts with TS and (LS)	Movement of raw materials by transport BE	Movement of finished food products (animal feed) by BFI and / or TS transport	Local (district, interdistrict, regional, capital) food markets	Compliance with the requirements of standards and technical regulations regarding the safety and quality of primary products, agreed delivery dates of purchased raw materials at the BFI and the smooth sale of finished products to consumers	The efficiency is satisfactory, which is due to the relatively small scale of production of finished products and unsatisfactory organization of direct relations with distributors and the forced need to organize their own points of sale.
Shortened (three-, four-link)	BPP + BFI + SS+ LS + (IS) + TS + (FBS)	Agreements between BE; contracts between BE and BFI	Movement of raw materials by transport BE, BFI or LS	Movement of finished food products (animal feed) by transport BFI, TS or LS units	Local (district, interdistrict, regional, metropolitan) food markets and organization of outlets outside them	Strict compliance with the requirements of standards and technical regulations for safety and quality of primary products, agreed deadlines for the supply of raw materials to the BFI, the smooth sale of finished products to consumers	Efficiency is increased due to carrying out of all complex of technological operations "cultivation of agricultural raw materials - release of finished foodstuff", and also its realization in optimum terms and receiving profit

Continuation of Table 2

1	2	3	4	5	6	7	8
With the completed production cycle							
(five-, six-, seven-link)	BPP + BFI + SS + (LS) + TS + LSi; Organizational and legal forms of association of actors: food and trade corporations, international agricultural holdings	Contracts of international sale between actors of different countries; internal agreements between actors within the country	Movement of raw materials and finished products for warehousing and formation of transport and trade parties by their own logistics units	Movement of finished food products (animal feed), beverages and tobacco products by transport and logistics subdivisions of corporations or trans-European logistics structures	Markets of resident countries of food trade corporations and international agricultural holdings, export of finished products outside the region of location	Strict adherence to directives, standards and technical regulations on the safety and quality of primary products, agreed deadlines for the supply of raw materials for processing facilities, prompt sale of finished food products to consumers	Efficiency is high due to the full and timely implementation of the whole set of technological processes and operations "growing food raw materials - the production of safe and quality food products", its implementation in the optimal time and obtaining a higher margin
II. INTERSTATE (TRANS-NATIONAL **	BPP + BFI + SS+ (LS orLSi) + TS + LSi; Organizational and legal forms of association of actors: food and trade corporations, trans-European agricultural holdings	One-time or recurring supply contracts; collective agreements; standard contracts; export contract	Movement of raw materials and finished products for warehousing and formation of transport and trade parties by own logistics divisions	Movement of finished food products (animal feed), beverages and tobacco products by transport and logistics subdivisions of corporations or trans-European logistics structures	Markets of resident countries of food trade corporations and international agricultural holdings, export of finished products outside the region of location	Strict adherence to directives, standards and technical regulations on the safety and quality of primary products, agreed deadlines for the supply of raw materials for processing facilities, prompt sale of finished food products to consumers	Efficiency is high due to full and timely execution of all complex of technological processes and carrying out working operations in the substation "cultivation of food raw materials - release of safe and high-quality food products", its realization in optimum terms and reception of the increased margin.

Continuation of Table 2

1	2	3	4	5	6	7	8
Regional (actors of neighboring coun-tries with the par-ticipation of actors from Ukraine or within one regional association: Schen-gen area, BSEC, GUAM, etc.), (i)	BPP + BFI + SS + (LS or LSi) + TS + LSi; Organizational and legal forms of association of actors: food and trade corporations, transnational agricultural holdings	Foreign trade agreement (contract) for the supply of goods; contract for international transportation of finished products to trade structures	Movement of raw materials and finished products for warehousing and formation of transport and trade parties by own logistics divisions	Movement of finished food products (animal feed), beverages and tobacco products by own transport and logistics divisions of corporations or transnational logistics structures	Markets of resident countries of food trade corporations and interna-tional agricultural hold-ings, export of finished products outside the region of location	Strict compliance with the requirements of directives, standards and technical regulations on safety and quality of primary products, agreed deadlines for supply of raw materials to processing facilities, prompt sale of finished food products to consumers	Efficiency is high due to the full and timely imple-mentation of the whole set of technological processes and operations "growing food raw materials - the production of safe and quality food products", its implementation in the op-timal time and obtaining a higher margin

Source: developed, formed and systematized by the author.

* Symbols of key actors included (may be included) in food chains:

BPP - farms (business entities) of primary production (engaged only in the production of food raw materials);

BPPpdo – business entities in primary production (legal entities-entrepreneurs – (LEE), persons-entrepreneurs – PIF persons-personal farms - PF) with the primary processing or processing of their grown (harvested wild non-wood products) agricultural raw materials (fresh vegetables and fruits, berries, nuts, berries, mushrooms, etc.) for further sale;

BFI - business entities in the food processing industry;

SS – structures serving primary production (agrochemical, zooveterinary, engineering and technological);

LS - logistics structures (may or may not be in an independent (ie, be part of the SPD) meaning);

LSi - international (transnational) logistics (transport and logistics) structures;

IS – intermediary structures between producers of food raw materials (finished products) and its processors and implementers, distributors, other trade structures);

FBS - financial and banking structures (may or may not be independent);

TS - sellers (distributors, other trade structures) of finished products SHP;

BE - business entities (generic name of Legal entity entrepreneur, Individual entrepreneur, PF);

LFR- (legal forms of relations between BE) - oral agreements between BE, Agreements (agreements) between BE, at organizational and legal association of different BE under one "legal roof" (ie, LE) economic relations between BE are transformed into internal between separate units of the LE.

** Examples of international food chains with actors from Ukraine:

(i) - export of vegetable fats (oils) by rail to neighboring countries and its bottling for further wholesale, retail and retail trade;

(ii) - export of oilseeds and crude oil from Ukraine for further deep processing at EU oil refineries;

(iii) - import of tobacco raw materials from South American countries, its processing and production of tobacco products in tobacco factories in Ukraine (usually, the owners of tobacco factories in Ukraine are international tobacco corporations).

In general, the long-term development of agri-food chains in the agricultural sector of the economy should include a number of specific areas and approaches. The key, in our opinion, should be the following areas of development of agri-food chains:

for the simplest chains, it is extremely important to expand the number of their participants by joining the supply chain of actors with a completed production cycle;

expansion of the contingent of producers of primary products involved in the implementation of permanent procedures on the principles of HACCP, their testing with the participation of inspectors of the State Tax Service of Ukraine and registration of results by a special act.

Given the legal insecurity of PF, as well as the increasing occurrence of crises, both national and especially acute local scale, due to increasing turbulence in the domestic economy, to ensure the stabilizing role of agricultural service cooperatives (ASC), which are becoming widespread in dairy farming [19] himself in the Kiev region [20].

Conclusions. According to the results of the study, it can be concluded that in-depth or deep processing of food raw materials and sale of finished food products allows to include in the production of free labor resources of the village and thus ensure the formation of increased value added.

Today in Ukraine there is a need to expand the participation of PF in the formation and effective development of single-product chains, subject to outreach and advisory support of participants from regional branches of the National Association of Agricultural Advisory Services of Ukraine (NAASU) to participate in ASC, as well as appropriate approaches in respect of other members of the PF.

We believe that explanatory work among PF and sole proprietors, who work alone, on the feasibility and effectiveness of inclusion in agri-food chains will expand the range of potential and attract real producers to food chains.

Regarding agri-food chains, which create a high level of added value in both domestic and foreign markets, it is advisable to create favorable conditions for technological modernization of the production base of actors at the level of agricultural production and processing, support for export marketing, scientific and advisory support, formation of full logistics infrastructure with innovative elements. To this end, it is advisable for participants in agri-food chains to develop an effective economic mechanism for regulating material, financial and information flows at each level of the supply chain, which will be attractive for attracting new operators.

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Проблеми функціонування і напрями розвитку агропродовольчих ланцюгів в умовах посилення турбулентності

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В статті обгрунтовано науково-методичні підходи та принципи поширення, сформованість, результативність, ефективність функціонування та розвитку агропродовольчих ланцюгів. Визначено, що набільш значущого економічного та соціального значення агропродовольчі ланцюги набули за включення дрібних продуцентів у процеси практичної виробничої кооперації, що спонукало до виконання вимог, пов'язаних зі специфікою технології виробництва готової харчової продукції.

Основними чинниками, які провокують виникнення надзвичайно суперечливих і різнобічних явищ щодо розвитку агропродовольчих ланцюгів відносять: глобалізацію міжнародних відносин, активізацію турбулентних явищ і процесів у світовій економіці, вихід передових країн світу на нові економічні рубежі.

Для нинішнього етапу розвитку національної економіки непересічного значення набула практична реалізація однієї із ключових цілей Угоди про Асоціацію між Україною та Європейським Союзом. З метою періодичного проведення аудиту сертифікованих НАССР переробно-харчових підприємств, висвітлено уточнену структуру суб'єктів підприємництва, що забезпечують випуск готової харчової та іншої продукції.

Наведені розрахунки свідчать, що у 2018 р. в Україні продуцентами сільськогосподарської сировини виступали 49550 господарств/підприємств та 23822 фізичні особи-підприємці, які офіційно зареєстровані та представляють первинну ланку продовольчого ланцюга. Наступною ланкою агропродовольчого ланцюга є переробники сировини первинного виробництва, якими в Україні в 2018 році виступали 5872 підприємства та 10845 фізичних осіб-підприємців, із яких 157 підприємств і 1016 ФОПів виробляють нехарчову продукцію.

Проведений аналіз дозволяє зробити висновок про те, що нині у виробників продовольчої сировини склалася наступна ситуація: а) одна частина господарств первинного виробництва, що вирощують продукцію тваринного походження або ж організаційно зав'язані на реалізацію власної продукції переробним підприємствам, вже підготували і впровадили гнучкі чи спрощені постійно діючі процедури, сертифікували (чи тестували) свої потужності на відповідність мінімальним вимогам базових програм; б) друга частина, переважно ФОПи та ОСГ, продовжують працювати традиційно, тобто не звертаючи особливої уваги на вимоги часу щодо впровадження системних процедур безпечності.

Встановлено, що на практиці частина продуцентів продовольчої сировини, із різним рівнем щільності зв'язків, глибиною її перероблення та створення додаткової вартості, є вже включена в агропродовольчі ланцюги.

Враховуючи об'єктивно-існуючі тенденції спонтанного, на початковому етапі переважно сезонного виникнення, а в подальшому поглиблення та зміцнення взаємозв'язків між акторами, запропоновано ієрархію сформованості та сталого розвитку продовольчих ланцюгів.

Ключові слова: агропродовольчі ланцюги, економічна турбулентність, сільськогосподарська сировина, особисті селянські господарства, переробно-харчові підприємства, сталий розвиток, додана вартість.

Проблемы функционирования и направления развития агропродовольственных цепей в условиях усиления турбулентности

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В статье обосновано научно-методические подходы и принципы распространения, формирования, результативности, эффективности функционирования и развития агропродовольственных цепей. Определено, что значимого экономического и социального значения агропродовольственные цепи получили при включении мелких продуцентов в процессы практической производственной кооперации, что побудило к выполнению требований, обусловленных спецификой технологии производства готовой пищевой продукции.

К основным факторам, которые провоцируют возникновение чрезвычайно противоречивых и разносторонних явлений на развитие агропродовольственных цепей относят: глобализации международных отношений, активизацию турбулентных явлений и процессов в мировой экономике, выход передовых стран мира на новые экономические рубежи.

Для нынешнего этапа развития национальной экономики необычного значение приобрела практическая реализация одной из ключевых целей Соглашения об ассоциации между Украиной и Европейским Союзом. С целью периодического проведения аудита сертифицированных НАССР перерабатывающе-пищевых предприятий, освещена уточненная структура субъектов предпринимательства, которая обеспечивает выпуск готовой пищевой и другой продукции.

Приведенные расчеты показывают, что в 2018 г. в Украине продуцентами сельскохозяйственного сырья выступают 49550 хозяйств/предприятий и 23822 физических лиц-предпринимателей, которые официально зарегистрированы и представляют первичное звено продовольственной цепи. Следующим звеном агропродовольственной цепи являются переработчики сырья первичного производства, которыми в Украине в 2018 году выступали 5872 предприятий и 10845 физических лиц-предпринимателей, из которых 157 предприятий и 1016 ФЛП производят непищевую продукцию.

Проведенный анализ позволяет сделать вывод о том, что сейчас у производителей продовольственного сырья сложилась следующая ситуация: а) одна часть хозяйств первичного производства, выращивающих продукцию животного происхождения или организационно завязаны на реализацию своей продукции перерабатывающим предприятиям, уже подготовили и внедрили гибкие или упрощенные действующие процедуры, сертифицировали (или тестировали) свои мощности на соответствие минимальным требованиям базовых программ; б) вторая часть, преимущественно ФОПы и ОСГ, продолжают работать традиционно, то есть не обращая особого внимания на требования времени по внедрению системных процедур безопасности.

Установлено, что на практике часть продуцентов продовольственного сырья, с разным уровнем плотности связей, глубиной ее переработки и создания дополнительной стоимости, уже включена в агропродовольственные цепи.

Учитывая объективно существующие тенденции спонтанного, на начальном этапе преимущественно сезонного возникновения, а в дальнейшем углубление и укрепление взаимосвязей между актерами, предложено иерархию формированности и устойчивого развития продовольственных цепей.

Ключевые слова: агропродовольственные цепи, экономическая турбулентность, сельскохозяйственное сырье, личные крестьянские хозяйства, перерабатывающе-пищевые предприятия, устойчивое развитие, добавленная стоимость.

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