

## The role of institutions in the development of agriculture

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### Abstract

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The institutional structure of the agricultural sector is a complex socio-economic system containing economic, organizational, legal, moral and ethical elements. The development of society in the process of market transformation leads to a change in the role of individual institutions and their importance. The aim of the article is to find out the possibilities of institutional systems reforming in agricultural sector on the basis of Ukrainian experience.

In order to achieve this goal, the analysis of institutionalism theories evolution in the context of global development was provided and institutional estimation of the evaluation criteria of both individual types of institutions and the institutional environment of the agrarian sector of the economy was carried out. In order to substantiate main criteria for institutional transformations of the agrarian sector the authors have investigated the establishment and development of agrarian institutionalism in Ukraine and practical realization of the Ukrainian agricultural sector potential.

The methodological basis of the article rests upon fundamental premises of systems theory, structuralism and institutionalism. The analyzed agrarian transformations have not been completed; therefore they need further research in the process of creation as they perform a key role in the agricultural economy of the region.

*Keywords:* institutional system; formal institutions; informal institutions; agricultural (agrarian) sector; modernization

### Introduction

The notion of institutionalism appeared in the United States at the turn of the XIX-XX centuries as an independent trend in economic science. According to the representatives of this trend the concept of “institution” comprised a number of various factors (state, private property, entrepreneurship, monopolies, trade unions, families, customs) which determine habits, customs, and different decisions of individuals, business entities, organizations, and the state.

Institutionalists consider the driving force of the economy to be not only material factors but also spiritual, moral and legal agents that are viewed in the historical context. In other words, institutionalism regards both economic and

non-economic problems of socio-economic development as a subject matter of its analysis without dividing the research subjects (institutions) into primary or secondary ones and without opposing them to each other.

Within the methodology of this trend the terms “institution” and “institute” have been used to name phenomena of both economic and non-economic interpretation: the state, legislation, public organizations, customs, and family. The inclusion of these institutions into the field of economic analysis has expanded the interpretation of the economic science itself which united representatives of institutionalism with the German new historical school. The notions of “institutionalism” and “institution” were borrowed by the economic theory from law where they denoted a complex of legal

norms regulating social and legal relations. Institutions work in socio-economic space, make it suitable for living. They closely interact with each other and make a system, i.e. they form a framework of the economy in society. The system of national institutions has a multilevel character and covers all the society – from the entire population of the country to an individual citizen. Moreover, all levels of the institutional system are interconnected, so changes on one level immediately affect other levels. In other words, the role of institutions in society is to reduce uncertainty by establishing stable relations between individuals. Institutions are fundamental factors for long-term functioning of economic systems, and institutional boundaries influence the formation and development of various communities and organizations.

Real rapid development in the Ukrainian agricultural sector is only possible with the proviso of efficient institutional modernization and creation of proper institutional environment necessary for efficient economic activity in agriculture based on the strategy of general modernization of the industry. It is possible to build a competitive agricultural sector only with the help of coordinated work of agricultural enterprises of all forms of ownership, with the use of high-performance technology, energy conservation techniques and with highly skilled specialists.

Modernization of institutions is a complex process that may last for several years. It is to involve systemic transformations of all institutions – economic, social and political. In addition, every time the choice of modernization strategy and tactics is made one should take into account technological features of agricultural production. Upgrading the rolling stock technical potential, renewing soil fertility, genetic potential of livestock, meliorating and protecting land resources, introducing new zoned plant species are not subject to transformation, so they will require much more time for restoration.

Distinguishing features of institutional modernization will be influenced by the processes of the national economy market transformation and globalization challenges. At the same time, some of the key issues are the formation of a competitive domestic agricultural sector of the economy, the creation and development of informal institutions that will work together with formal institutions of the market economy to promote growth of the industry to a whole new level.

T. Veblen, one of the founders of institutionalism as a new trend in economic science that emerged in the late nineteenth and early twentieth centuries, gave it the following definition: institutionalism is a stable environment of social agreements, norms, contracts and motives of behavior established in the country (Veblen, 1934). There are a few approaches to be distinguished in institutionalism, one of them

being psycho-biological (Veblen, 1934) that promotes social Darwinism and which laid the methodological and theoretical foundations of institutionalism. Legal institutionalism is committed to common theoretical and methodological foundations (Commons, 1934), quantitative-statistical institutionalism is also identified as a separate approach (Mitchell, 1941). Later the idea of institutionalism as a theory of transformation was developed by A. Berle and G. Means (Berle & Means, 1967), F. Perroux worked on state dirigisme (Perroux, 1971) and suggested the idea to increase the role of the state in economy in order to better satisfy interests of different social classes.

It is methodologically and practically recognized that institutes and institutions in market economy should be considered in the context of institutional theory, distinguishing between the social and the economic. Thus, the concept of understanding the sense and role of institutions in a market economy stems from the methodological provisions of institutionalism and in particular from the evolutionary theory of determinants of the formation and functioning of socio-economic entities (Davis & North, 1971). Douglas North noticed that reducing uncertainty by establishing a permanent structure of human interaction is the main purpose of institutions. Their main task is to indicate ways for human interaction, they establish and limit the set of choices for individuals (North, 1991).

There is a complicated problem that needs attention when formulating institutional conditions for structural reform, namely achieving an optimal combination of stability and adaptability of its institutional environment. O. Williamson singles out the following initial characteristics of the institutional environment: the overall stability of existing property structures and rules of appropriation during the period of long-term investment; political and legal stability; impartial judicial system; culture of contracts and responsibilities (Williamson, 1991). D. Hume distinguishes some basic natural laws within the doctrine of natural law: stability of possessions, their transfer by consent, and performance of promises (Hume, 1969). The presented criteria of stability, formulated in relation to the institutional environment, can be taken as the basis for solving institutional problems of structuring the national economy. Ensuring adaptability of the institutional environment for structural reforms in the national economy as its ability to respond to dynamic challenges of public life and take into account stability of basic institutions should be taken into account when developing and implementing flexible institutional forms of the use of stable basic institutions potential. Examples of such institutional forms include progressive forms of property use within the framework of public-private partnership, cluster

formation, making various integrative entities. The next task which stems from the previous one is establishing clear algorithms for changing the rules – institutional forms. This is especially true for institutionalization of agreements, project development and implementation, agreement on sharing resources in the process of implementing structural policies.

### **Evolution of Institutionalism Theories**

Institutions provide equilibrium in a standard repetitive coordination game. What we call social institutions is not rules of the game, contemplated A. Schotter, but rather alternative rules of behavior or conventions formed around a game with certain rules. In other words, institutions are features of the equilibrium state of the game, and not feature of the game itself. We do not care about the content of the rules, only how they are followed by the players (Schotter, 1981).

F. A. von Hayek believes that morality is an institution that creates an information field directly for exchange relations that characterize economic behavior. The result of developing general moral norms is the emergence of an “extended order of human cooperation” (as he called the socio-economic system). Therefore, for proper functioning of the economic system the society requires a long-term existence of social institutions responsible for forming and disseminating moral norms. Without adopting appropriate norms of morality most members of society have no grounds for expanding human cooperation. The norms of morality, according to Hayek, are perceived by individuals in the process of imitation or education inside the family as the smallest part of society (Hayek, 1960).

In the 1950’s and 1960’s J. Galbraith’s so-called renewed institutionalism was developed. State interference, in his view, is necessary to solve main problems of modern economy based on contradictions between the system built on big corporations and the market system that includes small business, agricultural sector, health care, transport, etc. J. Galbraith considers the institution of a large firm to be the leading one as it has a well-managed organization enabling it to dominate the consumer, dictate the rules of the game in the market, and create demand for new goods (Galbraith, 1967).

C. Menard defines institutions as a set of socio-economic rules acting in current historical conditions and which individuals or groups of individuals can hardly change both in the short-term and in the middle-term. From the economic point of view these rules are intended to determine conditions under which individual or collective choices can be made for the allocation and use of resources (Menard, 2004). In his works C. Menard investigates differences between institutions, markets and organizations. In his view, institu-

tions are not coordination mechanisms and they help to define socio-historical conditions in which these mechanisms can develop (Menard, 2004). The ideas of institutionalism have become widespread in Western Europe, and since the 1990s they have been popular in Eastern Europe and Ukraine (the “new institutional theory”).

D. North, E. Furubotn and R. Richter interpreted this concept as “rules of the game”, which they understood as informal restrictions imposed on people’s relations (taboos, habits, traditions, codes of conduct) and formal norms (constitution, laws, property rights) (North, 1991; Furubotn & Richter, 2010). According to L. Davis and D. North, the institutional environment is “a set of fundamental political, social and legal ground rules that govern economic and political activity” (Davis & North, 1971).

D. North understands institutions as specially created restrictive safeguards regulating relationships between people. The way organizations emerge and develop is largely determined by the institutional framework, he argued (North, 1991). G. Hodgson further developed the views of this scientist on the essence of institutions.

Geoffrey Hodgson defines institutions as follows: “the systems of established and prevalent social rules that structure social interaction”. That is, institutions are the core of the system of social rules. The term “rule” here is interpreted in the broadest sense as a prescription or directive to do Y in situation X. They include rules of behavior, social conventions, legal and formal rules (Hodgson, 2003).

This provision can be interpreted as follows: medium-sized Ukrainian agricultural enterprises are characterized by low economic efficiency and competitiveness due to backward technologies and mechanisms (X). Therefore it is necessary to accelerate their modernization, in particular to introduce innovative technologies and upgrade transport and machinery (Y) (Hodgson, 2003).

However, G. Hodgson, unlike D. North, considers only durable and deep rooted rules to be part of institutions (Hodgson, 2003). Consequently, the ideas of D. North, G. Hodgson and J. Searle on the essence of the institution indicate that there are no fundamental differences in their views. All listed scholars interpret institutions as formal and informal rules (orders, guidelines), which, on the one hand, impose restrictions on people’s behavior, and on the other hand, give rise to new opportunities for choosing action options within these rules. The use of institutional methodology based on broad understanding of the phenomenon of socio-economic institutions combined with provisions of modern economic development concepts makes it possible not only to analyze various internal mechanisms of agricultural production but also to elaborate different parameters of the external environ-

ment that forms the context in which the agricultural sector has to function.

However, proponents of new institutional economic theory argue whether institutions should be considered as equilibrium, norms or rules (Aoki, 2001; Ostrom, 1995). But in fact, this conflict of interpretation arises within the intellectual tradition in which individual preferences or goals are regarded as given. They are relatively stable; institutions have balance qualities even if their equilibrium can be disturbed. The balance is restored and strengthened when benefits and goals are reflected in the outcome of institutional functioning. As for rules and regulations, it is not just the “environment” in which the (rational) agent must make decisions and act. They are subsequently transformed into advantages and are reflected in the individual’s behavior. Periodic, conditional behavior complying with the rules of the society has a normative sense if people accept the custom as something morally virtuous and thus contribute to the stabilization of institutional balance.

The proposition that institutions matter is embraced by institutional economists of all kinds, old and new. What distinguishes the new institutional economics from earlier (and some contemporary) work on institutions is that institutions are susceptible to analysis. Older-style institutional economics was content to critique orthodoxy and collapsed for failure to advance a positive research agenda (Coase, 1984). By contrast, the New Institutional Economics (NIE) envisions a much less perfect world than the one just considered. It presupposes the existence of positive transaction costs, the absence of a comprehensive set of futures markets, imperfect foresight, and the presence of boundedly rational economic actors (Furubotn & Richter 2010).

However, two institutional frictions have been empirically shown to hinder access to private enterprise: regulatory barriers to entry, such as government licensing and bureaucratic set up costs; on the direction of causality between institutional measures and growth. Institutionalists differ widely in how they define institutions and the respects in which they matter. Institutions are closely linked to sets of rules and norms of conduct both through explicit attempts at institutional design and through unintended evolutionary stabilization. For institutions are typically associated with specific logics of appropriateness that are irreducible to formal rationality. (Bromley, 1989; Chong & Calderon, 2000; Commons, 1936; DiMaggio & Powell, 1983; Djankov et al., 2002; Furubotn & Richter, 2010; Hodgson, 2003; Jessop & Nielsen, 2003; Klapper et al., 2004; Kuznets, 1973; Ostrom, 1990; Richter, 2005).

Ensuring objectivity of institutional analysis has an important aspect, i.e. the definition of criteria for assessing both individual types of institutions and the institutional en-

vironment of structural transformations of the economy as a whole. Given the purpose-oriented nature of the criteria, they should reflect characteristics of the institutional environment and its components that would contribute to the structural transformation of the national economy in terms of forming a structure capable of achieving the goals of socio-economic development. At the same time, we should not neglect methodological approaches to the study of the quality of institutions that take into account the following important aspects: firstly, the quality of institutions reflects the level of objectivity of the process within which they arise; secondly, the quality demonstrates how institutions perform their functions; thirdly, the quality of institutions is characterized by sufficiency and reliability of their intrinsic properties, the essential certainty of the institution itself (March & Olsen, 1989; Ostrom, 1986). Applying these approaches and taking into account the peculiar nature of the object of our study lead to the following criteria when evaluating institutions: achievement of target benchmarks for structural reform of the economy (the criterion of target efficiency); consideration of objective prerequisites for structuring the economy related to the behavior motives of economic relations participants and ensuring consistent progressive transformation of institutional conditions; optimal combination and performance of informational, regulatory, coordination, integration, control functions in directing the participants of economic relations towards achieving the structural balance of the economy; ability to establish and enforce compliance with the norms of relations that would contribute to determining directions for economy structuring and mechanisms for their implementation committed to the development of social capital (Baland et al., 2010; Vermeij, 2009; Witt, 2003).

The complexity of institutional of the economy structuring calls for objectivization of institutional analysis. In this context, the institutional analysis determined by the logic of the study has been carried out using the following methodological approaches:

- evolutionary, which enabled following the progress in the development of institutional support for solving structural problems and ensuring targeted structural changes in the national economy;

- systematic, based on the methods of identification, structuring, comparative analysis, synthesis, generalization, which made it possible to draw substantiated conclusions about the general institutional conditions of structural transformations of the national economy and the influence of individual institutions and their groups on these processes;

- subjective integration approach, which resulted in defining the main groups of economic interests whose implementation processes lay the foundation for structuring the

economy and which need certain subsystems of institutions for their implementation;

– synergetic, which is based on the study of nonlinear changes and processes of self-organization and has become an instrument for revealing options to achieve synergetic effects of institutional constituents within the framework of structural regulation; identifying prerequisites to achieve synergy in solving problems of structural reform of the economy; determining the development level of basic conditions for self-organization of market agents and their active participation in the processes of structural transformation; introducing efficient forms of interaction between authorities, business entities and the public.

### **Genesis of Agricultural Institutionalism in Ukraine**

The development of the agricultural sector of economy and its efficient functioning are determined primarily by the development of its institutions. T. Eggertsson believes that all major institutional changes are slow and newly formed institutions are the result of the transformation of socio-economic conditions shaping individual behavior and people's expectations. Economic systems evolve in the evolutionary way, and the choice of business forms and their market efficiency both in biological and technological systems depends on the model of previous development (Eggertsson, 1990).

The process of agricultural production between economic entities establishes certain economic relations which by their essence are a set of different elements of market economy. Nowadays agriculture, like the national economy in general, develops under the influence of objective market laws which calls for the study of various factors influencing their formation (Putsenteilo, 2011). According to Yu. M. Lopatynskyi, modern institutionalism studies and describes mechanisms of regulation, ordering social life, people's activities and behavior taking into account the totality of accepted social norms, customs, patterns of behavior (institutions); investigates the forms of organizations and the institutional structure of production, contractual agreements, etc. The subject under research in modern institutionalism is the institutional environment, forms of ownership, forms of management (Lopatynskyi, 2006). Efficient agricultural policies are essential to meeting increasing demand for safe and nutritious food in a sustainable way. While growth in demand for food, feed, fuel and fibres presents significant opportunities for agriculture, government policies must address challenges such as increasing productivity growth, enhancing environmental performance and adaptation to climate change, and improving resilience of farm households to market shocks brought on by weather and other unforeseen circumstances (Agricultural Policy Monitoring and Evaluation).

Most Eastern European countries, due to peculiarities of their historical development, faced urgent need to make decisive institutional changes aimed at ensuring economic growth of the agricultural business. However, the institutional environment that can ensure the agrarian business growth is developing slowly, with considerable deformations caused by certain negative phenomena. The existing structure of the institutional environment of the agricultural sector in these countries testifies to the need for revising strategic priorities of institutional transformation in the agricultural sector (Jiggins & Hunter, 1979; Tucker, Haupt & Stanley, 2015; Wise & Murphy, 2012).

Specific features of institutional changes in the agricultural sector in conditions of constant imbalances and tectonic changes lead to the destruction of domestic and foreign markets for agricultural products and have a huge impact on the development of the domestic economy (Adelman & Morris, 1979; Jansson, Huisman, Lagerkvist & Rabinowicz, 2013; Dalrymple, 2006). At the same time, peculiarities of institution establishment can be understood and evaluated only in the context of the whole set of institutional changes of the national economy. The transformation of the agrarian economy into the market one took place against the backdrop of fundamental institutional changes: emergence of various forms of ownership and patterns, complex interaction between old and new economic institutions, revival of economic traditions and emergence of new technologies, changes in the traditional role of the state in current processes (Polanyi, 2001). That is why the transformation of the agricultural sector and its entry into the world economic space require further gradual institutionalization of the economy.

We agree with the opinion of scientists such as Yu. Hubeni that the current unsatisfactory state of the agricultural sector is connected with insufficient institutional support of the agrarian reform and its further development. Hubeni emphasizes that while for most European post-socialist countries the agrarian reform and further agricultural policy have become a preparation stage for EU integration, we regard these components as a kind of self-aim, a "thing-in-itself", that has second-rate tasks (Hubeni, 2010). Thus, the failure to reform the agricultural sector of the economy can be explained by lack of proper institutional support, underestimation of the influence of informal institutions (i.e. traditions), low level of knowledge and legal education.

But it may be also true that the main obstacle to efficiency in this view is the tendency of governments, in the alleged quest to limit excesses of the ubiquitous middleman, to actually suppress entry and the natural evolution of appropriate institutions and entrepreneurship. Rather, government policy should be focused on increasing entry and fostering market

integration through appropriate contractual and physical infrastructure, as well as by providing market information and facilitating standards and grading (Roumasset, 2004).

Having studied institutionalists' theories about the prospects of institutional transformation in the agricultural sector of Ukraine makes it possible to draw the following conclusions. First, one cannot expect that insignificant preconditions created in the field of agriculture for the development of a free market exchange will facilitate its rapid development. Secondly, the actual development of the mechanism of market coordination is possible only after long socio-cultural evolution or thorough training in skills of civilized market behavior of a certain number of members of society. Thirdly, given the current trends and not the objective laws of social development, there is always a possibility of developing in the opposite direction. Fourth, because of the general civilization features of social development described above which are manifested in the fact that processes in the agricultural sector depend on trends in the industrial sectors, agricultural interests will be influenced by different interests of industry.

So, it is possible to conclude that institutionalism is a relatively new specific trend in economic theory which encompasses the economic component along with social, legal and political factors that are appropriate to be used in the agricultural sector of the Ukrainian economy. At the same time, the system of institutions is closely connected with two other major public systems: the system of interests and the system of expectations. The system of interests brings together all levels, spheres, and branches of the economy and embraces interests of the industry, corporations, enterprises and individual business entities of the agrarian field. Expectations, respectively, reflect these subjects' vision of possible reactions of other interested groups to certain changes. Agrarian entrepreneurs expect the state to protect their interests; the state expects them to have a friendly attitude to its own initiatives. If the system of mutual expectations in the country is seriously violated it brings about hidden tensions to the economy, if it is accompanied by violation of interests then a small impetus can ruin the entire structure. Institutions should not conflict with the systems of mutual expectations and interests of the society.

As any complex multilevel system, economic institutions need some kind of classification. There are a few levels of the system.

The first level of the institutional system includes institutions that directly affect adaptation to certain conditions of economic agents – economic entities (state, households). The second level of economic institutions is made up of economic entities and households themselves that have a complex system of economic and social goals (maintenance of constant

solvency, increase of capital profitability, competitiveness growth of products, creation of appropriate working conditions for employees, ensuring favorable microclimate, etc.).

The process of social reproduction provides exchange of business information between the main subjects of economic activity (business entities, banking sector and government-structures). Their actions in the context of globalization must be coordinated by international institutions that constitute the third level of the institutional environment. The fourth level of economic institutions includes the oligarchic top that lobbies its own economic interests with the state authorities and holds a dominant position in many branches of the economy. The fifth level most often has government bodies, large multinational corporations, international governmental and non-governmental economic and financial organizations that influence global transformation processes.

Institutional changes require systematic efforts and expenses over a long period of time based on well-balanced, well-formulated, updated programs. If there are no such programs, the expected changes are not occurring or are delayed and they come with high expenses. That is what actually happened in the agricultural sector of the Ukrainian economy.

'Institutional' failures are seldom well defined, but discussion in the WCA tends to focus on the effectiveness of political institutions and the organisational capability of governments (including issues such as freedom of association, transparency, accountability and the extent of devolution of decision-making) and the strength and effectiveness of civil society organisations, such as farmers' organisations and NGOs. Policy failures are generally conceptualised as the suppression of agricultural incentives through: (a) 'economy-wide' policies (i.e. macro, trade and industrial policies) which discriminate against agriculture; (b) excessive explicit taxation of agriculture (mainly via commodity levies); (c) support for agriculture that has been quantitatively inadequate while also inefficient, the latter because of excessively state-dominated and centralised rural service provision delivered through structures that are prone to rentseeking and discourage the emergence of private services; and (d) urban bias, which is a policy failure consequent on the weaknesses of political institutions (Kydd & Dorwar, 2001).

### **Practical Realization of the Potential of the Ukrainian Agricultural Sector under the Influence of Institutional Transformations**

The institutional structure of the agricultural sector is a complex socioeconomic system that includes economic, organizational, legal, ethical and other elements. There are several different groups of institutions.

From the conceptual point of view the essence of the agrarian structure is determined by forms of ownership and legislative acts which are the basis for the whole system of production relations. The organizational and legal form of economic entities plays a significant role. Accordingly, there were similar changes in the agrarian structure: the share of collective farms in the gross agricultural output decreased and the share of private farms and households increased.

Institutional relations in the agricultural sector of Ukraine are formed in the process of interaction between economic agents and entities and are the main mechanism for satisfying and harmonizing their diverse interests on the basis of prevailing norms in society. The agreement between the participants of interaction is achieved with the help of conciliation procedures, cooperation agreements and formation of balanced priorities in the development of economic relations in the agricultural sector. Higher level of consistency of interests makes the economic activity of entities more efficient, since transaction costs are definitely reduced. Subjects of interaction in the agricultural sector are agricultural cooperatives, financial industrial groups (FIG), agroindustrial holdings, agro-industrial complexes, agrarian clusters and individual producers. Large agribusinesses and agrohholdings as economic entities are more actively involved in cooperative relations and institutional interaction. As an efficient form of economic activity, they have a high degree of adaptability, are able to respond flexibly and promptly to economic, institutional and market changes. Integrated structures (clusters) are multifunctional and more capable of developing competitive relations. In the concept of developing the domestic agrarian economy, the agrarian cluster is defined as a system of interconnected forms of activity organization (agricultural enterprises, private farms, peasant household, etc.), united by the goal to solve environmental issues and introduce innovative technologies that turn “waste” into resources for efficient agricultural development. The efficiency of interaction of entities in these integrated structures depends on the choice of relationship models and principles –both institutional and economic.

Consequently, development of market principles in agricultural production requires creating special conditions. Such conditions can be supported by two main driving forces: 1) based on active interest of agricultural producers themselves; 2) through appropriate measures of state institutional policy.

The institutional structure of the domestic agricultural sector is characterized by existence of historically formed independent entrepreneurship on land that has been preserved in the informal economy of private peasant households, which, under certain institutional conditions, can transform into farm partnerships and enterprises.

There are main groups of producers of agricultural products in agriculture of Ukraine: agricultural enterprises, farms, households:

- agricultural enterprises are enterprises that operate mainly on leased land and oriented to commodity production. This category includes joint-stock companies and subsidiary companies, private companies controlled by an entrepreneur-owner of private assets, etc. This category comprised about 12,000 enterprises in 2018, including small forms of economic activity, which carried out economic activities in the reported year and they employ approximately 60% of agricultural land value;

- farms are a form of entrepreneurial activity of citizens who have expressed a desire to produce commodity agricultural products, to carry out their processing and realization in order to generate profit on land plots given to them by property and / or use, including lease, for the management of a farm, commodity agricultural production, personal peasant economy, in accordance with the law. At present, this category has about 33.500 farms, which cultivate up to 10% of agricultural land;

- households – households engaged in agricultural activity both for self-provision of food products and for the purpose of production of commodity agricultural products. This category of producers is also referred to as individual entrepreneurs who carry out their activities in the field of agriculture (Putsenteilo et al., 2018).

Moreover, it is necessary to create qualitatively new formal institutions:

- new organizational forms of land management;
- improve existing state bodies and organizations that would ensure land cadastre management, regulate purchase and sale prices, make interventions of agricultural products and monitor prices;
- state control bodies of veterinary, ecological, epidemiological supervision, etc;
- financial organizations that would provide loans, insurance and reimbursement to the agrarian sphere.

In these conditions there arises an urgent problem of finding efficient strategies, mechanisms and tools for institutional transformation in the agricultural sector and developing theoretical, methodological, organizational and economic principles of adaptation to the systemic transformation of the economy at the present stage.

Restructuring would not by itself bring about agricultural development. Its effectiveness depends on supplementary measures taken to transform the overall legal, institutional, and economic framework, in order to create a more favorable environment for agricultural development. Among the measures that must be taken to support the restructuring process, it is important to note:

- the reform of legislation on professional agricultural organizations and associations
- putting into place a system of agricultural credit capable of mobilizing rural savings, administered by farmers, and responding to the needs of different categories of farmers
- restructuring of agronomic research, to take into consideration the problems of producers
- the reform of agricultural education and training; the continuous adaptation of program contents, methods and formula in response to the needs of rural development
- restructuring all public institutions, civil service reform and the reform of the formulation and implementation of budgets (Bonnal).

Current analysis of the state of the agricultural sector confirms that its institutional transformations are carried out without a unified systematic approach based on a well-developed, precise methodology and integrated process evaluation. Scientific assumptions for solving this problem, defining methods and mechanisms of market transformation of institutional processes, regarding the formation of a new social structure of the agricultural sector in particular, are quite contradictory.

There are more than 200 holdings in the agricultural sec-

tor of Ukrainian economy, 100 of which have from 15 to 650 thousand hectares of land use. They produce one third of Ukrainian grain, provide 35% of its export and use 30% of agricultural land in Ukraine.

The structure of agrarian enterprises is characterized by prevailing of such an organizational-legal form as private farms – 71.2-73.3% of the total number. The second form in terms of quantity is business partnerships whose share is 13.7-17.0%, the third place is taken by private enterprises – 7.1-8.0%. At the same time, there was a decrease in the level of co-operation among economic entities, the share of cooperatives being 1.3-2.6% of all the agrarian enterprises. The proportion and consequently the role of state enterprises and enterprises of other types of business is rather small, they account for 0.5-0.7% and 1.3-2.6% respectively. The analysis of trends and changes in the number and share of agrarian enterprises in terms of their organizational and legal form during the period from 2012 to 2017 demonstrates growth only in the form of private farms by 102 units from the level of 34035 to the level of 34137 units which made 0.3%. All other organizational forms showed a decrease. The number of cooperatives fell most dramatically from 848 to 448 units, i.e. by 400 units or by 47.2% (Table 1).

**Table 1. Number of enterprises engaged in agricultural activity according to organizational and legal forms of business**

Years	2012	2013	2014	2015	2016	2017	Divergence from 2017 to 2012	
							+/-	%
Total	49415	49046	46199	45379	47697	45558	-3857	92.1
Business partnerships	8235	8245	7750	7721	8700	6967	-1268	84.6
Private enterprises	4220	4095	3772	3627	3752	3215	-1005	76.1
Cooperatives	848	809	674	596	738	448	-400	52.8
Private farms	34035	34168	33084	32303	33682	34137	102	100.3
State enterprises	296	269	228	241	222	199	-97	67.2
Enterprises of other types of business	1781	1460	691	891	603	592	-1189	33.2

Source: State Statistics Service of Ukraine

**Table 2. Basic indicators of agricultural enterprises activity**

Years	2013	2014	2015	2016	2017	Divergence from 2017 to 2013, %
Financial results before taxation, mln UAH	15012.7	21495.9	101996.1	90122.1	78786.1	524.8
Enterprises which got profit before taxation						
percentage to total number	80.3	84.8	89.0	88.4	86.7	107.9
Financial result, mln UAH	26252.3	51744.1	127609.0	102788.8	92072.7	350.7
Enterprises which got loss before taxation						
percentage to total number	19.7	15.2	11.0	11.6	13.3	67.5
Financial result, mln UAH	11239.6	30248.2	25612.9	12666.7	13286.6	118.2
Profitability level of all types of activity, %	8.3	9.3	30.4	25.6	18.7	225.3
Profitability level of operating activities, %	11.7	21.4	43.0	33.6	23.5	200.8
Number of employees, thsd. persons	579.8	528.9	500.9	513.2	496.1	85.5

Source: State Statistics Service of Ukraine, (1 EUR- 33.4 UAH in 1.01.2018)

In general the period from 2013 to 2017 saw improvement in indicators of agrarian enterprises economic activity (Table 2). Thus, there was a net profit growth of 416.7% (up to UAH 92.1 billion). The share of profitable enterprises in the total number of business grew from 69.8% to 86.7%. The increase of profitability rates was 1.2% (from 17.5 to 18.7%). The development of economic processes in agrarian enterprises was also accompanied by reduction in the number of employees by 23.2% to 496.1 thousand people.

The volume of produced agricultural products of Ukraine is shown in Table 1 and Table 2.

Speaking of cooperatives their following types have become most widespread (Table 3):

- multifunctional cooperatives (44.5%),
- service (27.6%),
- harvesting and sales (13.8%),
- processing (6.1%)
- others (8%).

Thus, from the standpoint of institutional economy food production, on the one hand, ensures health and well-being of the nation, and on the other hand, it stimulates the development of socio-economic relations between different subjects of the economy. At the same time, the transformation of agrarian relations during the long period of modern economic reform in Ukraine did not adequately provide necessary institutional changes and modernization of productive forces relevant to the new model of national agriculture. Transformational changes in the agricultural sector during the reform have ambiguous features. For one part, there are prerequisites for a variety of management forms and increasing motivation for more efficient work, and for the other part, destructive processes in reproductive and technological structures are intensifying. As a result, the agricultural sector

**Table 3. Agricultural production of Ukraine in 2010 prices; mln UAH (1 EUR- 11.4 UAH in 1.01.2010) State Statistics Service of Ukraine, 2018)**

Years	All agricultural holdings		
	agricultural production	of which	
		crop production	animal production
2010	187526.1	120591.4	66934.7
2011	225381.8	157561.9	67819.9
2012	216589.8	145843.6	70746.2
2013	246109.4	172131.2	73978.2
2014	251427.2	177707.9	73719.3
2015	239467.3	168439.0	71028.3
2016	254640.5	185052.1	69588.4
2017	249157.0	179474.6	69682.4

Source: State Statistics Service of Ukraine

proved to be uncompetitive in some industries according to its quality indicators. This vividly manifests that both scientific fundamentals (theory, methodology, methods) and reforming practice (strategy and tactics of reforms) in agriculture were not always adequate to the properties of the objects under transformation. That is why agrarian transformations are incomplete.

The main direction of the new economic strategy for the agricultural sector development should comprise a complex of institutional reforms that would involve simultaneous and interconnected transformations of basic institutional conditions of economic activity in the country – the system of relations between economic entities and guaranteeing the implementation of contractual obligations; the system of business relations with the state authorities including the authorities of administrative regulation of economic activity; the fiscal system; subjects of the financial sector of the economy, etc.

Institutional reforms should be directly linked to the change in the paradigm of the Ukrainian agricultural sector development. The core of the newest paradigm of the agricultural sector presupposes that the state takes on the initiative of creating favorable conditions for agrarian enterprises whose economic activity facilitates growth of employment, revenues, exports and tax revenues. Alternatively, a business that does not benefit society in terms of tax revenues and employment has to wind up its activity. For that purpose the state should use all available tools of its economic policy: fiscal levers, credit system, and administrative regulation of the use of state-owned resources.

When a more fundamental approach is taken, one finds substantial evidence that institutional change evolves in much the same way as would be warranted by efficiency. A healthy respect for institutional evolution leads to the conclusion that governments should stop trying to engineer behavior and organization. Rather the focus should be on facilitating economic cooperation through the provision of information, a legal infrastructure, and opportunities for multilateral cooperation. The prerequisites for cooperation will render the timehonored strategy of pushing agricultural development through investments in research and infrastructure even more effective, especially if modern principles of public administration are employed (Laffont & Tirole, 1999).

## Conclusion

Market transformation of the economy should be based on main criteria for carrying out institutional transformations:

*The criterion for choosing the main trend* means specifying the main direction of institutional transformation that

is going to determine the efficiency of the agricultural sector and focus of all efforts of state authorities.

*The criterion of a scientific approach* involves the use of latest achievements of institutional economic theory in the course of market transformations, the implementation of practical experience of institutional transformations in developed countries.

*The transparency criterion* (information publicity) provides free access to information on predicted changes in the institutional sphere. Ensuring transparency and clarity of legislation processes, their changes and possibility to compare will be instrumental in creating conditions for efficient institutional transformations.

*The criterion of consistency* (enforcement) means creating mechanisms for implementing institutional transformations, continuous monitoring and elimination of various problems.

*The criterion of complementarity and phasing* of institutional transformations implies that the activity of newly formed institutions will be coordinated with the work of the existing institutions.

*The criterion of innovation of institutional transformations* involves management of institutional innovations, their regulation, support and stimulation in various sectors of the economy and social sphere.

Using these criteria will provide for managed institutional transformation of the agricultural sector and its efficient development in modern conditions.

Institutional changes take time. The only way to speed up their implementation is to properly use economic, technological, organizational and managerial knowledge. High significance and necessity of studying institutional changes can be easily seen in many developed countries where the knowledge of institution development accumulated during the reforms has enabled them to make remarkable progress in economic and social development in recent decades. It is possible to use this experience for reforming the institutional systems of the Ukrainian agricultural sector, but it must be borne in mind that each country has its own peculiarities in creating institutions due to different socio-economic, political and technological circumstances. Therefore, it is impossible to transfer foreign agriculture institutions to Ukraine without any changes. The only good recipe for proper reforming is to develop a synthesized approach that combines both domestic and foreign experience of reforming and is based on a comprehensive analysis of the existing institutional system. Such synthesized approach should also include working out the main development vector for both the whole institutional system and its individual parts.

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