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Methodological Principles of Clustering in Agricultural Sector of Ukraine

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Abstract

The methodological principles of formation of agricultural sectors in Ukraine have been studied. The essence of agricultural clusters, their functions and the possibility of applying cluster policy in the globalized world has been specified.

Keywords: cluster, cluster policy, agricultural cluster, clusterization

Introduction

The experience of developed countries shows that a cluster approach naturally leads to competitive recovery in the countries and their regions. The deepening of global integration processes and the aggravation of territorial competition necessitate updating of mechanisms for stimulating the development of Ukrainian regions, particularly when clustering, quite new and underinvestigated for the domestic state administration, is taken into account.

The agro-clusters play an important role in converting agricultural enterprises to the innovative principles of economical advance. They will contribute to increasing the aggregate potential of agroindustrial complex due to the formation and development of high-tech, innovative production, resulting not only in the production of competitive products with high added value, but also in the creation of knowledge-intensive workplaces, construction of modern infrastructure facilities for industrial and social purposes in agricultural areas (Derii, 2014).

Recent research and publications analysis

The present-day global experience in the formation of cluster-based policy and the creation of territorial clusterings in the field of agroindustrial production is reflected in the writings of the national scientists the works of Derii, Ostapenko, Ulianchenko, Dehtiarenko, Vyshniakova, Hriadov, Pushkar, Fedorova and others could be singled out. The works of these scientists are devoted to the problems

of the clusters organization and management; the impact of cluster policy on competitiveness and on competitive position of the regions and the country as a whole.

Despite the significant theoretical and methodological advances, there is no significant positive trends in the development of clusters achieved in the national agroindustrial sector today. In this connection, studies of the feasibility and definition of the preconditions for the activation of cluster initiatives as a basis for raising the level of aggregate capacity of the agroindustrial complex become of an increasing importance.

The purpose of the article is to generalize the methodological principles for the formation of agro-clusters in Ukraine, taking into account foreign experience.

Presentation of the basic material

The “cluster” concept within the context of economy appeared in Ukraine more recently, but it is already actively used in various spheres. In essence, a cluster is an association of active and interested structures in a particular industry for rival of products and profitability increase, constraining and limiting factors decrease and the development of the industry in general. The clustering organization has been well established in many countries, including the field of agriculture. In Ukraine, this trend also began to develop and gain pace. The conceptual idea of forming an agro-cluster is the transition to a new form of relations between enterprises and authorities; orientation on the development of cooperation between the cluster participants; understanding competition not as a “struggle for existence”, but as a “win-win partnership”; intensification of knowledge and experience imparting (Ulianchenko, 2015).

The reality is that the countries of the world experience high clustering of economic activity in the last decades. No wonder E. Toffler called clustering the third wave of the twenty-first century, because cluster integration contributed to the introduction of innovations and led to the competitiveness of many countries. An example of many districts where clusters are located has attracted the interest of local, regional and national executive bodies in many countries, which motivates them to adopt cluster-oriented policies. The degree of clustering of economic activity is high enough. World experience has shown that a cluster approach is able to increase the effectiveness of interaction between the private sector, the state, trade and professional associations, research and educational institutions in the innovation process. Publications by a number of experts regarding the analysis of global clustering processes indicate the high efficiency of cluster associations, their decisive influence on accelerating economic development (Dehtiarenko, 2010).

The development of the cluster economy is closely linked to the Local Economic and Employment Development Programme and the Central European Initiative. The Visegrad Group countries clustering was carried out in several stages: The first stage was an IFC experts survey, which revealed the main obstacles to the development of these countries. By the way, the identified obstacles are also characteristic of the Ukrainian economy: high tax rates, lack of funding, growing inflation, political instability, high level of corruption and imperfect antimonopoly legislation; the second stage is the adoption by the EU of the “Declaration on the Strengthening of Economic Cooperation in Europe” and the “Action Plan”. These documents provided for the solution of the problem of assisting with new production systems based on networks and clusters sequential formation; of elimination of regional tensions, and of increasing the dynamism of production, labour, life support conditions. The third stage is the implementation of the territorial development process and the use by governments of the countries the most effective methods of establishing a dialogue between the public and private sectors on various aspects of trade, investment, transport networks and power grids. According to Tsyhan, the countries of the European Union adopted the Scottish model of the cluster, in which the core of such joint production is a large enterprise, amalgamating small companies. But the Italian model – more flexible and equal cooperation between small, medium and large businesses – is also used (Vyshniakova, 2011).

The experience of the European Union states that clustering is one of the conditions for increasing the regional and national economies’ competitiveness. Finland’s economy is completely clustered (nine clusters are singled out there). The Netherlands’ economy is “divided into” 20 megaclusters, on the basis of which the priorities of the state’s innovation policy are determined. Denmark has 29 clusters, with 40% of all national companies, which provide 60% of exports. Austria has transborder clusters with Germany, Italy, Switzerland, Hungary, cooperation with France and Great Britain is intensified. Germany has established industrial clusters. Slovenia has adopted a strategy for increasing the competitiveness of industry and developed a program for the national cluster development. About 60 interstate, regional, national, and non-governmental organizations are united into a European cluster alliance, which operates on the basis of the European cluster memorandum (Hriadov, 2009).

World experience shows that the macroeconomic policy of developed countries primarily focuses on the strategy of cluster and other territorial industrial associations and structures formation (Table 1), and thus provides a significant economic growth of economic entities, integrated in this way (Pushkar, Fedorova, 2011).

Table 1. Basic sectors and industrial and manufacturing clusters of developed countries

Basic industrial sectors in creating clusters	Countries in which sectoral clusters are created
Electronic technologies and communication, informatics	Switzerland, Finland
Software	India
Financial Sector	East London, UK
Biotechnology and bioresources	Netherlands, France, Germany, United Kingdom, Norway
Pharmaceuticals and cosmetics	Denmark, Sweden, France, Italy, Germany
Agro- and food production	Finland, Belgium, France, Italy, the Netherlands
Oil and gas complex and chemistry	Switzerland, Germany, Belgium
Machine building and repair, electronics	Netherlands, Italy, Germany, Norway, Ireland, Switzerland
Healthcare	Sweden, Denmark, Switzerland, the Netherlands
Communications and transportation	Netherlands, Norway, Ireland, Denmark, Finland, Belgium
Power engineering	Norway, Finland, Saudi Arabia
Aviation and space industry	France
Construction	Finland, Belgium, the Netherlands
Education, research-science-technology parks	Germany, France, Finland, Austria
Light industry	Switzerland, Austria, Italy, Sweden, Denmark, Finland
Wood-pulp and paper industry	Finland

In Ukraine, the process of clustering is slow, because the government does not pay due attention to this. Therefore, today, the state and its government face the following priority tasks regarding the clustering of the national and regional economy:

- to ensure the development of an appropriate legal framework for the creation of favourable conditions for the development of business activity in Ukraine with a special emphasis on supporting network structures (clusters);
- to inform and prepare representatives of the public sector, business circles and institutions created to support cluster and network associations through seminars and trainings aimed at the more rational development of network structures (clusters);
- to make optimal decisions on public and private sector structures integration to create environmental friendly products and a healthy environment for the population;
- to increase the role of non-governmental, non-profit organizations, business associations focused on the formation of a favourable business environment in the development of network structures (clusters);
- to act as an intermediary and catalyst for cluster initiatives in various spheres of the economy.

The drafts of regulatory and legal acts concerning the formation of state policy principles in the field of economic clustering are developed but not approved. They are: “Concept of Clusters in Ukraine” (Ministry of Economic Development of Ukraine, 2008), “National Strategy for the creation and development of cross-border clusters” (Ministry of Regional Development and Construction of Ukraine, 2009). In the existing normative legal documents concerning national

agricultural policy there is no regulation of the agro-clusters activity. Thus, there are no mention of agro-clusters in the Law of Ukraine “About the basic principles of the state agrarian policy for the period till 2015” and in the “State Target Program on Village Development of Ukraine for the period till 2015”. Only the draft law of Ukraine “On agriculture” stipulates that “interfarm institutional and management structures may be formed in agriculture in the form of self-governing business associations of cooperative farming and cluster regional cooperation in the organizational and legal forms of corporations, associations, consortia”. At the same time, supporting the development of clusters, including in the agricultural sector, is one of the priorities of regional economic policy. The development of agro-clusters was recognized as one of the most important directions in the development strategies of many regions. The lack of legal regulation of the cluster production formation, the recognition of the cluster as a self-governing economic association of enterprises makes it impossible neither to extend the existing specialized state-supported programs to the clusters nor to develop new ones. As a result, in Ukraine there are only a few examples of introducing and functioning of agro-clusters, which are mainly an initiative of commodity producers and based on the experience which they gained from the world practice of cluster development (Sobkevych, 2015).

According to economic science experts, the agro-clusters are effective due to the fact that their nature is organizational, combining specialization with concentration, which is impossible without being up-to-date, so the nature of clusters is objectively innovative. The priority task in the given aspect of innovative structures positioning is the development of clusters in such areas as rural green tourism, organic production, certain type of products highly specialized manufacturing and innovative activity. Agrarian clusters have a number of advantages over other forms of integration and make for the development of the agricultural sector with the following:

- boosting of enterprises’ productivity through better access to farm labour and suppliers, specialized information, institutions and expansion of commodity markets;
- stimulating innovation through cooperation with specialized higher education institutions and relevant research institutes;
- the ability to introduce rapid changes and sufficient flexibility, lower cost of the experiment, sustain competition and take up the other cluster participants’ pressure;
- minimizing risks through their mutualizing with other cluster participants;
- internal coordination of actions of the cluster participants, which contributes to the efficiency of the outside investments use, to the creation of enterprises due to better visualization of the niche for new enterprises, to availability of the necessary raw materials, complements and farm labour;
- infrastructure development in rural areas (Sydorov, 2017).

It was not until fairly recently that clusters began to be introduced in Ukraine, but there are already examples of this model use: in the Khmelnytskyi region, the cluster of rural green tourism, “Oberig”, which unites 10 agrovillages, has been created; the project of the ecological products producers cluster is being launched in Poltava region; a Ukrainian-Romanian “First Agrarian Cluster” was created in Chernivtsi region for the cultivation of fruit and berry products and for gardening development; in the city of Rivne there is a regional agro-industrial innovation cluster “Ahroinnovatsii”, and also a “Natural milk” cluster operating here; its founders are 7 agricultural enterprises of Rivne, Ternopil and Lviv regions; a processing and food cluster was created in Vinnitsa region. This form of organization has proven itself well in many countries and gradually enters the national market.

Conclusions

The cluster approach is one of the decisive global trends in the development of an innovation-oriented economy, especially in its agricultural sector. We believe that joint development of the strategy of cluster development in agriculture, its proper legal and organizational support, taking into account the principle of public-private partnership and decentralization, can have a positive effect and facilitate the introduction of a cluster innovation model of agricultural development. The analysis and synthesis of theoretical and practical sources devoted to this problem allows us to state the benefits of using the cluster approach to increase and effectively realize the aggregate potential of the agro-industrial complex of Ukraine. The benefits of cluster policy for public authorities are the ability to comprehensively examine the situation in a group of interrelated enterprises.

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