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Conference on Land Economy and Rural Studies Essentials**CLUSTER APPROACH TO FOOD SECURITY GOVERNANCE OF
THE REGIONAL AGRO-INDUSTRIAL COMPLEX**

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Abstract

Production structure improvement, optimizing the organizational structure of food systems and economic mechanism development of joint activity results distribution should be viewed as the main tendencies of the economic policy development within the integrated process of food security governance in the regional agro-industrial complex functioning. An important role in ensuring food security in Russia is played by the Tambov region that has favorable conditions for the production of many types of agricultural products. In terms of gross agricultural output, the Tambov region ranks 11th in the Russian Federation. Implementation of the priority national project "Development of the agro-industrial complex" and State programs for the development of agriculture and regulation of markets of agricultural products, raw materials and foodstuffs made it possible to increase the production of many types of agricultural products: grain, sunflower seeds, sugar beets, potatoes, livestock and poultry (in carcass weight). However, during the same period, the region's production of vegetables, fruits, milk and eggs declined. With a significant decrease in the average per capita level of nutrition in Russia in recent years, there are high potential opportunities for an increase in demand for food with an increase in real incomes of the population and with stabilization of prices. This should stimulate an increase in production and an increase in the efficiency of the agro-industrial complex.

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Keywords: Agricultural cluster, cluster approach, food security governance, integration process, integrated structure, regional agro-industrial complex



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1. Introduction

In the current working environment and economic context there are three types of the capital functioning separately from each other due to the disintegration of entrepreneurial interests: financial capital is allocated in banks; productive capital is concentrated at production enterprises; turnover capital which circulates at enterprises selling their products. Scientific and technological progress, industrial development of agriculture create objective conditions for capital concentration at large organizations, able to take into account all the production factors efficiently and to apply resource and energy saving technologies (Groshev et al., 2019; Ivanova & Merkulova, 2018; Kulikov & Minakov, 2018).

Organizing large corporations, which can easily attract the investments, is considered to be one of the strategic trends in the agricultural sector development that allows to implement the agrarian policy and to provide food security of the regional agro-industrial complex. The task of the integrated economy is to balance the return rates of its participants. Each participant's pro rata contribution into the overall result of the integrated association, judging by the standard value, is considered as the criterion of equal profitability in exchange relationships (Groshev et al., 2019).

Agro-industrial integration development is a complex objective economic process, which is connected with the social division of labour on the one hand, on the other hand it deals with the cooperation necessity among different branches and types of agricultural and industrial production. Agricultural enterprises participate in the integration process, trying to avoid risks caused by the specific features of agricultural production, its dependence on the weather and climatic conditions and unpredictability of the agricultural market. Food production enterprises as well as other organizations of the agro-industrial complex wish to get a regular income due to the reliable raw materials supply or a sales market of the products or services. In practice agricultural organizations are often founded on the agro-industrial complex managerial bodies' initiative. Therefore, it is very important for the integration process to be carried out on the voluntary basis not under constraint or as a new stage of reforming the agro-industrial complex enterprises. Due to the lack of the state investment resources integration process under the management of the private capital owners is getting stronger involving the most efficient branches (Antsiferova et al., 2019; Karamnova & Belousov, 2019; Maksimova, 2015).

2. Problem Statement

In the formation of effective and competitive agricultural production capable of ensuring the country's food security, an important role is assigned to such integrated structures as agricultural holdings that produce agricultural products, process them and sell them on the basis of holding relations. The formation of these integrated structures has its own fundamental features and difficulties. Regional conditions for the development of the agro-industrial complex play an important role in this.

3. Research Questions

This work considers the main aspects of the creation and functioning of large agro-industrial associations in the context of the formation of an import substitution policy in Russia.

Assessment of the comparative efficiency of enterprises of different sizes in the countries of the

world and in Russia shows the indisputable advantages of large-scale industries, including, in particular: better, in comparison with small enterprises, financial opportunities to acquire and effectively use modern expensive equipment and technologies; less need for machinery, equipment per unit of the cultivated area, and, consequently, greater workload and efficiency of use in the production of technical means; increasing the productivity of agricultural production, reducing the cost of production due to economies of scale and reducing the share of fixed costs in the price of products; better use of the resource base of the agricultural sector; more favorable conditions for credit borrowing; much greater opportunities for the implementation of an innovative way of development of production; better conditions for rationalizing the production and economic process on the basis of the optimal size of the main production and service structural units, their specialization and geographical location; the presence of prerequisites for the introduction of a closed cycle of production, processing and sale of products in order to oust intermediaries and maximize profits; the possibility of attracting highly qualified managers and specialists on terms of high pay and creating a complex of social and living conditions; availability of funds to improve working conditions, everyday life, professional and cultural development of employees through the introduction of new technologies, the influx of young specialists.

In accordance with this, the following issues are considered in the work:

- problems of functioning of vertically integrated formations in the agro-industrial complex of Russia;
- organization of cluster structures as the main directions of improving the economic mechanism for the development of integration processes in the agro-industrial complex of the region;
- features of the creation and functioning of holding-type companies in the agro-industrial complex.

4. Purpose of the Study

The purpose of this work is to substantiate the main directions of improving the economic mechanism for the functioning of the regional agro-industrial complex based on the use of the cluster approach in the organization of integrated structures, which makes it possible to improve the investment climate of the industries related to the production of the agro-industrial complex of the region, to stimulate innovation processes and, thereby, to increase the competitiveness of the agro-industrial complex.

5. Research Methods

Determining and estimating the factors, enhancing the formation of highly effective integrated units in the regional agri-industrial complex are considered to be of great interest from the theoretical and practical viewpoints nowadays.

Working out the efficient measures of the cluster support becomes complicated due to the fact that the regulation object is obscure, the activities estimation criteria are not clear and compatible, besides there are no adequate forecasting methods. All the above-mentioned factors make it necessary to establish a scientific approach to the cluster concept and its development (Molchanenko, 2014).

In the article under discussion we are going to research how the current economic changes influence the integration process in the regional agro-industrial complex development under the present circumstances of import substitution.

The methodological research framework is based on the main concepts and principles of the cluster approach theory in the regional policy and its implementation in various branches of the regional agro-industrial complex, as well as economic efficiency estimation of different in size integrated formations. Systems approach method, the elements of comparative and statistics analysis, helping to prove and give reasons for the main conclusions and research results, have been used in the present article.

6. Findings

Vertical integration results in the following aspects: cost cutting due to proper combination of the consecutive production processes, costs elimination for partner search and contract preparation, product storage cost reduction, provision of the resource control, but what is more important – reducing the financial, commercial, production, investment as well innovative entrepreneurial risks and promoting the reproduction processes at certain enterprises and in the whole branch (Mustaev & Tsoroev, 2015; Nikitin et al., 2019).

The development of the cooperation and integration production processes in agriculture is quite contradictory. It results in different positive as well as negative effects. Various problems arise, which are connected with functioning of some integrated and quasi integrated structures in the agro-industrial complex, solving these problems is very important for practical application. The necessity to increase the economic efficiency of the regional agro-industrial complex sets the new tasks for the territories, mainly aimed to choose and implement the competitive model of the regional economy, which could encourage the stakeholders to take the maximum advantage of the current potential (Antsiferova et al., 2020).

In some cases, integrating firms really enhance the efficient work organization at the enterprises included in the integrated formation. In other cases integrating firms due to the unequal economic rights can distribute the overall income in favor of some particular stakeholders, thus some agricultural enterprises and organizations can be deprived of favorable business environment. The stakeholders within or outside an integrated formation could be not well informed about the true economic efficiency of the integrated organization, as the consolidated accounting may not be open for the broad public (Nikitin, Smykov et al., 2020).

The following negative tendencies, connected with functioning of the integrated formations, should be mentioned: increase in rural unemployment, dispossession of land from peasants, peasants' turning into hired workers, who have nothing to do with their labour products, acute arguments between the local rural authorities and the integrating investment firms, caused by the reluctance of the latter to take part in solving social problems of the rural territories, where the firm functions. Economic relationships are mostly organized in favor of an integrating investor, which in its turn pursues the goal to recover the costs and to make maximum profit quite often to the detriment of the rural territory and its economics. As a result, the monopoly of large enterprises is promoted which leads to driving out of the market small agricultural producers doomed to compete in vain (Nikitin & Antsiferova, 2020).

The distribution of the newly created value within an integrated formation depends on a number of circumstances, including the factor which business and product line dominate at the integrating firm. If the main business line deals with producing the end product from the agricultural raw material, the integrating firm is normally interested in long-term progressive organizational, production – technological, structural and economic improvements at the agricultural enterprises involved in the cluster. These improvements are aimed to increase the quality of the produced agricultural raw material, to reduce costs and different types of unreasonable losses, to enhance regular supply of the raw material and promote the financial sustainability and cost-effectiveness of agricultural production (Minakov & Nikitin, 2019; Nikitin & Smykov, 2019).

The advantages of large-scale producing enterprises, which appear due to cooperation and integration, are only potential and might be practically implemented over the medium or long term only if a particular economic system has been organized within an integrating structure. Such formations can be efficient only if there is a balance between the interests and responsibility with all the stakeholders involved, only in case if the rights of each individual part of the integrated formation are well protected (Nikitin & Antsiferova, 2020).

Therefore, it would be feasible to raise the issue of justifying the methods and instruments to protect the property rights of the stakeholders involved into the process of agricultural integration, if they used to be independent enterprises and organizations before integration (Nikitin et al., 2019).

In our opinion the following main tendencies of the economic policy within the integration process should be indicated:

- production structure improvement;
- streamlining the organizational structure of technological food production systems and developing the distribution mechanism of the joint work results;
- changing the property relationships;
- adjustment of enterprises specialization, their location and production concentration;
- regulation of economic cooperation among the enterprises;
- production diversification, i.e. establishing new and developing additional production enterprises;
- improving the system of management (Nikitin et al., 2020).

7. Conclusion

Under the circumstances special attention should be paid to the organization of clusters in the agro-industrial complex, to the efficiency of their functioning, to the development tasks in the region. The research of this problem is really significant in order to determine the state policy, to improve the institutional principle of the agro-industrial complex, to promote the efficient forms of integration thus to provide the food security.

An agricultural cluster is viewed as an innovative, geographically located integrated structure with the networking elements dealing with the agricultural production, which involves various spheres of agro-industrial complex creating the additional value in the technological chain.

The development of clusters and vertical-integrated companies can be complementary: the cluster approach does not contradict the development process of vertical corporation, which is important in the present conditions of most regions.

Establishment of the integrated structures based on the cluster approach will help to improve the investment climate of the branches, to enhance the innovative processes, and as a result to increase the competitiveness of agricultural production branches and to a large extent to provide the food security of the regional agro-industrial complex functioning.

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