Conceptual Model of the Territorial Manufacturing Cooperative System Use in Russia

JULIA VLADIMIROVNA GNEZDOVA*
Smolensk State University, 214000, Smolensk, Prghevalskogo Street, 4, Russian Federation, Tel: +7(4812)383157;
Email: iuliy_67@mail.ru

IGOR MEEROVICH KUGELEV
Smolensk Agricultural Academy, 214000, Smolensk, St. Great Soviet, 10/2, Russian Federation

IRINA NIKOLAEVNA ROMANOVA
Smolensk Agricultural Academy, 214000, Smolensk, St. Great Soviet, 10/2, Russian Federation

JULIA ALEXANDROVNA ROMANOVA
Financial University under the Government of the Russian Federation, 125993, Moscow, Leningrad Prospect, 49, Russian Federation
Abstract
The article reviews the theoretical and practical issues of cooperation and agroindustrial integration, studies the socio-economic conditions and the effectiveness of the development of agricultural cooperation in various regions of the Russian Federation. The methodological aspects of the development of agricultural cooperation and agroindustrial integration in the conditions of mixed economy are grounded; the areas of development of cooperative and integrated forms on the regional food markets are defined. The trends and prospective areas of development of cooperation and integration in regional agribusiness in modern conditions are reviewed. The model of development of cooperation and integration in Russian agribusiness is presented, and the methodology of creating cooperative groups at the regional level is grounded.

Keywords: Agricultural Cooperation; Agroindustrial Integration; Agroindustrial Formations; Agribusiness; Agricultural Sector of the Economy

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INTRODUCTION
Success of the economically advanced model of management in the agricultural sector should be assessed by the increase in the profitability of manufacturers and processors who are the main stakeholders of the agricultural sector and food industry, in the first place. The direct solution of this issue should be the establishment and development of interfarm cooperation and agroindustrial integration [1], that will be able to ensure stabilization of the food market and growth of income to ensure the extended reproduction of agriculture and food security in the conditions of sanctions and import substitution.

Year after year, the soil becomes less fertile, the situation in livestock breeding and elite seed production degrades, equipment and tools age, farming systems are not complied with. The work is suspended on land drainage and irrigation, soil liming and gypsum, protection of plants and animals from pests and diseases. Livestock production shifts towards the small-scale private farming based on manual labor. The limiting factor of successful development of the peasant (farmer) and private farms, as well as other types of small business in rural areas, is an acute shortage of funds. About 40% of the agricultural enterprises are unprofitable and have debts to their creditors; many villages cease to exist.

Large investment companies reluctantly invest money in agriculture, because the existing economic potential of the village does not ensure a high level of production and labor productivity [2]. The country has seen a yearly decline in production in nearly all types of households, and therefore the rate of development of the agricultural sector remains unstable and at a low level.

The measures taken by the state in order to support sustainable economic growth are not
sufficient. The legislative base of the agricultural sector functioning remains poor and imperfect. All this does not inspire a sense of confidence in the future in a substantial part of the manufacturers [3].

This article aimed to provide a scientific substantiation of the model of development of agricultural cooperation and agroindustrial integration at the regional level. Being an integral part of the market economy, cooperation feeds the improvement in efficiency of production and business development. Domestic and foreign experience shows that combination of the available material, financial and labor resources in economic activities on a cooperative basis allows to achieve the greatest economic effect. The relevance stems from the fact that the study and application of international experience allows to use all the advantages provided by the processes of cooperation and integration that allow to ensure a synergistic effect by combining forces and resources.

**METHODOLOGY**

The researchers used a review and systematization of the available foreign examples, analysis of the cooperative models in the agroindustrial complex, structure of the economic benefits of the members of cooperatives and their unions, discovery of specifics of agricultural cooperation and agroindustrial integration as a socio-economic sector of the economy.

The cause-consequence analysis, system approach, innovations theory and logical-mathematical modeling were the methodological basis of the study. The works of leading Russian and foreign researchers and specialists in the field of agricultural economics were the theoretical basis.

The systematization and analysis of materials revealed the need for substantiation of the forms and methods of formation of integrated and cooperative formations, with a focus on their innovative development.

The literature review allowed to learn the best known areas and to identify the problem areas in the field of development in the direction of development of agricultural cooperation and agroindustrial integration, which require the continuation of scientific research, including the issues of the search for effective mechanisms of realization of the cooperative and integrative relations in the agrarian field.

Much attention is paid to the issues that are subject of scientific discussions; many have already been studied in detail, but some issues have not yet been considered.

**RESULTS**

Little attention is paid to the creation of unions (associations) of cooperatives in Russia, although the legal framework is developed (Article 5 of the Federal Law "On agricultural cooperation"). The unions (associations) of cooperatives contribute to the formation and
development of market infrastructure, creation of favorable conditions for the effective operation of the manufacturers, formation of cooperatives and cooperative banks, organization of the wholesale food and resource-technical markets, coordination of actions of the members of association for the protection from such negative events as the supply of imported food and means of production, as well as from the actions of monopoly enterprises.

Given the nature of the cooperative movement in Russia, its main methods at the current stage are legal regulation, socio-economic and credit and financial support, which will allow to create the conditions mostly required for the newly formed cooperatives and agroindustrial formations.

The main indicators of the effectiveness of the development of agricultural cooperation and agroindustrial integration are: production volume, employment rate and quality of life, degree of economic security and social protection of the population [4].

In the long term, the key estimate figure of the development of cooperative policy is the creation of an optimal structure of the reproduction process based on its economic, resource, social and ecological potential. We can also suggest a model of agricultural cooperation and agroindustrial integration in the form of the association at the federal level based on the agricultural cooperatives creating the agroindustrial unions in order to coordinate their actions and protect the interests of their members, as well as for representation in the government. They create their own district, regional unions and their Union (association) at the federal level (Figure 1).

**Figure 1:** Organizational structure of the union (association) of agricultural cooperatives and agroindustrial integration of agribusiness enterprises of Russia.
A system of agricultural cooperation and agroindustrial integration is a system of cooperatives of various kinds and levels which, on the one hand, are united at the national level in the legal and functional terms [5]. On the other hand, it is an economic entity capable of interacting with foreign cooperative organizations and their associations (unions) [6].

The process of formation and development of the system of agricultural cooperation and agroindustrial integration is very diligent and time-consuming [7]. The system of agricultural cooperation and agroindustrial integration can be formed on the basis of a multi-stage system (three or four stages). In this case, basic organizations (first-level organizations) are local agricultural cooperatives. In the initial period of the system formation, along with regional cooperatives or without their creation, the original cooperatives can unite into interdistrict cooperatives (second-level cooperatives). Cooperatives and their unions of the regional level (third-level cooperatives) can be formed at the level of the regional subject of the Russian Federation.

An organization of the fourth level can be strategically formed at the federal level, which provides support and assistance to the organizations on other levels. A two-stage organization can be formed simultaneously with interfarm associations, which includes regional unions and cooperatives of the Federal union that will be able to take on additional responsibility for the servicing and maintenance of cooperatives. Such an association of consumer cooperatives has already been formed, but their activities are not sufficient due to the lack of financial support [8].

The second (third) level is formed by the cooperatives on a voluntary basis by establishing some cooperative structures (regional cooperatives, union, study support and information center).

A cooperative of cooperatives is an organization of each subsequent level, i.e. an organizational formation created by the cooperatives based on membership and voluntary involvement for joint work [9]. The main difference between the cooperative of the subsequent level and the cooperative of the previous level is that the members of the cooperative of each subsequent level are not production but rather consumer cooperatives; member cooperatives take on responsibility to conduct their operations.

At the district level, the cooperative union for the organization of agricultural service, supply and sale services, and purchase and processing of agricultural products forms its own business entities. The district agricultural cooperative union may include agricultural enterprises, peasant farms, private farms, seed-production and livestock breeding farms, processing plants, servicing, construction and transport companies, trading enterprises and enterprises of consumer systems.

The manufacturing activity in the farms and cooperatives in the district cooperative unions aims for the profitability index of 35-40%, which enables the expanded
reproduction.

Self-sufficiency lies at the core of the district cooperative unions. Therefore, the union of cooperatives must ensure management of expanded production at its own financial and other expenses. Such an approach encourages to search for the most profitable advanced technology and equipment, high-yielding livestock and high-yielding varieties of crops, as well as other factors that ensure profitable management of production and economic activities of the cooperative formation of any level.

Each cooperative or union of cooperatives is part of the regional association of manufacturers at the level of the administrative federal region, where two or more sectoral regional unions of manufacturers may interact (e.g. grain and diary). This expands the range of business entities. The regional cooperative union provides contractual relationships with financial institutions on mutually beneficial terms in order to accelerate the turnover of funds, streamline relations with the state, scientific and educational institutions to train, retrain and offer advanced training to the staff, prepare recommendations on the management structure, charter of cooperatives, provisions on centralized funds and other documents, and create a cost accounting research and development center to master new techniques and technologies.

The objective of the cooperative union at the regional level is to improve the economic state of the region. Its implementation in practice should be carried out through the management of economic processes at the regional level, taking into account the territorial organization of agriculture on the one hand, and the agrarian strategy of the country for the future on the other hand.

The key objectives of the regional cooperative union are the following:

- provision of integrated socio-economic and ecological development of the region, formation of its production, market and social infrastructure;
- best possible allocation and use of resources, their effective distribution within the boundaries of the region;
- fundamental changes in the nature of land management and restructuring of agricultural production;
- rationalization of the regional structure of managing agricultural production and labor incentive system;
- focus on increasing the income of agricultural workers and number of jobs at agricultural enterprises;
- raising the standard of living and demographic situation; and
- improving the environment and preservation of the natural gene pool.

The vertical pyramid ends with the Federal union of agricultural cooperatives, where possibilities and functions of the cooperatives expand; they can even involve state investors in their structure. The union of agricultural cooperatives of the Russian Federation is a union that could become the main governing body of the Russian
agricultural cooperatives.

The association supports the key functions of the main coordinator and may therefore offer public orders of the subjects of the Russian Federation, manufacturing orders, and orders of wholesale and import-export companies. Thus, an association is an organization that represents and lobbies for the interests of regional associations and members of cooperatives and agroindustrial formations. Its eligible responsibilities can be determined as follows:

- represents the cooperative movement as a separate independent manufacturing movement before the legislative, judiciary, regional and local authorities;
- coordinates the activities of members of the regional cooperatives;
- develops a single policy on the food market, forms prices for agricultural products;
- provides cooperatives with information, assistance in training, consulting and audit services; and
- contributes to the promotion of the cooperative idea and philosophy while maintaining cooperative principles.

The union of cooperatives and integrated agricultural enterprises shall protect and represent the interests of the cooperative movement and its members. As a rule, regional associations of cooperatives are members of the Federal union [10]. It should be borne in mind that the union must be created not from the top but rather from the bottom – from the primary cooperatives, and only when the emergency and vital necessity in them emerge.

The model of association presented in Figure 1 is not perfect, of course, and not without flaws, but, nevertheless, it is arguably preferred, as the regional model in the Russian Federation cannot be perfectly formed due to its specific climatic and traditional historical factors that may affect the expected result. The only positive characteristic is the democratic nature of the association and concentration of production, while maintaining autonomy of the member of the cooperative association.

For example, the cooperative unions of manufacturers have been formed in Volgograd region. Their positive characteristic is the democratic nature of the association and concentration of production while maintaining the legal and financial autonomy. The union of consumer cooperatives at the district level operates in Tyumen region, which also includes the production cooperatives. The district production and consumer cooperatives and agroindustrial formations of various levels have shown positive dynamics of development in Saratov region.

The formation of the regional cooperative union in Smolensk region enables to better take advantage of the integration of the agricultural and agroindustrial production, vitalize the production, financial and economic activities, create a balanced environment for strengthening the network of various cooperatives based on the optimization of
material and technical resources and management structure, as well as better use all the positive characteristics when uniting all agricultural production organizations (organizations of agricultural and food industries).

Only certain government authorities have the right to carry out inspections in the relevant sectors of agricultural production and ban certain activities – for example, those leading to a breach of environmental requirements.

The statutory system of relations between the state and the cooperatives based on their constitutional provisions is that the state is a political and territorial sovereign organization of public authority and therefore should not engage in economic activities directly [11].

However, the organizational and economic function of the state in terms of concentration of production has not lost its value but rather has grown. This follows from the experience of the regions that carry out cooperative transformation, not only through financial support but also through the legal support by the adoption of regional laws aimed at supporting cooperatives.

New approaches to interaction between the state and the cooperatives must be incorporated in the Program of development of agricultural cooperation in Russia. This is also proved by the experience of states with an effective cooperative system in agriculture [12].

The strategy of development of agricultural cooperation and agroindustrial integration includes gradual formation of a multi-stage algorithm of formation of cooperation and integration in the agricultural complex that are interrelated with the government and academic institutions [13].

The cooperation and integration effect in the agricultural complex will largely depend on its successful interaction with organizations in other industries (servicing, leasing, etc.). The closest partnership will link the cooperatives and agricultural associations with the credit cooperatives, which are the most affordable source of borrowing for members of agricultural consumer cooperatives [14].

All of the above determines the need for development and implementation of strategic measures for the development of cooperation and agroindustrial integration in other sectors of the agricultural sector of the economy, its stability and development.

In recent years, there has been a trend of consolidation of enterprises, as well as their conversion into horizontally and vertically cooperating structures. As the world practice of the cooperative movement shows, the large industry associations play a special role in the development of the economy and significantly contribute to the revenue part of the budgets of all levels, which ensures food security of the state [15]. Using their own financial resources and attracting additional sources of financing, such associations will be able to freely explore and implement new technologies and manufacturing lines and
acquire new equipment. In addition, if the risk arises in any of the enterprises of the cooperative association, it largely continues to function and retain its own market segment. As a rule, such associations are established in order to conquer new market sectors and reduce costs.

Figure 2: Scheme of horizontal cooperation on the basis of milk production in Smolensk region.

Horizontal cooperation involves the association of enterprises within one industry and with related technologies – for example, enterprises of the dairy sector. The purpose of the association is to concentrate resources within one of the links in the production chain. The effectiveness of the horizontal cooperative formation allows to benefit from industrial scale (Figure 2).

The distinctive advantage of the system formed by the agrarian enterprises in the case of horizontal integration is effective innovation in the agricultural sector and a manufacturing line based on proven scientific research. Any successful innovation and a manufacturing line can be applied at all enterprises of the cooperative formation [16]. Thus, there is a multiplier effect from just one innovation introduced in one of the technologically similar enterprises of the integrated association, which leads to efficiency of the entire agroindustrial system. In turn, the horizontal cooperation allows to reduce production costs thanks to coordination of the commercial and executive expenses; optimal capacity utilization; coordination of procurement of raw materials and sales of manufactured products; increase in volume and quality; specialization and processing within the chain link.

The leading industry body of government control of agriculture is the Ministry of Agriculture of the Russian Federation. The statutory system of relations between the state and the cooperatives based on their constitutional provisions is that the state is a political and territorial sovereign organization of public authority and therefore should not engage in economic activities directly.
However, the organizational and economic function of the state in terms of concentration of production has not lost its value but rather has grown. This follows from the experience of the regions that carry out cooperative transformation, not only through financial support but also through the legal support by the adoption of regional laws aimed at supporting cooperatives.

The government encourages the establishment and operation of cooperatives by allocating funds from the federal budget and the budgets of subjects of the Russian Federation for the acquisition and construction of manufacturing, processing and servicing enterprises, creation of credit and insurance cooperatives on the basis of the established plans and forecasts for the development of territories and targeted programs, provides scientific, personnel and information support. State and local self-government authorities have no right to interfere in the economic, financial and other activities of cooperatives, except for the cases provided for by the legislation of the Russian Federation [17].

Thus, on the one hand, there are no obstacles to establishing cooperatives at the legislative level, but on the other hand, insufficient development of certain legal and economic issues hinders their widespread expansion.

**DISCUSSION**

This study on the formation and development of cooperation and agroindustrial integration in current conditions of economic realities is based on the methods of theoretical and empirical knowledge. The compilation, analysis and systematization of theoretical and analytical information on cooperation and agroindustrial integration allowed to confirm the hypothesis about the necessity of its formation, which would take into account the potential priorities for the development of agrofood policy and instruments that describe the laws of formation and allocation of agrarian potential to ensure the regional and state food security in the conditions of sanctions in general. The high reliability of the results is based on the writings of the following scholars: Antsyferov, Buzdalov, Vasilenko, Tkach, Chayanov et al. The distinctive characteristic of this study is the attempt to focus the specificity of the Russian regions in the formation of a cooperative strategy of development of the agrarian sector, taking into account the country's agrofood security under significant growing internal and external threats. The features of the formation of the strategy of cooperative and integrated development of the agrarian sector in the regions, which is the territorial and sectoral change of its states in terms of import substitution, were identified and reviewed during the study of the theoretical aspects. In addition, this paper reviews the regions from the standpoint of social analysis of development, which is a complex object. It is caused by the fact that uniting such territorial and industrial complexes as agriculture, processing industry, trade and consumer cooperation (cooperative trade) into the organic whole is very relevant. The reliability of the obtained results is confirmed by official sources.
CONCLUSION

Creation of production cooperatives on the basis of rural farmsteads will allow to keep jobs and seniority for the members of cooperatives, which will ultimately have a positive impact on the amount of pension of a villager who participated in the work of the cooperative. There may be other benefits to the population, taking into account the fact that the active work of cooperatives will generally revitalize the atmosphere of the village.

The relevance of products of small agricultural producers helps encourage the development of private and peasant farms, involvement of small agricultural producers in the reproduction process; increase employment rates through the creation of new jobs, growth of the interest of the rural population of the region in the products of their labor; raise incomes and living standards of the rural population.

Thus, agricultural cooperation and agroindustrial integration contribute to the development of expanded reproduction, balanced development of market relations and the establishment of real owners who are interested in improving the socio-economic effect of functioning of the domestic agriculture and processing industry.

REFERENCES


