

Methodological approaches to assessing the cooperative potential of rural areas

*Svetlana Sushentsova*¹, *Natalia Bykovskaya*², *Nina Litvina*^{2*}, *Zinaida Poddubnaya*², *Svetlana Zasiadko*², *Victoria Bober*²

¹All-Russian Research Institute of Agricultural Economics – Branch of FSBSI FSC AESDRT, Moscow, Russia

²Russian State Agrarian Correspondence University, Balashikha, Russia

Abstract. The article considers cooperation as a process of bringing together agricultural producers in order to solve certain business problems more effectively. Considering the present development stage of agricultural production, cooperation has no due interest on the part of either producers or the state. In this regard, the article aims at developing proposals for the methodological assessment of the cooperative potential of rural areas. During the study, using various generally recognized methods of generalizing existing scientific developments, expert assessments, analytical and others, an algorithm for assessing the ability and possibility of forming and improving the efficiency of an agricultural cooperative community in rural areas is proposed. The introduction of the proposed methodological approaches will provide the authorities and administration with an argumentation for solving the problems of developing and reforming agricultural cooperatives, ensuring employment and a decent standard of living for the rural population. Together, this will make it possible to address economic, social and environmental problems of rural areas in a more sustainable manner.

Keywords: cooperative potential, analysis, agricultural cooperation, rural areas, agricultural producers, efficiency.

1 Introduction

Rural area is the territory of Russia with 25% of the total population (37 million people) living and working in this area. Despite the task of developing the diversification of business in the countryside, supported by the state and the whole society, agriculture has always been the basic industry for a number of objective reasons and it will remain so. It employs about 6 million people and the same number work here unofficially. Moreover, each job in the countryside provides 7 jobs in the city, in related sectors of the agro-industrial complex (AIC); 16 million Russian families have personal subsidiary plots, 22 million families are engaged in collective and individual gardening and horticulture [1]. Consequently, two-thirds of the Russian

* Corresponding author: nil-04@mail.ru

population is to some extent connected with agricultural labor. This industry brings together producers of various forms of ownership, economic structures, sizes: large integrated structures (agricultural holdings) and their constituent agricultural organizations (AO), independent ACCs (limited liability companies (LLC), agricultural production cooperatives (APC), joint-stock companies (JSC) and others), peasant (private) farms (PPF), individual entrepreneurs (IE), self-employed in private farming (LPS), both officially registered and without registration. Non-profit associations of business entities including associations, unions, funds, and others are also developing in the modern agro-industrial complex of the country. Of particular importance among them are agricultural consumer cooperatives (ACCs) and companies of the Central Union of Russia.

The advantages of cooperation for independent farms, especially small and medium-sized ones, and for the country have been repeatedly proven by foreign and historical domestic experience. Producers of products unite among themselves to solve certain economic problems, the solution of which is not possible on their own for a number of subjective, and sometimes more often, objective reasons. Meeting the needs of producers contributes to the growth of the efficiency of their activities, which leads to an increase in the level of gross domestic product (GDP), employment, income of the population, tax deductions to the budget and other regional and federal benefits. But, first of all, and in this it is difficult to disagree with V. Starchenko, cooperation in the agrarian sector of the economy "... is regarded as a very important, generally recognized in theory and practice direction of the life of the population, providing a significant increase in the efficiency of production and economic activities, the level and quality of life of members of cooperative formations" [2].

The presented circumstances reinforce the importance of state control and regulation of agricultural cooperation development. Support for cooperation in the countryside in the modern history of Russia has been carried out since the beginning of the agrarian reform, since then several state programs have been implemented, but their targets, for the most part, have not been achieved. And now measures are being taken to strengthen agricultural cooperation. One of the priority areas of the State Program for the Development of Agriculture and the Regulation of Agricultural Products, Raw Materials and Food Markets is the development of small business forms. Their targeted support is carried out within the framework of the departmental project "Development of branches of the agro-industrial complex, ensuring accelerated import substitution of the main types of agricultural products, raw materials and food" by providing state support to peasant (farm) enterprises and agricultural consumer cooperatives in the form of a subsidy to stimulate the development of priority sub-sectors of the agro-industrial complex and small forms of management. In the pursuance of the May Decree of the President of Russia "On the National Goals and Strategic Objectives of the Development of the Russian Federation for the Period up to 2024", the Ministry of Agriculture of Russia has developed and is actively implementing the federal project "Creating a System for Supporting Farmers and Developing Rural Cooperation" within the framework of the national project "Small and Medium Enterprises and support of an individual entrepreneurial initiative" with funding for the entire period of its implementation (2019-2024) of 37.4 billion rubles [3].

According to the Ministry of Agriculture of Russia, in 2022 state support for agricultural cooperatives has almost doubled. At the beginning of the year, it was planned to allocate about 5 billion rubles of budget funds for these purposes, which is 40% more than in 2021. Agricultural consumer cooperatives can receive grants, the maximum amount of which is 70 million rubles. In addition, since 2019, additional support mechanisms have been in place that cover almost all types of cooperatives. In 2021, such measures were implemented in 72 regions of Russia. 512 cooperatives received targeted support in the amount of 1.3 billion rubles. Soft loans have become more accessible. The Ministry continues to implement support measures aimed at developing agricultural cooperation [4]. However, the mechanism and systematic

nature of their implementation often leads to the fact that in practice, for the most part, the main goal of creating cooperatives is to participate in state support programs and state financing, where the understanding of strategic development goes into the background, and, as a result, the created cooperative becomes unviable [5].

In this regard, support effectiveness evaluation, directions for its improvement, which will become more reasoned and reliable, given a fairly complete picture of the cooperative potential of a particular rural area (territory), acquires special significance.

The purpose of this article was to reflect and justify the use of a system of indicators and methods for their calculation to assess the cooperative potential of a rural area at the level of a settlement and a district. Of course, the regional and federal levels are very important from the standpoint of the effectiveness of the development of cooperation in Russia. This is evidenced by foreign experience [6], the classics of the cooperative theory wrote about this more than once, incl. A. Chayanov [7], modern Russian scientists and practitioners are supporters of the cooperative arrangement of economic relations in the agricultural sector [8, 9, 10, 11]. Though, before exploring the possibilities for the development of cooperatives at the regional and federal levels, it is necessary to have an idea about their participants, which are the cooperatives of agricultural producers working locally, in settlements and districts. Moreover, it seems necessary at the present stage to strengthen the participation of state authorities at all levels (municipal, regional and federal) in their formation and increase efficiency, to develop and/or improve existing organizational and economic mechanisms for such participation most suitable for the conditions of a particular area.

2 Materials and Method

Potential is a quantitative and qualitative result, subject to the full or maximum use of resources that exist and are sufficient to achieve a specific goal. That is why the use of the widely used method of scoring territories [12] for the analysis of their cooperative potential does not seem rational, since it is more suitable for comparison, and the purpose of the methodology we are developing is to answer the questions:

- what is the economic, psychological and social basis of cooperation in a particular settlement?
- in what types of cooperatives is there a need and what should be the organizational and economic mechanism for their creation and operation?

An example of the result of applying this technique can be the solution of a similar problem as part of a concept for the development of a cooperation system in Russia in 2017 by V. Starchenko (Table 1).

Table 1. Cooperative system of rural settlements
 A. Agricultural production cooperatives (APCs)

Farm categories	Fact, unit	Project, unit		
		Transformation form in APC	Quantity	Number of APC
PPF and IE	174600	Creation of cooperative farms (80%)	140000	20000
Private farming	1820000	Creation of cooperative farms (10%)	1820000	

Agricultural artels (collective farms)	4496	Saving quantity	4496	4496
JSC, CJSC, LLC, state, municipal and other enterprises	15758	Conversion to APC (5% of the total)	788	788

Table 1. Cooperative system of rural settlements (continue)
 B. Agricultural consumer cooperatives (ACCs) (unit)

Types of cooperatives, indicators	Meaning of indicators	Note
ACCs (except credit ones):		
Fact: quantity, total	4013	
number per rural settlement	0,2	1 ACC per 5 rural settlements
Project: quantity, total	20 000-40 000	Growth by 6-12 times
number per rural settlement	1-2	
Credit ACCs		
Fact: quantity, total	1223	
quantity per region	0,66	2 ACCs per 3 districts
Project: quantity, total	1 846	Growth by 1.5 times
quantity per region	1	Number of districts – 1 846
Consumer cooperation stores:		
Fact: quantity, total	27287	
number per rural settlement	1,4	
Project: quantity, total	40000	Growth by 1.5 times
number per rural settlement	2	

Source: [2]

A wide range of research methods was applied in the process of the study. It includes analytical, economic and statistical, scientific generalizations, monographic, expert assessments and other general scientific methods.

The information base was legislative acts, program documents, materials of annual reports of district and regional departments of agriculture, statistical data, analytical materials of the agro-industrial complex management bodies, materials of the All-Russian agricultural censuses and a monographic survey of various types of cooperatives, publications and developments of research institutions and individual authors on this problem, information posted on the Internet by federal ministries and departments, regional governments, in scientific and literary sources.

3 Results

The cooperative potential is the reserves for the creation and development of agricultural cooperatives of various types and levels lying in the need, opportunities, abilities and desire of agricultural producers to unite.

The algorithm for conducting a study to assess the cooperative potential of a rural area should include a consistent analysis of certain of its constituent elements: the availability of resources and factors influencing their effective use to achieve the goal. So, for example, at the first stage, it is advisable to study the dynamics and structure of the number of agricultural producers of the primary (local) territorial level, including from the standpoint of the marketability of their production and the degree of employment in it / involvement in it, the density of placement; the presence and number of various types of cooperative structures (APC, ACC, objects of the Central Union of Russia). Antonova M., Shagaida N. and other authors of the monograph “Why is agricultural consumer cooperation not developing in Russia? Expert opinions in questions and answers” [13] conducted a similar analysis on the involvement of small businesses within consumer cooperatives in Russia (Figure 1). In case we follow the methodology we are developing, such drawings will need to be made according to the marked indicators, they will differ from the example given, first of all, by the territory under study. Such a graphic technique as the overlay of these figures will make it possible to more clearly reflect and justify the results of the next stage of the algorithm for assessing the cooperative potential.



Fig. 1 The level of involvement of small businesses within ACC, 2016 *Source:* [13]

The second stage should be devoted to the analysis of the presence/absence of the relationship and interaction of economic entities with each other, their mechanisms, the reasons for the formation and development. Potential opportunities of organizations, surveys of their leaders show that most of the leaders of agricultural organizations are able and willing to participate in cooperation. Agricultural organizations are interested in maintaining their independence in the face of threats of takeover by holdings and increase efficiency through the benefits derived from cooperation. Therefore, in our deep conviction, cooperative forms of associations should be developed with the inclusion of all types of agricultural organizations, and not just small ones.

The study is to be carried out by studying three large groups of factors that influence the motivation of agricultural producers, including the rural population, to unite on the basis of cooperative principles: psychological, economic and social. It seems to us that it is expedient to analyze the first group of factors using the questionnaire method, which will allow determining the degree of trust of agricultural producers in each other and in local authorities, the presence/absence of interest and knowledge about the cooperative structure, alternative options for mutually beneficial cooperation. At the same time, it is possible to confirm the results of the study of the first stage by asking respondents, for example, the following questions:

“Are you a member of any cooperative: 1. Yes 2. No

If “Yes”, which one? 1. Production 2. Consumer: credit ,
supplies-and-sales processing

What hinders the development of cooperation in the region?

1. Imperfect legal framework for cooperation
2. Poor material and technical base of cooperatives
3. Insufficient state support for the Ministry of Agriculture and their cooperatives at all levels
4. Shortage of qualified personnel
5. Distance of farmers from each other
6. Poor public awareness
7. Mistrust of authority
8. Other (specify) _____”

The analysis of economic factors should reflect the balance of positive results from the participation of the agricultural producer in the process of cooperation and the financial resources invested in it in the short, medium and long term. To calculate this indicator, one should, firstly, to assess the internal production and financial potential of future participants in cooperation, efficiency, as well as external conditions for their business activities. Secondly, one should analyze the effectiveness of primary cooperators and informal associations of producers already operating in the study area.

When calculating the economic efficiency of individual farms, it is important to take into account the peculiarities of their organization and management. For example, if for agricultural enterprises the calculation of indicators of profitability and financial condition can be carried out according to the generally accepted methodology [14], then for individual entrepreneurs, including owners of peasant farms, and private household plots, the calculation of these indicators will be somewhat different, since labor costs and incomes are recorded differently here and others [15]. If the methodology for analyzing production cooperatives (collective farms, cooperative farming) coincides with the assessment of agricultural enterprises, then the non-commercial nature of the activities of the ACC determines the dependence of the assessment of their effectiveness on funding sources [16].

Social factors include the characteristics within which the population realizes its needs of life in society. These include institutions of civil society, historical, cultural, traditional, everyday areas, contributing to the expanded reproduction of labor resources, human capital. An assessment of this group of factors should reflect the possibility of attracting and/or obtaining highly qualified personnel for the implementation of the cooperative development of a given area, securing the able-bodied population, the continuity of generations in order to understand the strategies or tactics of the development of the cooperative movement in a particular area.

External conditions for the development of agricultural producers and primary cooperatives are manifested through their relationships with other subjects of the agricultural market regarding the supply, maintenance and digitalization of their production activities, marketing of products, lending, leasing, taxation, use of infrastructure facilities, consumer preferences, territorial remoteness, etc.

The significance of the conclusions from a thorough analysis of the development of potential participants in cooperation carried out according to the presented methodology will be determined by a list of organizational and economic problems, the solution of which for agricultural producers through cooperatives will be the most acceptable and payable in these specific conditions and in the future, and for cooperative formations will increase the efficiency of their activities. For example, when characterizing the effectiveness of the development of agricultural producers, it is especially important to determine the level of entrepreneurial risk, an integral part of which is commercial risk. The latter arises in the process of selling goods for a number of reasons, and agricultural consumer marketing cooperatives are called upon to minimize it.

The third stage in the assessment of the cooperative potential of the territory can be called planned, since it is time to develop a kind of cooperative map of the given territory based on traditional and/or original mechanisms for combining producers of agricultural raw materials and food. At the same time, cooperation should be considered as a process and as a structure. When characterizing cooperation as a process, its functional features are revealed, that is, the content side of the formation and activity of various collective formations. When considering cooperation as a structure, a stable organizational form of a collective association is justified, agreed upon and established, that is, the composition and size of the cooperative.

Each of the categories of farms that were not members of the APC, ACC, consumer societies and their structural subdivisions, cooperative logistics centers and other cooperative subdivisions at the end of the analysis can register their membership in the trade network

through the corresponding cooperative, having previously become its member. The composition of the participants in the unified cooperative system of the agrarian sector of the economy of the territory will practically be able to cover the entire rural population and involve part of the urban population as associate members [2].

4 Discussion

The development of measures for the implementation and increment of the found cooperative potential deserves special attention. Having analyzed and understood its size, it is necessary to take measures for training, exchange of experience, explanatory work, support for alternative options for cooperative associations with the participation of various types of capital, incl. state. In addition to the measures already being implemented, we propose to strengthen the participation of the state in the process of creating cooperatives. So, at present, the initiators of the creation of cooperatives are the agricultural producers themselves. Farm managers, especially small ones, are not able to perform the complex functions of a customer and organizer of a cooperative enterprise. This requires a specialized organization. At present, Competence Centers in the field of agricultural cooperation and support for farmers have already been established in most regions. They provide significant information and consulting assistance. Such centers can be entrusted with the functions of “cultivating” small forms of organizations and cooperatives in the countryside. It is necessary to expand the functions of state and municipal bodies, they should not just distribute subsidies, but become active participants in the processes of forming cooperative associations.

It is advisable to transfer the system of state support for cooperation to the methods of project management and project financing. The regions that are advanced in the development of cooperation (Lipetsk and Belgorod regions, Bashkortostan) use such methods. Based on the generalization of best practices, it seems to us possible to organize the project management of cooperation on the principles of public-private and municipal-private partnerships.

One of the factors that have a significant impact on the dynamics of formation, development sustainability and efficiency of agricultural cooperative associations in our country is the system of competitive selection of applicants for state grant support. In accordance with the Rules of the Ministry of Agriculture of the Russian Federation, since 2017, the procedure and conditions for its provision, as well as the criteria for applicants, are determined by regional legislation. The study showed that in 2021, the regional scales for the competitive selection of ACC contained in the regulations of the subjects of the Central Federal District, located in similar natural conditions, but having reached different levels of development of agricultural cooperation – Tambov, Lipetsk and Belgorod regions differ significantly in the composition of the criteria and indicators characterizing them, the level of scoring of their significance [16]. The study, systematization, identification and dissemination of the best regional methodological solutions in the field of state support is also an important mechanism for the effective implementation of cooperative potential in the countryside.

5 Conclusion

The practical significance of the presented methodological approaches is due to their application which provides the authorities and administration with an argumentation for solving the problems of proportionality of functioning of farming forms in the countryside and the reform of agricultural cooperatives, ensuring employment and a decent standard of living for the rural population. Together, this will make it possible to address economic, social and environmental problems of rural areas in a more sustainable manner.

References

1. Nikolaev O.V., Litvina N.I., Sushentsova S.S. Topical issues of modern agrarian policy. Economics, labor, management in agriculture. **3**. pp. 72-78. (2022) DOI: 10.33938/223-72
2. Sushentsova S.S., Starchenko V.M., Mazloev V.Z. and others. To develop a concept for the integrated development of industries and forms of management in the agricultural sector of the economy. Research report, p.249 (2017)
4. Passport of the national project: Small and medium-sized businesses and support for individual entrepreneurial initiatives Accessed on: February 17, 2023. [Online]. Available: <https://futureussia.gov.ru>
5. Accessed on: February 09, 2023. [Online]. Available: <https://mcx.gov.ru/press-service/news/>
6. Palatkin I.V., Repkin A.Yu. Strategy for creating an agricultural consumer cooperative // Economics, labor, management in agriculture. **3**. pp. 79-91. (2022). DOI: 10.33938/223-79
7. Paptsov A.G. Agricultural cooperation abroad: historical aspects of formation and development trends: monograph / A.G. Paptsov. - M.: LLC "Sam polygraphist" (2021)
8. Chayanov A.V. Selected works. M.: Moskovsky worker, 1989. p.368
9. Yanbykh R., Saraikin V., Lerman Z. Cooperative tradition in russia: a revival of agricultural service cooperatives? Post-communist economies. **6**. V. 31. R. 750-771. (2019) DOI: 10.1080/14631377.2019.1607439
10. Skomorokhov S.N. Peculiarities of developing a methodology for forecasting markets for agricultural products in the segment of k(f)s and households, taking into account the development of agrarian cooperation. Fundamental and applied research of the cooperative sector of the economy. **3**. pp. 46-51. (2021) DOI: 10.37984/2076-9288-2021-3-46-51
11. Golovina S.G., Smirnova L.N. Scientific and practical recommendations on the use of international experience in the development of agricultural cooperation in domestic economic practice. Kurgan: Publishing house of KGSHA, p.273 (2020)
12. Sushentsova S.S., Bayer T.A., Litvina N.I. The effectiveness of developing branches of the agricultural sector in peasant (farm) enterprises. The challenge of sustainability in agricultural systems. Ser. "Lecture Notes in Networks and Systems, Volume 206" Volume 2. Heidelberg. pp. 63-74 (2021)
13. Makurina Yu.A. Improving the management of the development of rural areas (on the materials of the Novosibirsk region) - Abstract of diss ... Novosibirsk, 2022. p.63
14. Antonova M.P., Shagaida N.I. etc. Why is agricultural consumer cooperation not developing in Russia? Expert opinions in questions and answers. (2017)
15. Economics of branches of the agro-industrial complex / I.A. Minakov, N.I. Kulikov, O.V. Sokolov and others, ed. I.A. Minakov. - M.: KolosS, 2004. - p.464
16. Sushentsova S.S. Methodological approaches to assessing the effectiveness of the functioning of forms of management in the agrarian sector // Economics, labor, management in agriculture. **12**. (2020) DOI: 10.33938/2012-51, pp. 51-61.
17. Sushentsova S.S., Besplokhotny G.V., Adukov R.Kh. and others. To develop a methodology for the formation and effective functioning of cooperative and integrated associations in the agrarian sector. Research report, p.217 (2021)