

УДК 005.745:338.43(470.6)

5.2.3. Региональная и отраслевая экономика
(экономические науки)

ПРЕДПОСЫЛКИ КЛАСТЕРИЗАЦИИ СЕКТОРА АПК В СКФО

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В современных экономических условиях, обусловленных внешним санкционным давлением и нарушением внутренних цепочек связей, для развития аграрного сектора экономики в регионе, необходим поиск эффективных организационно - экономических механизмов и форм управления технологическими процессами, которые обеспечат данному сектору устойчивое развитие в долгосрочной перспективе. Методология исследования сформирована достижениями и наработками российских и зарубежных исследователей в области проведения качественной и количественной оценки формирования и развития кластеров. Цель исследования –раскрыть предпосылки кластеризации развития АПК в регионе. Главная цель ТПК – изучение в историческом аспекте производственных связей и взаимодействий общественных и естественных производительных сил. При этом метод применим как для районов, так и для отраслей. Фактически это исследование комплексных территориальных систем, где исходными элементами являются природные, трудовые, энергетические ресурсы отдельно взятой территории. Выделены и охарактеризованы главные цели и задачи формирования кластерных структур в регионе в историческом аспекте. Обозначены предлагаемые принципы построения кластерных структур и система мер регулирования кластерной структуры. Предложены основные функции региональных субъектов власти, ориентированные на приоритетные потребности населения региона, при формировании агрокластеров

Ключевые слова: АГРОКЛАСТЕР, СЕКТОР АПК, СОЦИАЛЬНАЯ ОТВЕТСТВЕННОСТЬ, УЧАСТНИКИ КЛАСТЕРА, ЦЕНТР

UDC 005.745:338.43(470.6)

5.2.3. Regional and sectoral economics (economic sciences)

PREREQUISITES FOR CLUSTERING THE AGRO-INDUSTRIAL SECTOR IN THE NORTH CAUCASUS FEDERAL DISTRICT

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In the current economic environment, driven by external sanctions and disruption of internal supply chains, the development of the regional agricultural sector requires effective organizational and economic mechanisms and process management forms that will ensure its sustainable development in the long term. The research methodology draws on the achievements and developments of Russian and international researchers in the field of qualitative and quantitative assessment of cluster formation and development. The objective of the study is to identify the prerequisites for clustering the development of the agro-industrial complex in the region. The primary goal of the TPC is to study the historical perspective of production links and interactions between social and natural productive forces. The method is applicable to both regions and industries. Essentially, this is a study of complex territorial systems, where the initial elements are the natural, labor, and energy resources of a particular territory. The main goals and objectives of cluster structure formation in the region are identified and characterized from a historical perspective. The proposed principles for constructing cluster structures and a system of measures for regulating the cluster structure are outlined. The main functions of regional authorities, oriented towards the priority needs of the region's population, are proposed when forming agroclusters

Keywords: AGROCLUSTER, AGRO-INDUSTRIAL COMPLEX SECTOR, SOCIAL RESPONSIBILITY, CLUSTER PARTICIPANTS, CLUSTER

Introduction. In today's economic climate, driven by external sanctions and disrupted internal supply chains, the development of the region's agricultural sector requires finding effective organizational and economic mechanisms and forms of technological process management that will ensure the sector's long-term sustainable development.

The introduction of effective organizational and economic structures for sustainable development of the agro-industrial complex at the meso-level in the form of agroclusters gives rise to the scientific problem of substantiating the prerequisites for their formation.

Materials and methods. The research methodology is based on the achievements and developments of Russian and foreign researchers in the field of qualitative and quantitative assessment of the formation and development of clusters [1, 2,4].

The central place in the study is occupied by the methodology for developing a cluster approach in Russia.

This approach, as applied to the Russian agro-industrial complex in strategic terms, was positively considered in relation to individual regions and industries [3, 4,5]

The practical vector for the development of regional clusters should be based on the use of a special roadmap, which will include measures that will facilitate the qualitative transformation of the institutional environment of the region.

Data from the Federal State Statistics Service was used to study the prerequisites for the development and implementation of a cluster approach in the region. The study focuses on a historical, structural, and logical analysis of

the regional characteristics of agricultural sector development in the North Caucasus Federal District.

Results and discussion. The cluster approach to effective management of a country's or region's industry is not a fundamentally new form of production organization.

The main goal of the territorial production system is to study, from a historical perspective, the production connections and interactions between social and natural productive forces. The method is applicable to both regions and industries. Essentially, it is the study of complex territorial systems, where the initial elements are the natural, labor, and energy resources of a given territory.

This approach is applicable to the agricultural sector with the aim of creating agro-clusters[2, 5, 8].

The systematic approach to implementing a cluster approach in regional agriculture involves identifying potential cluster structures in the region; assessing the economic status of these structures; and prospects for their functioning within the region and the country as a whole.

In the context of the modern Russian economy, the development of the agro-industrial complex requires specific approaches, as it demonstrates a low degree of self-regulation and competitiveness.

It is also necessary to take into account external sanctions pressure and the destruction of internal ties in this industry, which have an additional negative impact on its development.

In this regard, it is advisable to support the potential of the systems approach with the resources of the state power institution and their responsibility for the results.

Regional authorities must not only support the agrocluster and strategically orient it towards the most important problems of agricultural development, but also formulate specific obligations of regions and municipal

structures within the framework of the social responsibility of organizing the internal environment of the regional economic system [1, 7].

This involves the development and implementation of strategic programs and projects aimed at supporting small and medium-sized businesses in the agricultural sector, the development of social infrastructure, and other measures.

The specialization of a regional cluster depends on the resource potential available in the region; therefore, each cluster will have its own uniqueness, specificity of development and, accordingly, require the adaptation of universal cluster development tools.

Particular attention should be paid to the strategic direction of agroclusters within the framework of regional and national development strategies. In fact, the formation of regional clusters should be based on the fundamental goals of the following strategies: regional socio-economic development; spatial development of the Russian Federation; and so on.

Agroclusters in the region should become a tool for increasing labor productivity, enhancing the quality and quantity of agricultural production, improving the region's infrastructure, developing rural areas, etc.

Intensive development of human capital competencies, activating people's economic behavior, and realizing their creative potential are processes that play a key role in ensuring the sustainable development of the agrocluster and increasing its competitiveness at the regional and national levels. In accordance with the Strategy for the Development of the Agro-Industrial Complex of the Russian Federation for the Period up to 2030, the availability of personnel in the agro-industrial complex by 2030 should be 95% according to the baseline scenario and 92% according to the conservative scenario.

Research into regional and industry development and its successful practical implementation have demonstrated that the use of a cluster approach to regional agricultural development enables synergistic effects. Based on the

definitions of the agro cluster in various sources [2,3,4,5], it is able to meet the needs of the region and the country as a whole in basic foodstuffs.

This is also due to the abundance of natural resources in Russia. Resource productivity is presented in Figure 1.

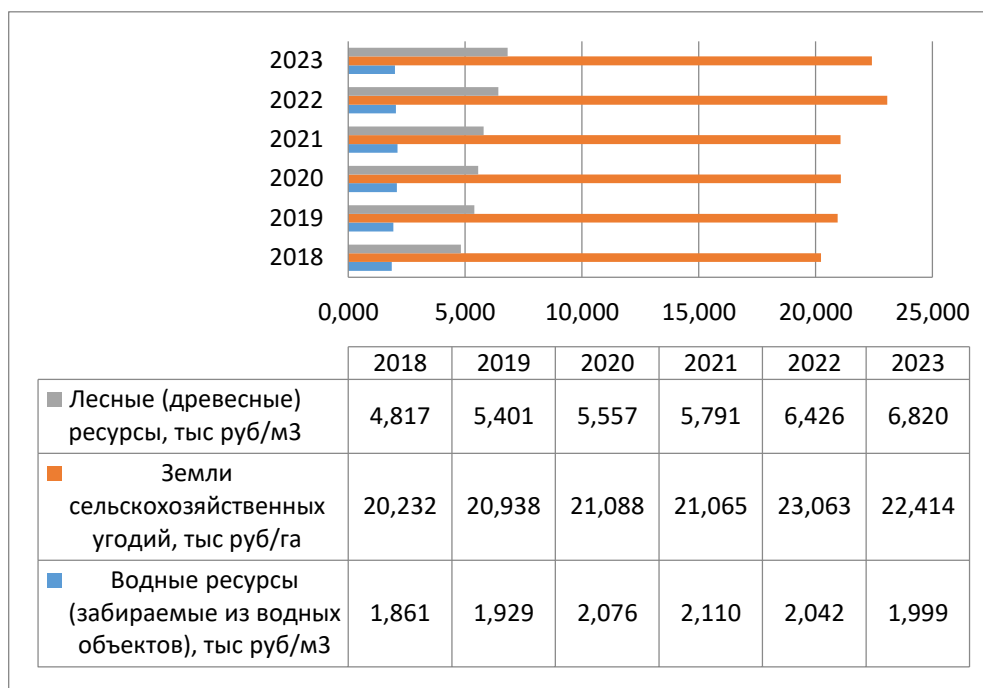


Figure 1. Assessment of resource productivity of some natural resources
(in constant 2021 prices)

With regard to the North Caucasus regions, a number of factors can be identified that are advantageous in terms of cluster formation in the agricultural sector:

A. Natural historical criteria of formation. Back in the 1920s, the North Caucasus region, including virtually all of today's North Caucasus Federal District subjects (with the exception of Krasnodar Krai), was viewed as "a complex area of oil, hydropower, irrigated and non-irrigated farming, and mountain pasture cattle breeding; development of electrometallurgy...; grain; industrial and fruit crops. Main production cycles: industrial-agrarian complex economy. Region type: oil, hydropower, industrial-agrarian"[1];

B. the presence of a large number of natural resources

C. One of the priority sectors of the regional economy is the agricultural sector (Table 1):

Table 1. Development of the agricultural sector in the North Caucasus Federal District

North Caucasus Federal District	2005	2010	2015	2020	2021	2022	2023
Agricultural output in farms of all categories, million rubles.	104073	197873	384914	513041	658101	705948	785969
Index of agricultural production in farms of all categories, as a percentage of the previous year	104.8	103.2	103.1	94.2	112.9	104.4	104.5
Sown area of all agricultural crops in farms of all categories, thousand hectares	3832.3	3980.8	4272.9	4229.7	4361.9	4452.9	4398.2
Sown area of all agricultural crops in farms of all categories of the total area, %	22.49	23,361	25,075	24,822	25.59	26.13	25.81

Gross harvests of agricultural crops in farms of all categories in the North Caucasus Federal District and in the Russian Federation as a whole amounted to (see Table 2):

Table 2. Gross harvests of agricultural crops in farms of all categories in the North Caucasus Federal District and in the Russian Federation as a whole

	2024	2023	2019-2023	2024 2023,%	2024 2019- 2023,%
Grain (weight after processing)					
RF, million tons	125	145	135.7	86.2069	92.11496
North Caucasus Federal District, thousand tons	11358.70	13163.70	11890.70	86.28805	95.52592
Sugarbeet					
RF, million tons	41.9	53.1	46.3	78.90772	90.49676
North Caucasus Federal District, thousand tons	1658.20	2103.30	1859.30	78.83802	89.1841
Sunflower seeds (weight after processing),					
RF, million tons	16.6	17.3	15.6	95.95376	106.4103
North Caucasus Federal District, thousand tons	430.2	697.3	589.8	61.69511	72.93998
Potato					
RF, million tons	18	20.2	19.7	89.10891	91.37056
North Caucasus Federal District, thousand tons	1059.30	1078.30	1014.20	98.23797	104.4469
Vegetables					
RF, million tons	13.8	13.8	13.7	100	100.7299
North Caucasus Federal District, thousand tons	2369.60	2272.90	2209.50	104.2545	107.246

G. the availability of a large labor force to enhance the region's human potential. The primary focus of the cluster approach is the region's human resources, with additional resources coming from attracting qualified specialists from other regions to utilize the full potential of regional clusters (Figure 2).

The regions of the North Caucasus Federal District face a number of problems: high unemployment, low incomes, and a significant share of the shadow economy.

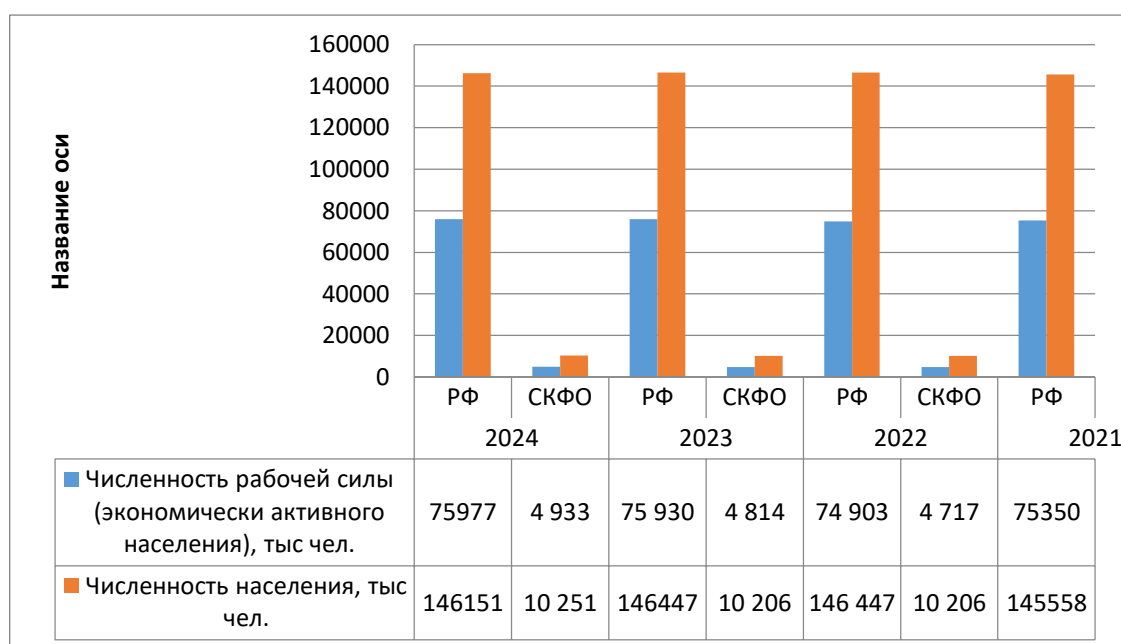


Figure 2. Key socio-economic indicators for the Russian Federation and the North Caucasus Federal District

The agro-industrial complex is a priority sector for all regional entities, in accordance with the approved Strategy for the Socioeconomic Development of the North Caucasus Federal District through 2030. The application of cluster technologies in the agro-industrial complex can serve as the basis for achieving the target indicators set forth in the Strategy for the Development of the Agro-Industrial and Fisheries Complexes of the Russian Federation through 2030.

The structural composition of the agro cluster includes: agricultural enterprises, agricultural machinery manufacturing enterprises, etc. Figure 3 shows the conceptual framework for building agroclusters in the region:

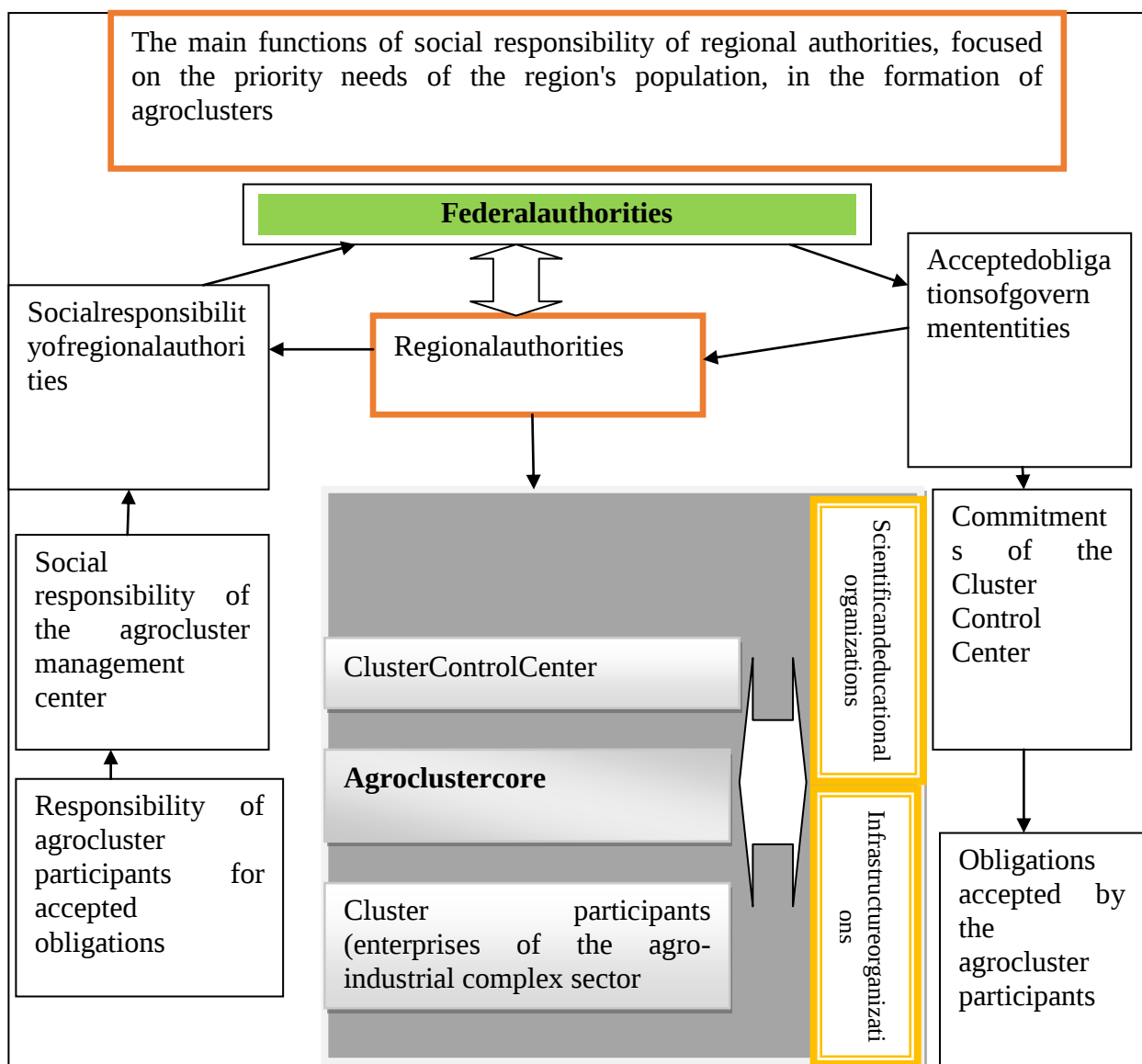


Figure 3. Conceptual form of building agroclusters in the region

The classification of functions and forms of responsibility of subjects according to two criteria - social needs and obligations assigned to the corresponding integrated subject - is based on the close relationship between the specified criteria.

The development of the agro-industrial sector, oriented towards the economic security of the region, can only be realized on the basis of a structural restructuring of the entire agro-industrial system.

The cluster's success is based on the necessary support of regional authorities, scientific schools and agricultural personnel, the region's natural

resources, and the full responsibility of all entities for the results of agrocluster activities.

Conclusion. The development of the agro-industrial sector, oriented towards the economic security of the region, can only be realized on the basis of a structural restructuring of the entire agro-industrial system.

The cluster's success is based on the necessary support of regional authorities, scientific schools and agricultural personnel, the region's natural resources, and the full responsibility of all entities for the results of agrocluster activities.

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