

Spatial development and management of strategy for socioeconomic growth of macroregions in Russia

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Abstract. This article deals with issues of spatial development and management of strategy for socioeconomic growth of macroregions with analysis of internal and external directions that impede the spatial development. A system was formulated for management of macroregions' spatial development. Strategic objectives were determined for priority social and economic development areas. A structure of rural conglomerations was considered where rural areas shall be adjacent to each other or border with hamlet areas, that is, they shall have neighboring borders of municipal settlement with number of permanent populations of not more than 30,000 residents. The conditions for the formation of an agricultural agglomeration mechanism for the development of agricultural patterns in a strategic perspective with the provision of socio-economic effects in the implementation of the set targets are determined. Establishment of agricultural collaborative and corporate clusters was substantiated considering general requirements formulated. The indicators were formulated for productive and economic activities related with structural, dynamic and target block of economic growth.

1 Introduction

Spatial development and management of strategy for socioeconomic growth of agricultural industry and individual macroregions shall be related with territorial and production integration of administrative and economic affairs and relations, and a specific character of conduct of agricultural business shall be determined with spatial location and specialization of all resource potential of macroregions (regions) [1, 2].

In the real world, rural spatial development related with the processes which are changes in state's spatial development at the level of rural areas and agricultural organizations, as well as spatial distribution of places of living and nature of activities of prevailing social and professional population segments which make the most useful contribution into progressive development and socioeconomic growth of these areas.

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In this regard, this spatial development process shall determine the nature of qualitative and quantitative measurement of production and economic development and facilitate the effective structural breakdown of macroregions, related with:

- areas, that is, nature and directions of their use, invasion and development;
- demographical situation and migratory behavior of population consisting in a certain nature of changing trends related with socioeconomic development of the society;
- functional and structural improvement, when the systems for management of production possibilities contribute to development of rural areas at the institutional, administrative and economic level.

2 Materials and Methods

In this academic and research thesis, general scientific research methods were used: abstract-logical, monographical, dialectical, inductive, as well as system and institutional approaches.

3 Results

Strategy for socioeconomic growth of individual agricultural macroregions shall be formed with a certain trend vector related with:

- changing sociopsychological circumstances in society and presence of certain factors that are determined along with changing socioeconomic trends of development;
- structuration of spatial job management related with invasion, development and intended use of rural areas which will contribute to effective improvement of development of socioeconomic capital of population residing;
- regulation of changes at the institutional level related with the effect on growing demands of rural areas in human potential and creation of effective scenery with satisfaction of these areas in the population's migratory movements;
- functioning of effective and systems organization of administrative activities on regulation of changes in spatial development of macroregions (regions) areas in the field of location and specialization of agricultural production.

That's why stability of spatial development of regional (macroregional) agriculture is impossible without full interaction with strategy of socioeconomic growth, as well as without implementation of elements of strategic planning and blocks of management of strategic development of these areas.

The main objective when implementing the strategy of spatial development of agricultural industry shall be the effective modernization of Russian agricultural economics which is integral to transition to digital innovative development and creation of significant opportunities for investment capital funding, as well as transition of strategic management to the field of modernization affairs to the level of interdisciplinarity [3].

The main objectives of strategy for spatial development of individual areas of macroregional agricultural business shall be as follows:

- formation and expansion of integrational affairs and balance of spatial affairs related with activation and improvement of intraregional interactions, as well as reduction of intra-macroregional differentiation and creation of optimal conditions for securing the human resources at geostrategic areas;
- development of agricultural innovative economy which will facilitate improvement of marketability of agricultural business;

- implementation of modern digital platforms and methods of spatial response related with organization and conditions for building potentials of municipal (rural) conglomerates and formation of intraregional affairs at the macroregion level [4];
- implementation of infrastructural projects of geostrategic areas related with improvement of power, transport, information, engineering and communication provision, availability of settlements and mobility of population residing;
- improvement of production and environmental safety with preservation of environment and prevention of exhaustion of nature management resource potential;
- maximum use of socioeconomic potentials of the macroregions' geostrategic areas, creation of new centers for territorial-sectoral development [5];
- formation of effective spatial entities, that is, creation of the most competitive macroregions related with implementation of long-term megaprojects at intraregional cooperation;
- improvement of state management (regulation) with provision of more flexible and adaptive system for management of spatial development with use of self-regulation mechanisms, scientific and design approach to distribution of functional responsibilities, improvement of effective interactions of all bodies of government agencies and authorities, as well as increase in activity of local government and intermunicipal affairs in this direction;
- provision of more transparent spatial environment for development related with formation of significant opportunities for vital provision and development of human resources, as well as improvement of availability for services of production and social infrastructure use [6].

Spatial development of agricultural industry and individual macroregions will provide innovative and investment way of development in production and economic sector, as well as create effective conditions for functioning of geostrategic areas [7]. But, nevertheless, there is a number of external and internal directions which impede the spatial development; they are given in Figure 1.

At the present day, strategies for spatial socioeconomic development shall be designed in macroregions up to the year 2035. That's why, the following steps shall be included in the strategy development project:

- carry out comprehensive analysis and give an appraisal to current state of socioeconomic development of this macroregion;
- give an appraisal to the state in which the competitive power, investment attractiveness and macroregions' development potential is;
- analyze the quality of functioning and development of human resources and production potential;
- give an appraisal to functioning in the context of key types of macroregion's economic activities;
- assess the achievements got and reveal major disadvantages of main indicators of socioeconomic growth of agricultural industries;
- determine the competitive information and strategic goals of development;
- formulate the tasks for spatial development considering digitalization of production and economic activities of macroregions [8, 9].



Fig. 1. External and internal factors impacting the spatial development of macroregions, *Source:* drawn up by authors.

One of main positions in strategy for spatial functioning shall be taken by spatial management system and organization of production and economic development of macroregions (Figure 2).

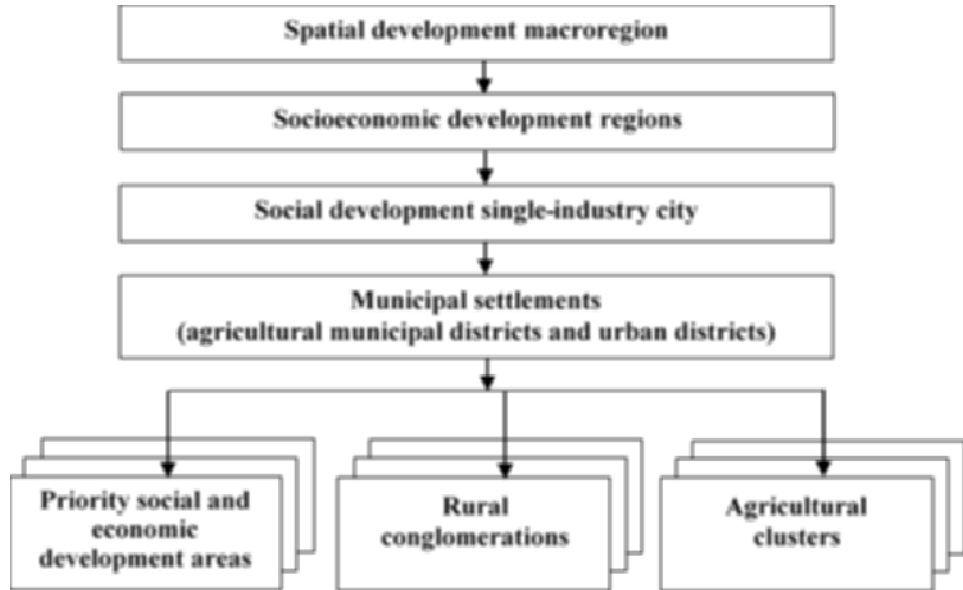


Fig. 2. Scheme for forming and management of the macroregion's spatial development, *Source:* drawn up by authors.

In the scheme for forming and management of the macroregions' spatial development, the main strategic goal are the measures related with implementation of progressive forms, such as priority social and economic development areas.

Based on the Federal Law "On Priority Social and Economic Development Areas in Russian Federation" dated December 29, 2014 No. 473-FZ (last modified on June 11, 2021 No. 170-FZ), these areas include parts of the constituent unit of the Russian Federation at which, in accordance with RF Government resolution, at which a special legal regime has been established for implementation of entrepreneurial and other activities in order to form significant opportunities for investment attraction, provision of enhanced socioeconomic development and creation of comfortable conditions for providing the population's vital activities. Resident of this area is an individual entrepreneur or legal entity which is a commercial organization, which state registration has been carried out at priority social and economic development area. The infrastructure includes a complex of land parcels with buildings and structures on them, including the facilities of transport, power, utility, engineering, social, innovative infrastructures, and more.

When considering the structure of rural conglomerations, it shall be considered that rural areas shall be adjacent to each other or border with areas of hamlets, small towns or administrative centers, that is, to have adjacent boundaries of the municipal settlement. At the same time, number of permanently registered (residing) population in the settlements' areas included in the corresponding rural conglomeration shall not exceed 30,000 residents. The number of rural conglomerations in the constituent units of the Russian Federation is registered by the executive authorities on the proposal of local governments.

One of the main tasks in the development of rural areas of macroregions will be the creation of conditions for the formation of an agricultural agglomerative mechanism for the development of agricultural ways in a strategic perspective, ensuring socioeconomic effects when meeting the set targets related with [10]:

- substantiation of the centers and structure of rural conglomerations of macroregions;
- determination of the boundaries and number of rural areas of agglomerative development;
- formation of infrastructure projects that contribute to the population's involvement for the development of these rural conglomerations;
- creating effective conditions for attracting innovative flows of development of rural conglomerations (areas) and agricultural production of individual sectors of the agricultural business;
- formation of comprehensive program activities related with increasing of the potential for investment development and diversifying the economy of the areas of macroregions' rural conglomerations;
- stimulating the development of the living environment of rural conglomerations and its public spaces, creating conditions for improving the quality of life of the population through the development of these rural conglomerations;
- development and improvement of mass cultural education of the rural population, and creation of a favorable cultural-social environment.

The creation of a modern agricultural cluster is an important direction in the formation of a spatial management system and organization of the production and economic development of macroregions. The main element in creation of agricultural clusters shall be obtaining the maximum profit from agricultural or other activities, while providing a single organizational and production structure that functions independently and has all the necessary properties for the successful implementation of the strategic goals and which includes a number of elements, such as combined production and infrastructure facilities, various service departments, management, logistics and marketing modern energy-saving technologies, as well as the use of the necessary innovative equipment to solve certain management issues [11].

There are two types of agricultural cluster: cooperative and corporate. The agricultural cooperative cluster is formed on the basis and principles of the cooperative movement in agriculture and is the best option. It voluntarily unites various legal organizations and enterprises, agricultural and other commodity producers, farmers of various directions, as well as individual farms to resolve pending issues. At the same time, the agricultural cluster optimizes the work of the cooperative society, reduces costs, and with its help, the participants receive maximum profit. Each cluster member is interested in obtaining efficiency from the performance of the work assigned to him in his household.

The agricultural corporate cluster, at the first stages, seems to be more attractive both for potential investors and formation of the process associated with the conduct of the agricultural business, although in the future there are certain difficulties associated with providing high-quality work potential, a decrease in labor productivity, which leads to a decrease in production volumes and deteriorating the products quality.

When creating a newly forming cluster, the following basic requirements shall be considered:

- drawing up of a business project for a future agricultural cluster;
- determination of specialization, location and concentration of agricultural production (which products, how much and where to produce them);
- provision of the infrastructure component of the agricultural cluster (selection of land areas for the placement of cluster, the availability of road, water, gas, electrical resources, communications, etc.);
- development of conceptual directions for the formation of a cluster, its design and construction;
- selection of materials, equipment and technical solutions;
- involvement of professional partners who provide technological, digital, economic and agrotechnical support for the implementation of the project on a long-term basis.

When solving issues related to ensuring the economic growth of macroregions, the main goal is its development with the obligatory use of quantitative and qualitative components. In fact, economic growth and economic development are quite similar and demonstrate the use of the same factors both to increase the volume of production activity and to obtain its qualitative characteristics. And the conducted scientific research and calculation of the interactions of quantitative and qualitative components of economic growth by M.N. Uzyakov make it possible to assert that a lead in the qualitative component of growth by only one percentage point per year adds more than one percentage point to economic growth, and similarly, if lagging behind, this percentage point is subtracted over this period.

Therefore, considering the prevailing modern trends related to business practices and scientific research, as well as deep connection between these phenomena and certain differences, we believe that economic growth is a means of development achieving. With this approach, a qualitative component of economic growth is substantiated, and its content reflects the equivalence of economic development. In this regard, the creation of priority accelerated economic development areas in macroregions will in every possible way contribute to the positive development of the production, socioeconomic spheres with the preservation and enhancement of human resources, as well as creation of additional vacancies and jobs in the agricultural business of certain industries.

The system for managing the economic growth of agricultural macroregions is formed using a structural and behavioral model of managing the rural economy, while the management under consideration is the main resource of growth potential, and in the instrumental direction it is focused on the use of modern strategic management technologies. At the same time, the ways and methods in practical application will be different, and their set is formed under certain conditions for the functioning of individual agricultural sectors of the macroregion and the vision of strategic management by the business entity.

The content of the system for management of economic growth in agricultural macroregions has a certain character which is formed by two types of factors. The structural complex is represented by parameters characterizing the dynamics of growth (that is, it determines the presence of managerial influence). The dynamic complex contains parameters that reflect changes in the quantitative, qualitative and generating components of economic growth (determines the managerial result). In this regard, the management of economic growth of agricultural macroregions shall be based on the principles of coordination in the two indicated areas, which will contribute to the creation of conditions for economic growth.

As a managerial toolkit for the formation of conditions for the growth of agricultural macroregions, instrumental directions are used that reflect the main content of agricultural policy, the formation of an economic mechanism and a system of socioeconomic standardization. When implementing strategic management technologies, strategic charts and definition of strategic initiatives may be used as additional elements of the system in the strategy implementation. The role of the main indicator for assessing the conditions created for economic growth and the effectiveness of implementation of strategies shall be the formed level of competence of the agricultural macroregions' potential.

The agricultural industry is fraught with difficult natural conditions and has a turbulent nature of the production functioning, as well as the presence of a large number of factors of economic growth and relationship between the parameters of economic activity. Therefore, its condition is determined by a number of requirements for managing the economic growth of agricultural macroregions, including the methods and procedures used for making managerial strategic decisions in achieving the sustainability and dynamism of the development of individual sectors of the agricultural business, while it is necessary to:

- consider the specific features of agricultural macroregions as a not entirely structured system of economic development;
- allow to effectively apply traditional methods based on formalized approaches of scientific studies, with innovative models, including models developed with the participation of expert developments, logic of thinking, intuition and heuristics;
- rest on the principles of implementing various scientific approaches, including the use of system analysis in the formation of information flows related with the functioning of agricultural and economic production, as well as the possibility of their strategic management;
- provide strategic planning and forecasting opportunities to assess the consequences of applying different economic growth strategies, avoid negative options and offer the most effective innovative digital platforms for implementation.

The effectiveness of the agricultural macroregion's management shall be built considering the systemic nature and be part of the socioeconomic development, as well as characterize the relationship between the managing and managed subject of the agricultural business, their affairs and impact when coordinating the activities of management personnel related to the functioning of the macroregion's individual sectors. It shall act as a basis in the economic activity of this agricultural macroregion and ensure the implementation of production indicators and its effectiveness [12]. In order to achieve the set strategic goals for managing the development of individual sectors of the agricultural macroregion, it is necessary to fulfill a certain number of requirements:

- the management system shall correspond to the effective functioning of the organizational, production and economic forms of management of a given macroregion;
- provision of a rational combination of the territorial and sectoral management principles;
- consistency of state and economic management in the field of the agricultural macroregion;
- mandatory coordination of interactions of all elements of the management system of the agricultural macroregion;
- ensuring of the unity of the goals set and the fulfillment of strategic tasks to achieve effective intended results by the macroregion's agricultural business, while qualitative functional distinctions shall be made, as well as the observance of rights, responsibilities and authorities in the performance of duties between various hierarchical levels of management, considering the objectively prevailing conditions, expediency and scientific rigour.

The system for management of the economic growth of an agricultural macroregion shall be built into the management system for individual sectors of the agricultural business shown in Figure 3.

Governmental management of the agricultural macroregion shall act as a guarantor in ensuring positive dynamics, considering the place and role of the state in the development of the agricultural sector as a whole. Therefore, considering its influence on industry specifics and the development of national priorities, the economic growth management system may express different directions, have different strengths of interaction and act in the forms of direct and indirect control (regulation).

State intervention is necessary at all stages of the implementation of production and economic processes at the level of the agricultural macroregion, and it is due to the results of research on the issues of state regulation of the agricultural economy, as well as the experience of practical implementation at different periods of the evolutionary development of productive-economic systems.

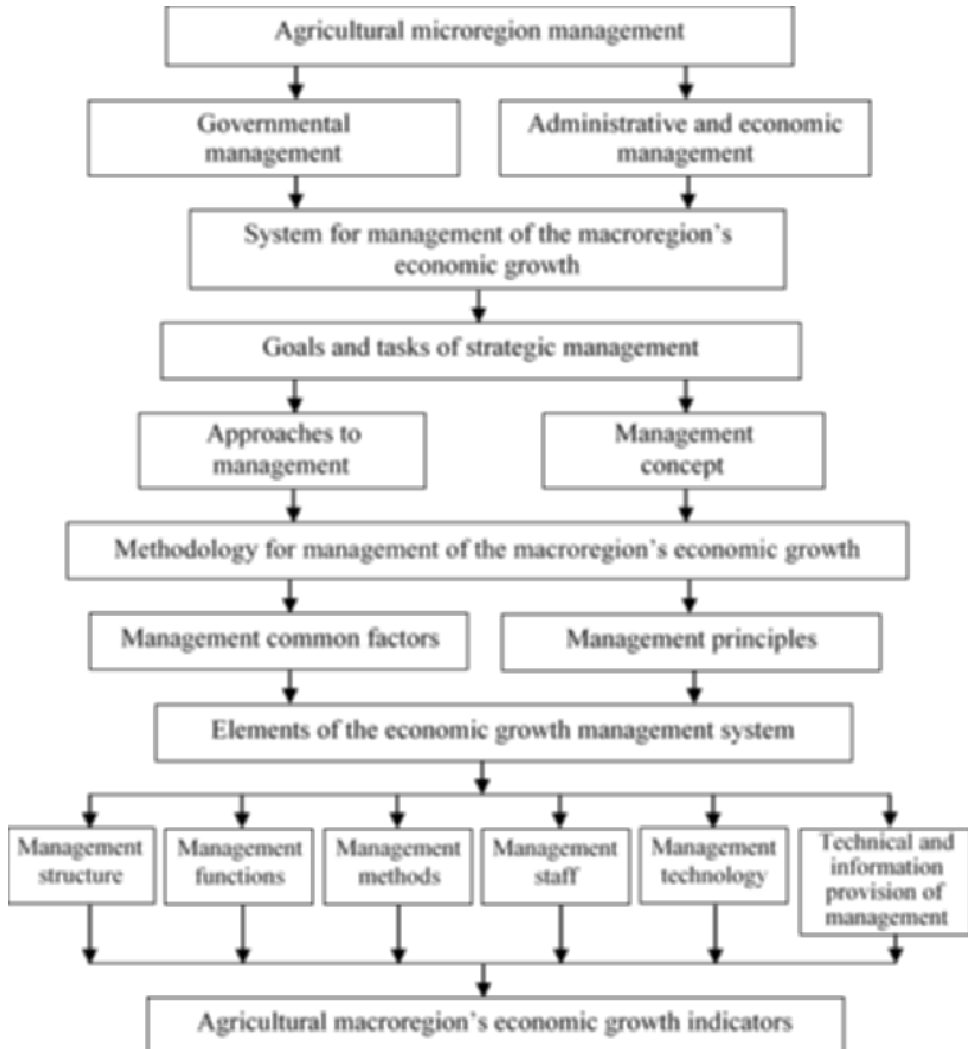


Fig. 3. The system for management of the agricultural macroregion's economic growth, *Source:* drawn up by authors.

4 Discussion

Considering the current situation in the production, economic and political aspect, associated with the introduction of huge sanctions by a number of countries of the world community, the Russian economy reliably demonstrates the need for state participation in the functioning of the agricultural industry, including macroregions, in order to create adequate conditions not only in economic development, but also in ensuring food independence and security.

The administrative and economic management is not able to provide comprehensive management of the economic growth of agriculture, including agricultural macroregions, with its own efforts and resources, since there is no great influence and mechanisms to influence the intersectoral and national levels in the formation of the productive-economic potential of undertakings.

It is the state that shall determine the amount of support and the nature of the necessary interaction, form the rules for “the game” according to which production and economic relations between economic entities of the agricultural business are implemented, ensuring the social welfare of the population [13].

The main priorities of the state, economic management and local governments in the formation of a system for managing the economic growth of agricultural macroregions shall be as follows:

- formation of an effective organizational and economic structure of the agricultural macroregion, focused on the development of the technical and technological structure and the digital economy;
- improvement of innovative conditions for the development of production, economic and socially significant areas of activity of the agricultural macroregion;
- determination of composition of participants in the balanced development of the agricultural macroregion with the use of rational location, specialization and concentration of production processes, with the effective use of the available resource potential and obtaining a greater synergistic effect;
- development of original non-agricultural areas of activity in agricultural macroregions that have a national identity and strategic importance for the development of these areas;
- expansion of the field of activity and conditions for economic entities of the agricultural business in accordance with the hierarchical place and role they occupy in the sectoral agricultural management system;
- formation of a balanced state and economic management of an agricultural macroregion based on an integrated approach at different hierarchical levels of management;
- development of economic growth management shall be carried out through the introduction of strategic directions related to systems of cooperation and integration of agricultural business through public private partnership institutions and other business structures to achieve strategic goals and economic stability.

In the process of the study of the development of management of the economic growth of the agricultural macroregion, indicators of production and economic activity associated with the structural, dynamic and target blocks were formed [14].

Structural indicators include the following:

- labor potential of the agricultural macroregion which forms the quantitative nature of labor resources and determines the main factor, such as a stimulator and disinfective of the economic development process;
- competence of the labor potential is a qualitative indicator that characterizes the labor resources of an agricultural macroregion, which determines the significance of the level of knowledge, skills and abilities of both working professions and employees of the administrative apparatus of agricultural production;
- material and technical support forms an indicator of the level of capitalization of the agricultural macro-region and in a generalized form characterizes fixed and working capital, technical, gas and energy and other technological support;
- availability of livestock, poultry and other animal species is a characteristic of the quantitative and qualitative parameters of the animal population, as one of the factors associated with the biological functioning of the agricultural macroregion;
- agricultural lands characterize the land resources related to one of the parameters of the natural and biological factor of the economic growth of agricultural production;
- natural and climatic potential characterizes the main indicators of specialization, concentration and location of the agricultural production business, where unfavorable natural and climatic factors play a huge role in the economic development of the agricultural macroregion.

Dynamic indicators include the following:

- the dynamic indicator of development of the agricultural production in a macroregion characterizes an integrated approach related to the pace and order of changes in the volume of agricultural production in a certain period of time, which may be used as one of the main basic indicators of quantitative economic growth, but considering its comparability in terms of cost and time period;
- the indicator of the effectiveness of the functioning of agricultural production shows the results of work in the macroregion, and may also compare the pace of development of agricultural production and give a generalized assessment of the level and quality of management of the macroregion;
- the indicator of the efficiency of agricultural production in a macroregion is an indicator that shows the economic efficiency of production activities and reflects the level of formation of the resource potential of a macroregion, and also determines the possibility of its development in a strategic perspective.

Target indicators include the following:

- the innovative component of the macroregion's agricultural production shall act as a determinant of economic growth and be one of the main mechanisms that determine the innovative direction of the agricultural business, aimed at intensifying innovative implementations related to the effective renewal of the production and economic potential of the macroregion;
- investment support of the agricultural macroregion forms the investment potential of economic growth and serves as a general indicator and characterizing element of the investment attractiveness of the agricultural business, as well as ensures the efficiency and intensity of investment income from various economic sources;
- infrastructure and information services of the macroregion shall act as both an infrastructural and informational component of economic growth and be generalizing parameters characterizing the levels of production and non-production activities in the macroregion's agriculture, while forming the process of expanded reproduction of the production, socioeconomic sphere through implementation of the digital economy;
- technical and technological support shall act as a technological determinant of growth and be the main indicator characterizing the intensification of technical and technological parameters in the field of agriculture of the macroregion using high-quality technological platforms, intelligent, energy-saving and progressive technologies in various areas of agricultural business;
- violation of disparity in intersectoral relations is destructive in nature and is a parameter that characterizes the violation of the degree of equivalence of intersectoral relations, causing inequality in the conditions of the formation of production and financial activities and the quality of life of the rural population and people in related industries;
- balanced development of the agricultural macroregion is an indicator of a stimulating orientation and a generalizing indicator that characterizes the system of state and economic management (regulation) of the reproduction process in certain sectors of agriculture, while providing intersectoral, interterritorial, economic, social and other content of economic growth.

Considering the above, we state that on the basis of the development of management of the economic growth of the agricultural macroregion, indicators of production and economic activity were formed related with the structural, dynamic and target blocks of economic growth. The basic indicators and growth factors of the macroregion form the basis for the production, socioeconomic functioning of the macroregion as an economic system as a whole. At the same time, the determining factors of economic growth and ensuring the reproduction process based on basic indicators and their more efficient use will lead to the creation of a universal management platform, which shall include, on the one

hand, a set of tools and methods of management influence, on the other hand, a set of indicators for monitoring its compliance with the parameters given [15].

5 Conclusions

In the course of the study, we note that an analysis was carried out and an assessment of the current state was made with the identification of disadvantages in the formation of the problem of spatial development and management of the strategy of socioeconomic growth of individual macroregions. The main tasks in the field of management of strategy of spatial development of individual areas of the macroregional agricultural business are determined. A number of internal and external directions is formulated that prevent the spatial development of individual macroregions from providing an innovative and investment path for the development of the production and economic sector. The scheme of formation and management of the spatial development of individual macroregions in the field of location and specialization of agricultural production is determined. A system for managing the economic growth of an agricultural macroregion is developed, associated with the formation of institutional, economic, social and production affairs, and the main indicators of production and economic activity have been formed, related to the structural, dynamic and target blocks of managing the economic growth of an individual agricultural macroregion.

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