Development and Implementation of the Spatial Development Strategy: Effectiveness Challenges

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Abstract One of the main problems of modern national development is the unregulated transformation of the spatial organization of the economy. As a result, the following problems inevitably arise: interregional differences in the level and quality of life of the population, the development of economic and social infrastructure, disproportions in economic growth and technological development, and threats to national security. A statistical measurement of inter-regional differences in the economic space of Russia indicates a significant increasing differentiation. The implementation of the approved State Spatial Development Strategy involves the development of a Comprehensive Plan, the formation of appropriate spatial development strategies for macroregions, and the creation of regional Spatial Planning Schemes. These processes update the algorithms for evaluating the effectiveness of the development and implementation of spatial development strategies. In the study, the iterative sequence of diagnosis and assessment of the transformation of the regional economic space, based on a systematic approach, is justified. It includes a number of stages for conducting a comprehensive measurement and assessment of the mutual influence of economic and social development, studies of the conformity of the sectoral and territorial structure, assessment of the sectoral capacity of territories and clustering of the economic space. The practical implementation of the proposed algorithm made it possible to identify areas for improving the economic space of the region. In the emerging hierarchy of documents for strategic planning of the national economy, the Strategy for Spatial Development of the Russian Federation plays a system-forming role, which is determined by the specifics of economic development and the history of public administration of the national economy. Further improvement of the effective strategic management of the economic space will solve many problems of national development.

Keywords Spatial development strategy · Strategy efficiency · Territorial organization · Economic space · Structure · Economic process

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1 Introduction

By order of the Government of the Russian Federation No. 207r on February 13, 2019, *the Strategy for Spatial Development of the Russian Federation for the period until 2025* was approved [7]. The formation of this strategically important document for the country lasted more than three years.

After the adoption of Federal Law No. 172-FZ *On Strategic Planning in the Russian Federation* of June 28, 2014, the systematic transformation of state forecasting and planning began. One of its directions was the regulation of the spatial development of the Russian regions and the country as a whole.

Obviously, the issues of developing and implementing a spatial development strategy for a country whose territory is significantly differentiated by natural, demographic and socioeconomic conditions are an extremely relevant area of theoretical, methodological, and applied research.

Spatial changes should be the result of the state's deliberate efforts to improve the organization of the resettlement of residents and the placement of objects of the economy, social services, transport, energy, and other infrastructures. The spatial development strategy of the Russian Federation (SDS of the RF) defines the general directions for improving the territorial organization of the economic space. At the same time, the mechanism of action of the strategy, assessing the effectiveness of its development and implementation, the specifics of the spatial development of various regions, and many other issues remain insufficiently studied.

The purpose of this study is the formation of an algorithm for assessing the effectiveness of the development and implementation of a spatial development strategy.

2 Materials and Methods

The spatial organization of the country's economy is one of the main factors of its sustainable development. In Part 26, Article 3 of the law "On State Strategic Planning," the spatial development strategy of the Russian Federation is interpreted as "a strategic planning document that defines the priorities, goals, and objectives of the regional development of the Russian Federation and aimed at maintaining the stability of the resettlement system in the Russian Federation" [11]. Decree of the Government of the Russian Federation of August 20, 2015, No. 870, *On the Content, Composition, Procedure for Developing and Approving a Spatial Development Strategy, as well as On the Procedure for Monitoring and Controlling its Implementation,* became a specification of the provisions of the law in the field of development and implementation of the strategy [6]. The draft *Concept of the Spatial Development Strategy* (SDS Concept), submitted for discussion by the Ministry of Economic Development of the Russian Federation in December 2016, also became

a specification of the provisions of the law in the field of development and implementation of the strategy. This project defined spatial development as progressive changes in the spatial (territorial) organization of society.

The SDS determines that the goal of the spatial development of the Russian Federation is to ensure sustainable and balanced spatial development of the Russian Federation, aimed at reducing interregional differences in the level and quality of life of the population and accelerating the rate of economic growth and technological development, as well as ensuring national security of the country [7].

Thus, for the strategic goal, the following three transformational areas of the economic space are identified: interregional differences, economic growth and technological development, and national security.

Measurement of interregional differences in the economic space of Russia indicates significant differentiation. Table 1 presents the dynamics of the ratio of the maximum to the minimum for some basic indicators of economic and social development in the subjects of the Federation. Dynamics are calculated by the authors according to statistical data [4].

The values of the indicators shown in Table 1 prove the increase in differentiation in terms of gross domestic product and investment in fixed assets. Compared to 2005, differences between regions in terms of per capita income and expenditure decreased but remained quite high.

Table 1 Dynamics of differentiation indicators of economic and social development of regions

	Indicators	2005	2010	2011	2012	2013	2014	2015	2016
1	Gross regional product per capita, ratio of maximum to minimum, times	21.9	15.1	61.6	47.3	44.0	55.5	48.7	54.5
2	Investments in fixed assets per capita, the ratio of maximum to minimum, times	125.8	56.0	72.5	50.6	55.7	208.7	163.2	90.0
3	The average per capita cash income of the population, the ratio of the maximum to the minimum, times	10.0	6.7	6.2	6.1	5.9	5.4	5.0	5.0
4	Consumer spending on average per capita, ratio of maximum to minimum, times	22.3	9.4	8.1	8.4	8.4	8.4	7.6	6.2

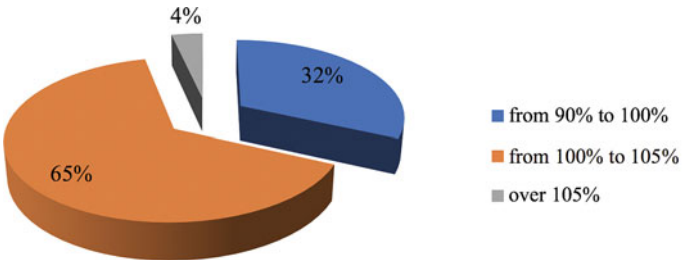

Fig. 1 The structure of the regions of the Russian Federation in terms of growth (decrease) in gross regional product

Acceleration of economic growth and technological development, to ensure the security of the country, should be correlated with the goals set by the Strategy for Socioeconomic Development of the Russian Federation, the National Security Strategy of the Russian Federation, the Strategy for Scientific and Technological Development of the Russian Federation in the emerging digital strategic planning system.

According to Strategy 2020 and the strategies for the socioeconomic development of the regions, the target gross regional product (GRP) growth rates should be quite high; an increase at several times was planned. Figure 1 shows the grouping of subjects of the federation according to the actual growth rate of the GRP. The authors calculated this data using data from a statistical compilation [4].

According to Fig. 1, the indicator growth rates ranged from 100 to 105% for 65% of the regions, and GRP decreased for 32% of the regions. In only 3 out of 85 regions, the growth rate of the indicator exceeded 105%, which amounted to 4% of the total number of regions. An important factor in increasing GRP is the territorial organization of the economic space.

The development and implementation of an effective spatial development strategy should ensure the sustainability of economic growth, national security, and the social orientation of strategic changes in public life.

Currently, there is no consensus on the assessment of the effectiveness of spatial development and indicators characterizing the effectiveness of the strategy. Five target indicators of spatial development are included in the SDS of the RF. It is possible that this set of indicators will be insufficient for an objective, comprehensive assessment of spatial development.

The effectiveness of the spatial development strategy can be assessed by the following indicators: predicted and actual qualitative and quantitative changes, integrated indicators for assessing economic and social development, and the degree of achievement of the goal and the implementation of strategic objectives. Economic science and practice have accumulated quite a lot of experience in the study of the economic space, its structure, and system properties that determine its effectiveness. In this direction, forecasting and planning the structural transformation of the economic space is of particular importance [8].

Economic space can be structured in various ways. In particular, economic space can be structured into economic and social components. In the process of assessing the effectiveness of the SDS and the quality of the economic space, it is advisable to use the integrated indicators of LED (level of economic development) and LSD (level of social development) to study the dynamics and diagnose their compliance [5]. For this, it is necessary to implement the following three stages: the first (theoretical) consists of identifying particular criteria,the second (methodical) consists of integrating private indicators into complex; the third (diagnostic) consists of constructing a matrix for the correspondence of LED and LSD, assessing their correlation and substantiating the planned changes in the economic space.

The implementation of the SDS of the RF is planned to be carried out through the development of promising economic specializations, which include both effective existing and potentially effective sectors of economic specialization [7]. Thus, compliance with the sectoral and territorial structure of the economy will be achieved.

Diagnostics of the conformity of the sectoral and territorial structure of the regional economy has repeatedly been in the focus of attention of many economists at various periods in the development of economic thought. With the development of a systematic approach, special attention began to be paid to this issue. Systematic management of the spatial development of the country and regions on the basis of improving the structural organization will allow for a synergistic effect and use industry and spatial factors [2].

Diagnosis of the mutual influence of the sectoral and territorial structures is reflected in the authors' work on the allocation of economic resources [13]. According to this point of view, which we share, "allocation" is a process of distribution and localization of economic resources within a territory. Assessment of the results of the impact of allocation on territorial development should become the basis for improving the structural territorial and sectoral organization of the economy.

The elimination of imbalances in accordance with the sectoral and territorial structure can be carried out by various methods: by clustering the economic space, studying the industrial capacity of territories and the use of various modern forms of territorial organization of the economic space, according to the results of stability diagnostics in the process approach, and many others.

The diagnostics of spatial development stability based on the process approach was used by O. A. Biyakov [3].

In accordance with the developed assessment methodology, the economic space is structured into four types of processes: main, auxiliary, life support processes, and processes that impede economic development. The main processes ensure the production of material and intellectual values, determine the level of socioeconomic development, the competitiveness of the territory, and affect the level and quality of life of the population. Supporting processes operate to ensure basic processes, create conditions for the effective functioning of the regional economy, and ensure the development of external and internal economic relations. Life support processes determine the population's standard of living, form the region's social infrastructure, and create an industrial and industrial infrastructure that ensures the effective flow of the main and auxiliary processes of the region's economy. The processes that

impede economic development include negative trends in regional development. The interaction of these structural components of the aggregate economic space determines its quality and sustainable development.

According to the assessment's results regarding the economic space, we can determine the direction of its transformation.

The original methodology of research and targeted transformation of the socioeconomic space of the region, based on clustering, was developed by Vertakova, Yu. V., Risin, I. E., Treschevsky, and others [13].

From the point of view of clustering conditions, it is proposed to evaluate the relative advantages of industries in the region by means of the vertical and horizontal analysis of the socioeconomic space using the coefficients of localization, specialization, and per capita production [14]. Directions for clustering the economic space can be included in the territorial planning schemes of the constituent entities of the Federation and the spatial development strategy of the macro-regions of the Russian Federation.

3 Research Results

According to the results of the study, conclusions were made about the need for strategic transformation of the economic space in order to reduce interregional differences, create conditions for economic growth and technological development, and ensure national security. We can evaluate the effectiveness of the development and implementation of a spatial development strategy based on the results of actual research and predicted results using the following algorithm:

- Measuring the levels of economic and social development, assessing their conformity, and identifying strategic segments for improving the territorial organization of the socio-economic space;
- Using diagnostics of the conformity of the territorial and sectoral structure of regions and macro-regions and determining the sectoral capacity of territories based on the study of the allocation of economic resources;
- Assessing the sustainability of the development of the economic space based on the process approach;
- Assessing economic conditions for the formation of clusters in the regional socioeconomic space, determining directions, and assessing the effectiveness of clustering results.

We consider the industrial capacity of territories as a qualitative and quantitative characteristic expressed in assessing the economic feasibility of the location and development of industry enterprises in the structural elements of the region. By measuring and differentiating the sectoral capacity of the territories of the Central Federal District, we have identified groups of regions with low sectoral capacity (the Kaluga, Lipetsk, and Tula regions); with middle sectoral capacity (the Belgorod, Vladimir, Voronezh, Moscow, Ryazan, Smolensk, Yaroslavl regions and the city of

Moscow) and with high sectoral capacity (the Bryansk, Ivanovo, Kostroma, Kursk, Oryol, Tambov, and Tver regions).

The results of a study of the sectoral and territorial structure of the economy of the Kursk region made it possible to determine the direction of structural transformations and the formation of industrial clusters. In terms of cluster projects, we distinguished the following clusters: a cluster of electric power, a cluster of mining, a cluster of engineering products, a cluster of production of building materials, and an agro-industrial cluster, including food and light industry.

4 Discussion of Results

The economic space is formed as a result of geopolitical, economic, social, scientific, technical, national, and regional development. At the same time, the territorial organization of the economic space is an indispensable factor in the economic dynamics and development of society.

The RF's approval of the SDS is the starting point for the development of Spatial Development Strategies for macro-regions and their regional projections, namely, Territorial Planning Schemes of the constituent entities of the Russian Federation.

Thus, in modern conditions, it is necessary to evaluate the effectiveness of the development and implementation of spatial development strategies to prevent the inefficient use of resources and the influence of spatial factors on economic development.

According to the SDS of the RF, the Russian economic space will be structured into macro-regions. There are plans to develop and introduce a new mechanism for the development of the economic space of regions with a special regime of entrepreneurial activity, taking into account the recommended promising specializations of specific territories. At the same time, in the structure of the economic space of each subject of the federation, the imbalances in the ratio of economic and social development, the sectoral and territorial structures, and the functioning of regional economic processes should be analyzed and identified.

5 Conclusion

In the hierarchical structure of the system of documents of strategic planning for the development of the national economy, the Spatial Development Strategy of the Russian Federation (SDS of the RF) plays a system-forming role. This is due to the specifics of the historically formed economic, geographical, and geopolitical spaces of the country. Socioeconomic and scientific-technological development, as well as national security, is largely determined by spatial factors. The sources that determine the influence of spatial factors are the history of the location, the development of the country's productive forces, the development of public administration,

the formation of a long-term supporting framework for the national economy, and other reasons. Implementation of the approved Spatial Development Strategy of the Russian Federation will be successful, provided that the development and implementation of strategies for the spatial development of macro-regions and the economic justification of the Territorial Planning Schemes of the constituent entities of the Russian Federation are evaluated.

In our study, we proposed an integration of the sequence of research with an evaluation of the effectiveness of transformations in the regional economic space, taking into account the interaction of economic and social development, the interaction of the sectoral and territorial structure, the effectiveness of the process structure of the regional economy, and clustering. Using algorithms to grade the effectiveness of both development and implementation of a spatial development strategy during the evaluation process will allow for a phased and comprehensive review of both the process and the results of economic and social development. It will help to identify imbalances in the formation of the economic space and reasonably determine the direction of its improvement.

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