State monitoring of the sustainable development of a territory

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Abstract. The paper proposes a methodology for the formation of monitoring of sustainable development of a territory. The existing addition to the concept of sustainable development is presented. This methodology is a recommendation for authorities. The main goal of the proposed methodology is connected with conducting research on socio-economic and environmental development and planning of territories in order to achieve sustainable development and increase inter-regional and intra-regional spatial connectivity. The authors give recommendations on the formation of the state monitoring of sustainable development a territory system for the Ministry of Economic Development and Industry of the Irkutsk Region. It is proposed to form a permanent analytical department and give name "Coordination Council for Spatial Development". The Coordination Council for Spatial Development carries out activities to study the issues of sustainable development of a territory and spatial connectivity. The monitoring results can be used by regional authorities to formulate provisions for achieving the sustainable development of a territory within the framework of formation the Strategy for the socio-economic development of a region. The algorithm is presented in the form of diagram. The diagram describes the sequence of actions for the formation of provisions for the sustainable development of a territory by assessing the socio-economic, ecological state and the level of territorial connectivity.

1 Introduction

Sustainable development has broad appeal and little specificity, but some combination of development and environment as well as equity is found in many attempts to describe it. However, proponents of sustainable development differ in their emphases on what is to be sustained, what is to be developed, how to link environment and development, and for how long a time. This is due to the ambiguity of sustainable development, the plurality of purpose in characterizing and measuring sustainable development, and the confusion of terminology, data, and methods of measurement [1, 2]. The concept of sustainable development has undergone various developmental phases since its introduction. The historical development of the concept saw participation of various organizations, which nowadays work intensely on its implementation. The concept has experienced different

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critiques and interpretations over the time while being accepted in different areas of human activity, and the definition of sustainable development has become one of the most cited definitions in the literature [3].

The paradigm of sustainable development assumes a dynamic process of successive positive changes that ensure a balance of economic, social and environmental aspects of society. It should underlie the formation of approaches for resolving large-scale problems of the territorial entities. This is especially important in the modern conditions of Russia, when the centre of "gravity" of economic reforms is shifted to the level of regions and their role in the implementation of the state's economic policy is strengthening. In modern time in Russia the priority approach in the implementation of reforms at the regional level should be the conviction that one should refuse the identification of the development of the territory with its economic development, i.e. those only natural (mineral) resources are the basis for the development of the territory. At present, the Russian economy needs to abandon the raw material approach, when only natural (mineral) resources are the basis for the development of the territory. This traditional approach to the development of the territory has exhausted itself. Also the sustainable development of a territory should be aimed at achieving of a standard of living, with a positive dynamics of the aggregate indicators. In general, we can talk about the general requirement of balanced, safe and effective development, ensuring the achievement of the goals and priorities of the social, ecological and economic characteristics [4, 5, 6].

In the modern Russian spatial science, regions divide into the regions – donors. This group of regions is characterized by financial and economic centres (economic clusters), mainly resource regions, industrially developed, in these regions there are environmental risks associated with the high environment pollution. The next group of regions is recipient regions. The main indicators of socio-economic development deviate from the worse side from the national average statistic indicators. This group of regions is characterized by a production recession. The problem regions have a fairly high level of unemployment, combined with a narrow industry specialization and a low share of manufactured products [7].

The regions of Russia are characterized by heterogeneity of development due to different natural and climatic conditions. The presence of raw materials (gas, oil, timber) and production specialization in the regions varies the levels of their socio-economic development, which reflects the asymmetry of the level of spatial development, defining some regions as donors and others as recipients.

For leveling off the socio-economic disproportions between regions in order to achieve sustainable development of the territory, the state uses to inter-budgetary transfers. Finally, this policy is not particularly effective because regions receiving subsidies cannot equalize the budget and move from the status of recipients to donors.

This is largely determined by the ineffective policy of authorities. The increase in the asymmetry of an economic development between donor and recipient regions, donor regions and centres of concentration of resources and bank capital (mainly in megacities) has led, on the whole, to heterogeneity in the development of the country's economic space.

For promoting an economic growth (which can contribute to lowering economic and social inequalities) most countries need to boost innovation and ensure diffusion from research and development [8].

In scientific papers of the Russian scientists, it is noted that the territory of the Russian Federation currently does not represent a single economic space due to the increasing disproportions in economic development between regions. The Russian Federation currently does not represent a single economic space, and differences in the level of economic development of regions are growing.

The economic space of most regions of Russia is characterized by uneven development of the territories and as a result, its weak diversification. At the same time regions have a significant natural resource potential, which is characterized by a reserve of untapped opportunities that are subject to careful study.

Regional space as a geographical and economic concept can be represented by a certain system that interacts with the external environment. The elements of such a system are the factors of production and the population of a certain territory. There are stable economic ties between the elements. The population in the regional system has a special role: on the one hand, the population is a productive force; on the other hand, it acts as a consumer of the results of the regional system. The primary goal of the functioning of this regional system is to meet the needs of the population and create conditions for sustainable development of a territory.

2 Research methodology

The conversion from a planned economy to a market economy made it possible to expand the practice of public-private partnership, which made it possible to increase the competitiveness of regions at the international level [9, 10].

Welfare economics can accommodate distributional considerations, and, suitably defined, the concept of welfare can include the subjective effects of changes in - as well as the levels of - well-being. Hence there is no reason why welfare maximization should not remain an overriding policy objective. Nor can sustainability be regarded as a 'constraint' on welfare maximization unless there is a clear conflict between the two - which has yet to be demonstrated. This is not to deny the importance of intergenerational justice, nor the need for economic incentives to correct market imperfections if the environment is to be managed in a socially optimal manner [11].

It is necessary to finalize administrative measures in the field of spatial development for the sustainable development of territories in Russia. For these purposes, the article proposes a state system for monitoring the sustainable development of a territory, taking into account, among other things, the level of territorial connectivity by information and telecommunication networks (ICT). In order to identify threats to the stability, security and integrity of the functioning of the information and telecommunications network on the territory of the Russian Federation. The functions of control and supervision in the field of mass media, mass communications, information technology and communications are carried out. The functioning of these types of networks is monitored annually by the Federal Law from 05.01.2019 N 90 [12].

The authors give recommendations on the formation of a system of state monitoring of the sustainable development of a territory at the Ministry of Economic Development and Industry of the Irkutsk Region. The permanent analytical department “the Coordination Council for Spatial Development” is suggested.

The Coordinating Council carries out activities to study the issues of sustainable development of a territory (on the example of the Irkutsk region). Also, the Council will be able to perform the functions of a customer of strategic planning documents, solving problems of developing a unified policy, harmonizing interests, coordinating actions with government authorities, forming common tasks and ways to solve them in the field of transport, information and communication, social and other infrastructures, also assistance in the provision of information, analytical and project services to investors.

The main functions of the Coordination Council for Spatial Development are as follows:

- conducting research on the development and planning of territories, searching for an individual strategy for the further development of urban planning, taking into account the specifics of the regions and the experience of foreign experience;
- search and generation of a common idea, an integrated approach, which allows to correctly concentrate material, labour and financial resources for the development of the territory and ensuring its territorial connectivity, attractiveness and demand for the population;
- preparation of proposals for adjusting the regulatory framework for the spatial development of the region;
- the formation of strategic goals for state programs, taking into account the analysis and coordination of spatial development;
- analysis of the work of ministries and the formation of strategic goals for them;
- formation of the cluster economic strategy by "pulling up" backward territories (regions);
- ensuring the involvement of government, business and society for solving issues of the regional development and the formation of a set of units that analyse and coordinate the innovative and investment development of the region, as well as its internal territorial development and external integration;
- implementation of revision, strengthening, reorganization and completion of the system of development institutions, ensuring the improvement of the quality indicators of logistics, transport and information and telecommunication systems;
- ensuring an influx of initiatives on the basis of project sites and the creation of coordinating structures to promote individual inter-regional and international projects.

Thus, the work of the Coordination Council for Spatial Development will contribute to ensuring the transition of governance economic space of the region to a new level, which will improve its quality characteristics, attractiveness for stakeholders.

The integrated territorial development is determined by a combination of social, economic and environmental criteria.

Moreover, natural resources are considered not just as a “storehouse of nature” in terms of the aggregate of direct values of certain types of resources, but taking into account the entire complex of elements that make up the complete structure of value. It is relevant from the point of view of sustainable development strategy, preservation of natural resources for future generations [13, 14].

Maintaining a balanced policy, both in the state system, business and population, will be able to ensure the sustainable development of the region, its competitiveness and external integration into the world economic process. At the same time, it is necessary to find a common comprehensive approach to assessing the resources available in the region and to improve the intra and interregional connectivity of a territory [15, 16].

The developed algorithm for the state monitoring of sustainable development of a territory is shown in Figure 1.

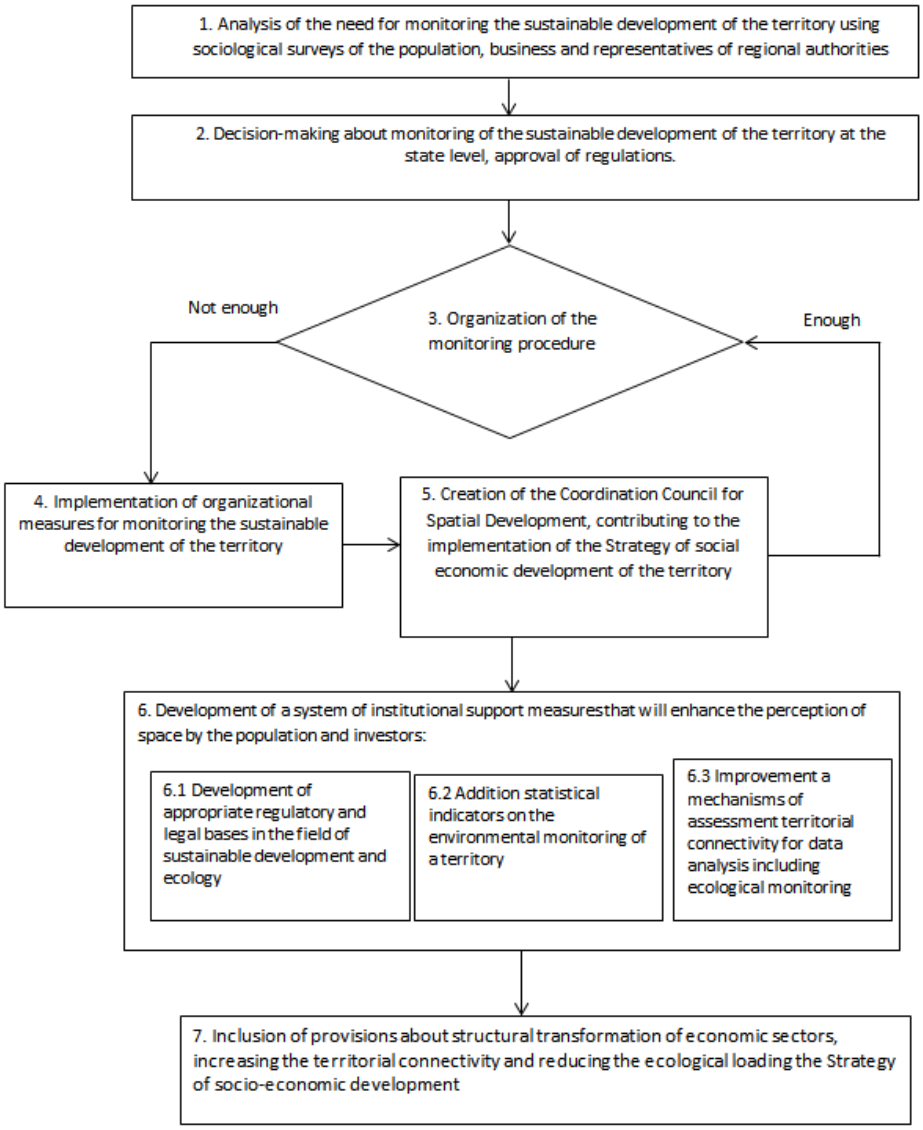

Fig. 1 Algorithm of state monitoring of the sustainable development of a territory.

The monitoring algorithm is a recommendation for state authorities. This technique is possible to use as a tool for assessing the socio-economic and ecological state of a territory. Finally, the monitoring results can be used in the Strategy for the socio-economic development of the region for a visual representation of the current situation. In turn, the improvement of the ICT territory connectivity mechanisms for the analysis of environmental monitoring data will allow the federal executive department to establish some technical conditions, as well as requirements for communication networks when using technical means to counter environmental threats.

3 Results

The development and correction of territorial planning documents begins with a series of studies, based on the results of which technical assignments are drawn up and agreed at the level of regional and municipal executive authorities. The effectiveness of the implementation of the technique will be facilitated by the development of an algorithm for the implementation of its stages, which is shown in Figure 1.

The essence of the algorithm for the implementation of the proposed methodology is as follows:

- at the first step, an analysis of the needs for monitoring the sustainable development of a territory is carried out using sociological surveys of the population and representatives of regional authorities;
- at the second step, a decision is made on monitoring the sustainable development of the territory at the state level, the approval of regulations;
- at the third step, the organization of the monitoring procedure is carried out. The result is the development of proposals for the coordination of spatial development based on the data obtained;
- at the fourth step, a system of institutional support measures is being developed to enhance the perception of the space by stakeholders.

If the organization of the monitoring procedure is not sufficient, then stage 4 will carried out. At the fourth step, organizational activities are carried out to monitor the sustainable development of a territory. Action includes conducting sociological surveys, the work of experts in the field of spatial development, scientific conferences and seminars. The result of which is the creation of the Coordination Council for territorial development, contributing to the formation and implementation of the Strategy for the socio-economic development of a territory, taking into account sustainable development territory (5th step).

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4 Discussion of the results

Using the theoretical and practical provisions developed by the authors for the formation of state monitoring of sustainable development of a territory. The developed methodology determines the sequence and content of actions of stakeholders (consumers of the territory, state and municipal authorities, business structures and population), as well as a set of organizational measures, measures of institutional support in the field of spatial development.

The implementation of the main provisions of the methodology for the formation of state monitoring of sustainable development of a territory is presented through the participation of citizens, public organizations and business communities in the procedure for discussing the project of Strategy for the socio-economic development of the region, which includes recommendations for the integrated development of a territory. The strategy of socio-economic development of the region will become the basis for adjusting the territorial planning documents, both for individual municipalities, urban districts, and the region as a whole. The strategy should be aimed at the development of consolidated infrastructure schemes, which include the placement of social, industrial, municipal and other facilities for certain parts of the territories, and the development of transport and engineering complexes.

5 Conclusions

The article describes an algorithm for monitoring the sustainable development of a territory. The monitoring results can be used by regional authorities to formulate provisions for achieving the sustainable development of the territory within the framework of the Strategy for the socio-economic development of a region. The algorithm is simplified and presented in the form of a diagram. The actions for the formation of provisions for the sustainable development of the territory are described by assessing the socio-economic, ecological state and the level of territorial connectivity.

Thus, this methodological development differs from existing methods by the possibility of:

- to comprehensively assess the economic and social attractiveness of the territory and the possible prospects for the development of the economy;
- on the basis of the results of the assessment, determine the set of organizational measures to ensure the involvement of the authorities, business and society in solving issues of the prospects for the development of the territory through their participation in the procedure for forming the Strategy of the socio-economic development of the region.

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