

SCTCMG 2021
International Scientific Conference «Social and Cultural Transformations in the Context of
Modern Globalism»

MONITORING OF THE SOCIO-ECOLOGICAL AND ECONOMIC
DEVELOPMENT SYSTEM

Popova Lyudmila Vladimirovna (a)*, Mkrtchyan Zoya Vladimirovna (b),
Kotlova Yulia Aleksandrovna (c), Basnukaev Musa Shamsudinovich (d),
Puchkova Nadezhda Viktorovna (e)
*Corresponding author

(a) State Federal-Funded Educational Institution of Higher Education Orel State University named after I.S. Turgenev, 95, Komsomolskaya st., Oryol, 302026, Russia, Lvp_134@mail.ru

(b) State Federal-Funded Educational Institution of Higher Education Orel State University named after I.S. Turgenev, 95, Komsomolskaya st., Oryol, 302026, Russia, info@oreluniver.ru

(c) State Federal-Funded Educational Institution of Higher Education Orel State University named after I.S. Turgenev, 95, Komsomolskaya st., Oryol, 302026, Russia, info@oreluniver.ru

(d) State Federal-Funded Educational Institution of Higher Education Chechen State University, 32, A. Sheripova st., Grozny, 364024, Russia, mail@chesu.ru

(e) Surgut State University, 628412, Khanty-Mansi Autonomous Okrug - Ugra, Surgut, ave. Lenin, d. 1, Surgut, Russia, puchkovanv@gmail.com

Abstract

On the way to improving the system of development of the socio-economic industry there are various problems - environmental, social, economic and political ones. Consequently, the methodology for assessing the development of territories involves the solution of complex problems in the field of environmental, economic and social development. To realize the spatial social, economic and ecological space, it is necessary to create a balance of the territory according to all resource indicators, build a model of the reference dynamics of these indicators and evaluate the phases of the economic cycles of the territories. An important role in this chain is played by economic geography, regional economy, the transport component where spatial development is assessed. The authors present a theoretical and applied model of development of territories, as well as environmental problems that impede the socio-economic development of territories. It should be noted that an important stage in the socio-ecological and economic development of the territories is the global unresolved problems in the field of ecology, social sphere, economic industry, which impedes the holistic development of the territories. To achieve the tasks, it is necessary to identify the problems of assessing the socio-ecological and economic development of the region, assess its tax potential, phases of the economic cycle, and assess the current and future needs for the development of the transport infrastructure of the territories. In this regard, the issues of regional management using a transport and logistics approach are also important.

2357-1330 © 2021 Published by European Publisher.

Keywords: Monitoring, socio-ecological-economic development, system, territory



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

1. Introduction

The economic system of any state depends on the level of territorial development. Only the uniform development of the regions can contribute to the achievement of high efficiency in the development of the socio-economic sector. However it should be noted that on the way to the development of territorial entities, and in general, the state is hindered by such problems as social, demographic, environmental problems that do not allow us to fully reveal the potential that is inherent in each region of our country.

2. Problem Statement

The current system of territorial development is not sufficiently developed, as there are no regional economic projects aimed to solve both economic and environmental problems. Today, the global problems of humanity are not economic, but environmental problems, the ecological system is the basis for the development of regions, while using the specific features of each region and territories, it is possible to maximize economic benefits.

Consequently, the lack of a unified approach to the methodology, methodology, and practice of socio-ecological and economic assessment of the formation and development of municipal territories leads to the backwardness of other sectors of the economy, the decline in demographic indicators, the outflow of regional capital, and population migration, which ultimately leads to the emergence of economically backward territories.

3. Research Questions

Constant monitoring of the socio-ecological and economic situation of territorial entities will help to summarize information in a timely manner, identify problems of economic underdevelopment of the region, develop new mechanisms, restore, or use the underestimated economic potential of each subject of the Russian Federation.

Monitoring is a system of continuous monitoring of the observation of a phenomenon or process in order to make appropriate decisions at the macro and micro levels.

4. Purpose of the Study

Competent use of the specific features of territorial entities contributes to the development of the socio-ecological and economic system, which in turn guarantees a positive return on the chosen system of economic management of the subjects of the Russian Federation.

5. Research Methods

The study was conducted on the basis of methods of interregional comparisons, dynamic standards, index, factor analysis, and theoretical modeling.

In order to solve the problem in the field of socio-ecological and economic development, the noosphere approach is used, which involved the analysis and assessment of the impact of society on the environment (Kulikova, 2019). An important criterion for assessing the level of the company's impact on the environment according to the "man-society-nature" system is the collection and processing of information. The next approach to solve this problem is the evolutionary approach, which involves the analysis and evaluation of the regional socio-ecological and economic system.

As for the system approach, this system assumes the relationship of economic indicators that assess the state and development of regions in terms of such components as social, environmental, and economic. Assessing the balance, taking into account indicators over a certain period of time is called a dynamic approach.

The analysis and evaluation of the research was carried out on the basis of the principle of adequacy of information support, the principle of content compliance, management process, and economic analysis.

6. Findings

The social, ecological and economic system is the interrelation of certain components of the ecological, social, and economic system that function together in a certain institutional environment.

The interaction of the social, ecological and economic system at the level of society, economy and environment is as follows Table 1.

Table 1. Matrix of the relationship of the socio-ecological-economic system

	Ecology	Society	Economy
Economy	Use of natural resources, self-restoration of natural resources	Environmental level and quality	Provision of natural resources
Ecology	Environmental pollution, atmospheric pollution by greenhouse gases	Production of products, production of finished products	Reproduction of the intermediate product
Society	Waste products	Development of society: intellectual, technological, informational	New jobs

The significant differentiation of territories by the level of their socio-economic development is due to both objective factors (climatic conditions, resource availability, etc.) and the effectiveness of managing the processes of spatial development (Krass, 2018). Effective targeted management of spatial development of territories requires the organization of a monitoring system that covers a number of the most important aspects of regional development management.

The development of theoretical and applied provisions of the organization is based on a system of monitoring and methodological tools for assessing the spatial development of territories that form a regional socio-ecological and economic system necessary for strategic planning and forecasting the development of municipal districts or urban districts. The development of incentives to expand their own revenue base and their budgets based on the assessment of the availability and opportunities for involving the resources available in the territory in the turnover is also included in the scope of the issues under consideration.

In order to provide monitoring tools and assess the budget and tax potential of territories in terms of spatial, socio-ecological and economic development, it is necessary to analyze the phases of the economic cycle of territories, consider the development of problem territories, their current and future needs of transport and logistics infrastructure (Balatsky et al., 2015; Tsaregorodtsev, 2016). The need to develop these positions in management as recommendations to the state authorities of the region is dictated by the directions of improving the efficiency of managing the processes of spatial and regional development. Here, strategic planning and forecasting of the development of municipal districts and urban districts is not without attention.

The development of regions is the most important task of the transformation of the socio-economic sector, since the effective and even development of territories contributes to the effective distribution of resources, increases the efficiency of the return on financial investments in new macro and microeconomic projects of the regions.

The scientific problem that is solved in the article is the development of theoretical and applied provisions of the organization of the monitoring system and tools for assessing the spatial development of territories that form a regional socio-ecological system. The key is a comprehensive study of the processes of development of the territory and the definition of the specifics of municipalities from the point of view of their spatial development.

The important contribution to the development of the foundations of the analysis of the development of socio-economic systems was made by such scientists as: Petty, Ricardo, Smith, Say. The theoretical and methodological core, explaining the nature of the problems of socio-economic development of territories, consists of the works of foreign scientists, such as Ansoff, Campbell, Keeney, Marshall, Porter, Samuelson, Foster and domestic scientists Abalkin, Gaponenko, Granberg, Dobrynina, Kovalenko. The issues of creating an effective development management system were discussed in the works of Aganbegyan, Baransky, Glazyev, Ivanter, Kantorovich, Kistanov, Shniper, Bragin, Kozlova (Andreev, 2017; Bardovsky, 2017; Makarova, 2017).

Highly appreciating the scientific contribution of Russian and foreign authors to the theory of spatial development, it is necessary to note the lack of elaboration of a number of issues related to the organization of monitoring, evaluation and effective management of these processes.

To date, the system of socio-economic monitoring is not fully formed. In order to carry out monitoring of socio-economic development, to conduct an analysis, to generalize theoretical approaches to the definition of the concept of monitoring.

When solving this goal, we have formed shortcomings in the management of economic systems. We have formed all kinds of problems into a single complex (Table 02).

Table 2. Problems in the field of socio-ecological and ecological system

The designated problem	Solution options		
	Current	Parametric	Constructs
Narrow specialization of research areas		Monitoring of spatial socio-ecological and economic development	Monitoring of prospective development needs
The local approach is the formation of a system of socio-economic development, as well as ensuring the	Assessment of the budget and tax potential of the		

monitoring of areas of activity. Fragmentation and insufficient reliability of data The monitoring system operates only on the basis of the principles of the organization of the control system Insufficient elaboration of the monitoring of the development process	territories Organization of a system for monitoring the spatial socio-ecological and economic development of territories	Organization, accounting, analysis, control Planning, forecasting, regulation
---	---	--

To implement the spatial social, ecological and economic space, it is necessary to create a balance of the territory in all resource indicators, build a model of the reference dynamics of these indicators, and evaluate the phases of the economic cycles of the territories. The important role in this chain is played by economic geography, regional economy, transport component, where the assessment of spatial development takes place.

The development of an effective system for the development of territories, as well as the formation of an effective policy in the field of socio-economic development of regions, contributes to an objective assessment of the current macroeconomic climate of the region. In order to objectively assess regional development, it is necessary not only to transform the legislative system, analyze and evaluate information, but also to develop competitive projects at the regional level aimed at improving the economic system (Kulikova, 2019).

To achieve these goals, it is necessary to identify the problems of assessing the socio-ecological and economic development of the region, to assess its tax potential, the phases of the economic cycle, to assess the current and future needs of the development of the transport infrastructure of the territories. Important here are the issues of regional management using the transport and logistics approach. They determine the future development and potential of any regional system, involving it in global material and non-material flows. There is a systematic territorial division of labor. Specialization is ensured by exporting competitive advantages and available resources.

The systemic perception of territories is formed, on the one hand, as competition, on the other as a certain potential for social and economic development (Figure 01).

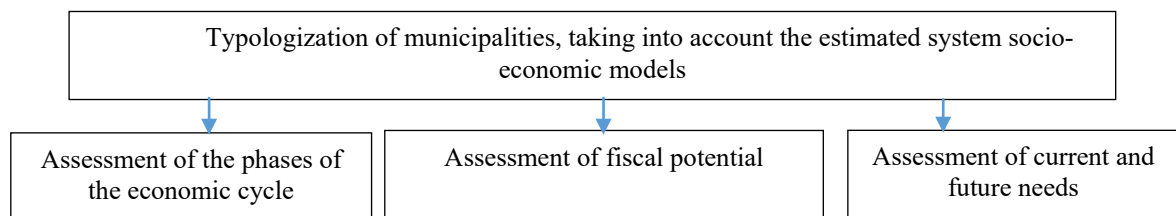


Figure 1. Types of typologization based on evaluation system models

7. Conclusion

Thus, to assess the phases of the economic cycle of a particular region, first of all, an anti-cyclical policy is carried out, which for each region differs in the elements of regulation.

The assessment of the budget and tax potential is determined by each region independently, since there is an impact on the collection of taxes, on the distribution of the revenue part, on the determination of the tax and budget capabilities of the regions. Here, independence in terms of using the tax potential increases, and contradictions between the center and the region are erased (Makarova, 2017; Semakova, 2018; Zalunin, 2019).

The assessment of the current and future needs of the region depends on the resources that the territory has.

In general, the typology of territories (economic, geopolitical, and ecological) is closely related to spatial development, since it is based on an unattainable socio-ecological and economic balance.

References

- Andreev, A. A. (2017). Program-target approach of socio-economic development of the municipality. *Economy and Society*, 3, 36-37.
- Balatsky O. F., Belyshev, D. V., & Gurman V. I. (2015). *Modeling of the socio-ecological and economic system of the region*. Nauka
- Bardovsky, V. P. (2017). Market infrastructure and socio-economic development of municipalities. *Economic environment*, 1(19), 123-128.
- Krass, M. S. (2018). *Modeling of ecological and economic systems*. INFRA-M,
- Kulikova, N. V. (2019). The practice of forming strategies for the socio-economic development of municipalities. *Russian State University of Justice*, 1, 65-70
- Makarova, V. I. (2017). Economic analysis as part of the system of strategic management of socio – economic development of Russia, regions and municipalities. *Bulletin of the V. N. Tatishchev Volga State University*, 1, 4, 247-253.
- Semakova, V. A. (2018). Management of municipal socio-economic development. *Forum of Young Scientists*, 12(28), 163-165.
- Tsaregorodtsev, E. I. (2016). *Modeling of the ecological and economic system of the region based on the Pilgrim*. <https://cyberleninka.ru/article/n/modelirovanie-ekologo-ekonomicheskoy-sistemy-regiona-na-osnove-sistemy-pilgrim>
- Zalunin, V. I. (2019). *Social ecology: a textbook for academic baccalaureate*. Yurayt.