

Assessment of Innovative Development Indicators of the Region

Yuri Lapygin

Department of management
Vladimir branch of the Russian Presidential Academy of
National Economy and Public Administration
Vladimir, Russian Federation
lapygin.y@gmail.com

Natalia Andryashina

Department of Economics of Enterprise Faculty
Management, Social and Technical Services,
Minin Nizhny Novgorod State Pedagogical University,
Nizhny Novgorod, Russian Federation
natali_andr@bk.ru

Elena Romanovskaya

Department of Economics of Enterprise Faculty
Management, Social and Technical Services,
Minin Nizhny Novgorod State Pedagogical University,
Nizhny Novgorod, Russian Federation
alenarom@list.ru

Ekaterina Garina

Department of Economics of Enterprise Faculty
Management, Social and Technical Services,
Minin Nizhny Novgorod State Pedagogical University,
Nizhny Novgorod, Russian Federation
e.p.garina@mail.ru

Elena Kozlova

Department of Economics of Enterprise Faculty
Management, Social and Technical Services
Minin Nizhny Novgorod State Pedagogical University
elka-a89@mail.ru

Svetlana Kuznetsova

Department of Economics of Enterprise Faculty
Management, Social and Technical Services,
Minin Nizhny Novgorod State Pedagogical University
dens@52.ru

Abstract—In accordance with the legislation in the development of a strategic plan for the region's development, special indicators should be developed, which we can use to monitor and evaluate the effectiveness of reaching the strategically significant goals. This article describes how to build a system of indicators within the areas of development of the region, as well as the factors influencing the content of selected indicators. It is shown that the direction of development of the region defined by the first level of the tree decomposition of strategically important objectives, reflecting the results of the analysis of external and internal factors, taking into account guidance given by the Government and the President of Russia [About national goals, 2020].

Keywords—goals, indicators, criteria, strategy, regions, directions

I. INTRODUCTION

At present, there is no consensus about which indicators characterize the main vector of development of the modern Russian region [Butov, Yurieva, 2016]. Currently, the Federal State Statistics Service collects a large amount of all kinds of information on the development of regions [Lapygin, Tulinova, 2019]. However, the Federal Law on Strategic Planning in the Russian Federation contains a rule that specific

indicators should be determined before strategy development [On strategic planning, 2014]. It allows assessing the degree of achievement of the strategic regional goals. Moreover, the practice of indicators suggests that the effectiveness of monitoring the development of the region depends on correctly developed indicators [Misakov et al., 2017]. Today, the indicative planning demonstrates its effectiveness in many regions of different countries, which is based on the use of scorecards [Balassa, 1990; Riechel, 1990; Wrase, 1990].

Although, the recommendations of the Government of the Russian Federation [On the approval of the methodological ones, 2017] contain a list of strategic indicators, there remains a place for specific indicators reflecting the strategic uniqueness in the development of regions [Bogoviz et al., 2018; Slepneva et al., 2016]. Therefore, it is important to consider the issues of determining the noted indicators within the framework of promising areas of regional development in modern conditions.

II. RESULTS

Researchers of the Financial University under the Government of the Russian Federation, I.S. Minko and L.K. Shamin, justly point out the development of indicators for the

strategic development of regions begins with the definition of promising directions. They recommend to focus on the four directions: "It seems that the following four are adequate for the socio-economic system of the region (subject of the Federation) strategic directions (prospects) of development: 1) population, 2) state, 3) production, 4) finance" [Minko, Shamina, 2016, p. 101].

In another case, researchers, again, not systematically and without evidence, are building "the main directions that should characterize development indicators" [Kovarda V.V., 2018]: the development of society, economy, innovation and environment.

But you have to keep in mind that the development of the country's regions should be set in the directions recommended by the Ministry of Economic Development of the Russian Federation [On the approval of methodological guidelines, 2017]. It should be seen as directed and qualitative change in the region and the strategic development - as a qualitative change in the region, aimed at achieving a strategically meaningful goals. In this regard, it is important to establish all directions for achieving strategic goals, and then highlight among the indicated directions the most significant - priority ones [National Strategy, 2002; National Strategy, 2006; National Strategy, 2015].

Traditionally, when developing a strategy, the direction of regional development is determined by such factors as the existing specialization in terms of the production of products/services and the accumulated potential of the region. At the same time, various approaches of such directions are manifested, in the practice of determining the development directions that make up the content of regional strategies. As an alternative, one can consider a combination of directions and target orientations by government, formulated in the process of developing a strategy for the development of a particular region [Lapugin, 2019].

It should also be remembered that when forming the main content of each direction, in which, as a rule, several departments of the regional administration take part simultaneously (the tasks of implementing the strategy within several departments at the same time must be taken into account). It is necessary to organize group work, including both the primary development of projects and programs in each direction and the subsequent discussion of their content, in consideration of the influence of all factors identified in the process of analyzing the situation in the region and beyond.

It also important to take into account the goals set by the President in his decree on national goals and strategic objectives of development of the RF [about national goals, 2020] for the period up to 2030, during its transition from main directions to development indicators (Fig. 1). Moreover, these goals can be combined to form new combinations and directions of integral development in the region. It may also open up new prospects in the future.

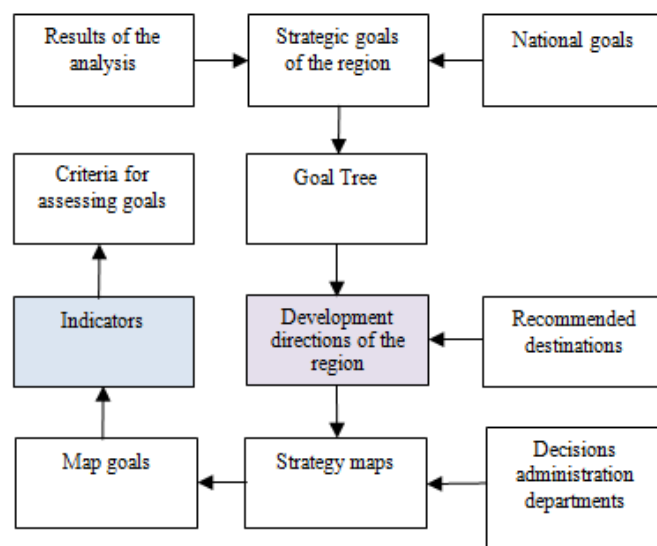


Fig. 1. Scheme of transition from directions to development indicators

As the researchers write, it is not enough just financial indicators to evaluate the success of the development of the region [Egorov, Sitnikov, 2017]. It also necessary to refer to the model of building a balanced scorecard [Kovarda, 2018] for commercial organizations or form a set of complex indicators [Johnston, Battaile, 2001; Lehrke, 2014].

They also point out that there are some drawbacks in practice both in the composition of indicators and in the method of their determination. Especially because these authors noted that, there is a need for statistical indicators that provide a comprehensive overview of the process under study in the development of the region.

If we return to the statistical indicators [On strategic planning, 2014], then among the abundance of general indicators (basic indicators about 1200). Among them we can find indicators for monitoring the execution of the Presidential Decree (40 of them); indicators that are recommended by the RF Ministry of Economic Development for use in the development of regional development strategies (there are 80 of them); indicators that allow monitoring in terms of the implementation of national projects (there are 140), as well as indicators for assessing the effectiveness of executive authorities decisions in the constituent entities of the Russian Federation (there are 15). It is not always possible to find indicators with directions that correspond to specific development goals in regions (Fig. 2).

The composition of indicators for each region should be balanced, according to experts in the subject area under consideration (for example, I.S.Minko and L.K. Shamina), but not exactly with the recommendations for the development of such systems for businesses, and in view of certain principles specific to the management of regional development. It is another matter that the principles proposed by these specialists do not have a consistency and violate strategic planning algorithms. For example, the authors write that an integral part of management based on the BSC (Balanced ScoreCard) is the development and implementation of specific programs and activities to achieve strategic and/or current goals [Minko,

Shamina, 2016, p. 103]. It is important that programs and activities be formed before indicators are determined.

<p>Basic indicators</p> <p>1200</p>	40 - by Decree of the President
	80 - Ministry of Economic Development of the
	The unique performance of the region development
	140 - on national projects
	15 - by assessing the effectiveness of governors

Fig. 2. Combination of indicators

Some researchers conclude, that a properly constructed balanced scorecard allows achieving a strict formulation of the developed strategy [Misakov et al., 2017, p. 209].

In addition, an erroneous conclusion is made that the development of a system of indicators "for managing the development of a region is the first step towards creating a permanent lever for integrated management of a region based on an extensive system of indicators ..." [Minko, Shamina, 2016, p. 103]. This is the final phase, which is preceded by steps to analyze various factors affecting the prospects for the region's development, and to build a system of strategic goals and the strategy itself.

After completing the work on the strategy in general and the development directions in particular, it is useful to perform the SWOT-analysis procedure for each area, to build a "decision matrix" in each direction. From the content of the specified matrix, we go to the structural diagram of the direction and the matrix of "decision-goals", in order to build a tree of goals, and then for each goal generate indicators.

Balanced scorecards are proposed to build within the framework of strategic maps, which are chosen intuitively (expertly). In our approach, strategic maps correspond to the formulations of development directions obtained by constructing a hierarchical structure and highlighting the first level of decomposition. Elements of which represent the directions for further regional development.

For example, Table 1 shows the combinations of goals and indicators obtained during the Vladimir region's strategy development in 2019. In the given example, the formulation of the strategic goals of each stage reflects the orientation in the development of the region.

TABLE I. CORRESPONDENCE OF INDICATORS TO DEVELOPMENT GOALS*

Name of the goals and objectives (sub-goals)	The name of indicators
<i>The strategic goal of Phase 1: Raise the gross regional product by investing innovation that will allow to realize the potential of the region. In order to ensure the flow of population and strengthen positions in the market of the country and abroad</i>	
Fund disruptive innovations to drive technological innovation growth	The share of innovative products
Realize the natural and created potential of the region	The share of deep processing of the region's natural resources Capital productivity
To occupy a niche in the domestic market due to import substitution	Increase in revenue from sales of products in the import substitution market segments
Attract skilled workers on the basis of income growth	Growth in the share of skilled workers Population growth
Increase GRP, ensuring high rates of economic growth by reducing transaction costs and attracting investments	GRP growth Rating growth of the region in terms of investment climate Economic growth rates
<i>Strategic goal of Phase 2: By creating clusters, to ensure an influx of qualified young labor force, increasing the intellectual capital of the region and its status as a territory of comfortable living</i>	
Form clusters on the principles of PPP and CSR ** **, providing the status and growth of the economic potential of the region	The number of clusters Rating of region The economic potential of the region
Increase the intellectual capital of the workforce in the region	The proportion of workers with vocational education Innovative activity of the population
Provide the region with the status of comfortable living for the population and modern infrastructure	Rating of the region in terms of comfortable living of the population. Innovativeness of life support systems
Stimulate the flow of young skilled workforce	The proportion of young people in the region having a professional education
<i>Strategic goal of Phase 3: By improving the quality of life of the population, to ensure the growth of the number and status of the socio-economic situation of the region in the country and in the world</i>	
Ensure a flow of skilled labor in the region	The share of skilled labor
Create comfortable living conditions for the population of the region, corresponding to a high quality of life	Population income. Home comfort. The quality of food, health care, education, culture, environment, services. Security and demographic trends
Raise the status and economic potential of the region	Rating of region Economic potential

a. * Compiled from: Lapygin Yu.N., Tulinova D.V. Indicators of the stages of strategic development // Scientific notes. - Vladimir branch of RANEP. 2019. No. S2. P. 107-112.

b. ** GRP - gross regional product; PPP - public-private partnerships; CSR - Corporate Social Responsibility.

First stage: orientation on goals, adequate to the current situation (as a result of the SWOT-analysis). Second stage: focus on achieving the main goal (Mission of the region). Third stage: focus on the target content of the Vision of the region.

III. CONCLUSION

In conclusion, it should be noted that the indicators of the strategic development of modern Russian regions allow us to determine the degree of success in achieving goals in

conditions, when their development are set by decisions of the President of the country and the Government.

The paper shows that when developing a strategy for a region, it is important to analyze factors of the external and internal environment in order to proceed to the construction of morphological "decision matrices". Matrices are aimed at opportunities and exploitation of the capabilities of the region. It helps to solve strategically significant problems and overcoming threats.

It has been established that the transition from decisions to the development goals of the region, taking into account the goals of the country's development, provides the basis for building a hierarchical structure. The first level of decomposition determines the directions for future development. These areas should be seen as a strategic card "goal-performance-criteria" in order to achieve goals.

As a result, it becomes possible to highlight the indicators that the federal statistics service and the regional executive authority collects. In other words, indicators will be analyzed independently in the process of implementing the strategy.

Thus, the proposed approach formalizes the transition from strategic goals to indicators of regional development within the framework of the obtained directions.

References

- [1] G.N. Butov, O.V. St. George's "On the system of socio-economic development of the region of the Russian Federation", the Kazan Economic Bulletin. 2016. № 6 (26). P. 11-17.
- [2] Yu.S. Egorova, O. Yu. Sitnikova "Problems of forming a system of statistical indicators of the region (based on indicators of state programs of the Russian Federation of regional development)", Academy . 2017. No. 5 (20) . P. 57-61.
- [3] R.S. Kaplan, D.P. Norton "Balanced Scorecard. From strategy to action ", 2nd ed., Rev. and ext. Translated from English. M .: "Olymp-Business", 2003.320 p.
- [4] V.V. Coward's "On the formation of a system of indicators to assess the level of socio-economic development of the region," Management of economic systems: electronic scientific journal. 2018. № 10 (116). P. 4.
- [5] Yu.N. Lapygin "Directions of development of the region", Scientific notes: Scientific and practical journal. 2019. Special Issue 2 (July). P. 77-85.
- [6] Yu.N. Lapygin, D.V. Tulinova "Indicators stages of strategic development," Scientific notes: Scientific and practical journal. - 2019. - Special Issue 2 (July). - P. 107-113.
- [7] Minko I.S., Shamina L.K. "Approaches to the formation and use of a balanced scorecard in managing the development of the region", Actual problems of the humanities and natural sciences. 2016. No. 1-3 . P. 100-104.
- [8] Misakov V.S., Sabanchiev A.Kh., Misakov A.V., Dyshekova A.A. "Some approaches to the development of a system of indicators and indicators of sustainable balanced development of the region" // Economics and Entrepreneurship. 2017, № 6. - pp 208-213.
- [9] On the national development goals of the Russian Federation for the period up to 2030 ". Presidential Decree of July 21, 2020 N 474. - URL: <https://www.garant.ru/hotlaw/federal/1401794/> (date of access: 21.07.2020).
- [10] "On the strategic planning in the Russian Federation" / Federal Law of June 28, 2014 N 172-FZ // Meeting of the legislation of the Russian Federation on June 30, 2014 N 26 (Part I) Art. 3378.
- [11] "On approval of guidelines for the development and adjustment of the strategy of socio-economic development of the Russian Federation and the action plan for its implementation." Order of the Ministry of Economic Development of Russia No. 132 of March 23, 2017. - URL: <http://rulings.ru/acts/Prikaz-Minekonomrazvitiya-Rossii-ot-23.03.2017-N-132/> (date of access: 19.11.2019).
- [12] Schmidt A.N., Bannikov A.Yu., Sokolov D.S. "On the issue of indicators of social development of regions of the Russian Federation" // Economy and business: theory and practice . 2016. No. 1 . P. 139-145.
- [13] Balassa B. "Indicative planning in developing countries" // Policy Research Working Paper Series, 439, The World Bank. 1990. 56 p.
- [14] Bogoviz A.V., Chernukhina G.N., Mezheva L.N. "Subsystem of the territory management in the interests of solving issues of regional development" // Quality — Access to Success. 2018. Vol. 19. No. S2. P. 152–156. 14. Federal State Statistics Service. - URL: <http://www.gks.ru>.
- [15] Johnston T., Battaile W. 2000 Annual Review of Development Effectiveness. From Strategy to Results. Washington: The World Bank, 2001. p. 83.
- [16] Lehrke J. Public Administration and the Modern State: Assessing Trends and Impact / Ed. by E. Böhne, J. Graham, J. Raadschelders. Basingstoke: Palgrave Macmillan, 2014. p.312.
- [17] National Strategy for Sustainable Development (2002) / Norway Royal Ministry of Foreign Affairs [official website]. - URL: <https://www.regjeringen.no/globalassets/upload/kilde/ud/bro/2003/0013/ddd/pdfv/171847-nsbu.pdf> (accessed 10.12.2019).
- [18] National Strategy for Sustainable Development: Towards Sustainable Choices. A Nationally and Globally Sustainable Finland (2006) / Finland Prime Minister's Office Publications [official website]. - URL: http://www.ym.fi/enUS/The_environment/Sustainable_development (accessed 10.12.2019).
- [19] National Strategy for Sustainable Regional Growth and Attractiveness 2015-2020 (2015) / Ministry of Enterprise and Innovation [official website]. - URL: <https://bit.ly/2X7TREH> (accessed 10.02.2019).
- [20] Riechel K.-W. Indicative planning in France: Discussion // Journal of Comparative Economics, Elsevier. 1990. Vol. 14(4). pp. 621–624.
- [21] Slepneva L.R., Tsyrenov D.D., Kokorina A.A. et al. Socio-Economic Development of Regions of Russia: Assessment of the State and Directions of Improvement. International Journal of Economics and Financial Issues, 2016, vol. 6, sp. iss. 2S, pp. 179–187. URL: <https://www.econjournals.com/index.php/ijefi/article/view/2549> (accessed 10.12.2019).
- [22] Sustainable Development Index and Dashboards Report 2017: Global Responsibilities. International Spillovers in Achieving the Goals / J. Sachs, G. Schmidt-Traub, C. Kroll, D. Curand-Delacore, K. Teksoz. – New-York: Bertelsmann Stiftung and Sustainable Development Solutions Network (SDSN). p. 490. – URL: <http://www.sdindex.org/assets/files/2017/2017-SDG-Index-andDashboards-Report--full.pdf> (accessed 10.12.2019).
- [23] Wrase J. Indicative planning: A direction for theory // Journal of Comparative Economics, Elsevier. 1990. Vol. 14(4). P. 807–812. — URL: [https://doi.org/10.1016/0147-5967\(90\)90054-D](https://doi.org/10.1016/0147-5967(90)90054-D) (accessed 10.12.2019).