

Sustainable development in the Russian regions

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Abstract. The implementation of the goals, recorded in The 2030 Agenda for Sustainable Development, requires a coordinated solution of problems both at the national level and at the level of single territorial units. The article provides a comparative analysis of individual indicators of the constituent entities of the Russian Federation, compared with the goals of sustainable development. Significant differences are found in achieving sustainable development goals in different regions, the most problematic are the goals related to economic development, population income, gender equality and environmental development. In addition, problems, methodological in nature, depending on the availability and comparability of indicators at the regional, national and international levels, present in the statistical reporting.

1 Introduction

The Sustainable Development Goals adopted by the UN in 2015 define the strategic priorities of the world community for a coordinated solution of economic, social and environmental problems - in The 2030 Agenda for Sustainable Development - hereinafter the Agenda 2030 - 17 goals and 169 tasks are fixed. The range of problems covered by this document is extremely wide - from poverty and territorial inequality to global warming, and both the goals and objectives of sustainable development are closely related and require a comprehensive solution, which implies the involvement of all levels of public authority. Given that the Russian Federation includes 85 constituent entities, the role of the regional level in achieving sustainable development goals can hardly be overestimated - sustainable development can serve as a platform on the basis of which the priorities enshrined in strategic documents will be built, ensuring the strengthening of territorial competitiveness, improving the well-being of citizens and a more complete use of regional potential. The high importance of regions for solving problems of sustainable development is also emphasized by OECD experts [1], according to which, of 169 tasks set in The 2030 Agenda, more than 100 cannot be achieved without the coordinated work of regional and local administrations (OECD 2019, p. 27). In accordance with the New Paradigm of Regional Development, developed by the OECD, it is regional governance that plays a key role in overcoming negative socio-economic and environmental indicators, the effective organization of regional and local governance requires a transition from a sectoral to an intersectoral approach in developing strategies, instead of traditional universal methods for at the regional level, instruments should be

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applied that take into account the specifics of local conditions; in the development programs, not a top-down approach should be applied, when key benchmarks are determined at the national level, and the regions are only involved in their implementation, but a bottom-up approach, when problems and the priorities of the regional level are recognized as primary, from the coordination of which the national development goals are formed in the future.

There is an increase in the attention of researchers to the problems of sustainable development of territories [2-4], especially the problems of urban development [5-7] or rural areas [8-9], as well as problems of the quality of life of citizens and environmental development [10-11], development human capital [12-13]. In this article, the problems of achieving the SDGs are considered in the context of the constituent entities of the Russian Federation in order to assess both the degree of uneven development and identify problems associated with the use of indicators given in Russian statistics.

2 Materials and methods

The information base of the study was made up of indicators of the socio-economic development of regions of the Russian Federation, published on the official website of the Federal State Statistics Service (<https://rosstat.gov.ru/>), as well as data from the Voluntary National review for 2020.

For a preliminary assessment of interregional disparities in achieving the SDGs, based on the data of the Voluntary National review, the authors selected one key indicator for sustainable development purposes, if the regional statistics, published by Rosstat, did not contain the indicator used in the national review, if possible, a similar indicator was substituted to measure progress towards the respective SDGs. Unfortunately, there was no necessary data for goals 7, 11-14, nevertheless, for ten SDGs, information was present in official statistics (at least for individual targets).

For the analysis, the following indicators were selected: real incomes of the population, the volume of agricultural products, life expectancy, coverage of preschool children education, the ratio of employment among women and employment among men, discharge of polluted wastewater, R&D expenditures, Gini coefficient, forest lands affected by fires. Most of the indicators were used in the form in which they were present in the Rosstat data, the ratio of the employment rate among women and men was separately calculated, for which formula (1) was used.

$$A = F / M \quad (1)$$

where A is the ratio of the employment rate, F is the employment rate among women (%), M is the employment rate among men (%)

If possible, for analysis, the period from 2010 to 2018 was selected according to the data in the Voluntary National Review for 2020. The data on 85 subjects of the Russian Federation were used.

3 Results and discussion

According to the Voluntary National Review, compiled by the Analytical Center for the Government of the Russian Federation in 2020, positive results have been noted in Russia in achieving sustainable development goals. The document traces the dynamics of certain indicators of sustainable development for the period from 2010 to 2018. (see Table 1).

As follows from the data given in Table 1, according to the information of the Analytical Center for the Government of the Russian Federation, the most problematic are goals 8, 16 and 17. There is also an uneven distribution of indicators by goals - from 3 to 15, and some

indicators do not fully correspond to the content Sustainable Development Goals, for example, for Goal 17 there is an indicator - the share of government revenues in GDP, but it is not disclosed in the document how this indicator is used to measure the achievement of goals.

Table 1. Implementation of sustainable development goals in the Russian Federation (2010-2018)

Number in order	Goal	Number of indicators, total	Number of indicators with positive dynamics
1	Eradication of poverty	3	2
2	Eradication of hunger, Agricultural Development	3	3
3	Good health and wellbeing	12	12
4	Quality education	2	2
5	Gender equality	3	2
6	Clean water and sanitation	2	2
7	Affordable and clean energy	2	2
8	Decent work and economic growth	15	11
9	Industrialization, innovation and infrastructure	7	6
10	Reducing inequality	3	2
11	Sustainable cities and towns	3	2
12	Responsible consumption and production	10	10
13	Combating climate change	6	4
14	Conservation of marine ecosystems	3	2
15	Conservation of terrestrial ecosystems	4	4
16	Peace, Justice and Strong Institutions	5	2
17	Partnership for sustainable development	11	8

For the regional level, the Russian Federation does not carry out centralized monitoring of the achievement of sustainable development goals, as well as interregional comparisons. However, for the regions, the problem of achieving sustainable development goals is very relevant, and the differences between single territories are very significant.

As can be seen from Table 2, according to the given indicators, there are significant interregional differences in the sphere of achieving sustainable development goals, therefore, using only averaged data for the country as a whole is not enough for objective conclusions. The most optimistic picture was revealed in terms of the coverage of preschool children education related to goal 4 - in the Russian Federation, the indicator was 639 places per 1000 preschool children, and from 2014 to 2018 the indicator increased by 4%. However, more than 30% of children did not have the opportunity to use the services of preschool educational institutions. In 59 constituent entities of the Russian Federation, the situation with the availability of kindergartens is better than in Russia as a whole. Among the regions with the highest indicator, Chukotka Autonomous Area (1002), Komi Republic (941), Nenets Autonomous Area (897), Novgorod (890) and Arkhangelsk regions (878). The greatest problems in the provision of kindergartens are observed in the Republic of Adygea (495), the Republic of North Ossetia (746), the Republic of Tyva (436), the Chechen Republic (311), the Republic of Ingushetia (296) and the Republic of Dagestan (253). Thus, the best

indicators are in the northern regions with a low population density, and the worst - in the southern republics, which are often characterized by a high birth rate.

Table 2. Unevenness of SDG achievement by some indicators among the constituent entities of the Russian Federation

Number of goals	Index	The number of regions with an indicator above the national average
1	Real incomes of the population (growth for 2010-2018)	8
2	Agricultural production (growth for 2010-2018)	38
3	Life expectancy, 2018	30
4	Coverage of preschool education (number of places per 1000 children under 6 years old, 2018)	59
5	The ratio of the employment rate among women and the employment rate among men (2018)	19
6	Discharge of polluted wastewater (growth for 2010-2018)	51
8	GRP (real growth for 2010-2017)	21
9	R&D expenditures (growth for 2010-2018)	39
10	Gini coefficient, 2018	4
15	Forest lands affected by fires (growth for 2010-2018)	11

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In terms of the indicator compared to target 10 - the Gini coefficient - most of the RF subjects also performed better than the RF as a whole - the degree of social differentiation is higher only in Yamalo-Nenets Autonomous Area (0.435), Nenets Autonomous Area (0.426), Sakhalin region (0.418), Moscow (0.415), i.e. four constituent entities of the Russian Federation demonstrate such a high level of polarization of society that they significantly worsen the average Russian indicator, and two of them belong to territories with a high level of income of the population, which are extremely unevenly distributed, and the other two - to regions with a high degree of both economic and social problems.

The third indicator, in relation to which the values of most of the constituent entities of the Russian Federation are better than the national average, is the increase in the area of land covered by forest fires, correlated, respectively, with the goal 15. The worst results for the period under review were noted in Krasnoyarsk Territory, Amur Region, the Republic of Sakha (Yakutia), Murmansk Region and Jewish Autonomous Region (in these territories, the area of fires increased more than 25 times), and the five regions leading in the reduction

of the area of fires were Ryazan Region, the Republic of Mari El, Tambov Region, the Republic of Mordovia and Ivanovo Region - among the listed regions, the area of forest fires has significantly decreased. Nevertheless, it is worth considering that the all-Russian parameter shows negative dynamics - on average in the Russian Federation, the area of the territory affected by forest fires has increased more than three times, respectively, the problem is very acute for the country as a whole, in some regions the problem is catastrophic character (for example, in Krasnoyarsk Territory, the area of fires increased by 185 times).

According to the indicators correlated with goals 2, 3 and 9, a significant part of the regions, although not exceeding half of the number of subjects of the Russian Federation, demonstrated values better than the national average, which, in turn, divides the regions into approximately two relatively equal parts, while in terms of the expected life expectancy and R&D expenditures, there is an increase in the average Russian value, and in terms of agricultural production - a slight decrease.

With regard to goals 1, 5, 6 and 8, the considered indicators showed that in most regions the situation was worse than reflected in the average data for the country. The inequality of the subjects in terms of economic indicators was very characteristic (only in 21 constituent entities of the Russian Federation, economic growth for the period under review was higher than the national average), as well as in terms of income of the population (only in 8 out of 85 constituent entities of the Russian Federation, income growth in real terms exceeded the national average), respectively, the success of Sustainable Development Goals 8 and 1 may be questioned.

Of course, the analysis is not enough for a complete and objective analysis of the implementation of the SDGs, a more voluminous study is needed using several indicators for each of the SDGs, respectively, the conclusions can be only preliminary, however, there is no doubt about the acute nature of the problems noted, as related with the achievement of the SDGs, and ways to measure them.

4 Conclusions

1. At the level of the Russian Federation, according to the 2020 Voluntary National Report, there are positive changes in achieving the SDGs, including, for seven SDGs, all the indicators reviewed showed improvement, only for one of the SDGs ("Peace, justice and effective institutions"), more than half indicators showed negative dynamics.

2. However, there are factors that do not allow us to unequivocally state the presence of positive results in the implementation of the SDGs: the indicators used in the report are unevenly distributed among the goals, the composition of the indicators does not coincide with the indicators used by the UN, not all of the indicators are available for interregional comparisons, some indicators do not lend themselves to unambiguous interpretation.

3. The regional level of implementation of the SDGs raises even more questions, including those caused by the absence of a centralized mechanism for monitoring the achievement of the SDGs at the regional level, the limited availability of a number of indicators, as well as significant differentiation of regional development in the Russian Federation.

4. Based on the considered indicators, only for goals 4, 10, 15, 2, 3 and 9 the regional data are consistent with the positive changes in the country as a whole. For the rest of the goals, most regions to a greater or lesser extent lag behind the average Russian level, this is especially noticeable in terms of the parameters of economic development and household income.

5. Despite the positive dynamics of some indicators in the regional context, an objective assessment requires an integrated approach, taking into account additional factors, since at least part of the changes in indicators can be explained by the climatic and geographical

features of the territories, density and structure of the population, etc., partially noted factors, although they have a positive effect on the SDG indicators, it testifies to the difficulties of regional development, among which, not least, one can point to a decrease in the birth rate and an outflow of the population.

6. For the successful implementation of the SDGs declared in The 2030 Agenda, additional attention is needed at the regional level of their implementation, especially for such geographically extended countries as Russia, without solving regional problems, the achievements recorded at the national level will be formal, not reflecting the situation in a significant part of the subjects of the Russian Federation.

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