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# Conceptual Approach to the Formation of the Monitoring of Socio-Economic Development of Municipal Entities in Russia's Regions



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Abstract. The study is relevant, because there is a necessity to improve approaches to and tools for monitoring the development of municipal entities in Russia, taking into account the current situation concerning statistics in the context of municipalities and the tasks to be addressed at the municipal level of management in modern conditions. The aim of the work is to provide a scientific and methodological substantiation for an approach to the formation and implementation of a comparative monitoring of socio-economic development of municipalities at the intraregional and interregional levels. To achieve the goal, we use scientific methods such as economic and statistical analysis, generalization, and expert survey (questionnaire survey of Vologda Oblast municipalities' heads). Scientific novelty of our research consists in the development of a unified approach to organizing municipal monitoring in Russia's constituent entities. The approach should take into account the current situation concerning municipal statistics and help to compare local territories of different regions. We describe a methodological approach to organizing the monitoring of Vologda Oblast municipalities; the results of the monitoring are reflected in the annual information and analytical bulletin "Socio-Economic Development of Municipal Districts", issued by Vologda Research Center of the Russian Academy of Sciences since 2014. Based on the calculations of the integral indicator of the level of development of municipalities in the Vologda and

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Leningrad oblasts and the Komi Republic according to our own methodology, we reveal that statistical information presented in the Rosstat database containing indicators for Russia's municipalities does not allow us to form an objective interregional typology of municipalities by development level. In this regard, we substantiate the ways to improve municipal monitoring and the expediency of using the indicators presented in statistics collections "Socio-Economic Development of Municipalities" published annually by territorial offices of Rosstat in constituent entities of the Russian Federation. The findings of our research can be used by federal, regional public authorities, local self-government bodies, scientific and educational organizations in analyzing the development of municipalities, as well as serve as a basis for further research on the subject under consideration.

**Key words:** municipal entities, socio-economic development, monitoring, constituent entity of the Russian Federation, Vologda Oblast, questionnaire survey.

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#### Introduction

One of the tasks aimed at achieving the goal of spatial development of the Russian Federation and outlined in the Spatial Development Strategy of the Russian Federation for the period up to 2025 (approved by RF Government Resolution 207-r, dated February 13, 2019) is to reduce the level of interregional differentiation in the socio-economic development of constituent entities of the Russian Federation, as well as to reduce intraregional socioeconomic differences. According to the Strategy, one of the principles of spatial development is a differentiated approach to the directions and measures of state support for the socio-economic development of territories, taking into account the demographic situation, specifics of the settlement system, level and dynamics of economic development, and natural conditions.

In accordance with Federal Law 172-FZ, dated June 28, 2014 "On strategic planning in the Russian Federation", the powers of local self-government bodies in the field of strategic planning include defining long-term goals and objectives of municipal management and socio-economic development of

municipalities, coordinated with the priorities and goals of socio-economic development of the Russian Federation and its constituent entities; developing, reviewing, adopting (approving) and implementing strategic planning documents on issues related to the powers of local self-government bodies; monitoring and controlling the implementation of strategic planning documents adopted (approved) by local self-government bodies; other powers.

According to Rosstat, as of January 1, 2022, there were 19,655 municipal entities in Russia, including 1,544 municipal districts, 180 municipal okrugs, 608 urban okrugs, 4 urban okrugs with intra-urban division, 23 intra-urban raions, 267 intra-urban territories of federal cities, 1,287 urban settlements and 15,742 rural settlements.

Municipalities in Russia differ significantly in their development potential, features, trends and drivers of their socio-economic development (differences in development indicators can reach tens or hundreds of times). At the same time, the municipal level of government (within the framework of the local self-government system) has a significant set of functions and list of powers to resolve issues and problems related to the development of local territories, ensuring decent living conditions for the population; the development of the country as a whole is ultimately determined by the development of its constituent territories (constituent entities of the Russian Federation and its municipal entities). In view of the above, it is fundamentally important to have an effective system for monitoring the socio-economic development of regions' municipal entities (individual constituent entities of the Russian Federation, municipalities of several RF constituent entities, including within macroregions). In accordance with the available information and statistical base in Russia, the most comprehensive, system-wide and reliable monitoring can be carried out at the level of urban okrugs, municipal districts and okrugs.

The aim of the monitoring is to obtain information that allows for a comprehensive and systematic assessment of the state and development processes of municipal entities in the region in order to substantiate the adoption of appropriate management decisions related to the policy of an RF constituent entity on the development of municipal entities and local socio-economic policy.

The main objectives (directions) of the monitoring are as follows:

- identify trends and problems related to socio-economic development in municipal entities in the long-, medium- and short-term (operational last year, last month, quarter of the current year) periods, identify the severity, significance, systemwide nature of the problems and threats to the development of the municipality; identify the causes for current trends and problems in order to substantiate ways to find solutions and responses to emerging threats;
- assess the extent of implementation of program and strategic documents on municipal development (the strategy for socio-economic

development of the municipal entity and the action plan for its implementation; sectoral strategies of the municipality, municipal programs and projects) in order to substantiate the ways to adjust these documents;

- assess intraregional policy (policy of the RF constituent entity in relation to municipal entities; methods and tools for its implementation) from the point of view of the impact of decisions taken by regional authorities and real actions on the parameters of socio-economic development of municipalities;
- assess the effectiveness of the work of local self-government bodies in terms of how the implemented local socio-economic policy allows solving current problems of the municipality and creating conditions for ensuring its sustainable development, how effectively and efficiently local self-government bodies (LSG) solve issues of local importance (in accordance with Federal Law 131-FZ "On the general principles of organizing local self-government in the Russian Federation", dated October 6, 2003), what adjustments need to be made to this policy and the mechanism of its implementation.

Main stages in organizing and conducting the monitoring are as follows: 1) defining a list of indicators for conducting the monitoring, and sources of relevant information; 2) collecting operational data on the monitoring indicators, data processing (standardization, calculation of specific indicators, calculation of indices of changes in the values of indicators for different periods, etc.); 3) analyzing the calculation results, drawing conclusions about trends and problems in the development of municipalities, factors that caused the corresponding changes, etc.; 4) adopting various management decisions by the subjects of the monitoring; the decisions are based on the results of the findings; making decisions on the necessity of adjusting the monitoring system.

Currently, the key source of information on the state and development of municipal entities, which allows monitoring their condition and development, is the official statistical information of the Federal State Statistics Service of the Russian Federation (Rosstat), represented by the following elements:

- 1) Rosstat database on the indicators of municipalities (https://rosstat.gov.ru/storage/mediabank/Munst.htm), which contains official statistical information on all municipalities of Russia since 2006 (in more detail on municipal districts and okrugs, urban okrugs) arranged in 28 main blocks (development spheres);
- 2) Rosstat statistical bulletins "Formation of local self-government in the Russian Federation" (not published since 2021), "Population of the Russian Federation in the context of municipal entities" (published annually), "Volume of social payments to the population and taxable monetary incomes of the population in the context of municipalities" (not published since 2020); official publications on the results of the All-Russian population censuses (2002, 2010, 2021);
- 3) statistical information published by Rosstat's territorial departments in RF constituent entities: annual statistical collections "Municipal districts and urban okrugs ..." or "Municipal entities ..."; operational quarterly and monthly information "Socio-economic situation in municipal entities ..."; sections showing the data in the context of municipalities in statistics collections, bulletins containing the data on the specific RF constituent entity (Voroshilov, 2022).

In addition to official statistical information, there is departmental statistical information collected and generated by federal authorities, state authorities of RF constituent entities, local self-government bodies, including on the main results of the work of the relevant authorities, results of the implementation of strategic and program documents in municipalities, etc. In addition, information about individual parameters on the

development of municipal entities and settlements can be formed by various expert, nongovernmental and other organizations (for example, within the framework of the quality of life index in cities, formed by VEB.RF; information about housing on web portals Domofond, TsIAN, Reforma ZhKKh, etc.), as well as in the framework of geo-analytics and GIS technologies, surveys of various respondents (residents, representatives of the business community, authorities, etc.) (Voroshilov, 2022).

The monitoring can be carried out by LSG bodies, public authorities, scientific, expert, educational organizations, as well as jointly interested parties.

The main stakeholders in monitoring the socioeconomic development of municipalities and its results are:

- 1) local self-government bodies of municipal entities (they use statistical and other information and monitoring results for operational analysis of the current situation and identification of problems related to municipal development, development and implementation of the strategy for socioeconomic development of the municipality, the action plan for its implementation, municipal programs, projects, for the development of the local budget, determining the priorities of financing certain activities, for assessing the effectiveness and efficiency of their work, etc.);
- 2) state authorities of RF constituent entities (to analyze territorial, spatial aspects of region's development; to form and implement intraregional socio-economic policy, including investment policy; to determine priorities and amounts of financing of enterprises in municipalities from the regional budget; to develop and coordinate social support measures, etc.);
- 3) representatives of the business community (to determine the resource potential of a municipality in order to open new or expand existing industries; to use the resources of various territories

for current activities; to assess the capacity of certain territorial markets, purchasing power of residents, transport and communication accessibility of municipalities, etc.);

4) residents of municipalities (to assess the parameters of the current situation and development of a municipality as a place of residence and their self-realization; for a general self-assessment of the effectiveness of local self-government bodies) (Voroshilov, 2022).

Foreign and Russian scientists and experts are working out various aspects of the monitoring for the development of municipal entities and the use of its results by authorities in their work. Some researchers focus on substantiating the optimal number of indicators for such a monitoring (Burtseva, Gubareva, 2020; Syupova, Bondarenko, 2017); others (Bolshakov, Vasetsky, 2019; D'jachenko, 2018; Klimova, 2019; Mendel, Fadeeva, 2013; Khokhlova, 2013) consider in detail the very system in which the monitoring is organized, the issues and problems of information collection, its analysis and evaluation, the use of various information technologies and solutions for the implementation of the monitoring (Rukhmanova, 2010; Hristodulo, Akhmetzyanova, 2021). A substantial amount of publications (Kuznetsova, Babkin, 2021; Kuznetsova, Babkin, 2022; Shogenov et al., 2012; Fertner, 2012; Brezzi et al., 2011; Bogdanov et al., 2008; Klufová, 2016; Russo et al., 2017) considers the development of various integral methods for assessing the level of socioeconomic development of municipalities and their classification (grouping) as a key component of municipal monitoring.

In a monograph by scientists from Vologda Research and Coordination Center of the Central Economics and Mathematics Institute RAS (Uskova et al., 2002), municipal socio-economic monitoring is defined as a specially organized and constantly operating system for monitoring, collecting, evaluating and disseminating infor-

mation; assessing the economic and social situation on the territory of a municipal entity (municipal entities); analyzing development trends and the extent of local (municipal) problems, as well as preparing recommendations for rational management decisions. In the monograph, it was proposed to monitor the development of the city in the framework of three major areas: 1) monitoring the quality of life (health, standard of living and lifestyle); 2) monitoring the development of the city's economy; 3) monitoring the socioeconomic potential of the city (the amount of the potential and the effectiveness of its use). We adhere to this approach to understanding municipal monitoring within the framework of this article. The aim of our work is to conduct scientific and methodological substantiation for the development of an approach to the formation and implementation of a comparative monitoring of socio-economic development of municipal entities at the intraregional and interregional levels.

Currently, in Russia, at the official level, the monitoring of municipalities' development is carried out only in the form of an annual monitoring of the effectiveness of the work of local selfgovernment bodies in municipal districts, urban okrugs and municipal okrugs in accordance with Presidential Decree 607, dated April 28, 2008, which establishes a list of 14 indicators to assess the effectiveness of the work of LSG bodies. Pursuant to this Decree, RF Government Resolution 1317, dated 17 December, 2012, approved a list of additional indicators for assessing the effectiveness of the work of LSG bodies (27 indicators); a technique for monitoring the effectiveness of the work of LSG bodies; a standard form of a report for the heads of local administrations of municipal okrugs, urban okrugs and municipal districts on the achieved values of indicators for assessing the effectiveness of the work of LSG bodies for the reporting year and their planned values for a threeyear period; methodological recommendations on

the allocation of grants to municipal entities from the budget of the RF constituent entity in order to facilitate the achievement and (or) encourage the achievement of the best values of indicators of the work of LSG bodies; a list of recommended indicators used to determine the amount of grants.

Heads of municipal districts and municipal okrugs annually prepare a corresponding report, which reflects the values of indicators for assessing the effectiveness of the work of LSG bodies over the past three years and indicates the planned values for the next three years, and submit it to the appropriate state authority of the RF constituent entity. As a rule, the report provides comments on the reasons why individual indicators are deteriorating, and puts forward an action plan to achieve the best values of the indicators. An increase in the values of indicators (direct indicators) or a decrease in the values of individual indicators (inverse indicators) reflects the effectiveness of the work of local self-government bodies. The subject of the assessment is the results of the work of local selfgovernment bodies in the following areas: economic development; preschool education; general and additional education; culture; physical culture and sports; housing construction and provision of housing for citizens; housing and communal services; organizing municipal administration; energy saving and improving energy efficiency; conducting an independent assessment of the quality of conditions for the provision of services by organizations in the fields of culture, health, education and social services. At the same time, according to the research of Russian scientists (see, for example, Voroshilov, 2015), the monitoring of the effectiveness of the work of LSG bodies does not cover all areas (directions) regarding the development of the municipality; there are also questions about the actual reliability of the values of indicators (there may be significant fluctuations from year to year or omission of individual values of indicators, etc.).

A distinctive feature of our present study consists in the fact that it considers issues related to the formation of a system for monitoring the development of municipalities, taking into account the current information and statistical base in Russia, and substantiating the development of an approach to the comparative monitoring of municipalities in different regions of Russia.

## Description of the research methodology and substantiation of its choice

To achieve the goal of the work, we used standard methods of economic, statistical and comparative analysis, generalization and expert (questionnaire) survey, and a monographic method. In the course of the study, we relied on the publications of foreign and Russian scientists involved in the analysis and monitoring of socioeconomic development of municipal entities.

Further, the article will consider the methodological approach and the tools used to monitor the development of Vologda Oblast municipal entities; the main results of the monitoring are published in the annual information and analytical bulletin "Socio-Economic Development of Municipal Districts", issued by Vologda Research Center of the Russian Academy of Sciences (VolRC RAS) since 2014. We provide the development of this bulletin and the execution of the bulk of work for its preparation.

We use a methodological approach to grouping territories according to the value of statistical indicators under consideration. The grouping of municipal districts for each of the initial statistical indicators characterizing their socio-economic development and analyzed in this bulletin is carried out in accordance with the following interval estimates (*Tab. 1*). For a number of indicators, in the absence of districts that fall into a group with a high or low level of development, the grouping is carried out logically, based on the magnitude of the differences between the values of the indicator for the districts from the indicators for the districts of another group.

Table 1. Boundaries of intervals for the groups of municipalities according
to the level of socio-economic development indicators

Group – level of indicator values	Boundaries of the group
High	$x_i \ge x_{av} + (3/4) \cdot \sigma$
Above high	$x_{av} + (1/4) \cdot \sigma \le x_i < x_{av} + (3/4) \cdot \sigma$
Median	$x_{av}\text{-}(1/4)\cdot\sigma \leq x_i < x_{av}\text{+}(1/4)\cdot\sigma$
Below median	$x_{av}\text{-}(3/4)\cdot\sigma \leq x_i < x_{av}\text{-}(1/4)\cdot\sigma$
Low	$x_i < x_{av}$ -(3/4)· $\sigma$

 $x_i$  – value of the indicator of the i-th district (urban okrug) of the oblast;  $x_{av}$  – average value of the corresponding indicator for all districts (urban okrugs);  $\sigma$  – standard deviation for the corresponding indicator.

An example of the grouping of Vologda Oblast municipal districts according to one of their indicators under this approach will be given in Table 4.

The level of socio-economic development of municipal entities is assessed on the basis of the methodology presented in the publication (Voroshilov, Gubanova, 2014). The essence of the methodology consists in the sequential implementation of four stages: standardization of the initial 18 statistical indicators of municipal districts relative to average values for the region; calculation of the integral indicator for four blocks of indicators ("Demography", "Improvement", "Standard of living", "Economy") based on the arithmetic mean of standardized indicators included in the block; calculation of the integral indicator of the level of development as an arithmetic mean of the integral indicators of the blocks; grouping of oblast districts into five groups of territories by level of development (high, above median, median, below median, and low). The results of such grouping according to the indicators for 2000, 2010, 2020 and 2021 are presented in Table 5.

In order to monitor the current state and reform of the institution of local self-government in the oblast, RAS Vologda Research Center has been conducting a questionnaire survey of the heads of Vologda Oblast municipal entities since 2006 (questionnaires are sent to all municipalities of the oblast; the number of filled-in questionnaires received from the heads provide a sampling error of no more than 4–5%). At the same time, the

questionnaire for the survey is adjusted annually taking into account the specifics of changes occurring in the system of state and municipal administration in Russia and the Vologda Oblast.

#### Research results

We were able to elaborate and substantiate the principles (Tab. 2) and approach to monitoring the development of municipalities after we implemented the following steps: summarizing research works on the issues under consideration; gaining practical experience in monitoring the development of Vologda Oblast municipal entities (by preparing an annual information and analytical bulletin and conducting a questionnaire survey of municipalities' heads); analyzing development parameters of the largest and large urban agglomerations of Russia, urban agglomerations on the territory of the European North of Russia, rural territories of regions within the Northwestern Federal District; gaining experience in developing methods for assessing the level of socio-economic development of RF constituent entities, municipal entities (municipal districts and okrugs, urban okrugs, urban and rural settlements) and arranging these territories into groups; analyzing the existing practice of monitoring the development of municipalities in some RF constituent entities (Vologda Oblast, Altai Krai, etc.), implemented by public authorities.

Next, let us consider main features of the approach to conducting the monitoring of Vologda Oblast municipal entities (*Tab. 3*), the main results

Table 2. Principles of monitoring statistical indicators of socio-economic development of municipalities

Principle	Essence
	Principles, according to which the monitoring is organized
Regularity, efficiency	The monitoring should be conducted (the relevant information base should be collected and analyzed) in every analyzed period (year, quarter, month); analysis should be carried out and conclusions should be made as soon as possible after the appearance of a reliable and adequate information and statistical base
Comprehensiveness	The monitoring should cover all possible aspects in the development of municipalities; in order to confirm certain facts, in addition to statistical information, it is advisable to use other sources of information (the results of sociological research conducted in the municipality; departmental, reporting information of local self-government bodies, municipal enterprises and institutions; the results of an expert survey, other available reliable information bases and resources)
System-wide nature	Various aspects in the development of municipal entities should be considered in the interrelation of spheres (subsystems) of socio-economic development of municipal entities; cause-and-effect relationships between individual phenomena and processes should be identified
Accessibility	The results of the monitoring should be presented in an understandable, accessible form for various consumers; the results should substantiate the need and direction of adjusting the forms, methods, and tools for managing the development of municipalities
Purposefulness	The monitoring should be aimed at achieving the goal and specific objectives of monitoring the development of municipalities
Usefulness	The results of the monitoring should be useful for various stakeholders (public authorities, local self-government bodies, business community, residents of municipalities)
	Principles, according to which the information base is formed (indicators are selected)
Comparability	The indicators used in the monitoring should be comparable in time (in terms of the name of indicator, features of its formation and form of presentation) and space (it should be possible to adequately compare the values of the indicator between different territories of a specific RF constituent entity and all RF constituent entities or any macroregion of the country)
Reliability	Indicators should be collected on the basis of data from official statistical sources (statistics collections, databases) or other information resources, the principles of formation of which are clear and methodologically correct
Moderation	The number of indicators for the monitoring should not be too large; it is necessary to avoid duplication of indicators characterizing the same phenomenon or process, multicollinearity of indicators used for integral assessment of the level of development of municipalities
Accessibility	Information on the values of the municipality's development indicators should be available to various interested parties and be presented over a long period of time (at least ten years)
	Principles, according to which the level of socio-economic development is assessed
Adequacy of the results obtained	The results of assessing the level of socio-economic development of municipal entities and their typology should most adequately reflect the characteristics of the territories in each group; the municipality in each group should be characterized by common, similar trends, features, development factors and problems
Taking into account territorial specifics	The level of development of municipalities in RF constituent entities should be assessed taking into account the adjustment of cost indicators for interregional differences in the level of prices or cost of living to ensure comparability of interregional comparisons for municipalities
Applicability of the assessment results	The results obtained while assessing the level of development should make it possible to substantiate differentiated measures and instruments of regulatory influence on the part of the state and local self-government bodies on various types of municipalities
Relative simplicity of calculation	Methodological tools for assessing the level of development of municipalities should be understandable and accessible to all interested parties; processing of initial data and calculation of the integral indicator should preferably be carried out without the use of specialized, nonpublicly available software and without lengthy and complex calculations

of which are published in the annual information and analytical bulletin "Socio-Economic Development of Municipal Districts" issued by Vologda Research Center of the Russian Academy of Sciences since 2014. VolRC RAS sends the bulletin annually and free of charge to the state authorities of the Vologda Oblast and local self-government bodies of districts and urban okrugs of the oblast, and sometimes to individual federal legislative and executive authorities, senior officials of all RF constituent entities, and certain scientific and nongovernmental organizations of Russia.

Table 3. Structure of the monitoring of socio-economic development of Vologda Oblast municipal entities as presented in the bulletin (on the example of the 9th issue of the bulletin published in 2022)

Block of indicators	List of monitoring indicators
Main trends in socio-	Permanent population size at the end of the year, including urban and rural population; number of rural
economic development	settlements within municipal districts and urban okrugs of the Vologda Oblast; structure and dynamics of
of municipal districts	the permanent population by age group
and urban okrugs in the /ologda Oblast in 2000–	Natural and migration increase (decrease), including in the context of urban and rural population; migration increase/decrease in the context of migration directions
2020	Morbidity per 1,000 people
1020	Agricultural production (in comparable prices) per inhabitant; industrial production and shipment of goods
	per inhabitant
	Retail turnover (in comparable prices) per inhabitant
	Volume of commissioned residential buildings per inhabitant
	Ratio of the average monthly nominal accrued wage to the subsistence level; average monthly wage of
	certain categories of employees designated in Presidential Decree 597, dated May 7, 2012
	Registered unemployment rate
	Provision of doctors per 10 thousand people
	Availability of hot and cold running water, sewerage, central heating, gas in the housing stock
	Condition of water supply and sewerage networks infrastructure (proportion of networks in need of
	replacement; replaced networks; leakage and unaccounted for water consumption); condition of heat supply networks
	Supply lieuworks   Main characteristics and dynamics of key indicators of socio-economic development of groups of
	municipal districts in the Vologda Oblast (in the context of the typology of territories by share of rural
	population, typology by remoteness from large cities)
Current condition and	Budgetary provision of own (tax and nontax) revenues of the district (urban okrug) budget per inhabitant
rends in the formation	Structure of expenditures of budgets of municipal districts and urban okrugs in the Vologda Oblast
of budgets of municipal	Volume of financial resources of the Vologda Oblast budget, allocated for the implementation of projects
districts and urban okrugs	and events under the state program "Comprehensive development of rural areas" in municipal entities of
n the Vologda Oblast	the Vologda Oblast
Some indicators showing	Cattle population, pig population in all types of farms, cow population in all types of farms and in households
he development of	Gross harvest of grain and leguminous crops in all types of farms
agriculture in municipal	Productivity of grain and leguminous crops in all types of farms
districts of the Vologda	Milk production in all types of farms
Oblast	Milk yield per cow in agricultural organizations
	Sale of livestock and poultry for slaughter in live weight in all types of farms
Main results of socio-	Natural population growth (decrease); migration growth (decrease)
economic development	Turnover of organizations and production volumes of the logging industry
of municipal districts and urban okrugs in the	Dynamics of the main indicators of agricultural sectors Retail and catering turnover (in comparable prices)
Vologda Oblast in 2021	Number of organizations and individual entrepreneurs; share of profitable organizations
vologua oblast III 2021	Number of unemployed and the level of registered unemployment
	Volume of commissioning of residential buildings
	Dynamics of cargo turnover and passenger turnover of motor transport
	Average monthly nominal accrued wage of an employee
orecast of the main	Permanent population at the end of the year
parameters of development	Agricultural production per inhabitant (in comparable prices)
of municipal districts	Retail trade turnover (in comparable prices)
and urban okrugs in the	Real accrued wages (in comparable prices)
/ologda Oblast until 2030	
Municipal management	Results of the annual questionnaire survey of Vologda Oblast municipalities' heads, which includes the
efficiency (based on the	following main areas:
materials of surveys	- studying changes occurring in municipal entities after the adoption of Federal Law 131-FZ;
conducted by VoIRC RAS)	- identifying areas for improving the work of local administrations directly and assessing the availability
	of qualified personnel there;
	<ul> <li>identifying the role of federal and regional authorities in the development of municipalities and directions for improving state policy on the development of municipalities;</li> </ul>
	studying public participation in local self-government
Annandiaga	Main stages in the development of local self-government institution in the post-Soviet period
	ו ואמווו שנמקטש ווו נוופ עפיפוטףווופווג טו וטטמו שפוו-קטיפווווופווג ווושנוגענוטוו ווו נוופ ףטשנ-שטיופג ףפווטע
Appendices	Proposals for improving state policy in the field of local self-government in Russia improving the
Appendices	Proposals for improving state policy in the field of local self-government in Russia, improving the management of municipalities development

Next, as an example, let us consider some calculations (examples) from the results of monitoring the development of Vologda Oblast municipalities, published in a 2022 issue of the bulletin.

Thus, in 2000–2020, the average per capita volume of agricultural production decreased in comparable prices in 19 districts of the oblast (average decrease was 8%; *Tab. 4*). In Vashkinsky, Babushkinsky, Nyuksensky, Syamzhensky, Vozhegodsky, Kaduysky, Babaevsky, Vytegorsky, Ust-Kubinsky districts, production decreased more than twofold. In five districts (Vozhegodsky, Sokolsky, Babaevsky, Vytegorsky), by the end

of 2021, the volume of agricultural production was more than four times lower than the district average. In Gryazovetsky, Vologodsky, Sheksninsky, Ustyuzhensky, Mezhdurechensky, Totemsky and Kirillovsky districts in 2021, there was an increase in agricultural production compared to 2000 (from 0.3 to 92%); an increase compared to 1995 is observed in Vologodsky, Gryazovetsky, Sheksninsky, Ustyuzhensky, Tarnogsky, Totemsky, Chagodoshchensky districts.

Vologodsky, Gryazovetsky and Sheksninsky districts remain leaders in the development of agriculture in the Vologda Oblast; they provide the bulk of agricultural products to two large cities of

Table 4. Agricultural production (in comparable prices in 2021), thousand rubles per capita

Municipal district	1995	2000		2010	2010 2020		021	2021 to	2021 to	
Municipal district	1995	Value	Position	2010	2020	Value	Position	2000 , %	2019, %	
Vologodsky	227.7	250.4	1	229.1	245.1	251.0	1	100.3	102.4	
Gryazovetsky	97.4	105.7	5	99.7	190.9	202.4	2	191.6	106.0	
Sheksninsky	110.8	96.8	7	81.5	112.7	109.9	3	113.6	97.5	
Ustyuzhensky	79.0	80.4	11	67.7	104.1	107.6	4	133.8	103.3	
Cherepovetsky	234.6	191.8	2	153.5	103.2	102.0	5	53.2	98.8	
Tarnogsky	86.0	101.5	6	58.3	86.0	92.5	6	91.2	107.6	
Totemsky	72.1	71.4	13	55.4	88.8	91.2	7	127.7	102.6	
Mezhdurechensky	104.7	86.4	10	60.5	87.4	86.8	8	100.4	99.3	
Verkhovazhsky	164.9	108.6	3	70.3	75.0	74.6	9	68.6	99.4	
Kirillovsky	71.9	69.0	16	48.7	70.1	71.6	10	103.7	102.1	
Chagodoshchensky	47.3	58.7	19	28.9	53.7	52.1	11	88.7	96.9	
Ust-Kubinsky	72.4	106.6	4	81.9	54.1	47.4	12	44.5	87.6	
Nikolsky	83.1	88.6	8	49.5	48.7	47.1	13	53.2	96.8	
Kichmengsko- Gorodetsky	87.8	78.5	12	43.6	43.7	42.3	14	53.9	96.8	
Velikoustyugsky	68.3	40.7	23	28.1	32.8	34.3	15	84.2	104.4	
Babushkinskiy	85.0	86.7	9	40.3	30.9	31.5	16	36.3	101.8	
Kharovsky	56.0	49.6	20	29.7	32.1	30.8	17	62.2	96.2	
Vashkinsky	62.0	62.4	18	27.7	28.1	30.1	18	48.2	107.0	
Nyuksensky	165.1	70.4	14	26.5	31.7	29.1	19	41.4	91.9	
Syamzhensky	67.6	63.2	17	25.6	26.1	24.5	20	38.8	94.0	
Belozersky	55.3	39.9	24	25.1	23.1	24.1	21	60.5	104.3	
Kaduysky	42.5	45.1	22	21.0	22.5	21.6	22	47.9	95.9	
Sokolsky	34.2	34.0	26	24.6	18.4	19.6	23	57.8	106.5	
Vozhegodsky	53.4	46.7	21	26.5	18.3	18.5	24	39.6	101.3	
Babaevsky	78.6	69.2	15	25.9	15.0	14.4	25	20.8	96.0	
Vytegorsky	33.9	34.8	25	11.0	9.2	9.9	26	28.4	108.0	
District average	94.8	87.9	-	67.7	79.4	81.0	-	92.1	102.0	
-	Groups of districts are highlighted in color according to the value of the indicator									
High Above median Median Below median				edian	Low					

the oblast and, due to their favorable economic and geographical location, have convenient access to large sales markets of the Northwestern and Central federal districts. Cherepovetsky District has lost its position in 20 years; it is largely due to a significant decline in production in the pig farming subsector (a number of large pig breeding facilities have been closed).

The results of grouping Vologda Oblast municipal districts by socio-economic development level for 2000–2021 are presented in *Table* 5. A deterioration of the overall assessment of socio-economic development level (based on the analysis of the results of the integral indicator) was noted

in a number of municipal districts of the Vologda Oblast (in 2000 and 2010, the group with a low development level included only eight districts, while in 2020–2021, their number increased to 9–11 districts). At the same time, the number of districts with a high development level decreased from six to four. In 2000–2021, eight districts experienced a deterioration in their socio-economic situation (Kaduysky, Cherepovetsky, Chagodoshchensky, Totemsky, Belozersky, Vashkinsky, Ustyuzhensky, Vytegorsky); while six districts (Gryazovetsky, Mezhdurechensky, Babaevsky, Syamzhensky, Verkhovazhsky, Nyuksensky) moved to groups with a higher level of development during this period.

Table 5. Ranking of Vologda Oblast districts by value of the integral index of socio-economic development

Municipal district	2000		2010 2020 2021 2000 20		2010		0 2021		2021 to 2010 (+/-)	2021 to 2000 (+/-)	
·	Abs. value	Rank	Abs. value	Rank	Abs. value	Rank	Abs. value	Rank	Rank	Rank	Rank
Gryazovetsky	1.147	7	1.132	6	1.406	2	1.521	1	1	5	6
Sheksninsky	1.222	5	1.595	1	1.536	1	1.486	2	4	-1	3
Vologodsky	1.405	2	1.310	5	1.298	3	1.325	3	-3	2	-1
Sokolsky	1.265	4	1.329	4	1.210	5	1.229	4	0	0	0
Kaduysky	1.655	1	1.439	3	1.246	4	1.133	5	-2	-2	-4
Velikoustyugsky	1.141	8	1.047	8	1.101	8	1.058	6	0	2	2
Chagodoshchensky	1.202	6	1.446	2	1.106	7	1.045	7	4	-5	-1
Babaevsky	0.930	12	0.909	12	0.998	11	1.034	8	0	3	3
Totemsky	1.036	9	0.960	10	1.000	10	1.032	9	-1	2	1
Nyuksensky	0.928	13	0.784	19	1.110	6	1.009	10	-6	9	3
Cherepovetsky	1.354	3	1.056	7	1.015	9	0.940	11	-4	-4	-8
Kirillovsky	0.872	16	0.865	16	0.898	13	0.923	12	0	3	3
Kharovsky	0.895	14	0.979	9	0.885	15	0.923	13	5	-3	2
Tarnogsky	0.861	17	0.901	13	0.956	12	0.899	14	4	-2	2
Mezhdurechensky	0.840	19	0.869	15	0.896	14	0.897	15	4	1	5
Syamzhensky	0.755	24	0.725	23	0.821	19	0.873	16	1	7	8
Verkhovazhsky	0.766	22	0.779	20	0.843	18	0.854	17	2	2	4
Vytegorsky	0.957	10	0.857	18	0.797	21	0.846	18	-8	-2	-10
Ustyuzhensky	0.857	18	0.883	14	0.873	16	0.838	19	4	-3	1
Belozersky	0.878	15	0.861	17	0.850	17	0.832	20	-2	-2	-4
Vashkinsky	0.937	11	0.749	21	0.821	20	0.823	21	-10	0	-10
Ust-Kubinsky	0.813	21	0.955	11	0.772	22	0.759	22	10	-11	-1
Nikolsky	0.693	26	0.741	22	0.768	23	0.740	23	4	-1	3
Vozhegodsky	0.818	20	0.715	25	0.761	24	0.728	24	-5	1	-4
Kichmengsko- Gorodetsky	0.709	25	0.649	26	0.718	25	0.700	25	-1	1	0
Babushkinsky	0.756	23	0.715	24	0.677	26	0.699	26	-1	-2	-3
	Gro	ups of dist	ricts are h	ighlighted	in color ac	cording	to the value	of the ind	icator		
Н	ligh	_	ve mediar		Median		Below me		Low		

development of the Vologda Oblast, two the share of residential housing stock equipped typologies of municipal districts were proposed: with running water (33-46%) and gas (13by share of rural population and by remoteness 21%) is small; and the overall level of sociofrom large cities (Tab. 6). It is shown that in economic development in such areas is lower.

To study spatial (intraregional) specifics in the areas with a predominance of rural population,

Table 6. Main characteristics of groups of municipal districts in the Vologda Oblast in 2021

Share of the group of territories in the total value of the indicator in the aggregate for all districts, %							Average value of the indicator for districts within the group						
Group of territories	Population size	Goods shipped	Agricultural production	Investments in fixed capital	Commissioning of residential buildings	Share of housing equipped with running water, %	Share of housing equipped with centralized gas supply, %	Natural population growth rate, per mill	Migration gain, per mill	Integral indicator of the level of development			
		Ту		municipal	districts by	share of rural							
Purely rural (42% of the total number of districts in the oblast)	33.6	14.5	50.7	21.4	64.1	45.6	20.7	-12.5	2.2	0.849			
Mostly rural (15%)	15.0	11.6	8.0	11.8	7.1	32.5	13.2	-13.2	-1.4	0.801			
Largely urban (35%)	39.2	54.1	38.2	43.9	24.6	53.6	28.0	-13.7	-2.5	1.039			
Mostly urban (8%)	12.2	19.8	3.0	12.9	4.2	60.3	54.4	-12.6	3.7	1.154			
	Тур	ology of	municipal	districts b	y location re	lative to very	large and large	cities					
Near periphery of the 1st order (8%)	17.5	7.6	40.5	13.8	52.3	54.8	38.8	-10.9	6.3	1.100			
Near periphery of the 2nd order (15%)	25.0	50.6	26.7	48.2	13.1	61.4	51.6	-11.8	0.4	1.309			
Near periphery of the 3rd order (31%)	33.9	30.3	16.5	28.1	18.8	44.0	20.8	-13.8	-1.9	0.888			
Middle periphery (15%)	6.90	3.5	6.4	1.9	5.3	45.8	0.8	-15.4	-3.1	0.805			
Far periphery (31%)	17.1	7.9	10.0	8.0	10.3	37.4	8.1	-14.8	-1.9	0.805			
By district	100.0	100.0	100.0	100.0	100.0	48.6	26.5	-13.1	0.01	0.931			
By oblast	-	-	-	-	-	71.4	33.4	-9.3	-0.77	-			

The features and composition of Volonda Oblast district groups are as follows:

<sup>-</sup> purely rural (the share of rural population is 100%); Babushkinsky, Vashkinsky, Verkhovazhsky, Vologodsky, Kichmengsko-Gorodetsky, Mezhdurechensky, Nyuksensky, Syamzhensky, Tarnogsky, Ust-Kubinsky, Cherepovetsky;

<sup>-</sup> mostly rural (the share of rural population is 50.0-99.9%): Vozhegodsky, Vytegorsky, Nikolsky, Totemsky;

<sup>-</sup> largely urban (the share of rural population is 25.0-49.9%): Babaevsky, Belozersky, Velikoustyugsky, Gryazovetsky, Kirillovsky, Ustyuzhensky, Kharovsky, Chagodoshchensky, Sheksninsky;

<sup>-</sup> mostly urban (the share of rural population is 0-24.9%): Kaduysky, Sokolsky;

<sup>-</sup> near periphery of the 1st order (territories that are part of agglomerations; their center is a large city): Vologda, Cherepovets;

<sup>-</sup> near periphery of the 2nd order (territories located in the zone of active influence of a large city): Gryazovetsky, Sokolsky, Kaduysky, Sheksninsky:

<sup>-</sup> near periphery of the 3rd order (territories whose center is a small or medium-sized city): Vytegorsky, Babaevsky, Belozersky, Kirillovsky, Velikoustvugsky, Nikolsky, Totemsky, Kharovsky;

<sup>-</sup> middle periphery (territories outside the zone of active influence of the city and adjacent to the territories of the 1st and 2nd order): Ust-Kubinsky, Syamzhensky, Mezhdurechensky, Ustyuzhensky;

<sup>-</sup> far periphery (territories remote from the region's cities): Vashkinsky, Chagodoshchensky, Vozhegodsky, Verkhovazhsky, Tarnogsky, Nyuksensky, Babushkinsky, Kichmengsko-Gorodetsky.

At the same time, the group of purely rural areas accounts for 64% of housing commissioning (in this case, we are talking more about the construction of individual housing that is not connected to centralized utilities systems). In turn, as the distance from large cities increases, the demographic situation and the overall level of development in the territories deteriorates. The

group of purely rural areas is characterized by the largest volume of agricultural production (122.2 thousand rubles), housing commissioning per inhabitant (1.17 square meters) and the volume of own income per capita (14.1 thousand rubles). In the group of these districts, population has decreased by 19% over 20 years, and on average for all districts of the oblast – by 23% (*Tab. 7*).

Table 7. Dynamics of key indicators of socio-economic development in groups of Vologda Oblast municipal districts

Group of territories				Average monthly wage in prices of 2021 (excluding SMEs), thousand rubles			Agricultural production per inhabitant (in prices of 2021), thousand rubles			Commissioning of residential housing per inhabitant, square meters			Own (tax and nontax) revenues of the local budget per inhabitant (in prices of 2021), thousand rubles		
termones	2000	2021	2021 to 2000, %	2010	2021	2021 to 2010, %	2000	2021	2021 to 2000, %	2000	2021	2021 to 2000, %	2006	2021	2021 to 2006, times
			Ty	pology	of mur	nicipal di	stricts b	y share	of rural p	opulatio	n				
Purely rural (42% of the total number of districts in the oblast)	213.7	173.6	81.3	27.4	41.5	151.5	145.9	122.2	83.8	0.15	1.17	799.1	5.8	14.1	2.45
Mostly rural (15%)	106.0	77.4	73.1	28.2	45.2	160.0	60.0	43.3	72.1	0.15	0.29	193.3	5.5	13.8	2.50
Largely urban (35%)	272.0	202.4	74.4	29.0	42.7	147.5	68.0	79.0	116.2	0.12	0.38	327.7	7.4	13.2	1.79
Mostly urban (8%)	78.7	63.2	80.3	29.0	42.2	145.4	36.7	20.1	54.9	0.18	0.21	117.7	7.5	10.6	1.41
		Турс	ology of	municij	pal dist	ricts by I	ocation	relative	to very la	rge and	large (	cities			
Near periphery of the 1st order (8%)	92.8	90.2	97.3	29.4	43.5	148.2	224.1	187.6	83.7	0.15	1.84	1233.9	6.5	12.5	1.92
Near periphery of the 2nd order (15%)	157.5	127.1	80.7	30.2	43.8	144.9	69.1	88.0	127.2	0.15	0.33	221.8	7.9	12.9	1.63
Near periphery of the 3rd order (31%)	241.5	175.2	72.5	28.1	43.1	153.5	54.7	39.4	72.0	0.13	0.34	262.7	6.8	13.1	1.92
Middle periphery (15%)	50.3	35.9	71.2	25.9	38.7	149.4	82.7	74.4	89.9	0.19	0.46	239.2	4.8	13.3	2.79
Far periphery (31%)	128.3	88.3	68.9	26.4	40.1	151.6	76.9	47.1	61.3	0.12	0.37	315.9	5.3	15.0	2.84
By district By oblast	670.3 1290.4	516.6 1139.5	77.1 88.3	28.4 39.2	42.7 50.7	150.2 129.1	87.9	81.0	92.1	0.14 0.16	0.61 0.56	441.6 353.9	6.6 19.9	13.3 13.3	2.02 0.67

According to the typology by remoteness from large cities, the greater the distance from the major cities of the oblast, the more negative trends in demographic development can be noted (in the areas of the near periphery of the 1st order, Vologodsky and Cherepovetsky districts, population decreased by only 3% in 2000–2020, while in the most remote territories of the far periphery – by 31%; see Tab. 7). In the areas of the near periphery of the 1st and 2nd order, there is a higher level of wages, a larger volume of shipments of agricultural products, and more positive dynamics of these indicators for 2000–2021 (see Tab. 6). Vologodsky and Cherepovetsky districts are leaders in terms of the volume and dynamics of housing commissioning. The smallest volumes of housing commissioning are noted in peripheral areas of the oblast (the near periphery of the 3rd order and the far periphery).

According to the results of a questionnaire survey conducted in 2022 among the heads of Vologda Oblast municipal entities, it was revealed that the most difficult situation in oblast municipalities is observed in demography, economy,

employment, transport (from 25 to 68% of respondents indicated that the condition of these spheres is "poor" and "very poor"; *Tab. 8*). While the most problematic situation is developing in rural settlements (in almost all areas, the proportion of municipalities' heads who pointed out this difficult situation is higher than in districts and urban settlements).

In most municipalities, the problem of insufficient financial resources is acute, as well. Urban and rural settlements found themselves in a difficult situation: 86 and 77% of their heads in 2021, respectively, assessed the availability of own revenues in their settlement as extremely low and low (*Tab. 9*).

At the same time, judging by the analysis of the survey results for 2006 and 2021, there are positive changes in the availability of financial resources in municipal entities. Thus, during the period under consideration, we observe an increase in the share of municipalities' heads who indicated median replenishment of the budget at the expense of own revenues, and the share of districts with an extremely low availability of own revenues decreased to zero.

Table 8. Assessment of the situation in the municipal entity according to the following parameters by the end of 2021, % of respondents who chose the answer options "poor" and "very poor"

		Municipal entities	
Parameter	municipal districts	urban settlements	rural settlements
Demographic situation	65.0	71.4	69.8
Employment	5.0	28.6	48.8
Economic development	15.0	57.1	45.2
Provision of transport services	0.0	28.6	38.1
Diversification of the economy	15.0	57.1	30.2
Provision of communication services (Internet, mobile communication)	0.0	0.0	25.6
Accessibility and quality of healthcare services	20.0	42.9	23.3
Development of road transport infrastructure	10.0	71.4	23.3
Material welfare	0.0	28.6	19.0
Housing and communal services	15.0	0.0	18.6
Provision of residential housing	20.0	28.6	18.6
Ensuring public safety	0.0	28.6	11.6
Accessibility and quality of education services	0.0	14.3	2.3
Recreation and culture	0.0	0.0	2.3
Environment (air, water, etc.)	0.0	0.0	0.0

Table 9. Distribution of answers of administrations' heads to the question "How would you assess the availability of own revenues and revenues in general in your municipality?", % of respondents

	Availability of revenues in general Availability of own revenues											
Municipal antition	extremely low	low	median	high	extremely low	low	median	high				
Municipal entities	(0–30%)	(31–60%)	(61–90%)	(over 90%)	(0–30%)	(31–60%)	(61–90%)	(over 90%)				
		2006										
Municipal districts	40.0	40.0	0.0	20.0	85.8	14.2	0.0	0.0				
Urban settlements	40.0	40.0	0.0	20.0	63.7	27.3	9.0	0.0				
Rural settlements	40.1	23.4	31.7	4.8	87.2	7.8	4.0	1.0				
				20	21							
Municipal districts	15.0	25.0	45.0	15.0	15.8	42.1	42.1	0.0				
Urban settlements	0.0	85.7	14.3	0.0	28.6	57.1	14.3	0.0				
Rural settlements	20.9	32.6	46.5	0.0	34.9	41.9	23.3	0.0				

Next, we will consider the results of evaluation of VolRC RAS information and analytical bulletin "Socio-Economic Development of Municipal Districts" by various experts. In 2022, the bulletin was sent to federal and regional state authorities, local self-government bodies and scientific organizations of Russia. As a result, 35 response letters were received in August - September 2022 (including 31 filed-in questionnaires on the evaluation of the bulletin): 21 responses from the state authorities of RF constituent entities; 10 responses from local self-government bodies of the Vologda Oblast and a number of other regions; 4 responses from scientific and other organizations. The main conclusions from the results of the questionnaire on the evaluation of the bulletin are as follows.

Respondents noted high relevance of the bulletin for public authorities and local self-government bodies (77 and 94% of respondents,

respectively; *Tab. 10*), about a third indicated its usefulness for federal authorities, employees of scientific organizations and residents of municipalities; 90% of respondents pointed out that the quality of materials contained in the bulletin was "high" and "sufficiently high". Respondents assessed the bulletin's main parameters as being quite high (topics of the sections, information content, clarity of expression, design — at 4.27 points or higher out of 5 points possible).

The overwhelming majority of respondents (64.5%) indicated "very high" and "high" usefulness of the bulletin materials for their professional activities; 35.5% of respondents indicated average usefulness of the materials. The materials presented in the bulletin are of use to employees of public authorities and local self-government because they can be used to prepare analytical materials on the development of the municipality, to prepare speeches and reports on the development of the

Table 10. Distribution of answers to the question "Who do you think this information and analytical bulletin can be useful to?", % of respondents

Target audience	Share of respondents
Local self-government bodies	93.5
Public authorities of RF constituent entities	77.4
Residents of municipalities	35.5
Employees of scientific and educational organizations	32.3
Federal government agencies	32.3
Business community	9.7
Nongovernmental organizations, political parties	9.7
I find it difficult to answer	0.0

Table 11. Distribution of answers to the question "In your opinion, in what areas of your professional activity can the bulletin be most in demand?", % of respondents

Area of activity	Share of respondents
Preparing analytical materials on the development of the municipality	67.7
Preparing speeches and reports on the development of the municipal entity	48.4
Developing proposals and measures to improve the management of socio-economic processes at the regional and local levels	45.2
Developing and revising strategic planning documents	41.9
Expanding and deepening my own knowledge and the knowledge of my subordinates about the development of municipalities in the Vologda Oblast	35.5
Providing information about municipalities to representatives of state authorities and local self-government of other constituent entities of the Russian Federation	29.0
Provide information on municipalities to representatives of business structures	16.1

municipality, to develop proposals and measures to improve the management of socio-economic processes at the regional and local level (45–68% of respondents indicated these areas; *Tab. 11*); 87.1% of respondents are interested in receiving issues of the bulletin in the following years, 12.9% are not interested in it.

We believe that the monitoring of the development of municipalities, taking into account the

principles outlined above, should be carried out regularly (annually) in all RF constituent entities according to the same list of indicators (*Tab 12*). It is also advisable to compare development parameters for municipalities of different constituent entities of Russia (for example, municipalities of constituent entities included in a federal district, or municipalities of several constituent entities, which can be taken for analysis).

Table 12. Key indicators for monitoring municipalities of RF constituent entities

Indicator				
Based on the indicators presented in Rosstat database of indicators for municipal entities				
Estimation of population size as of January 1 of the current year, total fertility rate, mortality, natural and migration growth	Yes	Yes		
Average number of employees of organizations (excluding small businesses)  Average monthly wages of employees of organizations (excluding small businesses), including in the context of main types of economic activity and certain categories of social workers (1)	No Yes	Yes		
Proportion of children aged 1–6 years who receive a preschool educational service and (or) are enrolled in a municipal educational institution Proportion of children aged 1–6 years who are registered for admission to municipal preschool educational institutions	No	Yes		
Number of employees and the average monthly accrued wages of LSG bodies				
Total area of residential premises	Yes	Yes		
Share of the population who received housing and improved living conditions in the reporting year, in the total population registered as needy	No	Yes		
Single length of the street gas, running water, sewer network; length of heating networks; length of networks in need of replacement; length of networks that have been replaced and repaired in a year; number of non-gasified settlements	No			
Volume of shipped goods of own production, amount of works and services performed on one's own (without small business entities), including by type of economic activity of industrial production				
Agricultural products (in actual prices); agricultural production index; acreage, gross yields and crop yields; livestock and poultry head at the end of the year; livestock production (2)	No	Yes		
Share of unprofitable organizations in the total number of organizations		<u> </u>		

#### End of Table 12

Indicator	SEDL	IRM	
Investments in fixed assets carried out by organizations located on the territory of the municipal entity (without			
small business entities), investments at the expense of the local budget (3)	No	Yes	
Number of retail and catering facilities	Yes	Yes	
Current (operational) costs of environmental protection, including payment for environmental services	No	Yes	
Length of public roads of local significance; total length of streets, driveways, embankments, including illuminated parts  Share of the length of public roads of local significance that do not meet regulatory requirements  Share of the population of localities that do not have regular bus and/or rail connections to the administrative center of the municipality			
Residential buildings (including individual ones) commissioned on the territory of the municipal entity (3)	No	Yes	
Number of collective accommodation facilities, number of seats and rooms in them (4)	No	No	
Additional indicators contained in the statistics collections "Socio-economic development of municipalities" iss territorial departments	ued by Ros	sstat's	
Level of registered unemployment; load of the unemployed population per one declared vacancy	Yes	Yes	
Availability of water supply, sewerage, heating, gas in the housing stock			
Number of places in organizations that carry out educational activities under educational programs of preschool education, supervision and care of children; number of children receiving preschool educational services			
Number of doctors, nursing staff, number of hospital beds	Yes	Yes	
Number of places in cultural and leisure type institutions; number of sports facilities	Yes	Yes	
Number of registered crimes	No	Yes	
Availability, receipt of fixed assets, commissioning of new fixed assets, disposal of fixed assets, liquidation (write-off) of fixed assets	No	Yes	
Production of the most important types of industrial products; production of the most important types of products by type of economic activity "Logging"	No	Yes	
Availability of vehicles of all types in organizations, availability of trucks in organizations	No	Yes	
Retail trade turnover (including physical volume index); volume of paid services provided to the population	Yes	Yes	
Net financial result (profit minus loss) of organizations' activities	No	Yes	
Indicators formed on the basis of other sources of information			
Revenues, expenditures, local budget surplus/deficit, revenue and expenditure structure (based on the reports on the execution of local budgets, available at the websites of municipalities)	Yes	Yes	
Monitoring of the functioning of the institution of local self-government (based on a questionnaire survey of municipalities' heads)	No	Yes	
Notes CEDI the indicator is applicable for accessing the level of accidencement and applicable indicator			

Notes: SEDL – the indicator is applicable for assessing the level of socio-economic development; IRM – the indicator is applicable for the interregional monitoring of municipalities' development.

Comments on individual indicators:

- 1. In some years, the database for municipal entities published these indicators for a full range of organizations, in 2014–2017 without taking into account small business subjects.
- 2. In a significant number of municipalities (especially northern ones), agriculture does not exist as an independent industry; therefore, it is not necessary to include these indicators in integral ratings.
- 3. Fluctuations in the investment volume indicator may be significant (several times and dozens of times) in a single year or from year to year due to the possible one-time implementation of one or more major investment projects in any area, which may lead to distortion of the integral indicator and not reflect the real long-term investment attractiveness of the municipality.
- 4. The data in the database differ significantly from the data presented in statistics collections of Rosstat's regional departments.
- 5. The tourism sector may not play a significant role in the development of individual municipalities.

Within the framework of this approach to the monitoring, the most accessible and widespread sources of statistical and other information for all constituent entities of the Russian Federation are used.

It is proposed to assess the level of socioeconomic development (typology) of municipal entities in a macroregion (comparative interregional assessment) in accordance with the following methodology, consisting in the sequential implementation of the following stages.

Stage 1. Based on the available official statistical information, a list of indicators is formed; they reflect various aspects of socio-economic development of territories  $(x_i)$ : natural population growth/decline rate, per mill; migration growth/ decline rate, per mill; goods of own production shipped, works and services performed on one's own (without small businesses) per inhabitant, thousand rubles; tax and nontax revenues of local budgets per capita, thousand rubles; average monthly wages of employees of organizations (excluding small businesses), rubles; total area of residential premises per inhabitant, thousand square meters. This list was determined based on the available official statistical information for all municipalities of Russia, presented in the database of indicators for municipalities, which is formed by the Federal State Statistics Service of the Russian Federation since 2006.

The values of all cost indicators included in the methodology are initially adjusted to uniform average Russian prices according to the following formula:

$$I_{\text{adj}}ik = I_{\text{init}}ik \times \frac{C_{\text{RF}}}{C_k}$$
, (1)

where  $I_{adj}ik$  — value of the i-th indicator of the municipal entity included in the k-th RF constituent entity in the corresponding year, adjusted for the cost of a fixed set of goods and services (interregional differences in the price level);  $I_{init}ik$  — initial value of the i-th indicator of the municipality included in the k-th RF constituent entity;  $C_{RF}$  — average annual cost of a fixed set of consumer goods and services on average in Russia at the end of the corresponding year;  $C_k$  — average annual cost

of a fixed set of consumer goods and services in the k-th region at the end of the corresponding year.

Stage 2. The indicators are standardized relative to the average values:

$$k_{ij} = \frac{\left(x_{ij} - x_{\min ij}\right)}{\left(x_{\max ij} - x_{\min ij}\right)},$$
 (2)

where  $k_{ij}$  – standardized coefficient;  $x_{ij}$  – value of the i-th indicator in the j-th municipality;  $x_{\max ij}$  – maximum value of the i-th indicator for all municipalities under consideration;  $x_{\min ij}$  – minimum value of the i-th indicator for all municipalities under consideration.

Stage 3. The integral indicator of the level of socio-economic development of the municipal entity (*I*) is calculated as follows:

$$I_j = \frac{\left(\sum_{i=1}^n k_{ij}\right)}{n} \,, \tag{3}$$

where n – number of indicators used in the methodology.

Stage 4. Agglomerations are grouped according to the level of socio-economic development, which is determined by the following interval estimates of the integral indicator I: high  $(I_j \ge 0.67)$ , median  $(0.33 \le I_j < 0.67)$ , low  $(I_j < 0.33)$ .

The methodological toolkit and the list of monitoring indicators are universal and can be used to conduct interregional comparisons of development processes of municipalities and to analyze municipalities of a single constituent entity of Russia.

In addition, within the framework of the development monitoring, it is also advisable to organize an assessment of the parameters of intraregional differentiation in the following areas: assessing the scale of differentiation; the level of socio-economic development of municipalities; factors determining differentiation; assessing the effectiveness of regional policy aimed at the development of municipalities. A methodological

approach to organizing such a monitoring of differentiation is presented, for example, in the monograph (Voroshilov, Gubanova, 2019).

The results of testing this methodological toolkit on the materials of three regions of the Northwestern Federal District are presented in *Table 13*.

Table 13. Values of the integral indicator of the level of socio-economic development for municipal districts and urban okrugs of the Vologda and Leningrad oblasts and the Republic of Komi by the end of 2021

Municipal entity	Integral indicator	Development level	Municipal entity	Integral indicator	Development level
U0 Usinsk RK	0.640		MD Udorsky RK	0.270	Low
MD Lomonosovsky LO	0.537		MD Vashkinsky VO	0.267	
MD Kingiseppsky LO	0.478		MD Chagodoshchensky VO	0.266	
MD Vsevolozhsky LO	0.476		MD Vytegorsky VO	0.266	
UO Vuktyl RK	0.470		MD Totemsky VO	0.265	
UO Vorkuta RK	0.437		MD Volosovsky LO	0.264	
MD Ust-Tsilemsky RK	0.417		MD Vologodsky VO	0.264	
UO Sosnovoborsky LO	0.389		MD Harovsky VO	0.262	
MD Nyuksensky VO	0.385	Median	MD Gryazovetsky VO	0.260	
MD Izhemsky RK	0.372	Mec	MD Troitsko-Pechorsky RK	0.260	
MD Syktyvdinsky RK	0.370		MD Kirillovsky VO	0.257	
UO Inta RK	0.367		MD Kirovsky LO	0.257	
MD Priluzsky RK	0.364		MD Sosnogorsk RK	0.253	
MD Syamzhensky VO	0.356		MD Vozhegodsky VO	0.252	
UO Ukhta RK	0.350		MD Gatchinsky LO	0.249	
UO Cherepovets VO	0.345		MD Sheksninsky VO	0.247	
MD Knyazhpogostsky RK	0.337		MD Sokolsky VO	0.247	
MD Kaduysky VO	0.332		MD Tikhvinsky LO	0.247	
MD Kichmengsko-Gorodetsky VO	0.323		MD Cherepovetsky VO	0.242	
MD Ust-Kubinsky VO	0.321		MD Babushkinsky VO	0.242	
MD Ust-Kulomsky RK	0.317		MD Boksitogorsky LO	0.240	
MD Kortkerossky RK	0.314		MD Ustyuzhensky VO	0.238	
MD Ust-Vymsky RK	0.309		MD Belozersky VO	0.234	
MD Kirishsky LO	0.308		MD Mezhdurechensky VO	0.226	
MD Tarnogsky VO	0.304	Low	MD Tosnensky LO	0.222	
MD Koigorodsky RK	0.304		MD Nikolsky VO	0.218	
MD Pechora RK	0.302		MD Lodeynopolsky LO	0.218	
MD Verkhovazhsky VO	0.291		MD Velikoustyugsky VO	0.206	
MD Babaevsky VO	0.289	7	MD Volkhovsky LO	0.204	
UO Syktyvkar RK	0.289		MD Luzhsky LO	0.203	
UO Vologda VO	0.288	7	MD Slantsevsky LO	0.199	
MD Vyborgsky LO	0.288		MD Priozersky LO	0.198	
MD Sysolsky RK	0.283		MD Podporozhsky LO	0.194	
Note: UO – urban okrug; MD – mun	icipal district; RI	K –Republic of Kor	mi; LO – Leningrad Oblast; VO – Vo	ologda Oblast.	

A comparison of the data in Table 13 for municipal districts and urban okrugs of the Vologda Oblast with the data in Table 5 for municipal districts of the Vologda Oblast allowed us to conclude that the results of the calculation of the integral indicator and classification of territories based on a methodology using statistical data from Rosstat's database of indicators for municipalities do not adequately reflect the real situation concerning the level of development of territories. Therefore, it is advisable to monitor the integral level of socioeconomic development of municipal entities on the basis of statistical information (statistics collections "Socio-Economic Development of Municipal Districts") published by Rosstat territorial bodies in RF constituent entities, with the use of the methodology presented in VolRC RAS bulletin "Socio-Economic Development of Municipal Districts" and described in the article (Voroshilov, Gubanova, 2014).

#### Analysis and explanation of the results obtained

In the course of the study, we put forward a scientific and methodological approach to organizing the monitoring of development of municipalities in the region; the approach is based on the use and analysis of statistical and sociological information on the development of municipalities and interregional comparison of their development level. To improve the comprehensive element and consistency of such a monitoring, it is necessary to further elaborate on the issues related to the collection and analysis of available and reliable information in the following areas:

- assessing socio-economic and budgetary effects of the transformation of municipal entities (consolidation of settlements, transformation of municipal districts into municipal districts and urban okrugs, changing the boundaries of municipalities);
- analyzing and assessing the staffing of local self-government bodies (number, qualification,

sufficiency, advanced training, salary of employees of LSG bodies):

- assessing the level of public approval for the work of heads of local administrations, development of public self-government and civil society, forms of people's participation in the development of municipalities;
- evaluating the activities of local selfgovernment bodies in raising additional funds through participation in competitions and grants;
- analyzing international and foreign economic relations of municipalities;
- analyzing the dynamics of small business development, dynamics and structure of investments in fixed assets (including physical volumes), including the implementation of large investment projects;
- analyzing employment and labor resources in the context of sectors;
- tourist flow to the territory of municipal entities;
- identifying and summarizing best practices
   of municipal management in the region;
- effectiveness of implementation of national projects and the achievement of national goals and objectives of the country's development in the context of municipal entities (resultant and process indicators);
- analyzing the directions and frequency of control and supervision of local self-government bodies by public authorities;
- annually revising and designing the proposals (taking into account the results of the monitoring) to improve state policy in the field of functioning of local self-government in Russia, to improve management in the development of municipal entities with a description of the lists of measures and formulations of amendments to regulatory legal acts.

At the same time, we should note that the system of monitoring the development of

municipal entities can function effectively only if the problems existing in Russian municipal statistics are resolved, restrictions eliminated and the peculiarities of the collection and use of statistical information taken into account (Voroshilov, 2022).

We should add that the expected new stage of local self-government reform will require improving approaches to monitoring the development processes in municipal entities. December 16, 2021, a draft federal law (draft law 40361-8) "On the general principles of organizing local selfgovernment in a unified system of public authority" was submitted to the State Duma of the Russian Federation. January 25, 2022, the draft law was adopted by the State Duma in the first reading. It was planned that the law would come into force on January 1, 2023 with a transitional period until January 1, 2028. However, due to various reasons, further consideration of this draft law has been postponed (most likely until 2024). The draft law provided for the establishment of a single-level system of local self-government (municipal districts, urban okrugs, urban territories of federal cities), establishment of two lists of powers for LSG bodies, increase in the role of various forms of people's participation in the development of territories, etc. At the same time, the processes of transition to a single-level system of local self-government (transformation of districts into municipal districts and urban okrugs with the abolition of urban and rural settlements) have been actively underway since 2017 and within the framework of the current federal law on local self-government (131-FZ).

In the conditions of the reform of local selfgovernment, it is important to ensure the preservation of the information and statistical base in the context of the territories of former urban and rural settlements of municipal districts that have been transformed into municipal districts or urban okrugs. This task can be solved centrally (Rosstat could resume collecting at least minimal statistical information in the context of the territories of abolished settlements) or by local self-government bodies of districts and okrugs (independent collection using various methods and information sources of data on key parameters reflecting the development of individual territories of the district or okrug – population, number of enterprises, production indicators of enterprises, investment projects implemented, capacity and condition of key infrastructure facilities, etc.). In addition, it is important to organize system-wide and qualitative monitoring of the development of territorial public self-government, participatory budgeting and the activities of the heads of settlements at the level of municipal districts, municipal okrugs and urban okrugs (where these forms of local self-government are represented): to determine indicators for the monitoring, its frequency, the procedure for collecting and processing information, the procedure for making decisions based on the results of the monitoring, etc.

Thus, the contribution of the research, the results of which are presented in this article, to the development of theoretical science consists in elaborating a methodology for assessing the level of development of municipal entities, allowing for interregional comparisons of territories; the contribution to the development of applied science is that the work substantiates specific recommendations for improving the process of organizing municipal monitoring, taking into account the current state of official statistics.

#### References

Bogdanov N., Meredith D., Efstratoglou S. (2008). A typology of rural areas in Serbia. *Ekonomski Anali*, 53(177), 7–29.

- Bolshakov S.N., Vasetsky A.A. (2019). Evaluation of the effectiveness of municipal management on the basis of monitoring of strategic decisions of socio-economic development. *Upravlencheskoe konsul'tirovanie*, 5(125), 24–34. DOI: 10.22394/1726-1139-2019-5-24-34 (in Russian).
- Brezzi M., Dijkstra L., Ruiz V. (2011). OECD extended regional typology: The economic performance of remote rural regions. *OECD Regional Development Working Papers 2011/06*.
- Burtseva T.A., Gubareva A.I. (2020). The system of consumer-balanced socio-economic development of a municipality in a digital environment. *FES: Finansy. Ekonomika. Strategiya=FES: Finance. Economy. Strategy*, 17(5), 32–47 (in Russian).
- D'jachenko V.N. (2018). Problems of using the statistical tools in assessing the development of municipalities. *Regional'naya ekonomika i upravlenie: elektronnyi nauchnyi zhurnal=Regional Economy and Management: Electronic Scientific Journal*, 4(56), 3 (in Russian).
- Fertner C. (2012). Downscaling European urban-rural typologies. *Geografisk Tidsskrift-Danish Journal of Geography*, 112(1), 77–83.
- Hristodulo O.I., Akhmetzyanova M.I. (2021). Development of a geo-information system for monitoring the attractiveness of municipalities using parametric, structural approaches (case of Republic of Bashkortostan). *International Journal of Open Information Technologies*, 9(9), 122–132 (in Russian).
- Khokhlova O.A. (2013). Municipal level of monitoring: Problems of information support and practical application. *Regional'naya ekonomika: teoriya i praktika=Regional Economics: Theory and Practice*, 42, 2–6 (in Russian).
- Klimova N.I. (2019). Monitoring of the stadial development of territories. *Vestnik Altaiskoi akademii ekonomiki i prava*, 11-1, 84–91. DOI: 10.17513/vaael.793 (in Russian).
- Klufová R. (2016). Current delimitation and typology of the Czech countryside and its importance for rural development. *Eastern European Countryside*, 22, 229–251.
- Kuznetsova O.V., Babkin R.A. (2021). Typology of municipalities to monitor their socio-economic development. Federalizm=Federalism, 26(4)(104), 35–53. DOI: http://dx.doi.org/10.21686/2073-1051-2021-4-35-53 (in Russian).
- Kuznetsova O.V., Babkin R.A. (2022). Formation of an analytical system for monitoring the socio-economic development of municipalities of the Russian Federation. *Plekhanovskii nauchnyi byulleten*', 1(21), 155–164 (in Russian).
- Mendel A.V., Fadeeva N.P. (2013). Statistical methods and monitoring of socio-economic community development. *Vestnik SGTU*, 4(73), 318–322 (in Russian).
- Rukhmanova N.A. (2010). Content and dataware of municipalities' strategic development monitoring. *Vestnik Ivanovskogo gosudarstvennogo universiteta. Seriya: Ekonomika=Ivanovo State University Bulletin. Series "Natural, Social Sciences"*. *Economics*, 3, 25–31 (in Russian).
- Russo A.P., Giné D.S., Albert M.Y.P., Brandajs F. (2017). Identifying and classifying small and medium sized towns in Europe. *Tijdschrift voor Economische en Sociale Geografie*, 107(4), 380–402.
- Shogenov B.A., Kupova M.K., Zhamurzaeva D.M. (2012). Social and economic monitoring with rating assessment of state and development of municipalities of the region. *Regional'naya ekonomika: teoriya i praktika=Regional Economics: Theory and Practice*, 44, 21–27 (in Russian).
- Syupova M.S., Bondarenko N.A. (2017). Indicators of socio-economic development of the municipality for monitoring and management of the territory. *Vestnik Tikhookeanskogo gosudarstvennogo universiteta=Bulletin of PNU*, 1(44), 155–164 (in Russian).
- Uskova T.V., Zuev A.N., Smirnov A.A. (2002). *Monitoring razvitiya munitsipal'nykh obrazovanii* [The Monitoring of the Development of Municipalities]. Vologda: VNKTs TsEMI RAN.

- Voroshilov N.V. (2015). Effectiveness of municipal administration: the essence and approaches to its evaluation. *Problemy razvitiya territorii=Problems of Territory's Development*, 3(77), 143–159 (in Russian).
- Voroshilov N.V. (2022). Features and problems of formation and use of statistical information on municipalities of Russia. *ETAP: ekonomicheskaya teoriya, analiz, praktika=ETAP: Economic Theory, Analysis, and Practice*, 6, 89–105. DOI: 10.24412/2071-6435-2022-6-89-105 (in Russian).
- Voroshilov N.V., Gubanova E.S. (2014). Assessment of the level of socio-economic development in municipal formations of the Vologda Oblast. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz=Economic and Social Changes: Facts, Trends, Forecast*, 6(36), 54–69. DOI: 10.15838/esc/2014.6.36.5 (in Russian).
- Voroshilov N.V., Gubanova E.S. (2019). *Vnutriregional'naya sotsial'no-ekonomicheskaya differentsiatsiya: monografiya* [Intraregional Socio-Economic Differentiation: Monograph]. Vologda: FGBUN VolNTs RAN.

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