

Problems of Assessing Intangible Resources in the Implementation of Rural Development Policy



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Abstract. The relevance of the research is due to the increasing importance of intangible resources, which today are considered as fundamental, strategic resources of territorial development policy. This problem is of particular importance for rural areas of the Russian Federation, which are facing a structural crisis and, as a result, difficulties in fulfilling national functions. The aim of this article is to present the results of methodological work on the creation of a system of subjective social indicators that make it possible to assess the current state of intangible resources for territorial development policy and their testing using the example of rural settlements in the Krasnodar Territory. The article shows how, based on the allocated intangible resources for the development of territories and their substantive characteristics, a system of subjective indicators has been formed to assess the state of these resources at the level of local communities. The results of the approbation of the methodology on the example of rural settlements of

For citation: Rakachev V.N., Rakacheva Ya.V. (2025). Problems of assessing intangible resources in the implementation of rural development policy. *Economic and Social Changes: Facts, Trends, Forecast*, 18(4), 129–142. DOI: 10.15838/esc.2025.4.100.7

the Krasnodar Territory are presented. The study covered 12 rural settlements from six municipal districts. The results showed that the current state of intangible resources depends not so much on the level of development of individual settlements as on the level of development of the municipal areas in which they are included. It has been established that the first-order resources – the basic activators of the territorial development process – human potential, local identity and leadership have a higher development level. The assessment of second- and third-order resources indicates the need to strengthen efforts to activate them. The proposed methodology can be used as a tool for diagnosing the state of intangible resources in the implementation of territorial development policies at the “entrance” and “exit”, as well as a tool for regular monitoring.

Key words: intangible resources, development policy, rural areas, social indicators.

Acknowledgment

The research was carried out within the framework of project 22-18-20059 “Rural development policy of the Krasnodar Territory: The potential of intangible resources”, funded by the Russian Science Foundation and the Kuban Science Foundation.

Introduction

Achieving sustainable development as one of the goals for the world and individual communities requires the development and use of appropriate social technologies. The global shortage of tangible resources inevitably raises the question of maximizing the use of intangible assets, which can compensate for the lack of tangible resources and ensure a sustainable society in the future. In these conditions, intangible assets, which characterize the quality of social actors and institutions in terms of their ability to effectively develop themselves and compete successfully, are increasingly being considered as the fundamental, strategic, ultimate resource of territorial development policies at various levels. The issue of developing and using intangible resources effectively is of particular relevance for Russian rural areas, which, as noted in the Strategy for the Sustainable Development of Rural Areas of the Russian Federation for the period up to 2030¹, are experiencing difficulties in performing their main national functions due to the

structural crisis². The rural areas of the Krasnodar Territory, one of the leading agricultural regions of Russia (Rakachev, 2023), are no exception and are characterized by acute “systemic problems in the development of human capital, which becomes the top priority among the long-term development factors in modern society”³.

At the same time, insufficient attention has been paid to the study on intangible resources and their social development potential, since their parameters are not easily recorded in statistics, are often subjective and situational, and depend on a specific socio-cultural, economic, and political context. As a result, interpretations, measurement methods, and evaluation of intangible resources vary significantly and may not always be comparable. In addition, the very nature of resources is characterized by instability and variability, which requires constant review of the available tools for their analysis.

¹ On the approval of the Strategy for the Sustainable Development of Rural Areas of the Russian Federation for the period up to 2030: RF Government Resolution 151-r, dated February 02, 2015 (amended on January 13, 2017).

² Strategy for the Sustainable Development of Rural Areas of the Russian Federation for the period up to 2030. Official website of the Russian Government. Available at: <http://government.ru/docs/16757> (accessed: May 15, 2023).

³ On the Strategy for the Socio-Economic Development of the Krasnodar Territory until 2030: Krasnodar Territory Law 3930-KZ, dated December 21, 2018. Available at: <https://docs.cntd.ru/document/550301926> (accessed: May 15, 2023).

The aim of the study is to present the findings of methodological work on the development of a system of subjective social indicators for assessing intangible resources for territorial development policies and the results of their use for rural settlements in the Krasnodar Territory⁴.

Data and methods

The theoretical and methodological basis of the work consists of studies devoted to the analysis of intangible resources (Kapelyushnikov, Luk'yanova, 2010; Hall, 2009; Teece, 2018), including human and social capital (Putnam, 2001; Bourdieu, 2005; Abraham, Mallatt, 2022), and social indicators that allow their comprehensive assessment⁵ (Kislitsyna, 2017; Leont'eva, Smirnova, 2020; Voukelatou et al., 2021; Bartram et al., 2024).

An array of empirical data for testing the methodology was collected during a sociological survey in rural settlements of the Krasnodar Territory in June – August 2023. The selection and classification of rural settlements were previously carried out on the basis of data from an expert survey and indicators of the level of socio-economic development (SED)⁶. As a result, settlements were selected from 6 municipal districts of the region: three more developed (Belorechensky, Krymsky, Temryuksky) and three less developed

(Absheronsky, Kanevskoi, Tikhoretsky). Settlements were selected based on the two extreme values of the SED index. The total number of selected settlements was 12, including 6 more developed (Tamanskoe, Pervomaiskoe, Chelbasskoe, Prigorodnoe, Fastovetskoe and Nizhegorodskoe) and six less developed (Staroderevyankovskoe, Novopolyanskoe, Ryazanskoe, Moldavanskoe, Fontalovskoe and Khoperskoe).

A questionnaire (street survey) was conducted in the selected rural settlements (RS). The sample is simple, random, and representative at the rural settlement level by gender and age ($N = 762$)⁷. Accordingly, data were collected on 6 settlements-leaders (375 questionnaires) and 6 settlements-outsiders (387 questionnaires). The distribution of questionnaires by district development is also approximately equal: 382 questionnaires in more developed districts (MD), 380 in less developed districts (LD).

Intangible resources and their structure

Resources in the broadest sense are something that is valuable for the process, useful and necessary to achieve a goal, and ensures development. Among other types of resources – financial, natural, and labor – intangible resources are of particular importance in modern society.

⁴ The developed methodology is one of the tools for analyzing rural development models based on intangible resources and socio-economic development.

⁵ Zubarevich N.V. (2009). Indeks razvitiya chelovecheskogo potentsiala regionov Rossii v 2005–2006 gg.: doklad o razviti chelovecheskogo potentsiala v Rossiiskoi Federatsii za 2008 g. [Index of Human Potential Development of Russian Regions in 2005–2006: Report on Human Potential Development in the Russian Federation for 2008]. Moscow: Siti-Print.

⁶ To assess the level of development of rural settlements and municipal districts, an integral indicator was developed based on a statistical dataset. The following key indicators were used in the study: population; commissioning of new single-family houses; proportion of profit-making organizations; municipal investments in fixed assets; investments in fixed assets by organizations located on the territory of the municipality; surplus/deficit of the municipal budget (local budget); natural increase (decrease); net migration; number of settlements without gas infrastructure. The development of the SED (socio-economic development) integral indicator is a multi-criteria task that requires the determination of weight coefficients for each of the parameters being considered. The method of Saaty's analytic hierarchy process (AHP) was used in the study. The evaluation included a series of paired comparisons between different criteria; an expert assessment of the significance of the indicators; and the use of the Kemeny method to rank them. This approach allowed objectively assessing the level of socio-economic development of the studied territories, taking into account the relative importance of various development factors. As a result, each rural settlement under study is characterized by two indicators: the metric rank of the settlement and the metric rank of the area in which it is located.

For more information on the procedure for selecting municipal districts and rural settlements using an expert survey and calculating the SED index, see (Miroshnichenko et al., 2024).

⁷ Sampled population – 75,043, sample error – 3.5%, confidence probability – 95%.

Since this type of resources was initially analyzed within the framework of economics, researchers defined them primarily through various characteristics of business and organizations. Intangible resources (intangible assets) were understood in this context as non-physical sources of values created by innovations, unique organizational projects or HR management methods, “stocks of strategic information and intangible assets that the organization can employ as needed in pursuit of its goals” (Teece, 2018).

With all the variety of interpretations of intangible resources, a number of features are essential. Firstly, intangible resources, despite their intangible nature, have a certain value, utility and price. Secondly, the effectiveness of their use is an indicator of the degree of modernization of the subject that works with them. In addition, the value of intangible resources has a cognitive or socially constructed nature, it is attributed to them by stakeholders, so it is not inherent in the subject itself, but rather depends on the observer’s assessment of its utility or desirability. Such resources are “idiosyncratic in nature” (Teece, 2018), and their creation takes time, which prevents their simulation and makes them a potential source of strong competitive advantage (Van Criekingen et al., 2022).

Currently, the concept of intangible resources as strategic assets goes beyond their importance in the development of business and organizations. Scientists argue that intangible resources are also essential for the output and competitiveness of countries, regions and territories (Manuelli, Ananth, 2014). At the same time, the assessment of intangible resources at these levels is a more difficult task which hinders the use of micromodels (Van Criekingen et al., 2022). By now, there has been a steady increase in awareness of the strategic value of intangible resources in other areas of social life besides economics (Kim, Go, 2020; Velez et al., 2024).

Social indicators as a tool to measure and assess intangible resources

By defining resources as the basis for development, we inevitably encounter the question of its indicators, especially due to the fact that recently there has been a growing need for a more comprehensive measurement of development. This is due to the constantly changing landscape of the social system itself, as well as its development policies, while most estimates give insufficient information about development. It is suggested that the concept of development should go beyond wealth accumulation, GDP growth and other income-related measurements. Without ignoring the importance of economic growth, other components should also be considered. Therefore, indicators used for assessing development should take into account various aspects of people’s lives, including cultural, social, environmental, political aspects, etc. (Jansen et al., 2024).

The implementation of development policies requires actors (primarily authorities) to take actions aimed at preserving or improving the well-being of individuals, social groups, or society in general. But, since well-being cannot be measured directly, special tools are needed. Such a tool is social indicators – quantitative or qualitative parameters that capture the observed characteristics of social phenomena and allow assessing their unobservable aspects, therefore they serve as indirect measures for complex social categories, providing an opportunity for their analysis and comparison (Borodkin, Aivazy, 2017).

Social indicators are a measure of the level, dynamics, and distribution of aspects of living conditions crucial to well-being (Maggino, 2024). As a rule, they are represented by statistical data, but this does not mean that non-quantifiable information, for example, about cultural habits and traditions, is ignored (Bartram et al., 2024). However, such characteristics cannot always be assessed using formal, objective statistical data

(Borodkin, Aivazyán, 2017). Accordingly, two conditional approaches to the evaluation of social phenomena and processes can be distinguished – quantitative and qualitative – and the corresponding types of indicators – objective and subjective (Voukelatou, 2021).

While objective characteristics can be recorded and measured from the outside, using tools that are set and the same for any particular case, subjective characteristics are evaluated and measured by individuals themselves, subjects of well-being (Noll, 2013; Borodkin, Aivazyán, 2017). Therefore, subjective social indicators are “statistics that have some significance for measuring the quality of life from the point of view of some particular subject(s)” (Michalos, 2023), the degree of their satisfaction with living conditions (Sushko, 2023).

At the same time, the gap between subjective and objective characteristics is not so significant, since subjective characteristics are also fixed objectively and can be represented in the form of scales, where the domains are benefits and/or troubles (Borodkin, Aivazyán, 2017). Both objective and subjective indicators are multidimensional, which allows using index systems to compare parameters of various dimensions and directions, calculating a composite/integral index to get the idea of the overall well-being, facilitate the assessment of the final result and make comparisons between territories (Notman, 2021).

Composite indices, which allow aggregating large amounts of both objective and subjective data on individual aspects of social well-being, are now widely used (Land, 2021; Chakrabartty, 2021). The advantages of such indicators are the ability to combine a large amount of data, differing in quantitative measures, into a single indicator and get a holistic view of the quality of life of the population of a certain territory, as well as to conduct cross-country, interregional or inter-settlement comparisons (Leont'eva, Smirnova, 2020; Notman, 2021). They allow us to analyze a

social phenomenon in two directions: in the form of a composite indicator and a set of indicators characterizing its individual aspects, which is important when determining the contribution of each parameter to the overall picture of quality of life and identifying on this basis the most problematic areas requiring targeted regulation. The advantage of composite indicators is also their simple and accessible form, which makes it possible to concisely present information about the state of social processes and use them in the development of social policy measures (Notman, 2021).

To date, several dozen indices have been developed and are widely used, making it possible to conduct a comparative analysis of various aspects of well-being. A number of these indicators take into account exclusively statistical data (GDP, HDI). At the same time, subjective characteristics are increasingly considered when creating indices, which allows moving away from a strictly economic approach when assessing the quality of life and well-being (social progress index, world happiness index). National approaches to assessing the quality of life are also being developed in this direction. To measure the socio-economic development of Russian regions, the HSE Institute for Social Policy has developed two composite indices – the crisis index of quality of life and the “full” index of quality of life⁸. An integrated approach combining objective statistical data and subjective assessments into a common indicator was developed by specialists from the department for quality of life measurement at the Institute of Economics of RAS (Kislitsyna, 2017).

Thus, among the many social indicators, those that are aimed at a comprehensive measurement of well-being are becoming increasingly popular.

⁸ Zubarevich N.V. (2009). Indeks razvitiya chelovecheskogo potentsiala regionov Rossii v 2005–2006 gg.: doklad o razviti chelovecheskogo potentsiala v Rossiiskoi Federatsii za 2008 g. [Index of Human Potential Development of Russian Regions in 2005–2006: Report on Human Potential Development in the Russian Federation for 2008]. Moscow: Siti-Print.

However, these techniques, along with their advantages, have their drawbacks. These include the problem of accessibility and comparability of data at the national, regional and municipal levels (Bartram et al., 2024).

In general, the analysis of existing works shows that the evaluation of intangible resources is primarily limited to assessing the quality of human potential, is carried out mainly using a set of objective indicators and is focused on the national or regional level⁹ (Zubarevich, 2020; Leont'eva, Smirnova, 2020; Ataeva, Oreshnikov, 2023), whereas at the municipal level, including rural settlements, these tasks are solved much less frequently (Voroshilov, 2021). A number of studies addressing the problem of the development and evaluation of intangible rural resources, human capital for instance (Belkina et al., 2018; Koloskova, Bordachenko, 2018; Podgorskaya, Bakhmatova, 2020; Voroshilov, 2021; Trotsuk, 2023), nevertheless rely solely on objective indicators, which allows us to determine the presented study as relevant, having scientific and practical significance and novelty.

Development of a methodology for assessing the potential of intangible resources for territorial development policy

The creation and test of the methodology, which includes a system of subjective social indicators, was preceded by a theoretical interpretation of the key intangible resources for territorial development. Previously, the team of authors conceptualized the very term “intangible resources for development policy”, which is understood as a set of multi-level, multi-component and multifunctional elements with different genesis that form a system of social relations and ensure the stability of local communities. Also, key intangible resources for the development of territories were determined:

- human potential as an integral assessment of the characteristics of the population, reflecting the level and possibilities of human development under certain environmental, socio-economic, political and legal conditions;

- local identity as the identification of residents with the place of residence/birth, a sense of attachment to the local community and involvement in its life;

- leadership, the configuration of which depends on its subject, origin, way of action, degree of institutionalization and interaction with the local community;

- social capital, which is determined depending on the types of social ties prevailing in the local community (as a private/public good), and institutionalization;

- development institutions, the configuration of which is determined by the institutionalization type, management level and the area of institutional development);

- socio-psychological resources characterized by the social solidarity level, confidence in the current local government, and subjective well-being (Miroshnichenko et al., 2024).

The determined resources were classified into three groups, depending on the stage at which they are involved in the development process and which they activate. The group of first-order resources (basic activators) included human potential, local identity, and leadership. They create the foundation and determine the basic potential for the development of the territory. Development institutions and social capital were included in the group of second-order resources (strategic activators). The resources of this group determine the key goals, forms, and directions of territorial development. Socio-psychological resources were classified as third-order resources, which represent the final markers and allow determining the success of integrating intangible resources of the first and second order into territorial development policy.

⁹ Serebryakova N.A., Volkova S.A., Volkova T.A. Human integral assessment methodology capital of the region. Vestnik VGUIT=Proceedings of VSUET, 3(81). Available at: <https://cyberleninka.ru/article/n/metodika-integralnoy-otsenki-chelovecheskogo-kapitala-regiona> (accessed: August 16, 2025; in Russian).

Table 1. Indicators of intangible resources for territorial development

Resource		Contents of the resource	Indicator
First-order resources	Human potential	Prospects for the youth The impact of migration on territorial development	Index of prospects for the youth Index of the impact of migration on territorial development
	Local identity	Social cohesion	Index of social cohesion
	Leadership	Formal and informal leadership	Index of formal and informal leadership
Second-order resources	Development institutions	Development strategies Territorial branding	Index of development strategies Index of territorial branding
	Social capital	Personal contribution to territorial development Network resources	Index of personal contribution to territorial development Index of network resources
Third-order resources	Socio-psychological resources	Confidence in municipal government Solidarity Subjective well-being	Index of confidence in municipal government Index of solidarity Index of subjective well-being
Source: own compilation.			

The theoretical interpretation of key intangible resources allowed defining an analytical framework for their further empirical research as a multi-component element in territorial development policy.

Accordingly, our immediate task was to develop a set of subjective social indicators to assess the intangible resources for territorial development. A set of characteristics reflecting the content of the main intangible resources for territorial development and their corresponding empirical indicators was analytically identified (*Tab. 1*).

The integral index¹⁰ was determined as the final indicator for assessing the intangible resources for territorial development, and its components are

¹⁰ We use the integral index due to its obvious advantages. Firstly, the simple and intelligible form of this indicator allows us to concisely present information about the state of complex multi-component social objects and make comparisons between similar objects. Secondly, it is possible to analyze a social phenomenon in two directions: in the form of a composite indicator and a set of indicators characterizing its individual aspects. This is important because it allows us to determine the specific contribution of each component to the overall situation and, accordingly, to focus on a specific parameter when developing and implementing social policy measures.

Thus, the integral index will allow us to give a generalized assessment of the whole range of key intangible resources for territorial development of the particular rural settlement, and individual and sub-indices will show the state of specific characteristics and indicate weak points to work on and resources needed to improve them.

individual indices and sub-indices of resources of the first, second and third order.

At the next stage, a sociological tool (questionnaire) was developed, where for each indicator (individual index) highlighted in Table 1, a pool of questions (from 2 to 5) with options (Likert scale) was provided, which significantly enhanced the meaningfulness and sensitivity of each index.

The distribution of responses to a question was calculated as a proportion to the total number of respondents. Due to the fact that groups of questions in the questionnaire corresponded to each particular index, they are subsequently averaged. The result is the following calculation formula:

$$\eta = \frac{1}{k} \sum_{i=1}^k \zeta_i, \quad \zeta_i = s_i^+ - s_i^-, \quad (1)$$

where:

s_i^+ – percentage of positive answers;

s_i^- – percentage of negative answers to the i -question.

On the basis of individual indices characterizing specific intangible resources, the sub-indices of resources of the first, second and third order are calculated as the unweighted arithmetic mean of individual indices. Finally, the integral index of intangible resources for territorial development is

also calculated as the unweighted arithmetic mean of the sub-indices of resources of the first, second and third order. When developing the methodology, we encountered the issue of choosing weights for various components of the integral index, and since currently the most common approach is to assign the same weights to all components (Decancq, Lugo, 2013), it was decided to do the same. As a result, each indicator (individual, integral, and sub-index) can take values from -100 to 100, which shows a positive or negative state of the resource.

Findings and discussion

First-order resource assessment. The resource “Human potential” was assessed using two indicators: the index of prospects for the youth and the index of the impact of migration on territorial development.

According to the calculations carried out, values of the index of prospects for the youth¹¹ are generally higher in the settlements-leaders, which means that residents of more developed settlements better assess the prospects of their rural settlement and district for the youth. Also, in settlements located in more developed districts, regardless of their own level, the mean value of the indicator is higher than in settlements of less developed districts. In other words, residents of both settlements-leaders and settlements-outsiders from developed districts are more optimistic about the prospects for the youth than residents of less developed areas. The index values for all rural settlements are positive, but relatively low, which may indicate underdevelopment of this resource, with the exception of three rural settlements where the

index is above 50 p.p. — Moldavanskoe, Tamanskoe, Prigorodnoe (*Tab. 2*).

Values of the impact of migration on territorial development¹² are usually higher in settlements-outsiders. According to this indicator, rural settlements of more developed districts also have high values, therefore, in these districts, residents of rural settlements of all levels consider the migration potential and the contribution of migrants to the development of territories as more significant. The index values are positive, but low: only in four settlements it exceeds 50 p.p. (Moldavanskoe, Tamanskoe, Prigorodnoe and Nizhegorodskoe).

The resource “Local identity” was assessed using the index of social cohesion¹³. It has been found that local identity is more pronounced at the district level than at the level of rural settlements, and that it is higher among residents of settlements-outsiders, regardless of the level of their district. They often note that their population represent a single community and it is important to them to belong to it. The index values are positive in all rural settlements and are quite high: in 9 out of 12 rural settlements they are above 50 p.p., which indicates the high development of this resource.

The resource “Leadership”¹⁴ was evaluated using the index of leadership. It was found that the index values of all rural settlements are positive and, as a rule, high, with the maximum values in settlements-outsiders, which means that their residents believe that positive changes were driven by activists, business actors or the head of the settlement. However, in terms of districts, the mean values of indicators are higher in more developed municipalities.

¹¹ The questions for this indicator are: “How do you assess the prospects for the youth in your settlement?”; “Would you like your children to stay in this settlement?”.

¹² The questions for this indicator are: “Are there many newcomers in your settlement (migrants, people who moved here recently, in the last 5 years)?”; “How have migrants influenced the development of your settlement?”.

¹³ The questions for this indicator are: “Is it possible to say that the residents of your settlement have something in common?”; “Which of the following coheres the residents of your settlement?”; “How important is cohesion within the residents of your settlement for you personally?”.

¹⁴ The questions for this indicator are: “Who has made the greatest contribution to positive changes in your rural settlement over the past 5 years: the head of the settlement, local activists, those within local business?”; “To what extent can the head of the settlement and local government count on support from the residents of your settlement?”.

Table 2. Calculated indicators of the first-, second- and third-order resources, %

District	Belorechensky (MD)		Krymsky (MD)		Temryuksky (MD)		Tikhoretsky (LD)		Apsheronsky (LD)		Kanevskoi (LD)	
Rural settlements	Pervomaiskoe (MD)	Ryazanskoe (LD)	Prigorodnoe (MD)	Moldavanskoe (LD)	Tamanskoe (MD)	Fontalovskoe (LD)	Fastovetskoe (MD)	Khoperskoe (LD)	Nizhegorodskoe (MD)	Novopolyanskoe (LD)	Chelbasskoe (MD)	Staroderevyankovskoe (LD)
Indicators of first-order resources												
Index of prospects for the youth	36.8	31.0	56.1	76.0	62.2	31.0	54.5	25.1	9.3	30.0	40.6	16.7
Index of migration impact	37.1	40.7	43.2	57.5	52.0	65.1	43.2	44.8	74.0	48.3	43.8	34.5
Index of social cohesion	47.3	67.0	75.9	74.2	65.7	68.0	77.1	74.6	40.7	43.1	58.9	56.7
Index of leadership	50.0	32.2	64.4	79.6	61.6	81.4	64.4	45.6	44.0	61.7	50.0	44.7
Sub-index of first-order resources	42.8	42.7	59.9	71.8	60.4	61.4	59.8	47.5	42.0	45.8	48.3	38.1
Indicators of second-order resources												
Index of development strategies	30.1	24.0	66.8	64.3	57.0	48.8	54.8	30.0	11.8	35.2	7.3	7.0
Index of territorial branding	-17.3	-5.8	-10.6	30.7	61.6	27.9	3.0	-37.7	36.0	10.9	8.6	33.9
Index of personal contribution to territorial development	10.7	-14.6	31.6	26.1	24.4	6.0	5.1	11.5	-10.2	-8.1	-16.2	-11.3
Index of network resources	-8.9	6.0	30.0	41.5	15.2	25.9	27.6	7.5	-8.4	12.7	-8.5	-8.6
Sub-index of second-order resources	3.7	2.4	29.5	40.6	39.5	27.2	22.6	2.8	7.3	12.7	-2.2	5.3
Indicators of third-order resources												
Index of confidence in government	31.1	2.9	54.6	62.4	28.8	39.5	63.2	46.5	26.0	28.4	32.1	18.8
Index of solidarity	31.1	21.4	65.2	75.3	46.1	41.8	50.0	42.1	20.0	10.0	42.2	26.8
Index of subjective well-being	10.9	24.5	19.7	35.5	22.7	-27.9	16.9	1.2	-13.3	-0.3	12.9	4.6
Sub-index of third-order resources	24.3	16.3	46.5	57.7	32.6	17.8	43.4	29.9	10.9	12.7	29.0	16.7

In general, the values of the sub-index of first-order resources are positive among settlements of all levels, but they are concentrated around mean values, which indicates a low level of their development. They are also slightly higher in the rural settlements of more developed districts.

Second-order resource assessment. The resource “Development Institutions” was evaluated using two indicators: the index of development strategies and the index of territorial branding.

The values of the index of development strategies¹⁵ are higher in the settlements-leaders, and mean values are also higher in the settlements of more developed districts. The index is positive in all settlements, but it has a wide range: min = 7.0; max = 66.8, which indicates the uneven development of this resource.

Territorial branding turned out to be one of the least developed resources. The values of the index of territorial branding¹⁶ in a number of settlements was negative, such examples were found both in settlements-outsiders of less developed districts and in settlements-leaders of more developed districts. Only one settlement-leader of a more developed district was distinguished by a high positive value of this index – Tamanskoe rural settlement. In general, we note low values of this resource, it needs to be more actively involved in rural development policy.

The resource “Social capital” was assessed using two indicators: the index of personal contribution to territorial development and the index of network resources.

The values of the index of personal contribution to territorial development¹⁷ range from negative to positive. Negative values are mainly found in settlements of less developed districts, which means that residents of these settlements are less involved in activities related to the development of their territories: beautification, event management, local self-government, etc.

The values of the index of network resource¹⁸ are low and sometimes negative. Its indicators are slightly higher in settlements of more developed districts, though even there one settlement has a negative value. Thus, the network resource is underdeveloped, and its potential is underutilized.

In general, the sub-index of second-order resources in all rural settlements is noticeably lower than the sub-index of first-order resources. It is higher in the settlements of more developed districts.

“Socio-psychological resources” as third-order resources were assessed using three indicators: the index of confidence in municipal government, the index of solidarity and the index of subjective well-being.

Residents of settlements-outsiders show a higher level of confidence in municipal government¹⁹. There are no fundamental differences in the mean values between more and less developed districts. The index values for all settlements are positive but low, which indicates poor development of this resource.

¹⁵ The questions for this indicator are: “Do you know about the strategy (plan) for the development of your settlement?”; “What do you know about plans for developing particular areas in your rural settlement?”; “How do you assess the participation of local government, community activists, and local business in the development of your rural settlement?”.

¹⁶ The questions for this indicator are: “Today, there is a lot of talk about the “calling card” (brand) of the territory. In your opinion, does your settlement have a calling card?”; “How well is this calling card known outside your settlement?”.

¹⁷ The questions for this indicator are: “Are you personally involved in the development of your settlement?”; “What particular acute problems of your rural settlement are you personally involved in?”.

¹⁸ The questions for this indicator are: “How often do you use social networks and messengers?”; “Which communities and channels on social networks have you joined?”; “How well do social networks help solve acute problems in your settlement?”.

¹⁹ The questions for this indicator are: “What is the general level of social confidence in local authorities in your rural settlement?”; “What is the level of your confidence in the head of your settlement?”.

The index of solidarity²⁰, on the contrary, is higher in the settlements-leaders of both more developed and less developed districts. The index values are positive but have a significant variation: min = 10.0; max = 65.2, which indicates uneven resource development.

The values of the index of subjective well-being²¹ show that residents of the settlements-leaders are more satisfied with their living conditions and their own achievements. This indicator is also higher in general among settlements of more developed districts. However, the values of this indicator are low in all settlements, which indicates a low level of satisfaction of residents with living conditions and their own well-being and, in general, a low level of the development of this resource.

In general, the values of the sub-index of third-order resources are quite low, which indicates poor development of these resources. At the same time, they are higher in settlements of more developed districts.

After that, integral indices were calculated for each rural settlement. As can be seen from *Table*

3, the potential of intangible resources is more evident at the level of municipal districts: top-ranked settlements are both leaders and outsiders but located in more developed districts of the region. At the same time, a number of settlements of less developed districts were among the settlements with higher index values. In such cases, intangible resources can be effectively activated and included in their development policy.

Assessing the contribution of each sub-index to the integral indicator, it can be noted that in all rural settlements, regardless of the level of development of municipal districts, first-order resources as basic activators of territorial development have higher values. The least developed second-order resources are strategic activators of development, which clearly indicates a crisis in determining the key goals, forms and directions of development of these territories. Third-order resources are also poorly developed, which indicates a low level of satisfaction with living conditions and quality of life among the population.

Table 3. Values of the integral index of intangible resources for territorial development by rural settlement

Rural settlement	District	Index value (%)
Moldavanskoe (LD)	Krymsky (MD)	56.6
Prigorodnoe (MD)	Krymsky (MD)	45.2
Tamanskoe (MD)	Temryuksky (MD)	45.2
Fastovetskoe (MD)	Tikhoretsky (LD)	41.8
Fontalovskoe (LD)	Temryuksky (MD)	37.1
Khoperskoe (LD)	Tikhoretsky (LD)	26.5
Ryazanskoe (LD)	Belorechensky (MD)	20.8
Pervomaiskoe (MD)	Belorechensky (MD)	23.5
Novopolyanskoe (LD)	Apsheronsky (LD)	24.7
Chelbasskoe (MD)	Kanevskoi (LD)	24.7
Nizhegorodskoe (MD)	Apsheronsky (LD)	20.9
Staroderevyankovskoe (LD)	Kanevskoi (LD)	20.3

²⁰ The questions for this indicator are: “How do you assess the level of social solidarity (joint cooperation in solving problems, the level of cohesion, confidence in support from others, etc.) in your settlement?”; “How has the level of social solidarity among the residents of your rural settlement changed over the past year?”.

²¹ The questions for this indicator are: “What is the level of your satisfaction with the living conditions in your rural settlement?”; “Answer a few questions about your satisfaction with your life at the moment” (“Satisfaction with Life Scale” by E. Diener).

Conclusion

New methodology allowed assessing the intangible resources of rural settlements needed for their development and we conclude that these resources depend not so much on the level of development of particular settlements, but rather on the level of development of the municipal districts in which they are located. We think that, in general, this methodology allows solving the tasks set, namely assessing intangible resources of particular rural settlements for their use in territorial development policy based on a set of subjective indicators. This tool can be used to identify the state of intangible resources during the implementation of territorial development policies at “input” and “output”, as well as for regular monitoring. In addition, the advantage of the proposed methodology for assessing the intangible resources of a territory is the use of the index method and, in particular, the composite index, which is unique and not found in the studies available.

The methodology allows us to consider special local conditions and development models. This is

both its advantage and significant limitation. It should undoubtedly undergo further verification, as some parameters and indicators need to be clarified. It may be necessary to find more sensitive tools and scales for assessing the potential of intangible resources at the level of particular settlements, since those developed and tested work successfully at the level of municipal districts, but are not always effective at the settlement level. Those indicators that have higher values in less developed settlements (index of migration impact, index of leadership, etc.) also require additional verification and interpretation.

Modern research and real-world practice confirm that the accumulation of knowledge, skills and abilities, high-tech technologies, investments in human capital allows achieving innovative development. In this context, research on the role and place of intangible resources is significant due to the importance of considering their potential in making managerial decisions and creating sustainable development programs at local and regional levels.

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Received June 12, 2025.