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# Social potential as a basis of rural areas investment attractiveness (through the example of the Novosibirsk Region of the Russian Federation (NSR))

### El potencial social como base de inversión en áreas rurales a través del ejemplo de la región de Novosibirsk de la Federación rusa (NSR)

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#### **ABSTRACT:**

In the globalization era, the competition between territories for financial resources increases, both in the country context and between locations within a state. The purpose of this study is to assess the impact of the social potential of rural areas on their investment attractiveness. The article deals with the scientific approaches to the definition of the "social potential" term, suggests a system of indicators for assessing the social potential of rural areas in the Novosibirsk Region (NSR), and the rural areas typology of the region based on the calculation of an integral index or the social potential index. The outcomes of the study are the development of the technique for assessing the social potential of non-urbanized (rural) areas (at the municipal level), based on an open system of indicators; rating and grouping of municipal areas of the region (NSR), as well as assessing the impact of social

#### **RESUMEN:**

En la era de la globalización, la competencia entre territorios para los recursos financieros aumenta, tanto en el contexto del país como entre ubicaciones dentro de un estado. El propósito de este estudio es evaluar el impacto del potencial social de las áreas rurales en su atractivo de inversión. El artículo aborda los enfoques científicos de la definición del término "potencial social", sugiere un sistema de indicadores para evaluar el potencial social de las zonas rurales de la región de Novosibirsk (NSR), y la tipología de las zonas rurales de la región basada en el cálculo de un índice integral o el índice de potencial social. Los resultados del estudio son el desarrollo de la técnica para evaluar el potencial social de las zonas rurales no urbanizadas (a nivel municipal), basadas en un sistema abierto de indicadores; clasificación y agrupación de las áreas municipales de la región (NSR), así como la evaluación

potential on the investment attractiveness of these locations. The system of measures for implementing the regional budget policy has also been proposed to the executive body of the NSR.

**Keywords**: social potential, system of indicators, assessment technique, investment attractiveness, development strategy, rural territories typology.

del impacto del potencial social en la atracción de la inversión de estos lugares. También se ha propuesto el sistema de medidas para la aplicación de la política presupuestaria regional al órgano ejecutivo de la NSR. **Palabras clave**: potencial social, sistema de indicadores, técnica de evaluación, atractivo de la inversión, estrategia de desarrollo, tipología de territorios rurales.

### **1. Introduction**

Competitive relations between territories have always existed, but the depletion of natural resources and the increase in consumption strengthens this competition. The most attractive, including for investment, is the territory, the region that has great competitive advantages, great potential (with less risks of its use), including human, social potential.

The main component of the region's potential is social potential, which is defined as the totality of opportunities, which the territory has to achieve its main goal of the development that is improving the quality of life of the population, providing the most favorable conditions for its livelihoods.

It is the residents of non-urbanized areas, their health, education, entrepreneurial and civic activity that are the main factor in the capital inflow (both private and public finances) and the local economy development.

Implementing this potential leads both to the development of human capital itself and to the strengthening of the rural areas' investment attractiveness.

Due to the high complexity, this category is evaluated by a whole system of performance and indicators, including integral ones, the most known of which is the human development index.

We believe that the growth and development of the region investment attractiveness depends on the potential of non-urbanized (rural) areas, including the social potential of each municipal entity as its constituent.

Socially developed and economically sustainable rural areas are the guarantor of food security and state stability.

According to T.F. Faizullin, the social potential of a region is an organic unity of the capabilities and abilities of the population of a subnational entity, formed through the use of the own resources of the society, providing the achievement of sustainable social and economic development, ensuring the necessary level and quality of life (Fayzullin, 2015).

A number of economists agree that social potential is an integral part of national human potential and national wealth. It consists of social, political, religious and other institutions that accumulate the creative energy of associates and implement the public function of the nation (Dregalo, Ulyanovskiy, et al. 2008; Podberezkin, Slavin, & Torkunov n.d).

V.N. Lupandin points out that human potential is of a social nature; it is based on a combination of properties and features of social relations that are integrated by individuals or groups of individuals into joint activities under specific conditions of place and time and are manifested in their relations to each other, to their position in society, to phenomena and processes in public life (Lupandin, 1999).

S.A. Shtyrbul determines that social potential can depend on a variety of factors, and they not only affect the social potential, but they are to some extent its constituents (Shtyrbul, 2010).

E. Romanova and O. Vinogradova conducted the ranking of municipal entities in the Kaliningrad Region in terms of geodemographic situation, investment potential and production development (Romanova & Vinogradova 2014).

I. Kopoteva and Yu. Nikulina considered the possibility of using European approaches to the development of rural areas in Russia (Kopoteva & Nikula 2014).

I. Ushachev considered the social potential as a condition/prerequisite forming the Russia's food security against the backdrop of integration processes in a foreign economy (Ushachev 2014).

Despite the diversity of previous studies, the abundance of publications related to human potential and its implemented part – human and social capital, the processes associated with the formation and development of the social potential of rural areas remain insufficiently studied.

## 2. Methods

System analysis, ranking, taxonomy, correlation analysis. The object of the study has been the municipal areas of the NSR as units of the territorial-administrative division of the country, which have public authorities, the local budget and which are independent in the scope of the purviews. In order to compare the social potential of these regions, a system of indicators has been provided, on the basis of which an integrated index has been calculated; ranking of rural areas and grouping them according to the level of social potential have been performed; an assessment of the relationship between the indicators of investment attractiveness of the region and the social potential of each municipal entity included in it has been carried out.

The source base of the social potential of rural areas included in the region is the passports of the municipal areas of the NSR (Passports of Municipal Entities of the Novosibirsk Region, n.d.).

# 3. Results and discussion

By summarizing scientific approaches to the "social potential" notion we can single out several components of its assets: physical, educational, economic, innovative (entrepreneurial), and cultural. At the same time, the abilities, health, knowledge, and skills of the population are a kind of a stock, a reserve for the local economy. At the same time, they are subject to reproduction, and, in the postindustrial economy – to the expanded one and on an innovative, qualitative basis. As a consequence, the process of forming and developing/implementing the social potential as a self-increasing value is impossible without the investment period in which the financial flows are invested in its components.

Therefore, within the framework of the indicative approach to assessing the social potential of rural areas, we propose the following system of indicators:

- 1. The number of able-bodied population, persons.
- 2. The number of permanent residents aged 0-18 years, persons.
- 3. Total employment in the economy, persons.
- 4. The number of institutions for supplementary education (ISE) (educational, music, art, sports, technical, etc.), units.
- 5. Proportion of graduates of general education institutions who entered vocational education institutions (primary, secondary and higher), %.
- 6. Mortality of population total, persons per 1,000 persons of the population.
- 7. The number of children who died before the age of 1 year, persons per 1,000 persons born.
- 8. The proportion of the population receiving social support measures, %.
- 9. Average per capita nominal income, rubles.

To calculate the level of the social potential of rural areas, we apply the standard technique for the human potential index calculating (United Nations Development Program) (Centre for Human Technologies, 2016).

At the first stage, specific indices shall be calculated (sub-indexes):

- labor unit (by indicators 1-3)
- educational unit (by indicators 4 and 5)
- health unit (by indicators 6 and 7)
- living standard unit (by indicators 8 and 9)

At the second stage, the integral indicator shall be calculated. The result is the geometric mean of the four measurement indices: the economic index, the education index, the health index and the subsistence level index. The results of calculations for all municipal areas of the NSR are presented in Table 1.

	SPI
Novosibirsky	5
Iskitimsky	6
Tatarsky	14
Severny	7
Toguchinsky	16
Suzunsky	19
Ordynsky	2
Kolyvansky	3
Kochenevsky	1
Maslyaninsky	8
Kargatsky	10
Cherepanovsky	13
Chanovsky	15
Kochkovsky	11
Karasuksky	26
Ust-Tarksky	12
Vengerovsky	20
Dovolensky	25
Kupinsky	28
Barabinsky	23

Table 1Positions of municipal areas of the NSRon the social potential index (SPI)\*

Zdvinsky	29
Chulymsky	18
Bolotninsky	17
Chistoozerny	22
Krasnozersky	21
Moshkovsky	4
Kyshtovsky	24
Bagansky	9
Kuybyshevsky	27
Ubinsky	30

Note: \* Compiled by the authors

According to the level of social potential, the leading positions are occupied by the Kochenevsky, Ordynsky and Kolyvansky Districts. Zdvinsky, Kupinsky and Ubinsky Districts of the region can be included in the "closing" group.

At the same time, the question remains open: how effectively is the social potential of rural areas used. In the market economy, in the conditions of the increased competition not only between individual market agents, but also individual territories, in our opinion, the gross municipal product (GMP) and investment (including budgetary ones) per capita should be the target indicators (Sharybar, 2015).

Calculations for these indicators through the example of municipal areas of the NSR are presented in Table 2.

	SPI	GMP per capita	Investments per capita
Novosibirsky	5	1	1
Iskitimsky	6	3	3
Tatarsky	14	4	1:
Severny	7	2	
Toguchinsky	16	8	

Table 2Positions of the municipal areas of the region<br/>according to the calculated indicators\*

Suzunsky	19	9	9
Ordynsky	2	7	4
Kolyvansky	3	18	6
Kochenevsky	1	6	17
Maslyaninsky	8	12	10
Kargatsky	10	10	2
Cherepanovsky	13	17	22
Chanovsky	15	15	8
Kochkovsky	11	19	12
Karasuksky	26	20	26
Ust-Tarksky	12	5	15
Vengerovsky	20	11	25
Dovolensky	25	14	14
Kupinsky	28	16	24
Barabinsky	23	29	20
Zdvinsky	29	23	18
Chulymsky	18	24	28
Bolotninsky	17	13	29
Chystoozerny	22	27	21
Krasnozersky	21	29	13
Moshkovsky	4	26	19
Kyshtovsky	24	25	16
Bagansky	9	22	23
Kuybyshevsky	27	21	27
Ubinsky	30	30	30

In the volume of GMP per capita among the rural municipal districts of the NSR the leading place is occupied by the Novosibirsky, Severny and Iskitimsky Districts. The largest value of investment per capita is observed in the Novosibirsky and Kargatsky Districts. In terms of living standards in 2015, the "top three" included the Tatarsky, Novosibirsky, and Iskitimsky Districts.

Rural municipal entities in the NSR are uneven in their development. They make different contributions to the development of the region. The economic specialization of the districts is also differentiated. Part of the region districts is industrially developed; the other part is engaged in agriculture.

The range of variation between the maximum and minimum values for the "SPI " is 8 times, "GMP per capita" reaches 10 times, in terms of "investment in fixed capital per capita" -20 times.

The competitiveness of territories, including rural ones, is expressed in their attractiveness to the investor (Sachuk, 2004).

The most competitive rural municipal districts of the region include the Novosibirsky, Iskitimsky and Severny Districts. The high level of competitiveness of the first two districts has been caused by the development of the Novosibirsk agglomeration, the Severny District has been provided with the third line in the rating due to the private investor arrival in the development of hydrocarbon deposits (Table 3).

	SPI		Investments per capita
Kochenevsky	1	Novosibirsky	1
Ordynsky	2	Severny	2
Kolyvansky	3	Iskitimsky	3
Moshkovsky	4	Tatarsky	4
Novosibirsky	5	Ust-Tarksky	5
Iskitimsky	6	Kochenevsky	6
Severny	7	Ordynsky	7
Maslyaninsky	8	Toguchinsky	8
Bagansky	9	Suzunsky	9
Kargatsky	10	Kargatsky	10
Kochkovsky	11	Vengerovsky	11
Ust-Tarksky	12	Maslyaninsky	12

Table 3Ranking of NSR municipal districtsby the "SPI-investment" criteria\*

Cherepanovsky	13	Bolotninsky	13
Tatarsky	14	Dovolensky	14
Chanovsky	15	Chanovsky	15
Toguchinsky	16	Kupinsky	16
Bolotninsky	17	Cherepanovsky	17
Chulymsky	18	Kolyvansky	18
Suzunsky	19	Kochkovsky	19
Vengerovsky	20	Karasuksky	20
Krasnozersky	21	Kuybyshevsky	21
Chistoozerny	22	Bagansky district	22
Barabinsky	23	Zdvinsky	23
Kyshtovsky	24	Chulymsky	24
Dovolensky	25	Kyshtovsky	25
Karasuksky	26	Moshkovsky	26
Kuybyshevsky	27	Chistoozerny	27
Kupinsky	28	Barabinsky	28
Zdvinsky	29	Krasnozersky	29
Ubinsky	30	Ubinsky	30

Note: \* Compiled by the authors

The investment process feature for non-urbanized territories is a high proportion of budget investments in their total volume (see Table 4), which is a consequence of the policy of interbudgetary equalization of donor territories and territories-recipients (Federal Law No. 172-FZ "On Strategic Planning in the Russian Federation", 2014).

Table 4Ranking of the NSR municipal districts by the"SPI-budgetary investments" criteria\*

	SPI		Budgetary investments per capita
Kochenevsky	1	Novosibirsky	1

Ordynsky	2	Iskitimsky	2
Kolyvansky	3	Severny	3
Moshkovsky	4	Tatarsky	4
Novosibirsky	5	Ust-Tarksky	5
Iskitimsky	6	Kochenevsky	6
Severny	7	Ordynsky	7
Maslyaninsky	8	Toguchinsky	8
Bagansky	9	Ust-Tarusky	9
Kargatsky	10	Kargatsky	10
Kochkovsky	11	Vengerovsky	11
Ust-Tarksky	12	Maslyanininsky	12
Cherepanovsky	13	Bolotninsky	13
Tatarsky	14	Dovolensky	14
Chanovsky	15	Chanovsky	15
Toguchinsky	16	Kolyvansky	16
Bolotninsky	17	Cherepanovsky	17
Chulymsky	18	Suzunsky	18
Suzunsky	19	Kochkovsky	19
Vengerovsky	20	Krasnozersky	20
Krasnozersky	21	Kuybyshevsky	21
Chistoozerny	22	Bagansky district	22
Barabinsky	23	Zdvinsky	23
Kyshtovsky	24	Chulymsky	24
Dovolensky	25	Kyshtovsky	25

Karasuksky	26	Moshkovsky	26
Kuybyshevsky	27	Chistoozerny	27
Kupinsky	28	Barabinsky	28
Zdvinsky	29	Kupinsky	29
Ubinsky	30	Ubinsky	30

Note:\* Compiled by the authors

On the basis of the social potential level identified by the territorial differentiation of the municipal districts of the NSR, the typology of the rural areas of the region is presented (Table 5).

Areas with social potential above the average	Areas with an average social potential	Areas with a social potential below the average	
Туре І	Type II	Type III	
Kochenevsky	Kochkovsky	Krasnozersky	
Ordynsky	Ust-Tarksky	Chistoozersky	
Kolyvansky	Cherepanovsky	Barabinsky	
Moshkovsky	Tatarsky	Kyshtovsky	
Novosibirsky	Chanovsky	Dovolensky	
Iskitimsky	Toguchinsky	Karasuksky	
Severny	Bolotninsky	Kuybyshevsky	
Maslyanininsky	Chulymsky	Kupinsky	
Bagansky	Suzunsky Zdvinsky		
Kargatsky	Vengerovsky	Ubinsky	

 Table 5. HSR Areas Classification\*

Note: \* Compiled by the authors

The performed analysis made it possible to distinguish three types of rural areas by the social potential level. The first type of rural area is characterized by a higher population density, employment, full coverage of education and low social tension. The third type, as an antipode, is characterized by a rather low employment of the able-bodied population in social production, the absence of high-yield jobs, vocational training institutions and qualified medical care.

To confirm the authors' hypothesis that the investment attractiveness development of the

region depends on the social potential of each municipal entity as its component, we will calculate the correlation ratio between the social potential level of the area and the abovementioned target indicators. The results of the calculations were as follows (Table 6).

Table 6The correlation ratio between the social potential level of<br/>rural areas and target indicators of their development\*

The correlation between	Correlation coefficient – all areas	Correlation coefficient Type I districts	Correlation coefficient type II districts	Correlation coefficient Type III districts
Social Potential and GMP per capita	0.5534	0.61834	0. 56403	0.51153
Social potential and investment per capita	0.60956	0. 62629	0.60491	0.60113
Including budgetary	0.68271	0. 61854	0. 67502	0.72411

Note: \*Compiled by the authors

It is to be noted that the correlation between the social potential level and performance indicators, reflecting the level of its implementation, is average. At the same time, the following trends are observed: the highest level of gross municipal product falls on areas with a potential above the average. These areas are most attractive for all types of investors. However, the share of budget investments per capita is higher in areas with a potential below the average through the region.

We believe that these provisions require a differentiated approach to the solution of the problems of rural areas by the executive and legislative authorities of the region.

This study, however, does not answer the question: which natural and geographical and national factors influence the implementation of the social potential of rural areas. Climate, natural resources, traditional activities, lifestyle, family values vary within even one region of the Russian Federation.

### 4. Conclusion

- 1. The system of indicators for assessing the social potential of rural areas and their typology on the basis of an integral indicator, proposed by the authors, determine the policy of the regional government on the investment attractiveness increase of municipal areas, taking into account the development of their social potential.
- In relation to type I areas, the following system of measures is expedient: encouragement of entrepreneurship and self-employment of the population, development of cooperation with vocational education institutions (specialized classes, etc.), carrying out activities to support public health.
- 3. Measures of support through the development of public-private partnership in the production of agricultural products and the development of social infrastructure are applicable to type II areas.
- 4. Regarding the type III areas, the following developmental directions and implementation of social potential are possible: increasing the availability of educational and medical services, developing programs for distance vocational learning of the population, and diversifying the rural economy.

5. The idea of development sustainability of the region becomes achievable due to reaching a balance of municipal regions development over time, the inflow of investments to maintain a "socially acceptable quality of life" for all rural areas. It is the implementation of the social potential of these areas, its transformation into human and social capital, which is the basis for their sustainable longterm socio-economic development.

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