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Rural development of municipalities of the republic of komi northern region of Russia

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Abstract

The socio-economic development of rural areas has historically been of particular importance for the development of Russia. The list of accumulated problems over many years and the imperfect management mechanisms make this study particularly relevant. The village undoubtedly plays a decisive role in the development of agriculture and the country as a whole. The existing rural policy of Russia requires adjustment and adoption of comprehensive state programs for the development of rural areas of the country. Particular attention should be paid to northern rural territories that are “dying” without appropriate state support and an effective governance mechanism. To determine the effective levers of managing the rural territories of the Komi Republic, it is necessary to determine the socio-economic potential of each municipal district and urban district as a whole for the region. To achieve this goal, a rating assessment of the socio-economic potential carried out. Two periods of 2010 and 2018 assessed to identify the positive or negative dynamics of the development of the area. The analysis carried out using the selected 45 indicators, which conditionally divided into blocks: population, employment and income, production and investment, improvement and housing and public utilities, medicine, education, social infrastructure, law and financial resources. As a result, a composite rating of nine blocks was calculated. The municipalities of the region divided into groups depending on the rural population living in them. The results obtained make it possible to formulate proposals for improving the management of rural territories of the northern region based on their socio-economic potential.

Key-words: Rural Areas, Socio-Economic Development, Municipalities, Management, Government Programs, Rating, North

Introduction

The village takes on the negative consequences of reforms and perestroika over the years. The result was a huge gap in socio-economic conditions between the city and the village. In recent years, the state has been trying to pay attention to issues related to rural development in the form of federal target programs «Sustainable development of rural territories for 2014-2017 and for the period until 2020» and the Strategy for sustainable development of rural territories for the period up to 2030; but the attempts made by the state did not give the expected...
results due to the fact that the existing problems were not solved comprehensively, but separately. In 2019, the state program “Integrated Development of Rural Areas” approved, where funding will amount to 2,3 trillion rubles on 2020-2025.

In the study, the object is the northern region of Russia - the Komi Republic in the context of all its municipalities.

The Komi Republic is a representative of the northern region, with a negative characteristic of rural development, which accompanied by the destruction of the social sphere in the village, given the low transport accessibility of settlements. 830,2 thousand people live in the Republic, and the proportion of the rural population amounted to 21.8% at the beginning of 2019. Over 20 years, the population decreased by 227,7 thousand people, including the rural population by 78.8 thousand people. Although there was a time when the proportion of the rural population in the region was 90,8% – 1940, 40% – 1960, 28,5% – 1980, 24,5% – 2000 (Statistical book, 2011; Statistical Bulletin, 2019).

The allocated financial resources of the Komi Republic do not meet the stated objectives of state programs to ensure the improvement of the quality and standard of living of the rural population of the region. Of the total budget funds of the republic, 1954 million rubles allocated for the development of rural infrastructure, only 0.06 % allocated for the construction of rural roads and 0.7 % for the construction of feldsher-midwife stations in 2003-2017.

At the regional level, «RIA Rating Agency» has been monitoring Russian regions since 2012 and the seventh edition already been published. They conduct a rating of regions according to living conditions and the situation in the social sphere based on 70 indicators (Rating Life, 2016). If we compare the foreign experience of state support of rural territories, we will see that the countries of the European Union for 1992-2005. 16-20% of all subsidies were allocated for the development of rural territories (Poshkus, 2011), and in 2016 – 30 % of the total amount of financial support in agriculture.

F. Mantino presented models and concepts of rural development in Western Europe. He identified three concepts of rural development (Mantino, 2010). In the late 1980 – 1990 Europe began a transition to a new rural policy, which not based on the sectoral, but the territorial principle of development (Hyyrylainen, 2010). Rural development combines sectoral and territorial approaches that complement each other.

Now in developed countries, sustainable rural development is one of the main objectives of regional policy, is closely linked and consistent with spatial development. Europe has accumulated many years of experience in preparing national and regional rural development programs (EUROPE 2020; RWAP, 2011). As measures to support rural areas, it is envisage developing education, transport, information, communication infrastructure, and improving access to social services.

An analysis of the situation in the Komi Republic showed an outflow of population to other regions of the country, including the rural one; there is an urbanization of the villagers, an aging of the population; decline in production in agriculture and forestry; imperfection of using traditional resource use; material and technical base is worn out; rural residents work on a shift basis on the road; the provision of social services has decreased significantly: medical services are poorly accessible, the primary health and education network is «rationalized», staff are not being rejuvenated, schools, kindergartens and clubs are closing down; deterioration or lack of transport accessibility for villages, ferries almost disappeared, there is no small aircraft; heat supply is technically worn out and economically inaccessible; housing is under construction, its amenities are low [MRD1, 2016].

As a result, the socio-economic changes that have occurred create inequalities between and within countries and regions, which reflected in unsustainable economic development. The problem of socio-economic development of rural areas is universally recognized. In the northern territories, this problem of inequality between regions and regions more pronounced than in the southern ones, given the severe climatic conditions and the high costs of living and production in the North. Therefore, it is advisable for the Komi Republic to conduct a rating assessment of the socio-economic potential in the context of all municipalities, taking into account the rural population living in them. To achieve this goal, the following tasks must be solved:

- Socio-economic indicators for two periods of 2016 and 2018 selected, for all twenty municipalities of the region, which will be conditionally divided into blocks of indicators, in order to determine the
composite rating indicator when conducting a rating assessment;
- It is also necessary to take into account the share of rural population in the district or urban district;
- Determine the socio-economic potential of each municipality in the overall rating for the Komi Republic and draw conclusions from the results of the study.

**Material and methods**

To achieve this goal, methods of economic, statistical analysis, generalization methods and the author’s technique were used Dmitrieva T.E. As part of the work, with the help of statistical collections of the Komi Republic, 45 socio-economic indicators were selected, which recounted for one person, 1000 people or as a percentage of the total in order to correctly compare the data. Calculated showed divided into blocks: population, employment and income, production and investment, beautification and utilities, medicine, education, social infrastructure, law and financial resources. A rating assessment carried out at first for each block of the municipality, and then the average of indicators for nine blocks displayed. The distribution of municipalities taken as the number of rural residents living in them.

The rating assessment carried out using the author’s method, using linear scaling and interval ranging techniques (Dmitrieva, 1987). The essence of the method is that the rating of the i-th municipality in indicator A is calculated by the formula:

\[ R_{ia} = 1 + (n - 1) \frac{(A_{max} - A_i)}{(A_{max} - A_{min})} \]

where n - is the number of municipalities. The ratings reflect the position of the municipality in the general series according to the podium principle: the lower the value, the higher the place. For the Komi Republic, which includes 20 municipalities, the ratings of indicators vary from 1 to 20. The aggregate rating can be 1 if the municipality has first places in all positions; it is defined as the arithmetic mean. The assessment conducted over two periods of 2010 and 2018 to identify positive or negative dynamics over 8 years.

**Results and Discussion**

Analysis of the socio-economic situation of the Komi Republic showed that the social infrastructure of rural areas requires modernization and investment, and the development of the rural economy depends on the basic sectors of the economy, including agriculture, which is in an extremely difficult situation. Based on the information from the All-Russian Population Census for 2010, the Komi population lived in 684 settlements. In 286 settlements, up to 50 people and less lived, and in 99 settlements, up to 10 people in total. All of the above problems only emphasize the need for this study.

Table 1 shows only some of the main socio-economic indicators for 2018 characterizing the municipalities of the Komi Republic.

All 20 municipalities conditionally divided into 4 groups: I - municipalities with a completely rural population (100%); II - mainly with the rural population (44.7-52.2%); III - with a partially rural population (10.2-33.7%); IV - municipalities with urban population (0.4-5.7% of the rural population).

The best indicators were identified in-group IV. Group I includes the «municipal district (MD) Syktyvdinsky», which borders the capital of the republic, the city of Syktyvkar, which is why there is a natural population growth, the highest average monthly accrued wages and commissioning of residential buildings per 1000 people is 567 square meters (after the «MD Kortkerossky», where the entry of residential buildings is 665 square meters). In this area is the largest agricultural enterprise Open Joint-Stock Company «Zelenetskaya Poultry Farm». It produces 80% of all poultry and pork meat in the region, so the indicator "agricultural products per 1 person" is 214.9 thousand rubles. The company is trying to introduce modern technologies, for example, in 2016 a new Dutch egg-sorting machine with a capacity of up to 45 thousand pieces per hour installed; now the construction of its own full-fledged feed mill is being completed.

For calculations, we used a rating assessment technique that reflects the position of the municipality in the general series according to the podium principle: the lower the value, the higher the place. The interpretation of the results of the rating assessment of the socio-economic potential for two periods carried out with the grouping of municipalities according to the combined rating (Table. 2)
Table 1. Main socio-economic indicators of the Komi Republic by municipalities for 2018.

| Group | Municipalities of the Komi Republic; MD-municipal district; UD - urban district | Population | The share of rural population, % | The average monthly nominal accrued wages of employees, rubles | The average monthly nominal accrued wages of employees, thousand rubles | The retail trade turnover of goods per 1 person, thousand rubles | The retail trade turnover of goods per 1 person, million rubles | The number of doctors of all specialties (per 10 thousand people), per 1000 square km of territory | The number of students per teacher, for 2017/2018, people | The costs of local budgets for social, politics, education, thousand rubles | The density of paved public roads; km of roads per 1000 square km of territory | The number of doctors of all specialties (per 10 thousand people), people |
|-------|----------------------------------------------------------------------------------|------------|--------------------------------|-------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| I group | MD Izhemsky | 17297 | 100,0 | 0.8 | 36158 | 19.2 | 21.4 | 54.8 | 155 | 14 | 23.7 | 7 | 1388 |
|       | MD Koygorodsky | 7435 | 100,0 | -1.3 | 32268 | 15.0 | 21.9 | 45.6 | 326 | 16.1 | 40.3 | 7 | 2000 |
|       | MD Kortkerossky | 18379 | 100,0 | -2.4 | 30161 | 30.9 | 20.6 | 45.8 | 665 | 24.9 | 27.2 | 8 | 2199 |
|       | MD Priluzsky | 17276 | 100,0 | -3.6 | 31402 | 21.1 | 62.9 | 48.5 | 209 | 38.5 | 39.9 | 8 | 2596 |
|       | MD Sykytvydinsky | 24262 | 100,0 | 0.1 | 36615 | 214.9 | 27.2 | 41.3 | 567 | 45.2 | 45.2 | 31.7 | 10 | 1766 |
|       | MD Sysolsky | 12818 | 100,0 | -2.0 | 30072 | 32.7 | 12.2 | 46.2 | 199 | 50.5 | 33.5 | 7 | 1864 |
|       | MD Ust-Kulomsky | 24195 | 100,0 | -0.3 | 29289 | 13.5 | 11.6 | 48.6 | 186 | 30.1 | 26.9 | 8 | 2512 |
|       | MD Ust-Tsilemsky | 11326 | 100 | -2.6 | 35534 | 22.2 | 18.4 | 43.5 | 218 | 8.6 | 23.8 | 8 | 2860 |
| II group | MD Trinity-Pechora | 11206 | 44.7 | -7.2 | 31626 | 6.3 | 23.2 | 39.4 | 100 | 6.6 | 32.1 | 10 | 1747 |
|       | MD Udora | 17584 | 52.2 | -3.8 | 32231 | 6.2 | 19.1 | 44.2 | 21 | 14 | 15.9 | 10 | 1664 |
|       | MD Ust-Vymsky | 25786 | 33.7 | -4.9 | 37976 | 7.3 | 45.9 | 54.1 | 317 | 65.6 | 39.6 | 12 | 1395 |
|       | MD Knyazhpogostsky | 19013 | 22.5 | -5.7 | 42158 | 9.2 | 91.7 | 54.7 | 144 | 16.4 | 25.2 | 12 | 1008 |
|       | MD Pechora | 50842 | 13.6 | -3.6 | 54141 | 3.1 | 93.4 | 67.3 | 132 | 12 | 39.9 | 14 | 1075 |
|       | UD Usinsk | 44090 | 10.2 | 4.3 | 74636 | 4.1 | 960.1 | 70.2 | 13 | 8.5 | 35.6 | 16 | 2311 |
|       | UD Sosnogorsk | 43507 | 12.1 | -3.5 | 47451 | 1.6 | 103.2 | 45.8 | 46 | 29.2 | 20.7 | 15 | 746 |
|       | UD Vuktyl | 11797 | 15.2 | -2.0 | 63152 | 2.7 | 17.9 | 49.2 | 0 | 4.7 | 31.4 | 13 | 1446 |
| III group | UD Sykytvykar | 260822 | 0.4 | 2.3 | 44181 | 2.5 | 44.2 | 96.6 | 541 | 204.1 | 83.9 | 16 | 587 |
|       | UD Ukhta | 117777 | 2.2 | -0.1 | 58576 | 3.5 | 434.5 | 97.2 | 128 | 20.4 | 49.1 | 17 | 966 |
|       | UD Inta | 28142 | 5.7 | -5.9 | 46172 | 7.9 | 11.2 | 76.8 | 0 | 1 | 37.3 | 14 | 818 |
|       | UD Vorkuta | 77314 | 0.6 | 1.3 | 62214 | 0.9 | 68.1 | 81.5 | 3 | 5 | 45.4 | 16 | 729 |

Note: Calculated by the author based on statistical collections of the Komi Republic.
| Municipalities of the Komi Republic: MD-municipal district; UD - urban district | Population | Employmen t and income | Production and investment | Accomplishment and housing communal services | Medicine | Education | Social infrastructur e | Right | Financial resources | SUMMARY RATING |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2018 | 2010 | 2018 | 2010 | 2018 | 2010 | 2018 | 2010 | 2018 | 2010 | 2018 |
| Group I | | | | | | | | | | | | |
| MD Izhensky | 14 | 10 | 12 | 15 | 18 | 17 | 16 | 16 | 17 | 15 | 8 | 16 |
| MD Koygorodsky | 17 | 13 | 13 | 12 | 18 | 17 | 17 | 15 | 12 | 15 | 7 | 15 |
| MD Korikerossky | 15 | 12 | 17 | 14 | 18 | 17 | 16 | 13 | 16 | 15 | 7 | 16 |
| MD Priluzsky | 16 | 16 | 14 | 15 | 18 | 17 | 14 | 12 | 14 | 15 | 7 | 15 |
| MD Syktyvdinsky | 10 | 6 | 13 | 14 | 16 | 14 | 12 | 8 | 16 | 12 | 8 | 12 |
| MD Sysolsky | 15 | 12 | 14 | 16 | 17 | 17 | 15 | 12 | 17 | 15 | 8 | 15 |
| MD Ust-Kulomsky | 14 | 11 | 14 | 14 | 19 | 17 | 17 | 15 | 17 | 15 | 8 | 16 |
| MD Ust-Tsilemsky | 14 | 13 | 11 | 12 | 19 | 17 | 15 | 15 | 18 | 15 | 8 | 16 |
| MD Trinity-Pecha | 19 | 17 | 15 | 14 | 20 | 18 | 15 | 15 | 16 | 17 | 9 | 16 |
| MD Udora | 11 | 11 | 13 | 14 | 19 | 16 | 13 | 13 | 16 | 14 | 9 | 14 |
| Group II | | | | | | | | | | | | |
| MD Ust-Vymsky | 14 | 12 | 7 | 4 | 16 | 18 | 9 | 15 | 14 | 12 | 11 | 13 |
| MD Knyazhpogostsky | 7 | 6 | 5 | 5 | 11 | 10 | 7 | 4 | 13 | 8 | 13 | 11 |
| MD Pechora | 14 | 12 | 12 | 11 | 17 | 15 | 12 | 14 | 10 | 13 | 10 | 13 |
| UD Usinsk | 15 | 12 | 8 | 11 | 13 | 15 | 8 | 7 | 11 | 11 | 12 | 11 |
| MD Sosnogorsk | 15 | 12 | 8 | 11 | 13 | 15 | 8 | 7 | 11 | 11 | 12 | 11 |
| UD Vuktyl | 14 | 10 | 11 | 11 | 18 | 15 | 10 | 10 | 9 | 11 | 13 | 11 |
| Group III | | | | | | | | | | | | |
| UD Syktyvk | 4 | 3 | 10 | 11 | 10 | 9 | 5 | 10 | 3 | 1 | 13 | 13 |
| UD Ukhta | 13 | 10 | 8 | 8 | 13 | 13 | 7 | 12 | 11 | 11 | 13 | 11 |
| UD Inta | 17 | 16 | 8 | 9 | 14 | 15 | 8 | 9 | 12 | 12 | 11 | 12 |
| UD Vorkuta | 9 | 5 | 6 | 7 | 10 | 8 | 7 | 6 | 10 | 7 | 14 | 8 |

Note: socio-economic potential of the municipality: high –white cells (3–10 places); medium - gray cells (11-15 places), low - black cells (16-19 places).
For visual perception, rating results are color-coded. So the highest socio-economic potential of the municipality from 3rd to 10th place is represented in green cells; with low potential from 16th to 19th place - in brown cells, average potential from 11th to 15th place - in light yellow cells. In addition, in the context of four groups, the average rating calculated for the rural population.

Analysis of the rating of the socio-economic potential of the Komi Republic allows us to draw the following conclusions:

- Due to the fact that the averaging of indicators is given, the average socio-economic potential of the republic prevails, where the composite rating varies from 9 to 13;

- Very low socio-economic potential very pronounced in groups I and II with a completely rural and mainly rural population in separate blocks: production and investment, improvement and housing and public utilities, medicine; note that the rating of these groups of municipalities in 2018 improved compared to 2010 in the medicine block, and in education, social infrastructure and financial resources, it worsened;

- The high socio-economic potential is expectedly occupied by the IV group of municipalities with urban population;

- The overall rating of the socio-economic potential of the Komi Republic in 2018 significantly deteriorated by 2010, especially in groups I and II, and the stability of the average potential remained in groups III and IV, in group III the financial resources block went from low to medium. If we compare the composite rating, then in 2010 the urban district (UD) «Syktyvkar» took the highest place, and in 2018 – «UD Usinsk», «UD Syktyvkar» and «UD Ukhta».

**Conclusion**

In the course of the work, a decrease in the population of the Komi Republic, including the rural one, which urbanized in the district centers and urban districts of the region, revealed. A key role in the sustainable development of rural territories played by their socio-economic potential, which ensures the livelihoods of the population in rural areas and the development of production. It is necessary to minimize the gap between the city and the village, providing the village with a comfortable living environment and all necessary services.

**Conflict of interest:** All authors declare no conflict of interest.

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