

# Poverty as the main factor in the decline in the quality of life and its impact on the environment

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**Abstract.** In recent years, the number of unemployed persons, low-income families, refugees and families in difficult life situations has increased, which has led to a decrease in the standard of living. The paper is devoted to the problem of poverty in the aspect of the analysis of rural areas and the quality of life of the rural population. The population of rural areas is more vulnerable and often lacks the factors necessary to improve the quality of life. Social problems in rural areas and factors of decreasing the quality of life and their consequences are shown. The analysis has showed that the main source of income for the able-bodied rural population is labor activity, including personal subsidiary farming. The poverty rate varies across the constituent entities of the Russian Federation from 3.8% to 43.3%. In general, the poverty level increased by 38% of the total number of constituent entities of the Russian Federation in 2019. Despite the relative progress in solving social problems in rural areas in recent years, including that thanks to the implementation of measures of state programs, the quality of life of the rural population not only remains low level, but also tend to decrease. In this regard, the study of poverty as the main factor in reducing the quality of life of the rural population becomes relevant. In order to solve more effective the poverty problems, it is necessary to revise the principles of budgeting at different levels and introduce tools that have shown high efficiency in foreign countries.

## 1 Problem statement

The economic growth of the national economy is unthinkable without the development of rural areas. Their development contributes to an increase in employment, an increase in the income of the population, the development of innovation processes, and an increase in the competitiveness of the economy. Residents of rural areas experience a number of problems that lead to a decline in the quality of life, poverty and dropout from economic activity. A lot of research works performed by foreign and Russian scientists are devoted to the problem of poverty. There are several critical factors in most countries that lead to a low level of development and a lack of sustainable development of rural areas. The demographic factor (age and gender structure of the rural population), the underdevelopment of the service sector (as a result, weak economic development and the

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dominance of subsistence farming over production or trade) and infrastructure (does not help to attract business or new residents) are noted. There is also a factor associated with education (a low level of education and qualifications means a lack of labor in the region), which hinders the development of business. Taken together, all factors lead to low fertility and high migration of the young and able-bodied population, especially families having small children.

## **2 Purpose of the Study**

Poverty is seen as the main factor in reducing the quality of life of the population in rural areas. The objectives of the study are to analyze and summarize information on the causes of rural poverty, their consequences, to identify the reasons for the decrease in the effectiveness of the implementation of state programs for the development of rural areas in the context of the research objectives, and to develop proposals for improving the system of state support for low-income groups of the rural population taking into account the experience of foreign countries.

## **3 Study results and discussion**

Currently, a whole list of typical problems in rural areas characteristic of most countries has developed: long distances and low population density; imperfection of the system of financial institutions; low attractiveness of rural areas for business; chronic poverty, etc. The experience of the United States is interesting, where rural areas occupy more 70% of the country's area, which is home to about 14% of the country's population. In the early 1970s, the Rural Development Policy (RDP) was legislated, which required a clear definition of the concept of "rural" and the systematization of rural areas depending on the branches of the national economy prevailing in them. An organization was created on the principle of "national partnership" that coordinates the activities of all organizations involved in development programs in rural areas. Twenty five year experience has shown its effectiveness and can be recommended for implementation in Russia [1]. In addition, since 2002, the US Treasury Department has introduced tax incentives for wages of low-paid categories of employees (additional payments to earnings of up to 40% to market earnings). Low-paid employee "negative" taxes first rise from \$ 1,610 to \$ 4,140 (on an income of \$ 12,000) and then decrease to \$ 453 on an income of \$ 32,000.

Domestic food aid widely used in the USA, EU countries, and Brazil to ensure food security is an effective tool for reducing the consequences of poverty. It allows simultaneously stimulating the manufacture of agricultural products and the demand for it. The use of domestic food aid in Russia will not only provide the poor persons with high-quality food, but also a stable guaranteed demand for the products of agricultural producers [2, 3].

N.V. Galischeva shows on the example of India that stimulating small-scale production not only reduces unemployment in the country, but also has a significant impact on solving the problems of poverty and food security and contributes to raising the level of education and ensuring gender equality. In the Russian Federation, the same role can be played by small forms of management, the development of which the state pays great attention to [4].

E. Hines proposed in the longer term the concept of universal basic income as a response to job cuts in the context of long-term value shifts, in which work loses its importance, and the need for employment is less and less influencing the decision of students to get higher education [5].

Today Russia is experiencing the third (after the Civil and Great Patriotic Wars) wave of impoverishment and poverty of the population. Statistics show that the poverty rate remains high. So, from 2010 (the lowest level in the last decade) to 2019, the population having cash incomes below the subsistence level increased from 17.7 to 18.1 million and the cash income deficit increased from 375 billion rubles up to 721.7 billion rubles (Table 1).

**Table 1.** Poverty rate according to Federal State Statistics Service data (Source: <https://rosinfostat.ru/uroven-bednosti/>).

Years	Number of population having cash incomes below the subsistence level:		Deficit of cash income:		Subsistence level, rubles per month
	mln people	per cent of total number of population	billion rubles	per cent of total income	
1999	41.6	28.4	141.3	4.9	907.8
2000	42.3	29.0	199.2	5.0	1.210
2001	40.0	27.5	238.6	4.5	1.500
2002	35.6	24.6	250.5	3.7	1.808
2003	29.3	20.3	235.3	2.6	2.112
2004	25.2	17.6	225.7	2.1	2.376
2005	25.4	17.8	288.7	2.1	3.018
2006	21.6	15.2	277.1	1.6	3.422
2007	18.8	13.3	272.1	1.3	3.847
2008	19.0	13.4	326.7	1.3	4.593
2009	18.4	13.0	354.8	1.2	5.153
2010	17.7	12.5	375.0	1.2	5.688
2011	17.9	12.7	424.1	1.2	6.369
2012	15.4	10.7	370.5	0.9	6.510
2013	15.5	10.8	417.1	0.9	7.306
2014	16.3	11.3	482.7	1.0	8.050
2015	19.6	13.4	701.7	1.3	9.701
2016	19.4	13.2	701.8	1.3	9.828
2017	18.9	12.9	702.5	1.3	10.088
2018	18.4	12.6	699.0	1.2	10.287
2019	18.1	12.3	721.7	1.2	10.890

The problem of poverty in rural areas is much more acute than that in urban areas. In 2019, the income of urban residents was 3.2 times higher than that of rural residents. In fact, this gap is larger, since in cities residents have benefits in health care, housing, and pensions, which are often deprived of rural residents [6, 7]. Despite the relative progress in solving social problems in rural areas in recent years, the quality of life of the rural population not only remains at a low level, but also tends to decline, therefore, the study of poverty as the main factor in reducing the quality of life of the rural population is of particular relevance.

V.N. Bobkov and E.V. Odintsova have revealed that Russia is included in the group of countries that are characterized by:

- High levels of income and wealth inequality,
- Large gap (tenfold) in average consumer spending among 10% of the most and least income groups of households,
- High differentiation (more than tenfold) in the number of citizens with housing poverty and high housing security,

- Inaccessibility for half of college and university students to study at the expense of budgetary allocations;

- High gap (16 years) in life expectancy at birth in the constituent entities of the Russian Federation with the highest and lowest value of the indicator,

- A high level of unemployment (more than 3-5 times) among young people in comparison with other groups of the economically active population, etc. [8].

The analysis has showed that the main source of income for the able-bodied rural population is labor activity, including engaging in personal subsidiary plots (12.2 million or 32.6% of 37.4 million people received income from private farms in 2019), and 10.8 million have pensions as the main source, including 1.5 million people having disability pension. About 8 million people lived on benefits, including 0.5 million people living on unemployment benefits. The average monthly wage in agriculture amounted to 30,784 rubles and its ratio increased to 60.0% relative to the average Russian level in 2019. The average monthly pension of the rural population is only 7.05% higher than the subsistence minimum. Obviously, the funds received from these sources were barely enough to support the minimum needs of the villagers. Behind the average figures, there is a huge differentiation in the size of wages: about 30% of those employed in agriculture received wages no higher than the subsistence level; a third of employees had wages below 10,000 rubles in 2019. The localization rate of poverty in rural areas decreased to 1.49 in 2019, but did not even reach the level of 2012 [9, 10]. One should also take into account the factor of concealment of income, which has become a mass phenomenon, which makes the official subsistence minimum ineffective as a tool for determining poverty.

The poverty level among the rural population varies across the constituent entities of the Russian Federation from 3.8% in the Belgorod region (where the lowest level of rural poverty is noted: the share of the rural population having monetary incomes below the 2019 subsistence minimum decreased by 1.9% as compared to 2018) to 43.3% in the Jewish Autonomous Region (the region moved in the poverty ranking from 76th to the last 79th place in 2019). In general, the level of poverty increased in 30 constituent entities of the Russian Federation (38% of the total), which indicates a large territorial ambiguity of the processes that take place in rural areas. The share of the poor persons has rapidly increased in the rural territory of Kamchatka Krai (from 30.5% to 41.2%), in Kemerovo (from 21.1% to 25.1%), Chelyabinsk (from 14.3% to 19.1%), Kurgan (from 26.5% to 31.6%), Tver (from 14.1% to 18.5%) regions, Karachay-Cherkess (from 17.1% to 22.1%), Chuvash (from 21.4% to 25.9 %) republics, and the Republic of Mordovia (from 24.4% to 28.7%) [6]. According to the 2019 All-Russian Population Census, there were 97,452 settlements with a population of up to 200 people in rural areas of Russia, where the number of population was more than 4 million people. According to Federal State Statistics Service, the poverty risk index in rural settlements with a population of less than 200 people increased from 2.6 to 2.8 in 2019 and doubled the corresponding indicator for rural settlements with a population of more than 5,000 people [11, 12].

Analysis of poverty in rural areas has identified the following groups at risk of poverty:

- Families having a large number of dependents (including those having disabilities),
- Incomplete and large families: the share of the poor persons among them reaches 60-80%,
- With a fairly high proportion of the poor persons among pensioners, the most vulnerable are single elderly pensioners,
- Children left without parental care and children from dysfunctional families are increasingly falling into the category of the poor persons.

E.E. Grishina and E.A. Tsatsura found that the most vulnerable categories are the rural population aged over 65 and families having three or more children [13, 14].

The poverty of the rural population is very diverse, and the range of consequences of poverty of the villagers is very wide. It is necessary to highlight the following among the most significant facts: crisis phenomena in the family (violation of its structure and functions); an increase in the number of divorces and the number of single-parent families; an increase in psycho-emotional overload in the adult population; an asocial lifestyle of a number of families; deterioration of conditions for children; the spread of abuse with children and reducing responsibility for their fate. A special poverty trait is the fact that not only unemployed citizens are poor, but the working population too, and some of the poor persons are rural intelligentsia: doctors, teachers, and public sector employees. The main consequences of increasing poverty include the following:

- Increase in the level of morbidity and mortality and a decrease in average life expectancy,
- Decline in the share of rural youth and aging of the rural working-age population,
- Deterioration of the sex and age structure: gender mismatch leading to a decrease in the birth rate,
- Depopulation of rural areas: thousands of villages have disappeared from the maps,
- Growth of lumpenized workers among the active part of the population.

The current situation leads to the fact that graduates of specialized higher and secondary specialized educational institutions remain to work in cities at non-core enterprises not related to agriculture. Unlike urban residents who have the opportunity to earn extra money in other areas, residents of remote rural areas, where the monopsony structure of the labor market is more pronounced, do not have such an opportunity, and often do not have jobs at all or the work is seasonal in nature. At the same time, the situation is aggravated by a lower quality of life due to poorly developed infrastructure and insufficient facilities for cultural and domestic purposes. Increasingly, when characterizing the poverty of the rural population, the term called “degradation of the population of rural areas” is used while social discontent and the risks of social explosions are growing. To solve the problems of rural areas, in the last decade, the state has taken a number of measures for rural area development within the framework of the activities of the federal target programs titled “Social development of the countryside until 2020” and “Sustainable development of rural areas for 2014-2017 for the period until 2020” and allocated more than 600 billion rubles to implement the programs. Currently, the state program titled “Comprehensive development of rural areas until 2025” is being implemented. It aims to maintain the share of the rural population at a level of at least 25.1%, achieve the ratio of the average monthly disposable resources of rural and urban households to 75.5%, and increase the share of the total area of comfortable residential premises in rural areas up to 43.2%.

Fighting poverty has traditionally been considered a costly area. Money is generated in some sectors of the economy and spent in others. Cost impact analysis shows their effectiveness. First, from the perspective of the whole society, the cost of fighting poverty helps to reduce social tensions and crime rates. Secondly, from the point of view of local authorities, such costs provide an increase in the quality of life. Thirdly, from the point of view of business, highly qualified personnel are needed for its development, and the poverty of the population does not allow getting good education and qualifications. Fourth, chronic malnutrition and insufficient medical care lead to deterioration in the gene pool of the nation, and the costs increase the quality of life.

Today the question is not whether the state should regulate the problems of the poor population in the country, but how, where and when it should carry out such intervention. A deeper analysis of the structure and causes of poverty of the population makes it possible to form vectors of the fight against poverty. Poverty caused by objective reasons (old age, illness, injury, lack of jobs, etc.) should be eliminated with the help of federal and regional social programs. Poverty caused by the formed asocial habits of a person (drunkenness,

unwillingness to work, lack of initiative, etc.) requires the state to take other measures that can involve the population in social and labor activities. There are widely known examples of the revival of villages thanks to the initiative of the residents themselves (for example, according to the Ministry of Health, there are already about a thousand “sober villages” in Russia), as well as farmers [15, 16]. Revealing the depth and scale of real poverty and the organization of active and passive forms of poverty regulation and their monitoring are interrelated aspects of the state social policy [17]. Local authorities should determine the measures and the amount of support. For resource provision, the distribution of income between the federal and local budgets should be revised towards increasing the share of taxes remaining in the localities. It is necessary to revise the principle of budgeting with the introduction of minimum social standards, the observance of which could improve the quality of life in a region [17, 18].

World experience shows that the most effective ways to reduce poverty are economic growth and expanding the degree of economic freedom of citizens. Such macroeconomic tasks can be solved by specific economic measures to stimulate the development of small business and cooperation at the federal and regional levels, which will help reduce poverty [19, 20]. To fight relative and subjective poverty, it is necessary to create conditions for increasing social protection and general qualifications necessary for employment opportunities in higher paid jobs.

The delineation of areas of poverty alleviation is based on the distribution of the competence of various authorities [17, 18]. At the federal level, the following measures can be distinguished:

- Increase in the minimum wage level for the employed population,
- Improving the legislative and regulatory framework to create a favorable environment for small businesses in rural areas,
- Stimulating the development of infrastructure and social and cultural spheres,
- Optimization of the redistribution of funds between federal, regional and local budgets.

At the regional level, the tasks are partially repeated within the competence of the authorities of the constituent entities of the Russian Federation, however, to a greater extent they are focused on supporting and solving regional problems, the solution of which should be based on sociological research of the scale and types of poverty of the population. Problems are solved, among other things, as follows:

- By way of promoting the development of small and medium-sized businesses, including that by minimizing regional taxes on small businesses,
- Through formation of a transparent mechanism for the distribution of funds for financial support of municipalities,
- Via support and professional training of social workers in a region,
- By means of formation of an investment policy in order to support the housing stock, the development of an optimal production and social infrastructure of a region.

At the municipal level, it is most important to promote any form of earning income and organize a support system for vulnerable groups of the population:

- Assistance in the development of personal subsidiary plots,
- Investment in the infrastructure of trade in products of personal subsidiary plots,
- Attracting investors to agribusiness and processing of agricultural products,
- Taking into account those in need of social protection; organizing a transparent support system for those in need,
- Organization of paid patronage by neighbors or rural community over elderly disabled residents.

Since the causes of poverty are different, then the fight against poverty must be constantly corrected, increasingly becoming targeted assistance [21,22]. The financial and economic resources of the state make it possible to allocate funds for targeted assistance to support 10-15% of the population, while, according to the Federal State Statistics Service of the Russian Federation, about a third of rural citizens of Russia are below the poverty line.

T.M. Maleva et al. propose to increase the coverage of individuals with state support measures based on a social contract to reduce the risks of chronic poverty. Providing comprehensive assistance to chronically poor families and social support for these families will contribute to the development of their human capital and reduce the level of chronic poverty of the population [23].

## 4 Conclusion

Providing effective targeted assistance requires identifying categories of not only the poor persons, but those in need of priority support, or in other words, the poorest strata of the population. The legislative acts of the Russian Federation for social protection of the population provide targeted assistance for all the poor persons having per capita incomes below the subsistence level. Financing of this assistance is assigned to regional budgets, as a result of which there is an imbalance of legal powers and financial responsibility. National programs to fight poverty envisage a reallocation of funds coming not from needs, but from budgetary resources. At the same time, regional and local budgets are extremely scarce and are formed “from upstairs”, which does not allow for a sustainable social policy. It is necessary to revise the principle of budgeting while introducing minimum social standards. Federal funds for national programs are extremely limited, and it is difficult to establish how much, by whom and why the limited amount of funds is allocated. This nature of funding makes national programs a populist mechanism.

Thus, it can be concluded that, due to the difference in conditions and the level of development of the regions of the Russian Federation, only the federal strategy for poverty reduction is insufficient. Poverty reduction programs will be much more effective if they have priority areas for different types of districts and settlements. To fight poverty, it is necessary to understand more accurately and in detail its scale, structure, causes and change forecast. Targeted social protection is more effective, but it requires preliminary monitoring of poverty, the creation of special social distribution services and control of targeted assistance to the poor persons. In addition, it is necessary to use tools that have shown high efficiency in foreign countries: a differentiated tax for low-income citizens, domestic food aid, and stimulating the development of small business and cooperation.

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## References

1. O.G. Ovchinnikov, USA & Canada Journal **4(580)**, 22-38 (2018)
2. A.B. Melnikov, P.V. Mikhaylushkin, N.Yu. Kotok, International agricultural journal **1(379)**, 4-6 (2021)

3. A.A. Inshakov, *Innovations and Investments* **6**, 59-64 (2020)
4. N.V. Galistcheva, *MGIMO Review of International Relations* **13 (3)**, 151-169 (2020)
5. A. Hines, *Foresight and STI Governance* **13 (1)**, 19–30 (2019)
6. *Federal State Statistics Service, Standard of living*, <https://rosstat.gov.ru/folder/13397?print=1#>
7. L.N. Ovcharova, *Monitoring of the socio-economic situation and social well-being of the population*(HSE University, Moscow, 2020)
8. V.N. Bobkov, E.V. Odintsova, *Journal of the New Economic Association* **3(47)**, 179-183 (2020)
9. *How to Save a Village: Problems of Employment of the Population* (Public Chamber of the Russian Federation, Moscow, 2019)
10. *The state of the social and labor sphere of the village and proposals for its regulation. 2018 Annual Monitoring Report* (Rosinformagrotekh, Moscow, 2019)
11. *Federal State Statistics Service. Demography*, <https://rosstat.gov.ru/folder/12781>
12. V.I. Bobkov, P.A. Maslovsky-Mstislavsky, *Economist* **6**, 45 (2019)
13. E.E. Grishina, E.A. Tsatsura, *Journal of Siberian Federal University. Humanities and Social Sciences* **13 (11)**, 1746-1759 (2020)
14. J. Nikula, I. Kopoteva, *RUDN Journal of Sociolog.* **20(1)**, 102-114 (2020)
15. *In Russia, about a thousand villages have given up alcohol*, <https://rg.ru/2018/03/14/v-rossii-okolo-tysiachi-dereven-otkazalis-ot-alkogolia.html>
16. M.M. Voytyuk, A.V. Goryacheva, V.A. Voytyuk, *Machinery and equipment for the rural areas* **8**, 44-48 (2018)
17. E.G. Mukhina, *Economics of agriculture and processing enterprises* **6**, 48-53(2020)
18. M.M. Voytyuk, *Machinery and equipment for rural areas* **5**, 42-44 (2017)
19. N.A. Kuznetsova, A.V. Ilyina, A.P. Korolkova and T.E. Marinchenko, *IOP Conf. Ser.: Earth Environ. Sci.* **677**, 022043 (2021)
20. E.G. Mukhina, A.G. Shelomentsev, *Economy of agriculture of Russia* **9**, 64-72 (2019)
21. N. Kuznetsova, A. Ilyina, M. Mironov, A. Korolkova, T. Marinchenko, *E3S Web Conf.* **244**, 10043 (2021)
22. M.M. Voytyuk, P.N. Vinogradov, O.P. Machnev, V.A. Voytyuk, S.S. Kuznetsova, *Machinery and equipment for rural area* **1(283)**, 25-29 (2021)
23. T.M. Maleva, E.E. Grishina, A.Ya. Burdyak, *Economic Issues* **12**, 24-40 (2020)