

RESEARCH ON SOCIO-ECONOMIC PROBLEMS OF REGIONAL RURAL DEMOGRAPHY

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Abstract

According to the United Nations forecasts, by 2050 the number of Russian citizens will decline to 132.7 million, mainly due to a decrease in the number of rural residents. Negative demographic trends are also noted in the Penza region, where over the past 25 years the population has decreased by 235 thousand people. In this context, the goal of the paper was the identification of socio-economic problems in rural areas based on a comprehensive analysis of the demographic situation, production potential, social structure and other factors, taking into account their potential change in conditions of turbulence in the external environment. The article analyzes the size of the rural population, its distribution by major age groups, household sizes. Indicators of life expectancy, natural movement and migration of the population of the Penza region and the Volga Federal District are reflected. Taking into account the actual socio-economic problems of the rural population and trends in the rural demography, the state should develop a new strategy for increasing birth rate, for decreasing mortality, assuring jobs and a corresponding living standard and life quality.

Key words: : demography, rural areas, migration, unemployment, Penza region, Russia

INTRODUCTION

Ensuring food security of the Russian Federation is possible only through sustainable integrated rural development. The ambitious goal of doubling exports to \$ 45 billion by 2024 is to be met by rural residents. Therefore, the solution of demographic problems, the creation of effective jobs, the employment of young specialists, a decent level of wages, comfortable living, the development of social infrastructure are the key areas of work for authorities at all levels and private business in the form of public-private partnership [12].

Among the basic problems affecting the process of achieving the goal, a significant place belongs to demographic ones. In the ranking of the countries of the world in terms of population, Russia is in 9th place, but the situation is worsening. The totality of unresolved demographic and socio-economic problems that occur in almost all regions of Russia, and in the Penza region, in particular, are the most serious barrier to the transition of

Russian agriculture to sustainable development [2, 3].

The purpose of the research is to analyze the factors affecting regional rural demography. The main results of the study are based on the assumption that only state regulation of economic and social processes in rural areas is the foundation for the preservation of population and rural demography.

MATERIALS AND METHODS

Study area

The Penza region is located in the middle Volga region on the western slope of the Volga Upland. In the structure of the gross regional product in 2019, the share of the main types of economic activity was: "Mining", "Manufacturing", "Provision of electricity, gas and steam; air conditioning", "Water supply; wastewater disposal, waste collection and disposal, activities to eliminate pollution" - 23.2%, "Agriculture" - 12.2, "Construction" - 7.1, "Transportation and storage" - 6.7, "Activities in the region

information and communication”- 2.4, “Wholesale and retail trade, repair of motor vehicles and motorcycles” - 15.2%. The traditional agricultural sector of the Penza region's economy occupies a special position among other sectors of the national economy. Agricultural lands account for 70.1% of all lands in the region, arable land - 52.2%. The main areas of crop production are grain, sugar beet and sunflower production. Rye, wheat, cereals and grain fodder crops are grown. The production of potatoes and vegetables is well developed. Animal husbandry is mainly meat and dairy [9].

Retail trade turnover in 2019 amounted to RUB 217.6 billion, or 101.4% (in comparable prices) by 2018. In the structure of retail trade turnover, the share of food products amounted to 47.3%, non-food products - 52.7 % (in 2018, respectively, 46.5 and 53.5%).

In the volume of investments in fixed assets, 34.3% borrowed own funds, 65.7% - borrowed funds.

The region's foreign trade turnover amounted to 560.8 million US dollars, including exports - 308.4 million US dollars, imports - 252.4 million US dollars. Exports to the level of 2018 amounted to 103.3%, imports - 92.6%.

Data collection

The information base was the materials of the Federal Service of State Statistics of the Russian Federation, the Ministry of Agriculture of the Russian Federation.

Methodological aspects

Research based on the analytical method has confirmed the severity of the accumulated problems that hinder the growth of the rural population in Russia. These problems are also relevant for the Penza region.

The research methodology was based on the use of a monographic, abstract-logical, analytical, statistical method of cognition [6, 7].

RESULTS AND DISCUSSIONS

Situation of rural population

The research materials indicate that as of 01.01.2020 the population in the Penza region is 1,304,825 people, the urban population is

899,237 people (68.9%), the rural population is 405,588 people (31.1%) (Figure 1).

Over the past 15 years, the number of Penza residents has decreased by 117.1 thousand people, respectively, the urban population has decreased by 33.5 thousand people, and the number of villagers has decreased by 83.6 thousand people.

The structure of the rural population by age groups is changing towards an increase in the proportion of persons of pre-retirement and retirement age [1] a decrease in the number of children, youth and people of working age (Table 1).

Thus, the share of children from birth to 14 years old decreased from 14.7% in 2005 to 14.6% in 2020, and in numerical terms decreased by 13 thousand people, young people aged 15-29 years - respectively, from 19% to 14%, able-bodied persons aged 30-49 years - from 28.8% to 26.6%, and the proportion of persons of pre-retirement and retirement age increased from 24.2% to 31.5%.

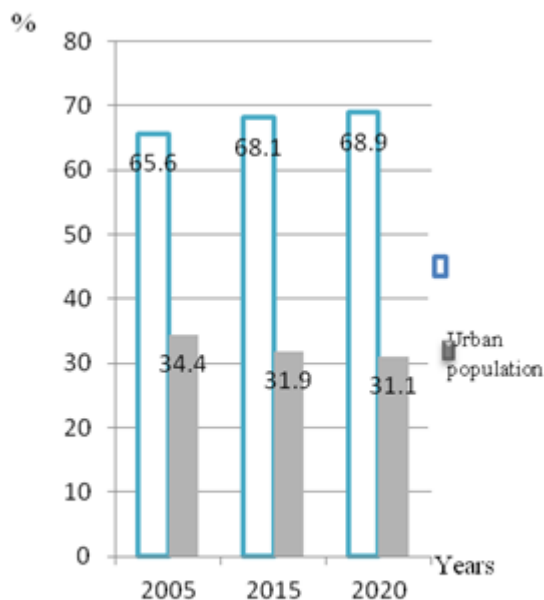


Fig. 1. The share of the rural and urban population in the total population of the Penza region, %

Source: Penza region. Key development indicators from 2005 to 2019: a comprehensive statistical collection // Federal Service of State Statistics of the Russian Federation. Territorial body of the Federal State Statistics Service for the Penza region, 2020. - 481 p.

Table 1. Distribution of the rural population of the Penza region by age groups (thousand people)

	2005	2015	2020
0-14	72.3	64.0	59.3
15-29	93.9	70.9	56.8
30-49	140.9	113.9	108.1
50-69	118.4	129.2	128.0
70 years and older	63.8	54.4	53.4
Total	489.3	432.4	405.6

Source: Penza region. Key development indicators from 2005 to 2019: a comprehensive statistical collection // Federal Service of State Statistics of the Russian Federation. Territorial body of the Federal State Statistics Service for the Penza region, 2020. - 481 p.

The rural population is aging. In 2019, over a third of women and 19.1% of men were aged 60 and over. Since 2000, 149 settlements have been abolished in the region due to the lack of officially registered residents. The main culprit is considered urbanization, or the migration of the rural population to large cities, where there are more chances of getting a job with a decent level of wages [4, 5]. Low fertility is one of the reasons for the constant decline in the population. During 2005-2019, the birth rate in the region (the number of live births per 1,000 people per year) decreased from 8.4 to 7.3 (Table 2).

Table 2. Main indicators of the natural movement of the rural population of the Penza region

Years	Total people			For 1,000 people population		
	Births	Deaths	Natural increase, decrease (+ .-)	Births	Deaths	Natural increase, decrease (+ .-)
2005	4,063	10,911	-6,848	8.4	22.5	-14.1
2015	4,035	7,319	-3,284	9.4	17.0	-7.6
2019	2,991	6,488	-3,497	7.3	15.9	-8.6

Source: Penza region. Key development indicators from 2005 to 2019: a comprehensive statistical collection // Federal Service of State Statistics of the Russian Federation. Territorial body of the Federal State Statistics Service for the Penza region, 2020. - 481 p.

The most important indicators characterizing the demographic situation is the mortality rate of the population. Since 2015, there has been a decrease in the general mortality rate of the region's population, that is, the number of deaths from all causes per 1,000 people, from 17.0 to 15.9.

In 2019, life expectancy in the Penza region was 73.85 years (2nd place among the regions of the Volga Federal District, 18th place in Russia). Life expectancy is expected to be 78 years by 2024.

Unfavorable demographic processes exacerbated by negative migration rates. Not only the difference between fertility and mortality remained minus values, last year 4.5 thousand people left the Penza region. The largest share of those who left (41.2%) make up the basis of interregional migration, in particular to Moscow. Only 756 people left abroad, or just over 2% of migrants (Table 3). The main reason that rural citizens leave the Penza region is the low quality of life in the countryside. The Penza region ranks 26th in

the ranking of Russian regions in terms of the quality of life of the rural population.

Table 3. Overall results of migration of the population of the Penza region in 2019, people

	No. of arrivals	Dropouts	Migration decrease (-)
Migration - everything from it	31,438	35,939	-4,501
within Russia, incl.	28,268	31,701	-3,433
intraregional	16,881	16,881	0
interregional	11,387	14,820	-3,433
international, incl.	3,170	4,238	-1,068
with CIS countries	2,764	3,482	-718
with other foreign countries	406	756	-350

Source: Penza region. Key development indicators from 2005 to 2019: a comprehensive statistical collection // Federal Service of State Statistics of the Russian Federation. Territorial body of the Federal State Statistics Service for the Penza region, 2020. - 481 p.

The average rating of the region is 53.7 points, while in the neighboring regions of the Volga Federal District it is much higher, in

particular, in the Republic of Tatarstan - 61.5, in the Samara region - 60.6, in the Ulyanovsk region - 60.3. The Penza region has a subsidized budget, most agricultural organizations - the main village-forming enterprises have not yet overcome the consequences of the crisis of the 1990s. In addition, the overwhelming majority of the young able-bodied population went to work in the capital's metropolis. The structure of rural settlement is dominated by small settlements that require large expenditures for social development.

Low living standards of villagers, discrimination of agricultural labor, deep demographic problems lead to unsustainable development of rural areas of the region [7, 8].

Assessment of the quality of rural life in Russian regions is an integral part of monitoring socio-economic processes in the countryside. The analytical material underlies the formation of state target programs for the development of rural areas. The positive results of the development of the agro-industrial complex of the Penza region have been achieved to a certain extent thanks to the existing programs for the development of agriculture. At the federal level, the state program for the development of agriculture continues to operate, extended until 2025, the main goal of which is to ensure stable growth in agricultural production and ensure food security. At the regional level, the Penza region program "Development of the agro-industrial complex of the Penza region for 2014 - 2022" operates, its priority task is to ensure the fulfillment of the indicators of the Food Security Doctrine of the Russian Federation in the field of crop and livestock production. The measures taken by the government to support the agricultural sector have strengthened food security in the region. In 2020, the state program "Comprehensive Development of Rural Areas" until 2025 was launched. It is a logical continuation of federal measures for rural development, implemented since 2002, and is aimed at the social and infrastructural improvement of the village, diversification of the rural economy, and increasing employment and incomes of

the rural population. The program acquires particular relevance in a post-pandemic reality, when the attractiveness of life in small towns and rural areas increases, and a more even distribution of the population across the country reduces the risks of epidemics and other emergencies, and becomes an essential condition for national security.

The results of the study confirmed that the issue of housing remains an important and complex issue. In the countryside, this is no less acute problem than in the city. The Government of the Russian Federation plans to offer the agro-industrial complex workers attractive conditions for improving housing conditions - preferential mortgages up to 3% per annum, as well as improving the improvement of the housing stock of the rural population by increasing the share of residential premises with access to all types of utilities. Currently, only 32.5% of the total rural housing stock meets this criterion, the target indicator of the state program is planned to be brought to the level of 50%.

The problems of water supply and sewerage were identified. The volume of treated water is 77.1% of the total water consumption in the region. Coverage of the population with centralized water supply in cities and workers' settlements is 100%, in rural areas - 70%. Moreover, 33% of the total length of water supply networks have a wear rate of more than 60%. In 2019, as part of the implementation of the measures of the state program of the Penza region "Provision of housing and utilities of the population of the Penza region for 2014 - 2022", the repair of water supply systems will be carried out using subsidies from the regional budget. Repair works of 88 objects will be carried out on the territory of 63 municipalities. The volume of co-financing from the regional budget will amount to 104.1 million rubles, but this is a small part of the total amount of funds required.

The development of the engineering infrastructure of the village is associated with the functioning of a high-quality road network. The total length of regional, municipal and local roads is 16,241.5 km, of which 11,299.8 km are local roads [10].

Considering that the development of agricultural production in rural areas is directly related to the development of rural areas, the region is reconstructing and building new public roads connecting rural settlements, as well as providing for the construction of access roads to agricultural production facilities. which is subject to obligatory direction for these purposes - not less than 5 percent of the total volume of proceeds to the road fund from transport tax and excise taxes on petroleum products.

The provision of funds to municipalities is carried out within the framework of the subprogram "Sustainable development of rural areas of the Penza region for 2014-2017 and for the period until 2022" of the state program of the Penza region "Development of the agro-industrial complex of the Penza region for 2014-2022". At the same time, according to the terms of the program, 99% of the cost of construction and installation work is allocated from the regional budget. Municipalities must provide co-financing for the construction of agricultural roads in the amount of only 1%.

Achieving the goal of the program to preserve the share of the rural population in the total population of the country is associated with providing villagers with high-quality medical care. Since 2015, organizational and structural measures have been carried out on the territory of the region to form primary health care through the optimization of existing facilities [11].

In order to increase the availability of medical care to citizens living in rural areas within the framework of another regional project "Creation of a unified digital circuit in health care based on the state information system in the health sector of the Penza region" in 2019-2021, it is planned to equip all feldsher-midwife stations with automated workstations by connecting to the regional information and analytical system.

The program for the integrated development of rural areas should be based on a social principle related to the reproduction of life support. At the same time, social reproduction should be expanded, since it is not only the physical increase of the rural population that

is important, but a qualitative change in the peasant community should become a priority. In general, the level of social development of the village has a direct impact on the provision of the rural economy, including the agro-industrial complex, with qualified personnel [13].

Besides, By order of October 20, 2020, the Government of the Russian Federation approved the draft subprogram "Assistance in the voluntary resettlement of compatriots living abroad to the Penza region for 2021-2025" of the regional state program "Promotion of employment in the Penza region". The activities of the subprogram for 2021-2025 provide for attracting at least 1,000 compatriots to the Penza region. The volume of financing for the subprogram is planned at 6 million rubles with the possibility of additional attraction of subsidies from the federal budget. The amount of funding will be updated annually when the budget for the next financial year is adopted. the territory for the settlement of compatriots includes 27 rural areas of the region, as well as the city of Kuznetsk. As part of this work, the authorities plan to assist in the selection of options for temporary housing for compatriots and their family members, pay one-time financial support, compensate for the costs of medical examination, which is necessary to obtain a temporary residence permit or residence permit. Also, compatriots will be provided with assistance in employment and support in the creation of small and medium-sized businesses or farms.

CONCLUSIONS

In the current conditions of turbulence in the external environment, the state should actively influence demographic processes, creating conditions for an increase in the birth rate, a decrease in mortality, and an improvement in other demographic characteristics. If in modern Russia a free market economy cannot ensure accumulation and sustainable growth of "human capital", this problem must be solved by pursuing a purposeful state policy. The way out of the demographic crisis in rural areas is not only

an increase in the rural population, but also an improvement in the quality of life of people. Modernization and rapid development of the economy, the creation of modern jobs for agricultural workers, the comprehensive development of rural areas - a solid foundation for the future.

REFERENCES

- [1] Beznin, M. A., Dimoni, T.M., 2019, Farmstead economy of the population as an indicator of dying off of agrarian society in Russia, *Voprosy Istorii*, 2019 (1), 84-96.
- [2] Caratus Stanciu, M., 2020. The main characteristics of agriculture and rural development in the central region of Romania. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development* Vol. 20(4):131-138.
- [3] Dziamulych, M., Yakubiv, V., Shubala, I., Filuk, D., Korobchuk, L., 2020. Analysis and evaluation of the rural labour market and employment of the rural population: a case study of Volyn region, Ukraine. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development* Vol. 20(4):165-174.
- [4] Federal State Statistics Service, 2021, <http://www.gks.ru>, Accessed on September 22, 2021.
- [5] Iorga, A.M., Stoicea, P., Dobre, C., 2020, Statistics of the rural population from the regional perspective / *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development* Vol. 20(4):287-294.
- [6] Law of the Penza region N 3323-ZPO dated May 15, 2019 "On Strategies socio-economic development of the Penza region for the period up to 2035", <http://pnzreg.ru/project-office/projects/strategiya-razvitiya-penzenskoy-oblasti-do-2035-goda-1/57883/>, Accessed on January 10th, 2021.
- [7] Mihailova, I.V., Siburina, T.A., Son, I.M., Lindenbraten, A.L., Mihailov, A.I., 2019, The public opinion about health care: the main factors of increasing satisfaction of population with medical care, *Problemy sotsial'noi gigieny, zdravookhraneniia i istorii meditsiny*, 27 (3), 231-236.
- [8] Passport of the National Project "Demography" <https://rosmintrud.ru>, Accessed on January 10th, 2021.
- [9] Penza region. Key development indicators from 2005 to 2019: a comprehensive statistical collection. Federal Service of State Statistics of the Russian Federation. Territorial body of the Federal State Statistics Service for the Penza region, 2020. 481 p.
- [10] Resolution of the Government of the Russian Federation of May 31, 2019 N 696 "On approval of the state program of the Russian Federation" Integrated development of rural areas "and on amendments to some acts of the Government of the Russian Federation", <https://mcx.gov.ru/upload/iblock/725/725f4b61b8ed39429ca08316f6e7456d.pdf>, Accessed on Sept. 22, 2020.
- [11] Shmatkovska, T., Nikolaeva, A., Zabedyuk, M., Sheiko, Y., Grudzevych, Y., 2020. Increasing the efficiency of the labour resources usage of agrosector enterprises in the system of sustainable development of the rural territories: a case study of Ukraine. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development* Vol. 20(4):467-476.
- [12] Smirnov, V., Danilina, M., Omelchenko, I., Botasheva, L., 2020, Economics of ecological and biological development and labor market of agro-industrial complex, *E3S Web of Conferences* 203.05011.
- [13] Yadransky, D., Latypov, R., Chumak, E., 2020, Personnel-marketing as a direction of development of personnel agricultural complex/*E3S Web of Conferences*. 222.6024.