

International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies

http://TuEngr.com





DEVELOPMENT OF RURAL AREAS IN RUSSIA IN TERMS OF PROGRAM-TARGET MANAGEMENT

A.S. Lylov ^{a*}, A.N. Semin ^b, E.A. Skvortsov ^c

- ^a Ural State Mining University, Yekaterinburg, ul. Kuibyshev, 30, 620144, RUSSIAN FEDERATION
- ^b Ural State Economic University Yekaterinburg, 620144, Yekaterinburg, ul. March 8 / Narodnaya Volya, 62/45 RUSSIAN FEDERATION
- ^c Ural Federal University, Ekaterinburg 620002, ul. Mira, 19, RUSSIAN FEDERATION

ARTICLEINFO

ABSTRACT

Article history:
Received 22 January 2019
Received in revised form 25 February 2019
Accepted 27 February 2019
Available online
28 February 2019

Keywords:

Rural monitoring; Rural population; Rural employment; Rural quality of life; Rural settlement; Rural analysis; Rural social infrastructure.

This study identifies factors that make difficulties for sustainable development of Russia rural areas; to develop a concept of forming an effective social infrastructure. There was a decrease in rural population to the level of 1991 by 982 thousand people, or 2.5%. The total rural population is considered from four positions: natural increase (or decrease); migration increase; changes in a settlement status (from urban to rural); expansion of the rural area due to the annexation of the Crimea. So, there was a decrease in the first factor (natural increase) by 3.7 million people during the market reforms 1992-2016. The second factor, half a million people were increased. The third factor (changes in a settlement status) had an increase of over 2 million people. The fourth factor, the rural population of the Russian Federation grew almost 800 thousand people due to the rural territory of the Crimea. If to deal with a structure of the employed rural population in the Russian Federation by types of economic activity, it should be emphasized that the proportion of those directly engaged in agriculture is 21% of the economically active rural population or about 8 million people. This underlines multifunctionality of rural areas. It is recommended to ensure financial priority for strategic projects that increase the profitability of the agricultural sector for its modernization and increasing competitiveness, improving the infrastructure of rural areas and a local self-government, developing agricultural and green tourism; to develop agricultural and green tourism; to carry out certification of rural settlements; to implement minimum standards of social and communal infrastructures; to legislate a status of a young specialist who goes to rural areas, concerning his rights and obligations, as well as benefits and preferences of various kinds. This decision, in the authors' opinion, will significantly increase the attractiveness of rural areas for young people.

© 2019 INT TRANS J ENG MANAG SCI TECH.

1. INTRODUCTION

Russia, like any other state, has many different socio-economic problems. But the problem of rural development is among the priority ones, as the agrarian and agri-food sectors of the economy are a basis of food security and food supply of the population in the Russian Federation. An effective food security system is a basis for keeping the sovereignty and national security of the country.

Unfortunately, the rural areas as the main location for agricultural production are in crisis. The crisis can be proved not only with the disappearance of 23 thousand settlements in Russia (over the last twenty-five years) but also with worsening the conditions for agribusiness and decreasing the living standards at rural areas.

But at the same time, it is worth mentioning that the first modern agro reforms (in the early 90s of the last century), during the transition to a new paradigm of development of the Russian economy, attempted to develop the agricultural sector of the rural economy and social infrastructure. Economic and legal regulation of development of non-urban areas was marked by the adoption of the RSFSR Law "On social development of the rural areas" (December 21, 1990). Then, there was a whole series of decrees of the Government of the Russian Federation on the development of electrification, gasification, water supply at rural settlements, as well as on housing, cultural and social construction, etc.

However, the inefficient arrangement only deepened that difficult situation in rural areas [8, 9].

2. METHODOLOGY

To identify factors that make difficulties for sustainable development of rural areas, the following research methods were used: monographic (to clarify the essential characteristics of non-urban areas, features of their development not only in Russia but also abroad), economic and statistical (to analyze demography, improvement of housing stock at rural areas, a compensation rate for agricultural labour and other characteristics of a social and labour sphere at rural areas), sociological (to make questioning of young professionals), economic and mathematical modeling (to assess the potential of a rural territory and predict its sustainable development).

3. RESULTS

To improve the current situation in rural areas, the Government of the Russian Federation and the governing bodies of the agro-industrial complex use a program-targeted method of planning and management to develop and introduce certain strategic documents. There are such programs as the federal target program on stabilization and development of the agro-industrial complex in the Russian Federation for 1996-2000; the federal target program "Social development of rural areas up to 2010"; the federal target program "Sustainable development of rural areas" for 2014-2017 and for the period up to 2020 and other strategic regulatory and legal documents.

Monitoring of a social and labor sphere at rural areas and the population censuses

indicate that the rural population in the Russian Federation is about 38 million people, or 25.7% of the total population in Russia (tab. 1).

In comparison to the level of 1991, the decline in the rural population is 982 thousand people or 2.5%.

We consider the total rural population from four positions:

- natural increase (or decrease);
- migration increase;
- changes in a settlement status (from urban to rural);
- expansion of the rural territory due to the annexation of the Crimea.

Table 1: Components of changes in the number of rural population * (thousand people)

Tubic 1. C	omponents of	Changes in th	Total				
	The population by		increase				
Year		Total	Natural	Migration	Changes in a settlement	during the	
	January,1	increase	increase	increase	status	year, %	
1991	38868.6	288.4	43.0	62.0	183.4	0.74	
1992	39157.0	736.3	-32.8	308.5	460.6	1.88	
1993	39893.3	157.8	-178.5	265.9	70.4	0.40	
1994	40051.1	87.1	-224.2	291.1	20.2	0.22	
1995	40138.2	-157.2	-206.5	47.6	1.7	-0.39	
1996	39981.0	-140.2	-221.4	23.7	57.5	-0.35	
1997	39840.8	-149.5	-226.0	32.8	43.7	-0.38	
1998	39691.3	-205.1	-203.7	31.0	-32.4	-0.52	
1999	39486.2	-15.6	-265.1	49.9	199.6	-0.04	
2000	39470.6	-238.7	-274.2	-2.6	38.1	-0.60	
2001	39231.9	-307.9	-271.7	-51.9	15.7	-0.78	
2002	38924.0	-281.6	-281.9	-26.7	27.0	-0.72	
2003	38642.4	-348.3	-281.5	-90.5	23.7	-0.90	
2004	38294.1	324.8	-260.3	-108.8	693.9	0.85	
2005	38618.9	-200.9	-287.6	-117.4	204.1	-0.52	
2006	38418.0	-287.0	-230.4	-109.0	52.4	-0.75	
2007	38131.0	-248.6	-145.7	-50.9	-52.0	-0.65	
2008	37882.4	-60.7	-113.3	-60.6	113.2	-0.16	
2009	37821.7	-49.6	-88.9	-47.8	87.1	-0.13	
2010	37772.1	-327.9	-81.7	-228.8	-17.4	-0.87	
2011	37444.2	-129.8	-42.5	-149.9	62.6	-0.35	
2012	37314.4	-85.6	-6.3	-166.6	87.3	-0.23	
2013	37228.8	-110.6	-0.8	-176.8	67.0	-0.30	
2014	37118.2	866.9	-19.7	886.6	•••	2.33	
2015	37985.1	-97.8	-61.4	-46.8	10.4	-0.26	
2016	37887.3	N/I	N/I	N/I	N/I		
Total in	1992-2015	-1254.1	-3741	452.1	2034.8	-3.20	
Total in	Total in 1992-2015		-3740	-308.9	2034.8	-5.14	
	(without the Crimea)		-3/40	-300.9	2034.0	-3.14	
	Total in 1992-2015						
	(without the Crimea and		-3740	-308.9	_	-10.34	
changes in a settlement		-4048.9	3770	300.7		10.54	
st	atus)				1 112.51		

^{*}Note: Increase in the rural population due to the Crimea is calculated in the column "Migration increase". Since the beginning of market reforms in Russia in the period of 1992-2016, the rural population decreased from 39157 thousand to 37887,3 thousand people or by 3,2%. Source: Federal state statistics service. Demography. URL: http://www.gks.ru N/I: No information

So, there was a decrease in the first factor (natural increase) by 3.7 million people in the period of market reforms of 1992-2016. Concerning the second factor, there was an increase of about half a million people. The third factor (changes in a settlement status) had an

increase of over 2 million people. As to the fourth factor, the rural population of the Russian Federation grew by almost 800 thousand people due to the rural territory of the Crimea.

If to deal with a structure of the employed rural population in the Russian Federation by types of economic activity, it should be emphasized that the proportion of those directly engaged in agriculture is only a little more than 21% of the economically active rural population or about 8 million people. Once again this underlines a well-known thesis about the multifunctionality of rural areas.

Currently, more than 12% of the economically active population at these territories are employed in commerce, in an education sphere and health care - 18%, at industrial and construction enterprises - 24.5%, state and municipal administration - 7.5%, transport, and communication - 7.7%.

A well-known state program on the development of agriculture (2013-2020) and regional programs on the development of rural areas have special sections related to the development of the above-mentioned branches of the real sector of the economy.

The living standards in rural areas are still significantly lower than in urban areas. A compensation rate for agricultural labour is about 60% of the average wage in the Russian economy. An unemployment rate among rural inhabitants (7.3%) exceeds an unemployment rate among the urban population (4.6%). Improvement of the housing stock in rural areas significantly falls behind the urban housing stock (Table 2).

Table 2: Improvement of the housing stock in rural and urban areas (%) (Available from Russia Federal State Statistics Service. Improvement of the housing stock. http://www.gks.ru)

			nttp.// w w v	v.gks.ru)						
	Total area equipped with									
Period	Water supply system	Water discharge	Heating system	Baths (shower)	Gas	Hot water supply system	All kinds included			
Rural settlement										
2010	47,6	38,5	60,0	28,7	74,5	25,3	23,9			
2011	48,5	39,2	60,8	29,1	74,0	26,2	24,5			
2012	49,1	39,9	61,3	29,4	73,8	26,5	24,8			
2013	52,0	41,1	63,6	30,7	73,3	27,9	26,0			
2015	54,7	43,4	66,3	32,5	74,1	30,2	28,4			
2016	58,0	47,0	68,0	35,0	74,0	34,0	N/I			
2017	59,0	48,0	68,0	36,0	73,0	35,0	N/I			
City										
2010	89,3	87,3	92,0	81,3	66,9	80,1	77,3			
2011	89,5	87,5	92,1	81,5	66,6	80,3	77,5			
2012	89,6	87,5	92,2	81,4	66,2	80,4	77,4			
2013	89,8	87,6	92,1	81,6	65,4	80,5	77,6			
2015	91,0	89,0	92,0	82,0	64,0	81,0	78,0			
2016	91,0	89,0	92,0	82,0	64,0	82,0	N/I			
2017	91,0	89,0	93,0	82,0	64,0	82,0	N/I			

N/I: No Information

Thus, availability of a water supply system at rural areas is 54.7%, while in the city it is 91%; a heating system is 66.3%, and 92%; a hot water supply system is 30.2% and 81%, respectively.

Low living standards result in depopulation at rural settlements (Table 3). In Russia, more than 8% of the total number of rural settlements (SNP) is depopulated. If to apply a term of pre-revolutionary Russia, 12.5 thousand of the rural settlements in our country are "wastelands".

Table 3: Grouping of rural settlements by population size in the Sverdlovsk region and the Russian Federation (Available from the website of Administration of Federal Service in the Sverdlovsk and Kurgan regions. sverdl.gks.ru).

		The Russian				
Habitancy,	Habitancy, # of		# of residents in	% of the total	Federation, %	
people	settlements,	# of	settlements,	number of	of the total #	
	pcs.	settlements	people	residents	of settlements	
0	134	7.2*	0	0	8.4*	
≤ 10	198	11.6	870	0.1	23.9	
11-50	306	17.9	8349	1.1	26.8	
51-100	224	13.1	16503	2.2	10.5	
101-500	606	35.5	145446	19.4	25.5	
501-1000	203	11.9	146889	19.6	7.6	
1001-3000	130	7.6	211547	28.3	4.5	
3001 and more	42	2.4	218850	29.3	1.2	
Total with	1709	100	748454	100	100	
population						

^{*}From the total number of populated settlements including the ones without inhabitants (for reference: in the Sverdlovsk region -1843, in Russia -155289 of populated rural settlements).

The Sverdlovsk region, an industrially-developed region, concerned about such a situation in rural areas. Early before the current market reforms, in 1983, Sverdlovsk people held a Republican meeting and seminar on comprehensive development and improvement of rural settlements in the RSFSR. This is how experimental rural settlements "Baltym" and "Patrushi" started. The idea was that the transformation of rural settlements is impossible without the support of large cities in construction of housing stock, social and cultural facilities, reconstruction of agricultural facilities, development of new living standards, work and recreation.

«Uralelectromed» was the first who implemented this idea in practice; it financed construction of a whole district in one architectural style at "Patrushi". Then, "Baltym" started transformations (with the support of house-building plants), where we could find a cultural and sports complex, which was considered as "unique in the construction practice".

The Sverdlovsk region became the first Russian region to develop and start the practical implementation of a unique program on the redevelopment of rural areas the "Ural village", which was developed with consideration of the previously acquired experience of development of unique rural settlements with a modern social infrastructure [1; 2; 3].

The program "Ural Village" was introduced to the President of the Russian Federation V.V. Putin at a meeting on October 9, 2007, by the Governor of the Sverdlovsk Region. The head of the state approved the program. The Minister of Agriculture of the Russian Federation proposed to make it a federal program.

Like any other strategic program on socio-economic development, it has its own unique features. In this particular case, the "Ural village" was developed on the existing standards of social and communal infrastructures, as well as the certification of rural settlements in the Middle Urals [7].

Its general goal is sustainable socio-economic development of rural areas, social security of the territory due to the implementation of minimum social standards that ensure the living standard of the rural population.

According to the developers, at least four interrelated tasks should be solved to achieve a general goal of this program and implement the necessary criteria and indicators.

Firstly, a mechanism on implementing the program should ensure the transition to the formation of diversified agricultural production, which ensures environmentally friendly agricultural products and raw materials with the use of advanced technologies, robotics, and other scientific and technical achievements. Secondly, a mechanism should be susceptible not only to innovations; it should stimulate the development of small agribusiness and consumer cooperations in rural areas. Thirdly, it should contribute to providing the rural population with proper socio-cultural and housing services. Fourthly, the program and measures on its implementation should be developed to enhance the prestige of the rural area for young rural people.

The main directions of the comprehensive program "Ural Village" include 32 positions covering a social and economic sphere of rural areas.

The certification of rural settlements became a very objective material of a socio-economic nature for development of basic sections of this regional program "The Ural Village" [7].

The sections in the passport of a rural settlement provide almost complete information about its social, financial, economic, ecological status.

This allows development of scientifically-proved measures and fixing sources of financing and performance periods.

Also, the Passport has minimum standards of social and communal infrastructures developed for rural areas with consideration of the norms of a planned economy and the results of modern research on a market economy.

The standards are developed for a normative model of rural development, but at the same time, they can be used for clusters and ecovillages [6].

The program pays special attention to an issue of attracting young specialists to work at rural organizations and enterprises. The conducted research in 29 municipalities in the forest-steppe and forest-meadow natural-climatic zones of the Sverdlovsk region showed that adaptation of young specialists occurs differently at business entities of various organizational and legal forms (Table 4).

Graduates of agricultural colleges adapt to production much faster than graduates of agrarian higher schools. This is due to the fact that specialists with a higher education lack more practical experience, this fact is proved with questionnaires conducted at enterprises of the agro-industrial

complex of the Sverdlovsk region. Moreover, there is no mentoring support in the majority of business entities, some collective agreements do not have issues on young specialists, and many business managers consider it unnecessary to develop a regulation paper on young specialists.

In surveys, young specialists still indicate three main reasons for unwillingness to work in rural areas: housing, low wages, lack of a developed social infrastructure [4, 5].

Table 4: Adaptation of young specialists in accordance with the organizational and legal form of an organization and the educational institution.

	Adaptation period of young specialists									
	agricultural college				agricultural higher school					
Agricultural organization	agronomist	veterinary assistant	economist	mechanic	zootechnician	agricultural scientist	veterinary	economist	mechanic engineer	livestock engineer
PAO	*	*	•		*	*	•	•		*
000	*	▼	*		•	*	•		▼	•
Production cooperative	•	▼	•		▼	•	*		*	•
Farm	•	▼	•	•		•	•	•	•	*
Private subsidiary farm	•	•	•	•	▼	•	•	•		•
Consumers' cooperative	•	*	-	•	*	•	\blacksquare		•	*

Note: • – adaptation during a year;

■ – adaptation during 1.5 years;

 ∇ – adaptation during 2 years; \bullet – adaptation during 2.5-3 years.

We have developed an economic mechanism for attracting young specialists to rural areas and it is used by the governing bodies of the agro-industrial complex and agrarian educational institutions.

A multi-unit and multi-component mechanism involves a whole system of measures to increase the attractiveness of the rural area, to ensure comfortable living and proper labour compensation, more successful adaptation and opportunities for further career growth.

The program allows improving a demographic situation in rural areas. Compare, in 1985 the rural population was 634 thousand people, then as of January 1, 2018, it was 665 thousand people; a share of the rural population in the region increased from 13.6% to 15.2% of the total population. It is worth mentioning the increase in the birth rate in rural areas of the region. In 2017, a birth rate at rural areas was 11.2 people per 1000 people, while generally in the region this indicator is less than 10 people. Implementation of the program allowed keeping a birth rate at rural areas at the level of 1985. The natural increase in the rural population is about 2 people per 1000 inhabitants. It is interesting to note that a natural population increase is much higher in some individual rural municipalities. Thus, it is 9.6 people in the Aramil municipal formation, 4.2 people in the Kamyshlovsky municipal formation, 3,0 people in the Achitsky municipal formation, and 2.4 people in the Irbitsky municipal formation per 1000 inhabitants.

However, a migration decrease in the rural population is about 75 people per 10,000 residents, and across the whole region, there is a migration increase.

The average labour compensation paid to agrarians in the Sverdlovsk region is gradually increasing. If in 2010 it was 64.1% of the average compensation across the region, in 2016 it was 70.9%. Last year the average wage paid to agricultural producers was 23192 rubles.

The "Ural village" program is being updated every year, and its measures are detailed, but, unfortunately, budget financing does not allow solution the problems of rural areas in accordance with the general goal, objectives and existing minimum social standards.

As a result of the inefficient functioning of a financial mechanism, a progress rate of achievement of stated indicators remains very low. So, if to speak about the improvement of housing, it should be noted that the development of the water supply system over the past 15 years is only 9.5 p.p., the heating system is 14.3 p.p., hot water supply system is 12.9 p.p., gas - no increase.

If to speak about agricultural production, there has been a decrease in the acreage of agricultural crops. In 2017, the total planting area in the Sverdlovsk region was 835.9 thousand hectares, which was 2.5% less than in 2013. In agricultural organizations for the analyzed period it decreased by 44.1 thousand hectares; in household farms - by 1.3 thousand hectares. In 2017, in all categories of economic entities, potatoes were produced by 126.3 thousand tons less than in 2013, and vegetables - by 8.1 thousand tons. In comparison to 2016, the volume of potato production was reduced by 95.6 thousand tons in 2017.

At the same time, in 2017 there was an increase in production (in organizations of all forms) of milk and eggs, by 6.2 and 3.7% respectively. This tendency was continued in 2018.

4. DISCUSSION

The analysis of the development of rural areas, as well as personal observations and scientific research, made it possible to make particular conclusions and strategic recommendations.

It is necessary to make a financial priority for strategic projects that increase the profitability of the agricultural sector (aimed at modernizing and improving the competitiveness of the rural sector of the economy, improving the infrastructure of rural areas and local governments, developing agricultural and green tourism, etc.).

Development of target comprehensive programs on the development of rural areas involves multifunctionality. Certification of rural settlements should take place before the development of the Program.

The minimum standards of social and communal infrastructures developed for the "Ural Village" Program can also be recommended for use in other regions of the Russian Federation.

Draft legislation should be developed on the status of a young specialist who goes to rural areas; it should concern his rights and obligations, as well as benefits and preferences. This solution, in our opinion, will significantly increase the attractiveness of rural areas for young people [10].

Sectoral unions should be more actively involved in the development of rural cooperation in order to weaken the monopoly position of the processing enterprises and retail chains.

Agricultural producers of various forms of ownership, educational and scientific institutions

together with municipalities should apply more effective mechanisms of organizational and economic interaction to make agro-clusters, agro-towns, agro-techparks, agro-technopolises and other structures whose activities would be aimed at sustainable development of rural areas.

5. CONCLUSION

With the program-target approach, the issue of ensuring financial priority for strategic projects that increase the profitability of the agricultural sector and the efficiency of the rural social infrastructure has not been solved.

Despite the high importance of need in the development of rural areas in Russia, today there is no well designed, scientifically based, developed state policy concerning this issue. Degradation processes are increasing in rural areas. Thus, with a share of rural inhabitants in the total population of the country of 26%, 36% of the Russian unemployed and 39% of the poor people live in rural settlements.

Draft legislation should be developed on the status of a young specialist who goes to rural areas; it should concern his rights and obligations, as well as benefits and preferences. This solution, in our opinion, will significantly increase the attractiveness of rural areas for young people.

6. CONFLICT OF INTEREST

The authors confirm that the revealed information does not contain a conflict of interest.

7. ACKNOWLEDGMENT

The work was carried out with the support the Ural Federal University.

8. REFERENCES

- [1] Semin A.N., Tretyakov A.P. Trends of new industrialization in agriculture of modern Russia // Agrofood policy of Russia. 2017. №2 (62). P.25-33.
- [2] Semin A.N., Tretyakov A.P., Lylov A.S. Rural infrastructure development // News of the International Academy of Agrarian Education. 2016. №29. S.94-98.
- [3] Semin A.N., Miloenko E.V. The quality of life of the population and social engineering infrastructure in the rural areas of the Tyumen region // Agrofood policy of Russia. 2015. №5. P.35-38.
- [4] Semin A.N., Lutfullin Yu.R., Kislitsky M.M., Lylov A.S. Organization of "Agropolis" in rural areas // News of the International Academy of Agrarian Education. 2015. № S25. P.415-429.
- [5] Semin A.N., Sharapova V.M. Socio-economic design of a rural area of an innovative type: some provisions // Agrofood policy of Russia. 2014. № 4 (28). Pp. 20-25.
- [6] Semin A.N., Kucherov A.S., Lylov A.S. Farm cooperation in the field of beef cattle: problems of innovative development in rural areas // Agrofood policy of Russia. 2013. №7 (19). Pp. 52-56
- [7] Treskova E.A., Semin A.N. The concept of rural development: two basic approaches // Agrarian Bulletin of the Urals. 2012. № 12 (104). Pp. 69-73.

- [8] Semin A., Kibirov A., Rassukhanov U., European Research Studies Journal. Volume XXI, Issue 2, 2018. pp. 378-400.
- [9] Altukhov A., Semin A. Increase of the EAEU Countries // European Research Studies Journal. Volume XXI, Issue 2, 2018. pp. 753-771.
- [10] Semin A.N., Miloenko E.V. Formation and development of social infrastructure outside the territory / A.N. Semin, E.V. Miloenko. Ekaterinburg: SvRO MAAO, 2017. 212 p.



A.S. Lylov is associated with Ural State Mining University, Yekaterinburg, ul. Kuibyshev, RUSSIAN FEDERATION. He is interested in Economics and Management.



Professor Dr. A.N.Semin is associated with Ural State Economic University, Yekaterinburg, RUSSIAN FEDERATION. Professor Dr. A.N. Semin holds Doctor of Economic Sciences degree.



Professor Dr. E.A.Skvortsov is associated with Ural Federal University, Ekaterinburg, RUSSIAN FEDERATION.