

Key trends of rural development in the world and their projection on Russia

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Abstract

This article is the first attempt by the authors to formulate key trends in the field of rural development. The main tool is a bibliometric analysis based on the Scopus database. In 2021, the priority areas of scientific research are rural tourism, environmental problems in rural areas, the creation of engineering infrastructure, sustainable rural communities as well as climate change and its impact on rural areas. In the course of the study, the authors found that the interest in rural development is growing rapidly: tenfold from 2000 to 2021. We proposed to divide the directions of scientific research into two groups: lower and upper levels. Developed countries are focused on leading research areas, less developed — on the lowest. These include problems of rural poverty, infrastructure, rural population outflow and depopulation. The authors also conducted a desk study to identify key trends in rural development. The projection of these trends onto Russian rural areas opens up new windows of opportunity for them. These are the diversification of the rural economy through rural tourism and the development of alternative types of employment, the establishment of eco-settlements, the production of environmentally friendly farm products, and the creation of new rural settlements in areas that will become climatically favorable as a result of the projected climate change.

Keywords: rural areas, Russia, social and economic development, sustainable development.

JEL classification: O18, Q18.

1. Introduction

Rural areas of Russia, despite the aggravated political situation in the world, are developing not only according to internal trends, but also under the influence

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of global trends. The projection of global trends on Russian rural areas opens up new windows of opportunity for them, i.e. new directions of long-term development. Thus, the identification of global trends is necessary for preparing documents for the strategic development of Russian rural areas.

Even though problems of rural development have always been solved at the national level, gradually sustainable rural development issues entered the global agenda due to growing concerns about food security, environmental and climate change, and increasing social inequality. Rural development is becoming a comprehensive solution to these problems (Adisa, 2012).

In this regard, there is a growing scientific interest in the world in rural development to find and develop new methods and mechanisms for responding to global changes that affect rural areas. The purpose of our study is to formulate a list of global trends in rural development and identify windows of opportunity for rural areas of Russia within these trends.

2. Methods

The study is based on the use of bibliometric analysis and the desk-research method in order to identify global trends in rural development. These are tools of foresight methodology, so the study can be defined as the initial stage of foresight of rural areas. Scopus was used as a base for bibliometric analysis. Access to the Web of Science database during the study period was already restricted for Russian government agencies. The Google Scholar database is unpopular in Russia, so the authors consider it to be inappropriate to use. The study was conducted on all publications in Russian and English in the period from 2000 to 2021. The search was performed by the title of the publication, annotation and keywords. The keyword for the search is rural area (Table 1).

The authors independently determined the topic of the found article and transferred it to a certain group: rural tourism, ecology, sustainable communities, etc. Also, the Google Trends tool was used to analyze the changes in the interest of Internet users in the topic of rural development.

3. Bibliometric analysis in the field of rural development

Over the past decades, there have been significant changes in rural development both in terms of the economy and approaches which have often changed varying from food security to increased competitiveness and territorial development (Florin and Iatu, 2020). The needs of the time and global challenges had an impact on changing trends. On the one hand, they contributed to strengthening rural problems, on the other hand, measures to combat them were reflected in rural policy. As a result, the issue of rural development is becoming increas-

Table 1
Search query details.

Logical operator	Search terms	Search field
“RURAL” and “AREA”	From 2000 to 2021	Article title, abstract, keywords

Source: Compiled by the authors.

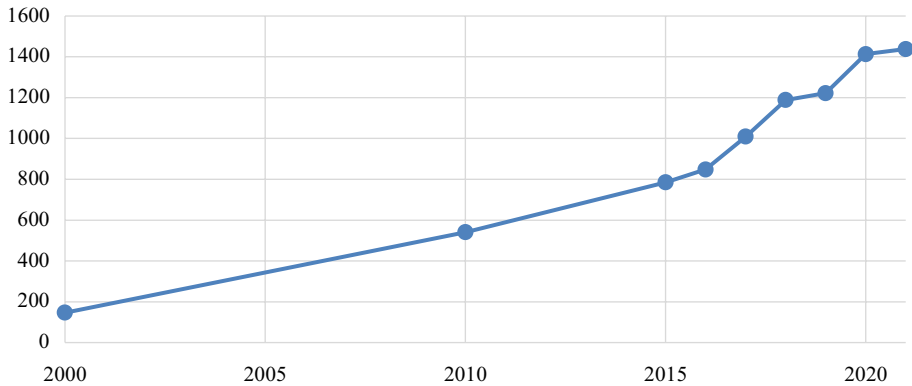


Fig. 1. Dynamics of the number of publications on rural development in the world.

Source: Authors' calculations based on Scopus database.

ingly popular as an object of research, because it directly concerns the national security of states (EPRS, 2017).

This is confirmed by the increase in the number of publications on rural development by the Scopus bibliographic database (Fig. 1). Between 2000 and 2021, the number of publications increased almost tenfold. Strong growth has been observed since 2015 when the United Nations General Assembly formulated the list of sustainable development goals as “a plan to achieve a better and more sustainable future for all.” Most of them are connected in one way or another with rural development. The United States, the United Kingdom, and China are the leaders in publications on rural development.

This research topic is popular with researchers around the world due to its strategic importance for the balanced development of states. Analysis of publications and identification of the most successful cases can be informative for formulating recommendations on rural development for the Russian government.

Let's turn to the distribution of publications by subject and changes from 2000 to 2021 (Figs. 2 and 3). In 2000, most of the publications were aimed at environmental problems in rural areas, healthcare, rural tourism, problems of rural communities, migration, and poverty in rural areas. During this period, researchers considered the industrialization problems of the countryside (mainly Chinese scientists), changes in the rural landscape, the development of agriculture, and housing construction, etc. It can be noted that researchers in the 2000s already studied the concept of sustainable development, which implied the integration of economic growth and socio-ecological balance.

The analysis of topics of articles published in 2021 showed that the most popular research topic on rural development among scientists around the world was rural tourism (see Fig. 3). The first five areas of scientific research did not change significantly during the study period. Rural tourism, engineering infrastructure, ecology, sustainable communities and climate change are the main areas of scientific research in the world. Interest in sustainability and environmental issues has grown significantly among researchers over the past 20 years. The topic of rural poverty has become less popular, which is largely due to the growing well-being of rural residents. In 2021, in contrast to 2000, a new topic of digitalization of rural areas appeared. The theme of ecovillages in both 2000 and 2021 is at the end

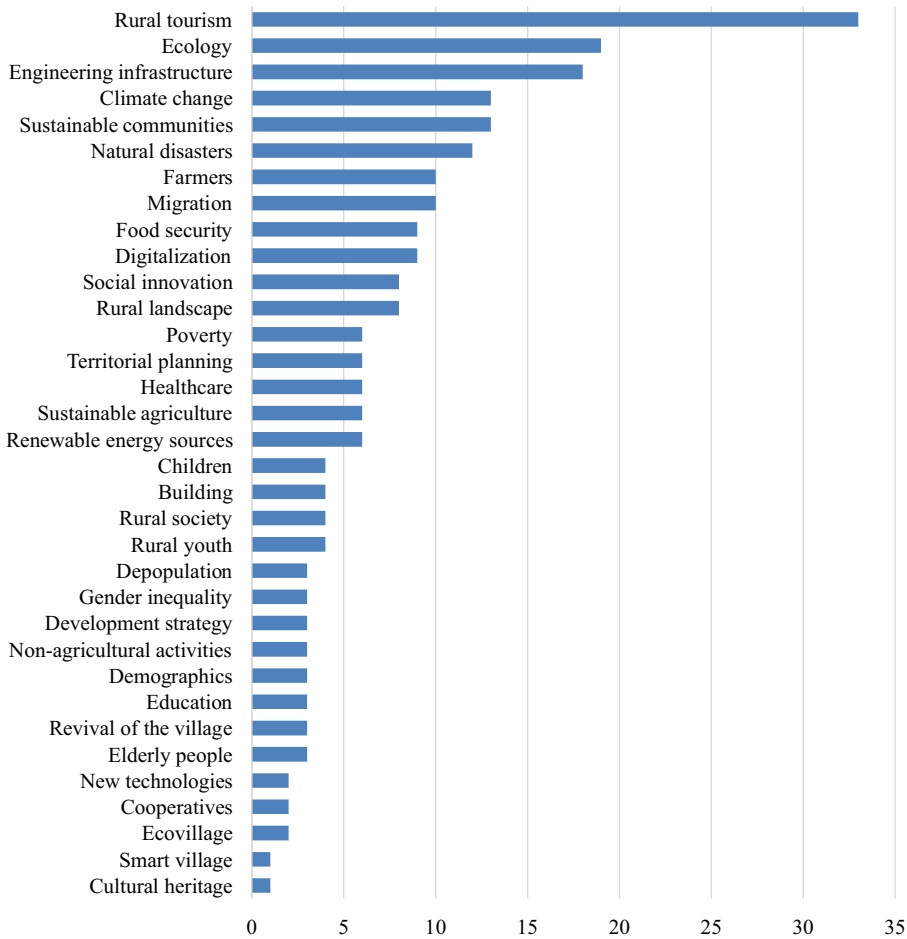


Fig. 2. Distribution of Scopus publications with the keyword “rural areas” by subject in 2000.

Source: Authors’ calculations based on Scopus database.

of the list. In recent years, world scientists have become more focused on social innovations as a way to ensure socio-economic well-being in rural areas and eliminate regional disproportions. The problems of reviving villages and reducing depopulation in rural areas are also being actively studied. These problems are typical for most countries.

The priorities in research on rural development have changed over the 21 years under study. Environmental issues have given way to engineering infrastructure. There has been growing interest in sustainable communities and climate change.

The growth of interest in rural development is also observed in the Internet space. According to Google Trends analytics, user interest has increased by more than 30% from 2005 to 2021.

As the analysis showed, the research directions of rural development are very diverse. It can be explained by the fact that the countryside solves plenty of tasks which are very important for national security and economy. The variety of purposes assigned to rural areas often deprives them of the central focus and leads to destabilization of socio-economic development.

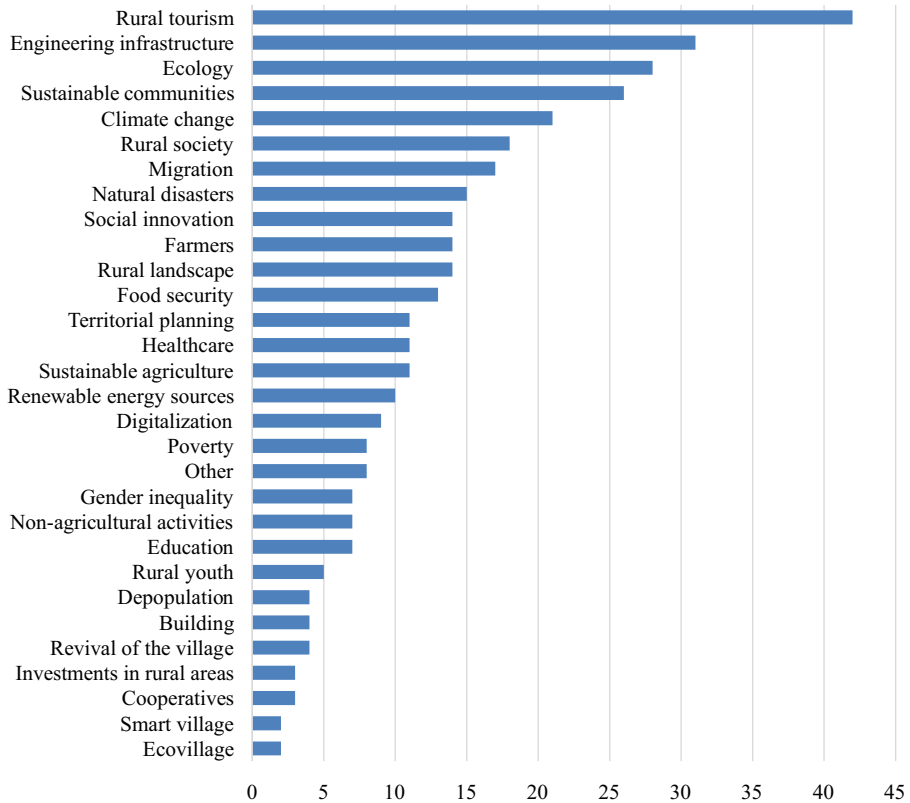


Fig. 3. Distribution of Scopus publications with the keyword “rural areas” by subject in 2021.

Source: Authors’ calculations based on Scopus database.

4. The level of development of the country and directions of R&D

Rural areas largely determine the level of development of the country. According to some researchers, a developed world economy must have a developed rural area (Szyliowicz, 1987). Udin believes that the high-level development of Western countries is due to targeted planning and implementation of rural development programs. The processes of active rural development enhance socio-economic growth at the national and regional levels and contribute to global progress (Udin, 2015).

The presented research areas can be divided into 2 groups corresponding to the lower and upper levels (Table 2). The lower level contains research aimed at solving basic problems of rural areas, mainly current problems of the village. These are the outflow of rural population and depopulation, food security, education, rural infrastructure, rural poverty. The upper level covers research aimed at solving higher-level problems, i.e. those related to the strategic long-term development of rural areas. These are climate change, ecology, eco-settlements, social innovations, sustainable development, and smart villages.

Research directions in countries in the field of rural development, as a rule, are conditioned by local problems. For example, if there is a problem with rural infrastructure in a country, then the publications of researchers will be aimed at

Table 2

Directions of R&D depending on the problems of rural areas (from the lowest to the upper level).

No.	Problem	R&D's directions
1	Low level of rural development	Methods of attracting innovation, development of non-agricultural activities, rural construction and healthcare, territorial planning
2	Outflow of rural population to the city	Mechanisms of attracting the population to rural areas, counter-urbanization, rural revival
3	Problems of agricultural production	Mechanisms to support farmers and ensure the availability of food, rural cooperation
4	Environmental problems	Sustainable rural development and sustainable agriculture, creation of eco-settlements, rural landscape research, renewable energy sources
5	Climate change	Methods of reducing dependence on natural and climatic factors, mechanisms for dealing with natural disasters
6	The transition of rural areas to the 6.0 Technology order	Mechanisms for the introduction of social innovations, digitalization, and the creation of smart villages

Source: Compiled by the authors.

developing mechanisms for its construction or modernization. If there is a problem of rural population outflow to the city in the country, then research will be aimed at rural tourism, migration, etc.

Japan, the United States, Brazil and China have the largest share in global R&D spending in agriculture. The main areas of research in these countries include rural tourism, environmental issues, climate change, social innovation, sustainable development, eco-settlements. Research shows that R&D spending is unstable in low-income countries. Research areas are migration, rural communities, natural disasters, food security, rural poverty, rural revival, and rural cooperation (Rawat, 2020).

The higher the level of development of the country, the more diverse the areas of research in the field of rural development. The standard of living in rural areas can be determined using the gross agricultural output per 1 rural resident (Fig. 4).

The countries that are leaders in the production of agricultural products per villager (Australia, Argentina, France, Japan, USA, Brazil, Canada) are at the same time leaders in the number of publications on the topic of rural development. The high standard of living in rural areas allows them to conduct various R&D.

In addition, the high standard of living in rural areas can be confirmed by the growth of the rural population. Fig. 5 shows which countries in the period from 2000 to 2020 had a decrease in the rural population and which had growth.

Interestingly, the increase in the number of rural residents is observed in the countries with a high level and quality of life (Canada, Australia, Austria, and Saudi Arabia). For example, Australia and Austria are in the top 10 countries by living standards (5th and 6th respectively).¹ Canada has the highest quality of life in the world.² This fact confirms the idea that developed countries rely heavily on highly developed rural areas. The country's welfare level depends on the differentiation degree of the population (rural and urban) in terms of the quality of life. As a rule, there is nearly no difference between life in the countryside and in the city in

¹ Ranking of countries by the living standard 2021. <https://basetop.ru/rejting-stran-mira-po-urovnyu-zhizni-2021/> (in Russian).

² US News Best Countries. <https://www.usnews.com/news/best-countries/rankings>

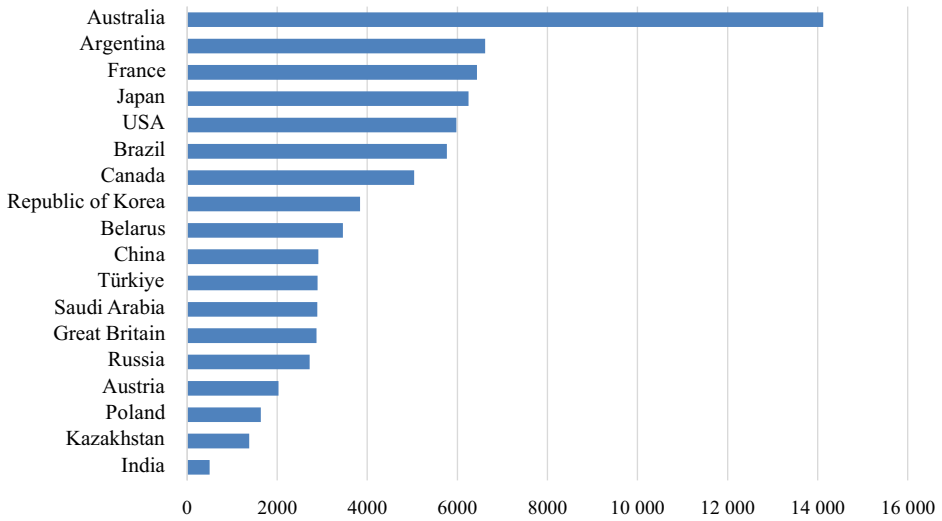


Fig. 4. Countries in terms of gross agricultural output per 1 rural resident (U.S. dollars).

Source: Authors calculations based on FAOSTAT data.

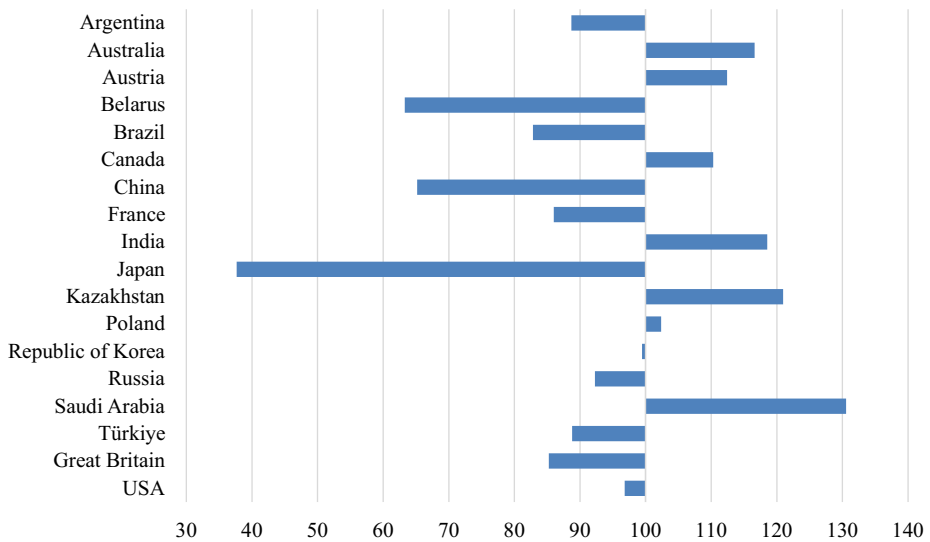


Fig. 5. Percentage change in the number of rural population in the countries in the period from 2000 to 2021.

Source: Authors calculations based on FAOSTAT data.

developed countries. The authors note the rural population growth in the countries that are also leaders in terms of living standards which indicates that life in their rural areas becomes comfortable enough. In other words, they can be called highly developed. It is important to study in more detail the state policy of rural development in these countries to adopt best practices for public administration in Russia. In addition, the growth of the rural population in Australia and Canada is due to the active migration policy, aimed at attracting foreign migrants to the countryside.

Growth is also observed in the countries where the rural way of life traditionally prevails, for example, in India. In Kazakhstan, rural population growth is provided

by southern and eastern regions, where a greater part of the population lives in rural areas and has a high birth rate.

A significant reduction in the rural population is observed in the countries with a predominantly industrial type of society (Belarus, Argentina, Brazil, and China). It is worth noting that there is a catastrophic decline in the urban and rural population in Japan due to low birth rates.

A well-thought-out state policy of rural development makes it possible to smooth out the consequences of urbanization and ensure return migration to the countryside. That is why migration issues are in the top 10 research topics on rural development in the world.

Contemporary rural development policy should aim at finding a sustainable framework for the future of rural areas. At the global level, there is a constant change of paradigms in rural development. The state policy goals in this field have changed dramatically over the past few decades (Brüntrup, 2007). In the 20th century in Russia and the world, rural development was completely identified with agricultural production, and special attention was paid to small farms. At the beginning of the 21st century, the problems of socioeconomic support for the rural population came to the fore. At present, the concept of rural development already covers problems that go far beyond the growth of agricultural production, incomes of the population, etc. This concept includes improving the quality of life of rural residents, raising the level of education, and ensuring environmentally friendly living conditions (UN, 2008).

5. The relationship between scientific research and global trends in rural development

As a hypothesis, it can be assumed that scientific research focuses on those topics that are currently generated by global changes (trends) in rural development. At the same time, the developed countries create global trends, while the developing countries follow them. The projection of global trends on different countries leads to the emergence of challenges for rural development and the opening of new windows of opportunity for them.

According to the forecast of the Center for Industry Expertise of the Russian Agricultural Bank and HSE University, there are seven main global trends in rural development:

1. Robotization and automation of the agricultural sector. By 2025, the global market for agricultural robots will be worth \$25 billion, and the market for precision farming technologies will be \$10.2 billion.

2. Growth in demand for local farm products. According to estimates, in 2024, the global market for organic agricultural products will amount to \$324 billion.

3. Increasing attention to rational nature management. The intensification of agricultural production has led to an increase in pressure on land and water resources. Therefore, rationalization of their use is now required. One of the directions will be the transition to renewable energy sources.

4. Development of rural tourism. Some researchers believe that over time, the primary function of rural areas will be recreation instead of agricultural production. For example, in the European Union, about 15% of tourism volume is concentrated in rural areas.

5. Return migration of the urban population to the countryside. With the advent of such a social phenomenon as “downshifting,” the trend of moving successful urban residents to rural areas is gaining momentum. This trend becomes the basis for the development of ecovillages. With the expansion of Internet coverage, migration will only increase. Legislative consolidation of the remote work status in Russia contributes to this trend.

6. The emergence of new territories suitable for living. The consequences of global climate change after 2050 will lead to a northward crop shift. The population density in the Asian part of Russia is estimated to have a fivefold increase potential.

7. Increase in the level of education of rural residents. The economic transition to a new technological order requires rural residents to increase their digital level and technical literacy. With the development of remote learning opportunities, virtual and augmented reality technologies, and the expansion of Internet coverage, it will be possible to improve the skills and retrain rural residents from remote areas (Kulistikova, 2020).

According to the OECD, there are currently six prior megatrends that could have an impact on rural development. These include:

1. Population aging and migration. The aging trend is mostly noticeable in rural areas. As a rule, the average age of the population there is higher than in cities.

2. Urbanization. The urban–rural divide is becoming the dominant political and economic dichotomy in many countries.

3. Global shifts in production. These include the transition of economic sectors to a new, sixth technological order; reindustrialization of developed economies; inclusion of developing countries in global value chains. All these global shifts lead to an increase in the disproportion of rural development in developing and developed countries. And it also leads to extend migration outflow from rural areas in the countries with an industrial type of economy.

4. The rise of emerging economies. The center of economic gravity is shifting from the North Atlantic towards Asia, Africa, and Latin America. Emerging economies lead to an increase in demand for raw materials and food from rural areas.

5. Climate change and ecological pressure. Global population growth and economic growth have an impact on the state of the environment. By 2050, it is estimated that 60% of the world’s population will face problems accessing a sufficient supply of water. Rural areas are fundamental in solving environmental problems since natural resources are concentrated there.

6. Technological breakthroughs. The introduction of innovative labor-saving technologies will lead to a change in the structure of the labor force in rural areas. In place of the freed-up jobs, completely new ones will be created that require highly skilled workers (OECD, 2018).

We have found that the presented trends largely correlate with the results of the bibliometric analysis as they match with the following key words: rural tourism, farm products, climate change, urbanization and migration processes, environmental issues, etc. This correlation confirms the hypothesis put forward that international studies follow the global trends in rural development. In addition, the analysis of various sources made it possible to supplement the presented list. Let’s consider them in more detail.

According to Udin, the plurality of rural residents will be functionally landless in the future, and predominantly agriculture in rural areas will be a relatively

small production sector, commercial in its orientation, and included in national and international commodity chains (Udin, 2015).

The arguments for reducing poverty through agriculture depend heavily on the productive efficiency of smallholder farmers and their contribution to the local economy, especially in demand for services (including construction). However, the future viability of small farms and the small farm model is increasingly being questioned due to technological complexity, strong market ties, and globalization of commodity chains.

The primary trend of rural development throughout the world is the gradual decline in the dominance of agricultural production in rural areas. In different countries, the agricultural production share in rural areas varies, as a rule, depending on the development stage of the country's economy.

In the early stages of economic development, agriculture is the dominant sector and the predominant contributor to overall economic growth. In more developed countries, there is a process of balanced growth. Within this framework, there is a relative reduction in the share of agricultural production in the gross output of rural areas, and the attention is shifted to environmental protection.

As foreign practice shows, the more dynamic and diversified the agricultural sector, the more dynamic the non-agricultural sector in rural areas. Generally, development occurs because of the strong links of agriculture with the rest of the rural economy. Diversification here refers to the diversity of agricultural producers in type and size (small farmers, cooperatives, medium farms, large agricultural holdings). If agricultural production falters, the non-agricultural rural economy can make up for this decline. Thus, sustainability in the development of rural areas and the reduction of socio-economic risks are achieved. The practice of diversifying the rural economy, without the predominance of any one form of management, is promising for Russia, where in recent years vertically integrated structures (agricultural holdings) have been increasingly developed, combining production and sales of products, as well as their service.

One of the global trends is the growing importance of quality standards. This trend is driven in part by demanding consumers in industrialized countries and importers of agricultural products (McDonagh, 2022). Also, this trend is increasingly spreading in the markets of developing countries. Environmental and quality standards, as well as sophisticated technical standards, have become extremely important in global value chains in which globally oriented companies in developing countries are integrated.

Domestic markets also place higher demands on quality standards expected from agricultural products. The growing urbanization, familiarity with different consumption patterns through the media, competition with imported commodities, and adaptation to international standards mean that the agricultural products market segment has no choice but to adapt to these trends.

In the future, climate change will present agricultural economies around the world with a whole new set of challenges. So far, the average rise in temperature worldwide since the industrial revolution has been 0.6 degrees Celsius. By the end of the 21st century, the temperature increase can reach from two to six degrees. While climate change is just beginning, its effects are already being felt in the form of increasingly powerful hurricanes, rising sea levels, melting glaciers, and polar ice sheets (UN, 2008). And it is rural areas that are most dependent on climate change.

Industrialized countries use highly aggregated climate models to prepare today for future environmental changes in their countries and minimize the risks of global climate change. Based on such studies, for example, winemakers in Baden-Württemberg, Germany are already starting to plant new grape varieties that are adapted to changes in temperature and soil conditions predicted for the coming decades (Garg and Singh, 2019). Besides, rural areas can provide valuable ecosystem services (cleaning air and water, providing biodiversity, reducing greenhouse emissions, etc.)—all of which contribute to climate change mitigation and adaptation (Habiyaemye et al., 2020).

In addition to global trends that have an impact at the national level, some occur autonomously within developing countries and yet have global implications, namely: population growth, urbanization, a broader division of labor, changing consumption habits, and increased competition for local natural resources such as water, land, forests, and biodiversity. At the same time, rural areas play an appreciable role in the new technological paradigm. In turn, the latter implies new energy sources, innovations in food production, conservation of agroecosystems, etc. (Duncombe, 2018).

It is difficult to say with certainty how developing countries can best prepare for the global trends outlined above, given that they have very different starting points. However, a systematic study of the most significant trends affecting specific regions should in many cases identify areas (factors, sectors) with great potential for change and highlight their strengths, weaknesses, opportunities, and risks.

One of the main problems of rural areas is that they are much more dependent on fixed location factors than urban areas. These include the geographic distance from markets, the lack of mobility of a critical factor of production (soil), the ecological potential and resilience of agroecological systems, and regional impacts of climate change on these parameters, including the spread of diseases and pests.

In addition, higher costs (transport, communications, information gathering, control, investment costs, etc.) make it more difficult to implement many economic and socio-political instruments in rural areas than in urban agglomerations. Because of these complex external conditions, rural regions face greater difficulties in adapting to global trends than urban ones; especially in adapting to a market economy.

Rural areas are often rather slow to respond to change, probably because they are characterized by traditional patterns of behavior that are better preserved due to the greater isolation of the population and the smaller range of options available to them to adapt to change. However, at the subsistence level, they provide a relatively reliable system of social protection (Shelkovnikov et al., 2022).

Rural areas will become even more marginalized than they already are if developing countries fail to respond to new global trends. This may have more devastating consequences for economic growth, poverty reduction, and natural resources (Petukhova and Afanasieva, 2022).

Summarizing the results of bibliometric analysis and desk research, we highlight the following key trends in rural development:

- (1) development of rural tourism;
- (2) diversification of the rural economy;
- (3) urban sprawl and outflow of rural population to the city;
- (4) implementation of technological innovations;
- (5) adaptation to global climate change.

It is also worth highlighting the emerging trends that have already appeared, but have not yet received large-scale distribution:

- (1) rural revival and return migration from the city to the countryside;
- (2) digitalization of rural areas;
- (3) sustainable development of rural areas.

6. Projection of global trends of rural development on rural areas of Russia

Rural development in Russia is affected by internal and external factors. The latter are global economic, social, natural-climatic, and scientific-technological trends and their projections on Russian realities. These trends face different challenges and threats inside the country and, by overcoming them, create new windows of opportunity. They are priority areas for rural development, taking into account all global trends. Summarizing the research results, we identify the following windows of opportunity for rural development in Russia and the threats that prevent them (Table 3).

Rural areas in Russia have various opportunities for their successful long-term development. Overcoming the threats of such development is possible with the maximum use of innovative technologies that can ensure the economic, social, and environmental well-being of rural areas. These are digital technologies (subject to widespread coverage of rural areas with high-speed Internet), biologized and organic agriculture technologies, precision agricultural production technologies, etc.

According to the authors, organic agriculture can become one of the priority areas for rural development in Russia (Dobryanskaya and Petukhova, 2022). Organic farming especially fits for Siberia and the Far East, which count with vast fallow lands and proximity to foreign markets for organic products. Also, expected climate changes can provide an opportunity for the revival of villages and a new development of territories.

Based on the research, we put forward the following recommendations for the Russian government in the field of rural development:

(1) supporting rural settlements with a developed social and engineering infrastructure and providing a wide range of state, educational, medical, financial, intermediary, cultural, and leisure services to a rural-type settlement (RTS; Ghom and Narkhede, 2018). The latter, as a rule, is understood as a set of RTSs located at a distance of up to 20–30 km from the reference RTS. Thus, it is possible to create “points of attraction” for the rural population and reduce migration flows to the city. It is also worth expanding urban agglomerations, involving neighboring rural areas;

(2) stimulating development of farmers’ marketing cooperatives. An example is the Kuzbass farmer cooperative “Kalina-Malina” whose products are already sold in the cities of Kemerovo, Novosibirsk, and Tomsk, and the demand for them is only growing. The high quality of products produced by different farmers under the same brand gives such cooperatives a competitive advantage over federal retail chains;

(3) tailoring tourism infrastructure, carrying out modernization of transport, and engineering infrastructure in rural areas. This will promote rural tourism which is

Table 3

Windows of opportunity for the development of rural areas in Russia.

No.	Global trend	Windows of opportunity	Threats
<i>Key trends</i>			
1	Active development of rural tourism	Creation/reconstruction of tourism and transport infrastructure in rural areas	Low demand from Russian society for rural tourism
2	Diversification of the rural economy	The emergence of alternative types of employment of the rural population and the involvement of the urban population in the village	Low level of rural infrastructure development
3	Urban sprawl	Expansion of urban agglomerations through the involvement of rural settlements adjacent to the city Creation of supporting rural settlements with a high level and quality of life	An increase in the gap in the level and quality of life of rural settlements that are part of urban agglomerations and remote from cities
4	Implementation of technological innovations	Creation of a new type of settlements—shift settlements for servicing robotic industries	Lack of qualified personnel
5	Adaptation to global climate change	Involvement in agricultural turnover of new areas and the creation of new rural settlements (mostly in Siberia and the Far East)	Absence or lack of necessary agricultural technologies to involve northern agricultural practices in circulation
<i>Emerging trends</i>			
1	Return migration	Creation of eco-settlements to attract the urban population who cares about their health	The high cost of ecovillage projects The complexity and labor intensity of organic production
2	Digitalization of rural areas	Creating digital ecosystems in rural areas and launching their own marketplaces to sell local farm products	Low level of high-speed Internet coverage in rural areas
3	Sustainable development of rural areas	Development of a system of rational land use in rural areas and adaptive landscape agriculture. Creation of recreational zones in rural areas	Lack of necessary infrastructure

Source: Compiled by the authors.

divided into agro-, eco-, gastro-, eno-, and ethnic tourism (Malykhina and Ryumkin, 2018). Right now, as a result of recent epidemiological and political upheavals, it becomes possible to redirect the tourist flow to domestic rural destination;

(4) supporting the creation of ecovillages, whose inhabitants are engaged in organic production and activities that do not harm the environment, use alternative energy sources, etc. At present, about 200 ecovillages with a total population of up to 20,000 people have already been created in Russia. The growing stress and speed of life in cities, as well as deterioration of urban environment, lead to return migration—from the city to the village. As a form of state support for the creation of ecovillages, it is possible to offer assistance in acquiring land plots in rural areas; subsidizing the cost of installing green energy generation, etc. One of the most promising areas for creating new ecovillages may be vast territories of Southwestern Siberia and the Far East. As studies show, due to the global climate change, these

territories will get a milder climate and conditions for organic agricultural production, under which the fallow lands of the region can be involved;

(5) limiting the scale of development of large enterprises—agricultural holdings and setting limits for their expansion, which do not allow small and medium-sized businesses to develop in rural areas and stimulate the diversification of the rural economy. In many countries, the main pillars for successful rural development are small business, cooperatives, and a diversified rural economy.

7. Conclusion

Thus, worldwide research of rural development focuses on and follows critical global trends in rural development. Research interest in the problems of the countryside is growing, which indicates their increasing importance for national security in most countries. At the same time, priorities in research from 2000 to 2021 have changed slightly. With the growth of the quality and standard of living of the rural population, interest in health issues and the problems of poverty in rural areas is gradually decreasing.

As found out, scientific research focuses mostly on topics that are currently generated by global changes in rural development. The authors have proposed to divide the R&D directions into two groups of lower and upper levels. Developed countries are focused on the top areas of research, less developed—on the lowest. The last ones include problems of rural poverty, infrastructure, rural population outflow and depopulation. This is due to the fact that less developed countries are mainly concentrated on current problems, while more developed countries solve strategically important problems of rural areas.

Strong and dynamically developing rural areas are the key to ensuring to the country, firstly, national security and, secondly, a stable and diversified economy and social well-being. At the same time, rural areas are vulnerable to global changes and react sharply to them. Digitalization, pandemic, urbanization, climate change have an impact on the countryside. The rural areas of Russia are no exception and are subject to many global changes and threats in various fields. At the same time, they also face problems that impede their development. Overcoming these threats will allow Russia to discover new windows of opportunity for changing negative trends that have been taking place in the countryside in recent decades.

Acknowledgments

The study was supported by the Grant of the President of the Russian Federation for the state support of leading scientific schools (No. NSh-1129.2022.2).

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