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IMPACT OF SPATIAL DEVELOPMENT ON SUSTAINABLE ENTREPRENEURSHIP

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Abstract. The article considers the factors that impede the sustainable development of entrepreneurship. The results of the studies are presented that prove that spatial development based on the growth of agglomerative formations with time can start to hamper the innovative development of entrepreneurship in the regions. The change of the consolidated innovation index is studied depending on the size of the agglomeration zone and the scope of works in terms of the number of city inhabitants. The reasons limiting prospects of the agglomeration growth of large formations, in particular, the mass outflow of the population to large cities and low natural growth of the population, are researched. The compensatory possibilities of migratory flows have been studied and the expediency of ensuring sustainable entrepreneurship based on the new scheme of spatial development of Russia on the basis of agglomeration transformations, and primarily the formation of non-urban agglomerations, has been proved.

Keywords: sustainable entrepreneurship; nonurban agglomerations; rural agglomerations; agglomerative transformations; spatial development

1. Introduction

At present, problems of social and economic sustainability of entrepreneurship come to the forefront of all subjects of the world community. The growing pressure of globalization, penetrating all spheres of entrepreneurial activity and trying to unify them with the simultaneous diversification of existing devices of economies of different countries and uneven spatial development aggravate this problem (e.g. Mikhaylov 2018). The need to find a comprehensive solution to the problem of sustainable development of entrepreneurship causes the growing interest in managing the development of territories and improving the practice of spatial planning.

Many scientists devoted their work to the study of the essence and content of economic sustainability of entrepreneurship, methods and mechanisms of its sustainable development: Coase R. (1992), Leontief W. (1977), Tateisi K. (1990), Fagerberg J., Srholec M. (2007), Jonkutė G., Staniškis J. K. (2016), Ravago M.-L., Balisacan A., Chakravorty U. (2015), Abrham J.; Strielkowski, W.; Vošta, M.; Šlajs, J. (2015), Bolis I., Morioka S., Sznelwar L. (2017), Singh S., Olugu E. U., Musa S. N. (2016), Jia X., Foo D. Tan R., Li Z. (2017), Tvaronavičienė M. (2018), Tvaronavičienė, M., Tarkhanova, E., & Durglishvili, N. (2018), Shi L., Wu K.-J., Tseng M.-L. (2017), Ehrenfeld J. R. (2004), Garetti M., Taisch M. (2012), Dobrovolskienė, N., Tvaronavičienė, M., Tamošiūnienė, R. (2017) and others. They studied the theoretical aspects of the essence of sustainable development of entrepreneurship and the issues of formation of sustainable development strategies, including the ones used during the period of economic reforms in various countries of the world, taking into account their national characteristics.

The term "sustainability" became widely used after the speech by the Prime Minister of Norway, Gro Harlem Brundtland, at the United Nations, in which she identified sustainable development as "meeting current needs without compromising the ability of future generations to meet their needs" (United Nations, 1987). Awareness of the role of spatial development as one of the decisive factors for the sustainable development of entrepreneurship led to a shift in the emphasis in research from purely economic instruments to the management of the spatial development of territories.

At the present stage of human development, agglomeration is the most popular form of organizing settlement within the territories. Widespread urbanization comes with the territorial intergrowth of settlements into interconnected systems. Currently, in the world, there are 512 cities with the population of more than 1 mln. people, and by 2030 their number is expected to increase by 30% (United Nations, 2016). According to the forecasts, the proportion of the population living in megacities will increase from 6.8% up to 8.7% by 2030, and by 2050 about 66% of all people of the planet will live in urban agglomerations.

The issues on forming urban agglomerations were studied by representatives of various economic schools in the XIXth – early XXIst century. The role of economic differentiation of the territory and its specialization in production as prerequisites of agglomeration formations was studied (Cities in a World Economy, 2006; Glaeser, 2005; Glaeser, 2011). Representatives of the German school of spatial analysis I. Thünen (1850), V. Christaller (1960), A. Lösch (1940) studied the issues on forming an optimal structure for the region resettlement in terms of the minimum transportation costs. According to F. Perroux (1954) (within the center and periphery paradigm), the growth of the urban agglomeration is a consequence of the development of various industries – "growth poles". T. Hägerstrand (1985), the Swedish researcher, considered agglomerations as the center of innovations' spread and diffusion.

As for Russian researchers, the theme of the spatial structure of settlement in the agglomeration was studied by E.N. Pertsik (1999), G.M. Lappo (Lappo, & Selivanov, 2010), Yu.L. Pivovarov (1999), V.G. Davydovich (Davidovich, Gutman, & Lappo, 1964), etc. The most advanced studies in the study of agglomerations include the works of G.M. Lappo who defined this concept as follows: "the agglomeration is a compact territorial grouping of urban and rural settlements united in a dynamic system by multiple connections" (2007).

Despite the seemingly active development of agglomerations, some researchers believe that the trend for large agglomerations is outdated and reflects the industrial type of development. Due to this, in their opinion, by 2030 neither Europe nor North America are expected to increase the number of large metropolitan cities. In general, the purposeful development of agglomerations is an important area in solving the problem of regulating the growth of large urbanized centers and managing settlement systems.

Many authors (Neshadin, & Gorin, 2001; Neshadin, & Tulchinsky, 2011 and others) note the paradigm shift in the development of strategies for the spatial development of developing countries, including Russia, which are actively influenced by two interrelated and complementary processes: the development of agglomeration (as a concentration of residents of large cities), occurring in parallel with the formation of clusters (as a dense network of mutually complementary economic entities, united by participation in the value chain and localized in a certain territory) (Shmidt, Antonyuk, & Franchini, 2016).

At the same time, the phenomenon of the countries of the Russian agglomeration lies in the fact that the concentration of financial, economic, scientific, innovative and other resources in urban agglomerations is carried out against the background of the decline of small cities, especially monocities and the cities located on the periphery, outside of the agglomerations (Animitsa, 2012). This causes the desolation of nearby territories and the emergence of demographic, production and other imbalances, as well as the loss of control over significant territories. Therefore, the complex and contradictory processes of spatial development of modern states are the dominant factor affecting the stability of business structures, which predetermines the further feasibility of research in this field.

2. Methods

The research is based on Russian and foreign scientists' works in the field of economics, including the modern achievements in the field of entrepreneurship sustainability provision and spatial development of territories. The analysis of the degree of entrepreneurship sustainability and the state of agglomeration processes in different countries is based on the results of statistical studies of two levels: national and regional. In this regard, the authors note the following difficulties related to the need to compare all the studied data: methodological differences in the definition of the set of indicators and the calculation of identical indicators in different countries, the irregular and selective nature of the studies, the selection of various characteristics that do not coincide from year to year, the lack of data on small settlements, etc.

Nevertheless, the accepted methodology of the study allowed the authors to obtain reliable results and ensure the adequacy of introducing the study object, which was confirmed by the results of practical realization of the theoretical conclusions.

The practical significance of the results of this study is that they will allow ensuring the formation of network structures of non-urban agglomerations in the economic space as the basis for a new framework of the organization of the economic space of the world economy that provides the prerequisites for the formation of sustainable entrepreneurship.

3. Results

The performed analysis of the state of the entrepreneurial climate in the world allowed the authors to state its deterioration and, as a consequence, the decrease in the stability of business structures in developed countries. The Doing Business rating (Doing Business, n. d., the indicator of creating favorable business conditions) formed by the World Bank and the International Finance Corporation made it possible to establish that in only 7 years (from 2010 to 2017) many developed countries have lost their leading positions. For example, in 2010 Singapore was ranked first, New Zealand – second, Hong Kong – third. The top ten also included the US, the UK, Denmark, Ireland, Canada, Australia and Norway. Russia was ranked 120, and on the Central African Republic was put in the last place. In 2017, New Zealand replaced Singapore, and the top ten included Denmark, Hong Kong, South Korea, Norway, the UK, the US, Sweden and Macedonia. Russia rose to the 40th place. Extrusion of the traditionally leading countries from the leading positions of the world rating and their shift to the lower levels

confirms the aggravation of the problem of sustainable development of entrepreneurship. One of the leading factors in the current situation is the exhausted structure of the spatial development of their territories.

Investigating the world experience of development of the existing spatial development, it is possible to single out 2 directions, determined by historically formed conditions (population density, natural, climatic and resource conditions, terrain, waterways, etc.): the existence of a relatively stable network of agglomerations in the territory of the country or their uneven distribution.

The first direction of spatial development is characterized by the presence of a relatively stable network of agglomerations in the country. For example, in Europe, the settlement has a clearly distinguished seaside nature, and the largest cities gravitate toward the central economic space. In general, the urban population prevails, and the level of urbanization is one of the highest in the world: on average, 75% of the population lives in cities (Fig. 1).
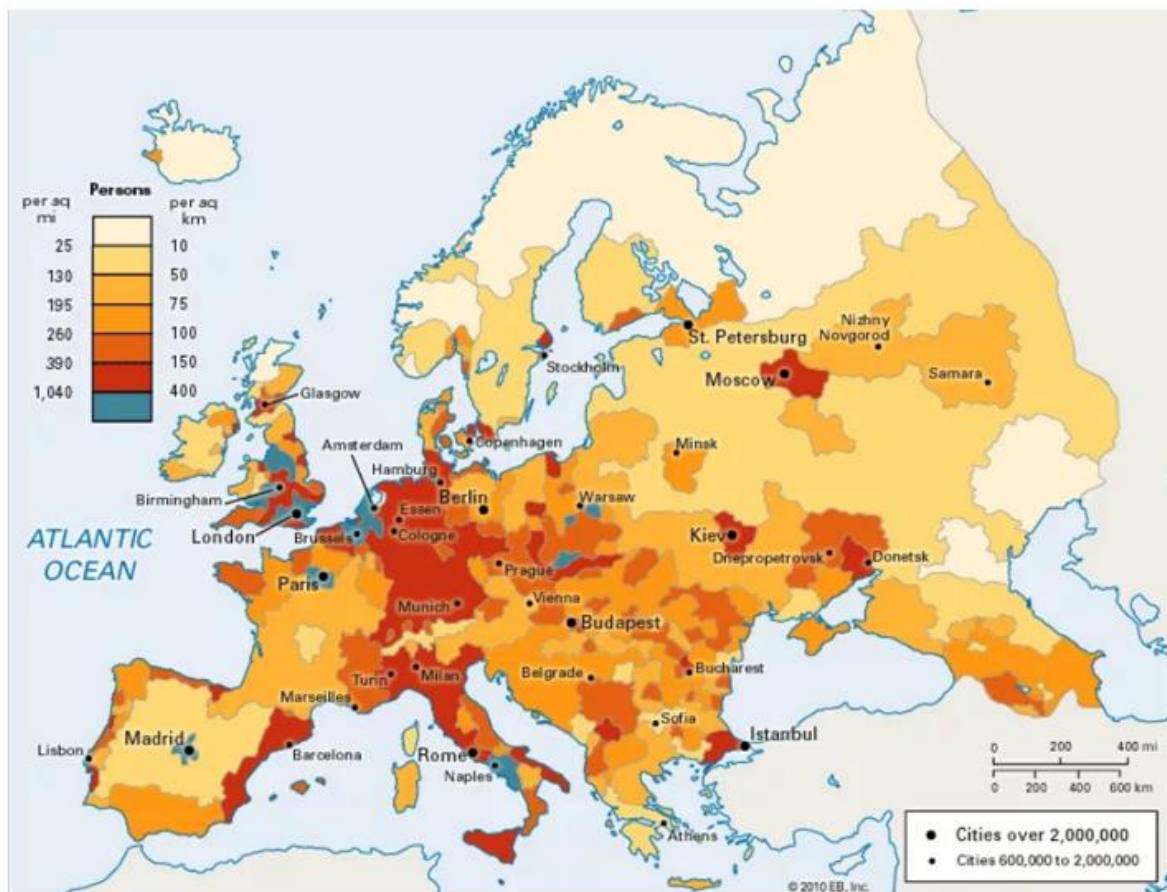

Fig. 1. Spatial development of Europe

In the United States, the population density decreases as getting farther from the Atlantic coast and reaches its minimum in the Mountain states (on average, 5.6 people/sq.km., and in Wyoming – 1.3 people/sq.km.). It again increases on the coast of the Pacific Ocean (on average, 35 people/sq.km., including California – 50 people/sq.km.) (Fig. 2).
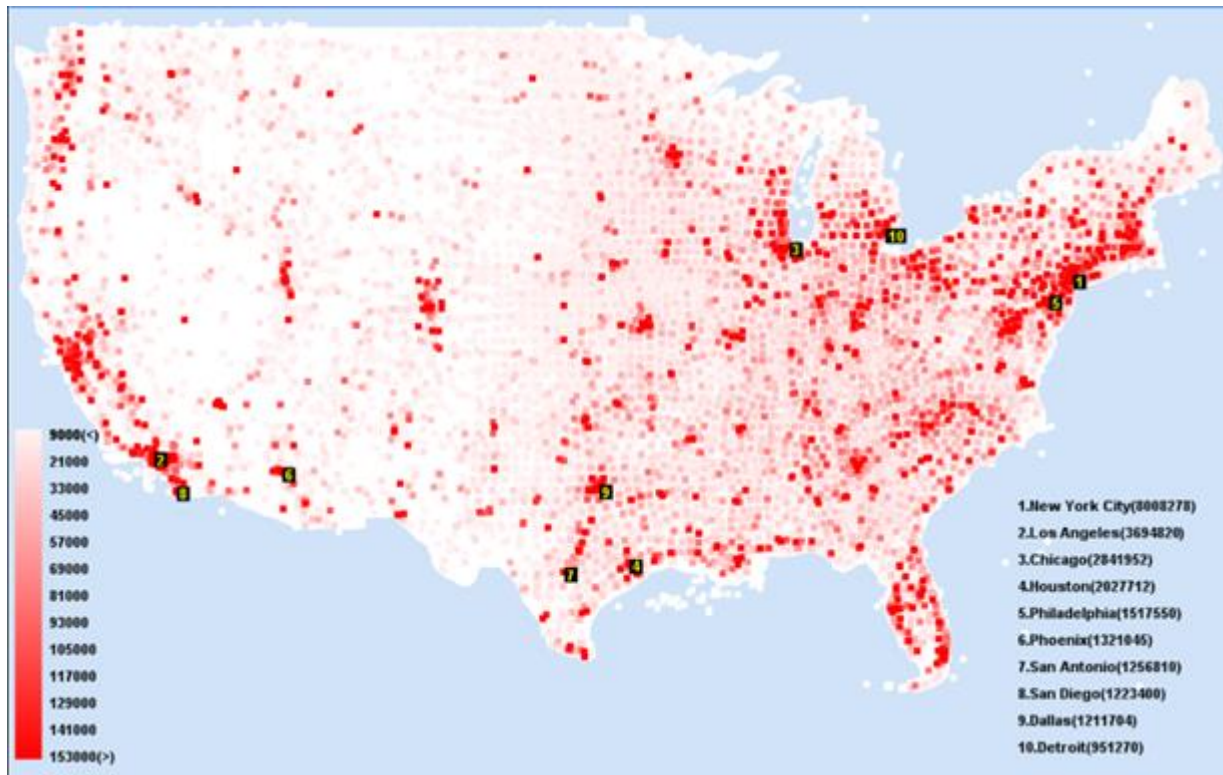
Fig. 2. Spatial development of the US

There is another nature of settlement in countries with lower population density and difficult natural and resource conditions: Canada, Australia, China and Russia. Canada is characterized by the extremely uneven allocation of the population: 90% of the population lives on 10% of its territory (Fig. 3).
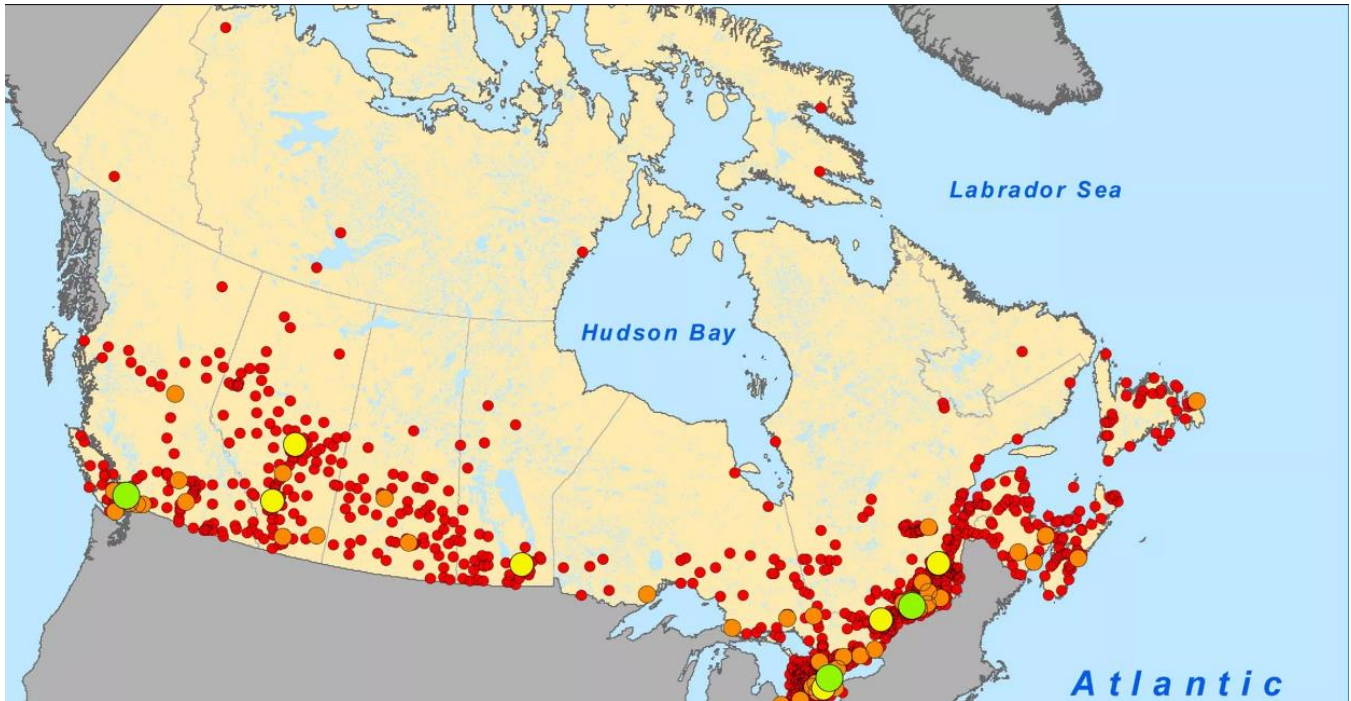
Fig. 3. Spatial development of Canada

Formally Canada is a country with rather low population density – 3.7 people/sq.km. However, the southern part of the country is densely populated, because the majority of the population lives in the "tape" formation, no farther than 160 km from the US border.

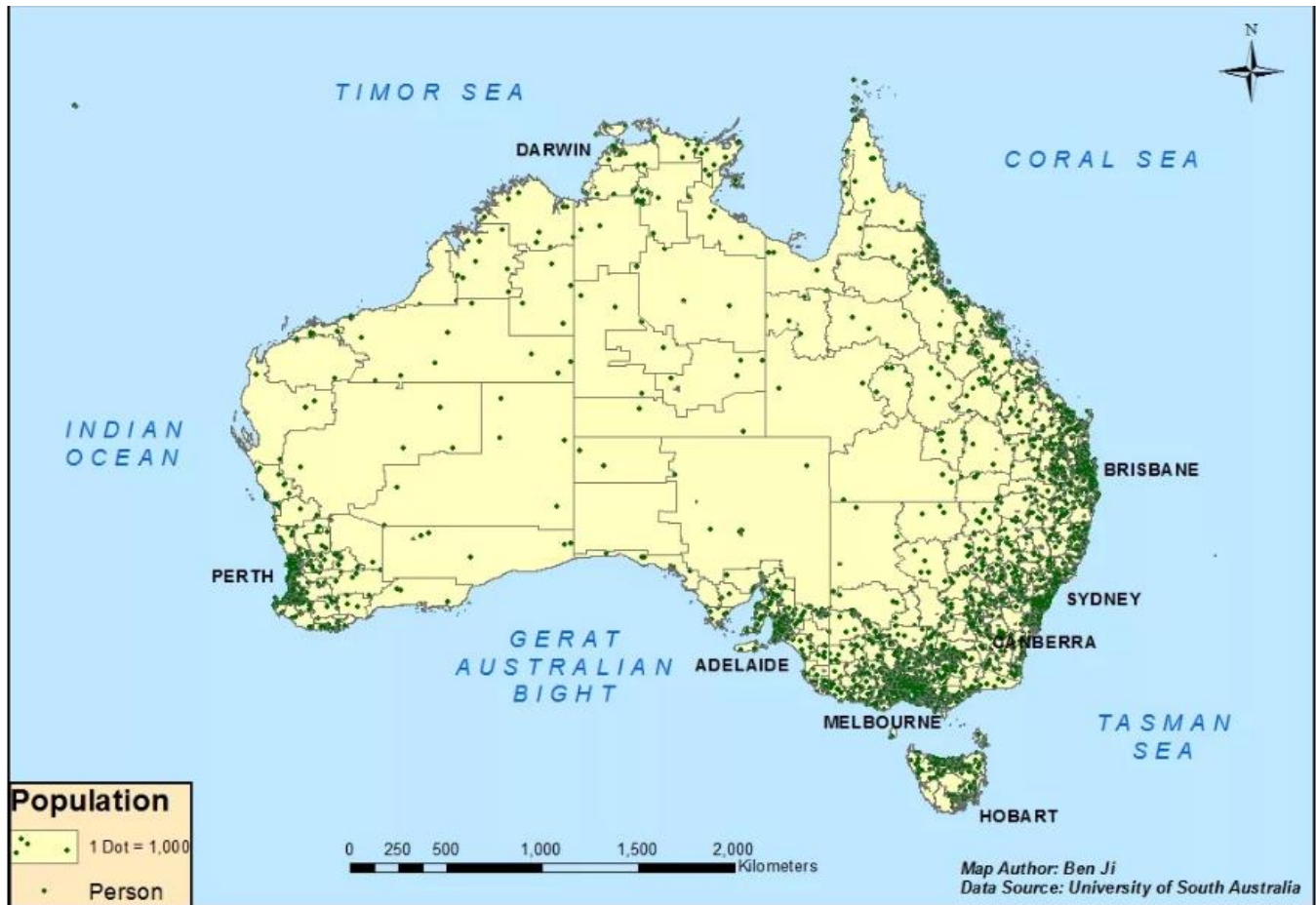The settlement of inhabitants in Australia is similar (Fig. 4).

Fig. 4. Spatial development of Australia

The population in Australia is unevenly distributed, and mainly concentrated along the coast, in the east and northeast the population density is 25-50 people/sq. km. The central territory is populated slightly, with the density of less than 1 person/sq. km.

The density of population in China is 144 people/sq. km. However, about 90% of China's total population lives in its southeastern part, accounting for only 40% of the country's total area, mainly in the east of the country. The most densely populated areas are the lower part of the Yangtze River Delta and the North China Plain, the vast peripheral areas are almost deserted (Fig. 5).
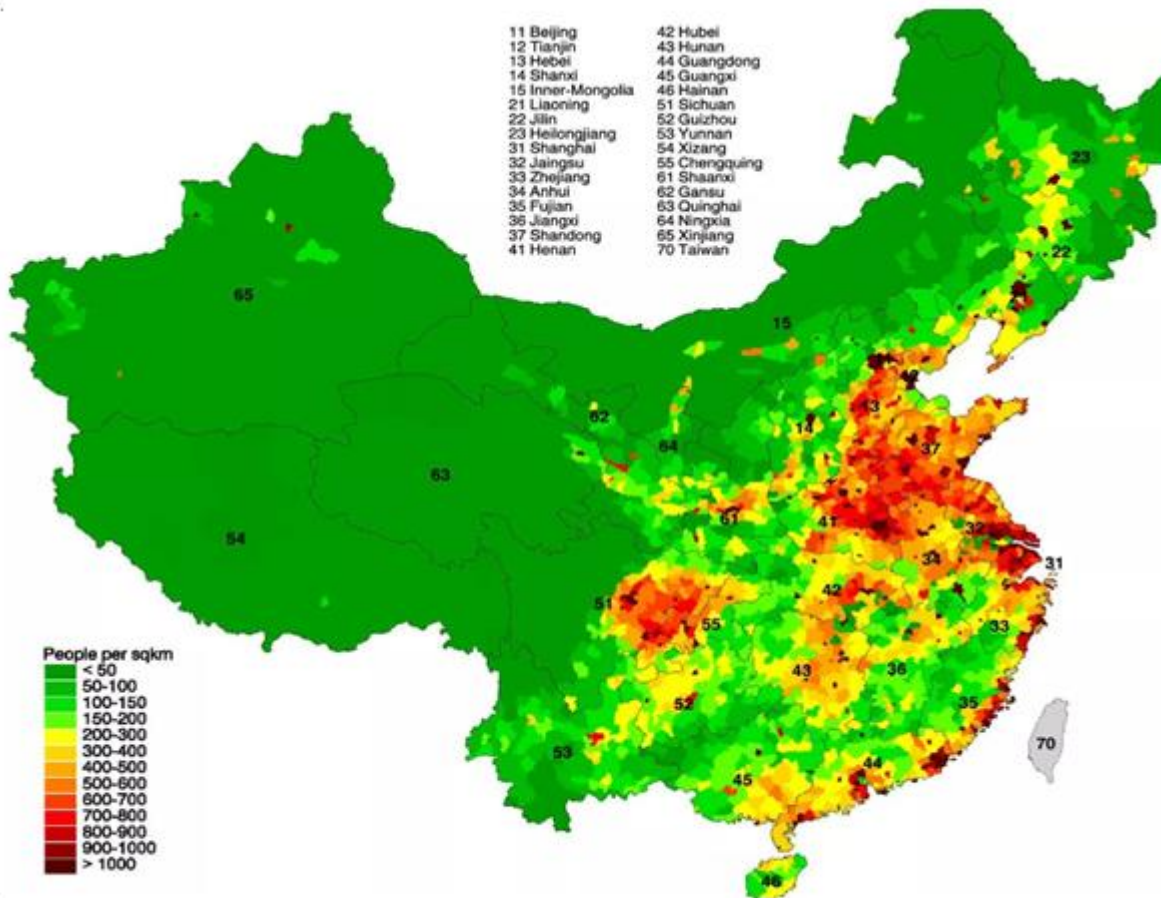
Fig. 5. Spatial development of China

A specific feature of Russia is the scale of the territory – 17.7 mln. sq.km. (Fig. 6).
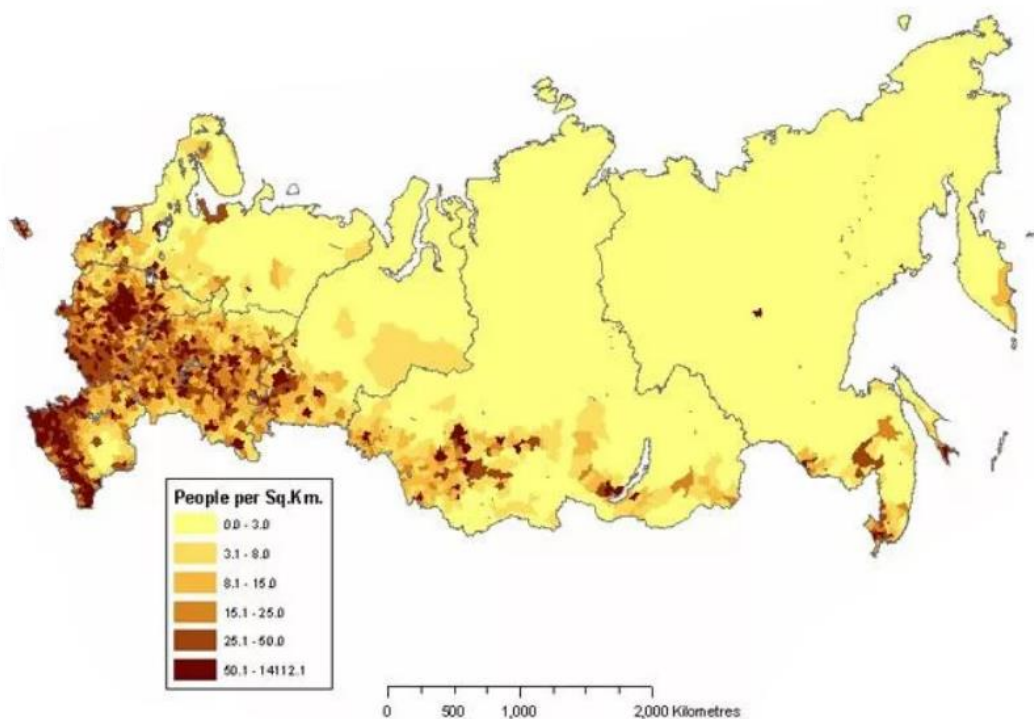
Fig. 6. Spatial development of Russia

In the European part, cities cover almost the entire space, and form agglomeration clusters, while in the rest of the country there is a specific spatial pattern of settlement – along with the transport arteries: railways, river and sea routes.

The majority of the Russian territory has not been inhabited by now. Since 1990, the number of Russian settlements has decreased by 23 thousand, the number of inhabitants has decreased in more than 800 cities (out of 1,128), and about 200 cities have lost more than a quarter of their population (The data, RBC). Migration of the population to large cities caused the degradation of small settlements. The number of cities with the population of fewer than 12 thous. people (one of the criteria for assigning the status of a city) grew from 157 to 246.

The loss as compared to 1989 was recorded in 67 regions of Russia (The data, RBC). The most disbanding cities are located in the central and northwestern parts of Russia: Tula (-22%), Leningrad (-21%), Ivanovo (-19%), Tver (-18%), Pskov (-16%) and other regions. The desolation of the rural territory, abandoned villages are quite common in the Non-Black Earth Region. Only 20% of its territory in the suburbs preserve areas with the population density of more than 10 people/ sq.km, and 41% of the territory has the population density of fewer than 5 people/sq.km (in 1959, there were 17% of such territories).

The attractiveness of agglomerative formations and their active growth are explained by the advantages of their creation, and, first of all, by tightening of the economic space around the "growth points" of the region, the effect of localization and concentration of enterprises and organizations that have high technologies within innovatively developed territories. However, innovative advantages are of a rather short-term nature and require systematic support. Moreover, agglomeration formation may eventually slow down the innovative development of some firms and districts. That is why theoretically there can be a situation when the total agglomeration effect is negative, but the geographic concentration continues to exist.

Due to this, the study of Kutsenko E.S. (2012) is interesting. According to its results, the positive impact of urbanization was found only in 45% of cases; both positive and negative significant impact – in 10%; and only negative – in 7%. Insignificant effects of urbanization were found in 37% of cases. It is substantiated by the completion of the intensive development of the urban agglomerations' network due to the fact that the phase of growth and the formation of innovative advantages have been completed. Thus, recently the agglomeration processes on the territory of developed countries and Russia have changed and have a qualitatively different character.

The studies carried out by the authors (Statistics Canada, n. d.; GOV.UK, n. d.; DESTATIS, n. d.; Insee, n. d.; Semantic Community, n. d.; Eurostat, n. d.; Federal State Statistics Service, n. d.) show that simple quantitative growth comes with a decrease in the efficiency of the agglomeration formation functioning, and as a result, the deterioration of conditions for sustainable development of entrepreneurship. Based on the results of surveying 20 agglomeration zones of Europe and Northern America, it has been revealed that the size of the agglomeration has a considerable impact on the change in the consolidated innovation index (Fig. 7).
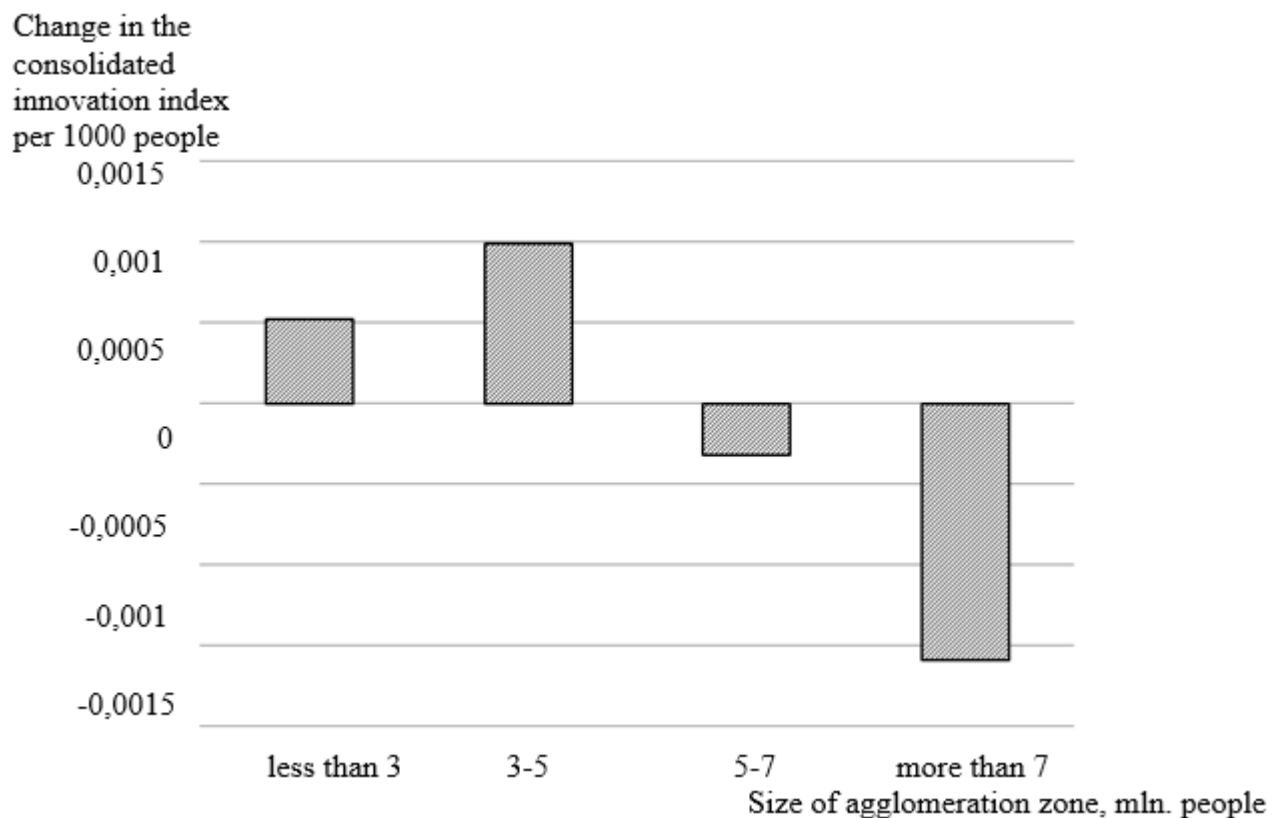

Fig. 7. Change in the consolidated innovation index depending on the size of the agglomeration zone in developed countries

In an agglomeration zone where the population is up to 3 mln. people, the increase in the population by 1 thous. people causes the growth of the consolidated innovation index by 0,00052. In the cities where the population is from 3 to 5 mln. people, a similar change in the population causes an increase in the consolidated innovation index by 0,00099. In larger cities, there is the opposite effect: the increase in the population by every thousand

people causes the reduction of the consolidated innovation index in the cities with the population of 5 to 7 mln. people by 0,00032, and in the cities with more than 7 mln. people - by 0.00074.

In developing countries that adhere to the industrial development path, the reserve of the efficiency of agglomeration zones is not exhausted so clearly. For example, based on the results of surveying 20 agglomeration zones in Russia, it has been revealed that the size of the agglomeration has a considerable impact on the change in the consolidated innovation index, but the curve is more gradual (Fig. 8).
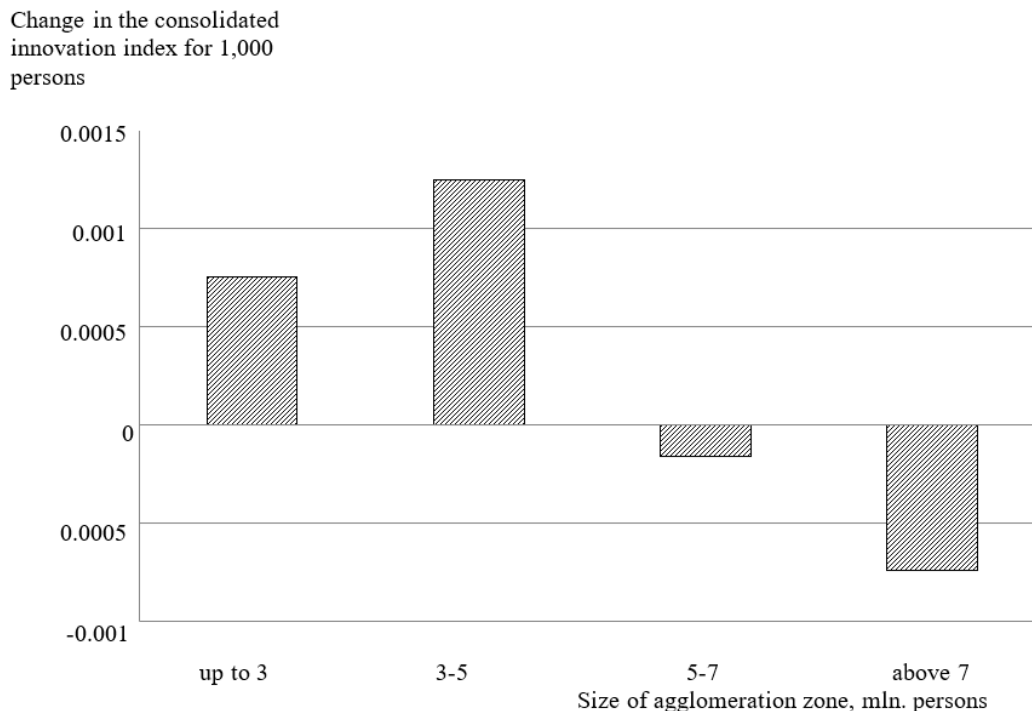

Fig. 8. Change in the consolidated innovation index depending on the size of the agglomeration zone in Russia

In an agglomeration zone where the population is up to 3 mln. people, the increase in the population by 1 thous. people causes the growth of the consolidated innovation index by 0.00075. In the cities where the population is from 3 to 5 mln. people, a similar change in the population causes an increase in the consolidated innovation index by 0.0125. In larger cities, there is the opposite effect: the increase in the population by every thousand people causes the reduction of the consolidated innovation index in the cities with the population of 5 to 7 mln. people by 0.00016, and in the cities with more than 7 mln. people - by 0.00074.

Further, the authors studied the possibilities of agglomeration transformations and their implications for the development of sustainable entrepreneurship for large cities in Europe and North America as potential areas of agglomeration growth, which, officially, they are not (Semantic Community, n. d.; Eurostat, n. d.). The dependence of the change in the volume of gross domestic product per capita on the number of inhabitants of these cities was investigated (Fig. 9).
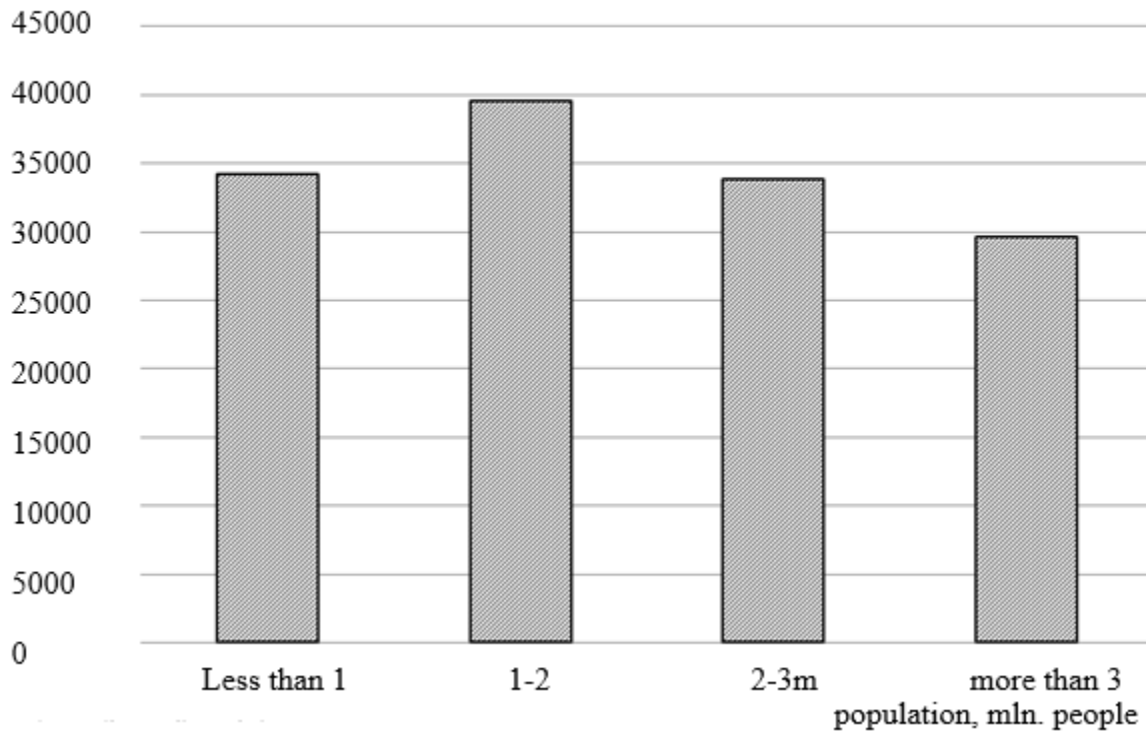
Change in the volume
of work, thous.$./person

Fig. 9. Change in the volume of work, depending on the number of city residents in developed countries.

It is determined that the increase in the number of inhabitants considerably defines the increase in the volume of the performed works. At the same time, its maximum value is achieved in the cities with the population of 1-2 mln. people – 39548 thous.$./person, and then, as the number of inhabitants in larger cities increases, the growth for every additional inhabitant decreases, and makes up 33822 thous.$./person in the cities with the population of 2-3 mln. people, and 29644 thous.$./person – in the cities with the population of more than 3 mln. people. Thus, cities with the population of 1-2 million people have the greatest potential for urban growth, which provides good conditions for the development of sustainable entrepreneurship.

Similarly, the authors investigated the possibilities of agglomeration transformations and their implications for the development of sustainable entrepreneurship for large cities of Russia as potentially possible agglomeration growth zones, which, officially, they are not (Federal State Statistics Service, n. d.). The dependence of the change in the volume of shipped goods of own production, self-performed works and provided services on the number of inhabitants of these cities was studied (Fig. 10).
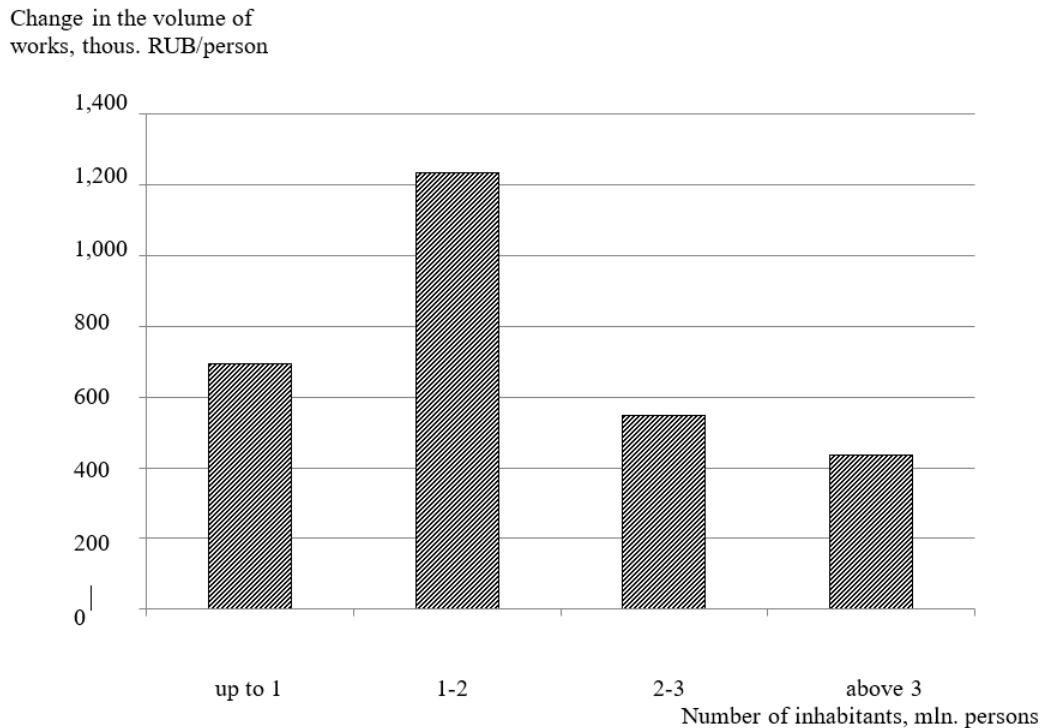
Fig. 10. Change in the volume of works depending on the number of the city inhabitants in Russia

It is determined that the increase in the number of inhabitants considerably defines the increase in the volume of the performed works. At the same time, its maximum value is achieved in the cities with the population of 1-2 mln. people – RUB 1,235.7 thous./person, and then, as the number of inhabitants in larger cities increases, the growth for every additional inhabitant decreases, and makes up RUB 547.5 thous./person in the cities with the population of 2-3 mln. people, and RUB 437.2 thous./person. – in the cities with the population of more than 3 mln. people. Thus, cities with the population of 1-2 million people have the greatest potential for urbanization providing good conditions for the development of sustainable entrepreneurship.

However, their opportunities are rather limited: the mass outflow of the population to large cities and low natural growth of the population have limited the prospects of the agglomeration growth. Recently the population has mainly increased due to migration flows. On the example of Russia, a migrant's contribution to the volume of work was studied depending on the number of inhabitants of the city. In Russia, the structure of migrants is as follows: the number of those who come "to work" from the CIS is approximately 3.8-3.9 mln. people, and about 170-180 thous. people are labor migrants from the far abroad (Florinskaya, 2017). However, migrants do not exceed their innovative potential because the level of education is quite low – 2 times lower than the average for the Russians - and fluctuates on the level of 14-17% as against 28% (on average in Russia). Fig. 11 shows the structure of foreign citizens' employment by occupational categories.
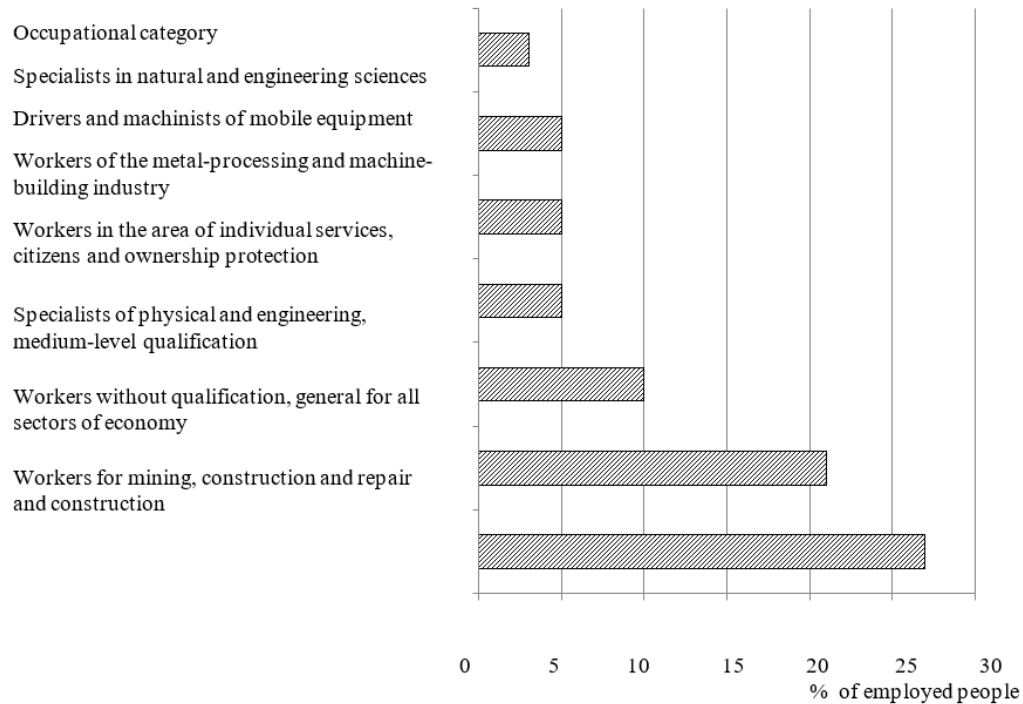
Fig. 11. Structure of foreign citizens' employment by occupational categories

Above 50% of migrants are employed as mining, construction and repair and construction workers, as well as in other sectors of the economy, and less than 5% are specialists in the area of natural and engineering sciences.
Due to this, the authors studied the contribution of migrants to the Russian production (Fig. 12 (Federal State Statistics Service, n. d.)).
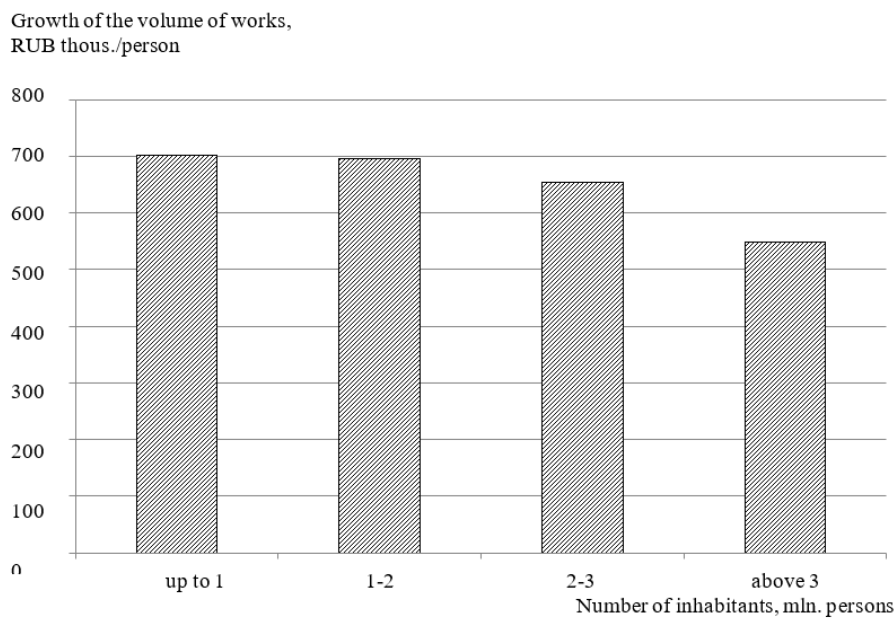
Fig. 12. The growth of the volume of works provided by 1 migrant depending on the number of the city inhabitants.

The performed analysis of the growth of the volume of work provided by 1 migrant, depending on the number of inhabitants of the city made it possible to define the decrease in the return on migrants' labor as the city grows from RUB 702 thous./person in the cities with the population of up to 1 mln. people up to RUB 549 thous.– in the cities with the population of more than 3 mln. people. In terms of the contribution of their labor to the creation of an innovative product, it is even lower. Partially this is due to the growth in the share of innovative products as the city grows, for example, in the regions with large cities the average volume of innovative products (Kiselitsa, & Shilova, 2016, Kiselitsa, Shilova, & Liman, 2017) is 5.1% of the total GRP, and in the regions where there are cities with less than 1 mln. people it is already 2.9%. However, to a greater extent, this is due to the low qualification of this type of labor resources. Thus, the current structure of migration flows introduces an additional imbalance in the formation of favorable conditions for the development of sustainable entrepreneurship.

In this regard, the modern strategy of European spatial development, aimed at the formation of a polycentric decentralized settlement system with the gradual transfer of functions from metropolitan cities to a network of dynamic regional centers while limiting the process of suburbanization, is the only right one. While developing countries stimulate agglomeration growth of territories, using the effect of agglomeration transformations to develop entrepreneurship, the developed countries have reached a different stage of development, in which the new spatial structure of settlement is the guarantee of sustainable development of entrepreneurship.

These issues are especially relevant for countries with uneven population density: Canada, the US, Russia, Australia, China, etc. In the "subject" approach, which is opposed to the national strategic approach, there are adequate management mechanisms in regional politics, characterized by the peculiarities of inclusion in the country's entrepreneurial turnover of not all the potential that each state entity really possesses, but the one that for certain reasons has developed to the present time. Such uneven development of the territories, coupled with an overabundance of the able-bodied population and the specificity of the existing migration flows, negatively affect the stability of business structures in the modern world. Reserves lie in changing the scheme of spatial settlement and involving in the active economic activity of underdeveloped territories, including hard-to-reach lands. Of particular interest in this regard are the vast territories of Canada and Australia, and in Russia - the deserted territories of the Urals, Siberia, the Far East and the North. Their role in the development of the whole world can not be overemphasized, first of all, due to the wealth of hydrocarbon raw materials and other resources, and also based on the advantages of geographical location and geopolitical role in the world.

Differentiation of the levels of social and economic development of the regions has a significant effect on sustainable entrepreneurship, so it is important to implement a policy of equalization. In this regard, we can distinguish three promising areas of spatial development of the territories, depending on the existing structure of settlement:
1. Formation of a polycentric decentralized settlement system for developed, densely populated countries, for example, in Europe.
2. Development of hard-to-reach territories: development of the Arctic and northern lands, as well as provincial immigration in Canada; the development of the Liverpool Plains and other lands in Australia, Western China, etc.
3. Development of territories in Russia. For example, the new strategy for the development of Siberia and Primorye suggests resuscitation of rural areas, programs are being developed to relocate labor resources from overpopulated areas (some regions of Central Russia, the Southern Federal District and the North Caucasus) to areas with a deficit. Similar processes are observed in other territories.

Such a spatial development of the territories will significantly alleviate differences in the levels of social and economic development of the regions and create conditions for the development of additional entrepreneurial structures in them.

Due to the fact that the strategy for developing sparsely populated areas can be effectively implemented on the basis of agglomeration processes, the role of non-urban agglomerations as interrelated groups of rural entities with similar socio-economic conditions and development prospects (land resources, production opportunities, etc.) significantly increases. The non-urban agglomerations will become an effective tool for ensuring sustainable development of agriculture not only in individual regions but also in whole states.

The studies by the authors of the potential opportunities for developing agglomeration formations made it possible to state that small cities (up to 1 mln. people) have much higher agglomeration potential than cities with the population of more than 2 mln. people (Fig. 9, 10). The growth in production in these countries is 34,252 thousand dollars per person in the developed countries versus 33,822 thousand dollars per person. in cities with more than 2 million people and 29644 thousand dollars per person in cities with the population of more than 3 million people. In Russia - about RUB 696 thous./person against RUB 547.5 thous./person in the cities with more than 2 mln. people, and RUB 437.2 thous./person in cities with more than 3 mln. people.

The authors studied the potential opportunities for the agglomeration development of small territorial entities (Federal State Statistics Service, n. d.). Due to the limited nature of the available information, the increase in the products' volume depending on the change in population was studied in relation to rather large settlements – cities with the population of up to 20 thous. People in Russia (Fig. 13).
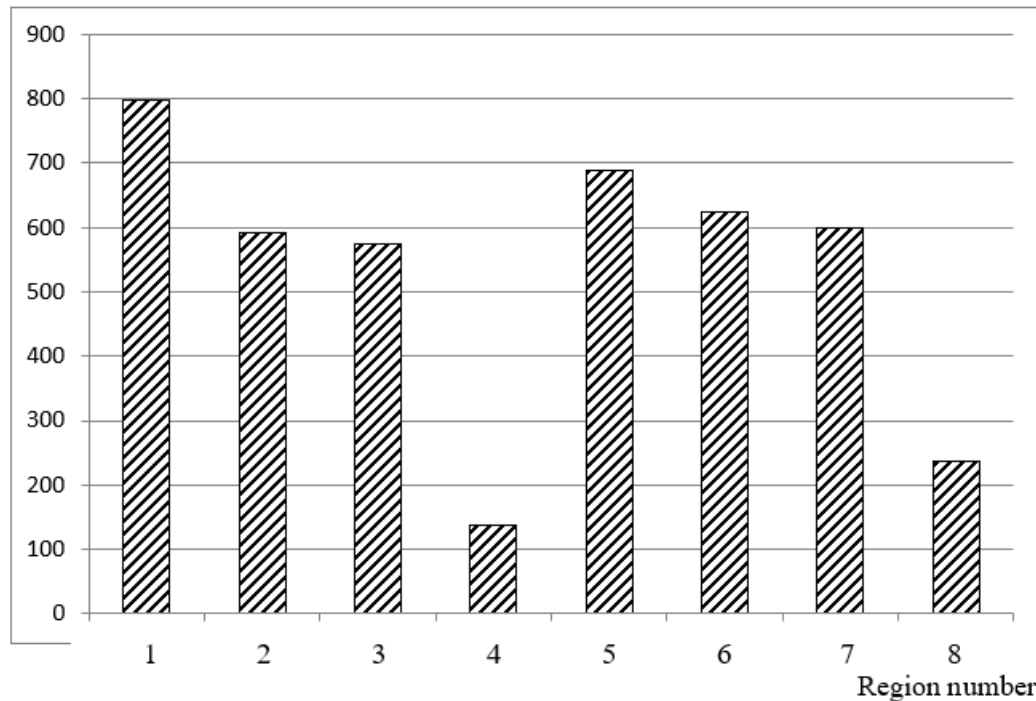
Fig. 13. The growth of the volume of works as calculated for 1 person in cities with the population of up to 20 thous. people.

The increase in the volume of works depending on the change in the number of people in various regions has a wide range: from the lowest level in the North-Caucasian Region (RUB 138.5 thous./person) to the highest one in the Far East (RUB 787.3 thous.). The average increase is RUB 531.2 thous./person, and in 6 regions it is higher than the same indicator for the cities with the population of more than 2 mln. people. It is reasonable to assume that the revealed regularity will be observed in settlements with a smaller number of people living in them. Agglomeration processes in rural areas have the same features as in cities: the spatial expansion of the construction causes contingency and "merger" into a single array of the built-up area of closely located settlements.

Due to this, the authors believe that the nonurban agglomeration can be an efficient form of organizing the territorial and economic system of rural settlements based on intensive interactions within it. As a result of the study conducted by the authors, the following specific features of nonurban agglomerations of the seizure zones have been revealed:
- The lower number of inhabitants of central nuclei and satellite zones,
- Lack of basic production and infrastructure,
- A small number of satellites of agglomerations, due to the weak population of territories,

• These agglomerations should be closely related to larger agglomeration urban and rural formations located in the access zone for marketing products and meeting the needs of the population: medical, educational, cultural, etc.
•

In developed countries, there are all prerequisites for forming two types of the rural agglomerations development: monocentric – within one settlement, and polycentric as a unified formation consisting of several interconnected settlements. The most efficient transition to the development of nonurban agglomerations means the unification of rural entities around one or more centers or urban settlements where it is reasonable to organize processing industries, repair and transport facilities, etc. They can include small villages or regional centers that are basic and form a social infrastructure for servicing the surrounding rural population. Along with this, they will make up the interrelated systems of municipal entities that are the basis for activating economic activity and reviving the disappeared rural settlements.

The authors believe that in the future nonurban agglomerations will be of great importance both within their region and in the country, as a whole. Their formation will allow obtaining the following results: reduction of the number of abandoned territories, increase in the agricultural land, reduction of costs for the formation of new infrastructure, decrease in the uneven distribution of the tax base, and narrowing of the income gap between territorial entities located at the periphery and in the center, etc. All this together will create favorable conditions for the existence of old and the development of new entrepreneurial structures and significantly increase their stability.

4. Discussion

The research carried out by the authors made it possible to prove empirically the expediency of ensuring sustainable entrepreneurship at the expense of Russia's spatial development of territories on the basis of agglomeration transformations, and primarily the formation of non-urban agglomerations. Such applied studies are not frequent enough in the world, although they are of great interest both in terms of developing methodological instruments and forming practical mechanisms.

It has been revealed that, as a rule, agglomeration processes are studied in relation to large territorial formations. However, the formation of agglomerations does not depend on the size of the settlement. Rural settlements, in which similar socio-economic patterns, tendencies and prospects for development, include land resources, agricultural production, resource provision, living conditions, customs, specialization and cooperation determine the growing role of rural agglomeration. Therefore, in the authors' opinion, it is necessary to study and develop all types of agglomeration processes, and, first of all, nonurban agglomerations.

The world practice proves the efficiency of interaction among several rural settlements. For example, the French experience in creating rural agglomerations is of high research and practical interest. Its value is related to the possibility of uniting resources, coordinating management, availability of a joint infrastructure for the efficient development of the territory, as well as achieving the synergy effect from uniting opportunities of all settlements (Volchkova, Podoprigora, & Ufimtseva, 2015).

The Russian studies of nonurban agglomerations are characterized by insufficiently developed issues of methodological aspects of their formation. Thus, P. Krugman (1999) developed a model of two-sector regions with a center and periphery space structure introduced rather generally. The works of M.V. Shemyakina M.A are devoted to studying rural agglomerations (2011). The authors made deep studies and suggested methodological recommendations for studying the range of rural settlements within geographic studies. However, when structuring rural agglomerations, it is necessary to study the existing structure of production branches, levels of

specialization and cooperation, and the state of the processing industry, the availability of enterprises or bases that make it possible to unite several settlements, as well as other factors and conditions.

In the conditions of the global economy, the spatial development of the regions is supposed to be considered as one of the most effective instruments to strengthen Russia's economic security to enhance the sustainability of entrepreneurship. According to the authors, the priority of the countries' economic policy should be the agglomeration transformation of small towns and rural settlements, which will allow creating self-sufficient territories on the basis of network structures in the agro-economic space. The new structure of the world economic space will be possible, first of all, by realizing the positive opportunities of agglomeration development of small cities and rural settlements, which will allow to form a multifunctional structure of the economy of the countries and ensure sustainable development of business structures.

Conclusion

The obtained results have allowed the authors to form areas for the future studies.

1. It is necessary to study and form a new concept of organizing the spatial development and territorial settlement of the country – "Large agglomerations – nonurban agglomerations". The modern conditions predetermine the close interconnection of economic activity of certain settlements and regions, and the activity of other similar territorial formations and higher-level entities. Due to this, it seems reasonable to consider rural settlements as some subsystems that are integrated into larger territorial formations and are a serious economic potential for any country, as a whole.

2. The development of applied economic and mathematical models for creating measures to use the economic potential of rural settlements with similar resources, conditions and development prospects based on allocating geographic and economic subsystems with identical structural elements and connections among them.

3. Methodological aspects of forming and developing rural agglomerations as a form of organizing settlements in the suburbs, around ports, railway stations, along river routes and roads, taking into account the availability of agricultural and other types of resources, which will ensure their independent efficient economic development, and as a result, will create sufficient conditions for sustainable entrepreneurship. Due to this, special interdisciplinary studies in this area are rational.

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