Economic and social activities: basis for a model of development of rural border areas

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Abstract. In this paper we revealed the problems of development of border rural areas, causing their low economic and social attractiveness. We determined that the development of border rural areas involves the formation of mechanisms for the growth of economic and social activity. The methodological basis of the study is the concept of development of border rural settlements as the most important parts of the economic space. This development is based on the integrated use of economic, social and environmental resources while launching innovative and diversification projects as part of the regional development strategy. We showed the need to form a network of growth centres throughout the region, just as competing for economic, social and environmental resources, so complementing each other in terms of integrated use of resources. The global mission of border rural areas in the innovation economy as well as possible incentives to increase the socio-economic attractiveness of rural areas have been identified. The need for state support for cross-border rural areas was economically justified by identifying opportunity costs. A policy of “smart” protectionism and its effectiveness for the development of border rural areas was described. We proposed a model and main mechanisms for the development of economic, social and environmental activity in the border rural areas. We also revealed the specifics of development of border rural areas of the Republic of Buryatia where world heritage sites are located.

1. Introduction

Rural areas serve as the backbone of the economic space of any state in the world. The emergence of large cities with a high standard of living comfort and great economic and social attractiveness for the population and businesses immediately created problems for rural development. Traditionally, these problems are attributed to the following areas - communication, energy and communal infrastructure; development of social infrastructure; low economic attractiveness of agricultural business, which is relatively low-profit for entrepreneurs and employees (in comparison with industrial, commercial, financial and other types of business). Equally important is the problem of human development in rural areas, which is exacerbated by their cross-border location, as well as a number of other interrelated problems.
In recent years, a number of problems have increased in the global and regional economies, that have affected the basis of the economic development paradigm, among which are:

- environmental problems, particularly geoclimatic ones, directly affecting agriculture: greenhouse gas emissions from livestock production, unsustainable use and depletion of land resources, etc.;
- demographic and related migration problems affecting rural areas as follows: depopulation, reduced economic activity, a paternalistic and, to some extent, parasitic mindset of the population, leading to excessive urbanisation and other social problems;
- differentiation in the level of development between rural and urban areas, aggravated by the increasing pace of innovative changes, introduction of new technologies, artificial intelligence, digitalisation of economy, etc.

The high volatility of markets, the ongoing crises caused not only by economic, but also by social, political, environmental and epidemiological factors, call for changing the development model in general, as well as for specific activities and territories. Obviously, the problem of improving the rural development model is now becoming extremely serious.

Thus, the purpose of this study is to improve the development model of border rural areas by strengthening economic and social activities, making the rural areas more attractive to people and businesses.

2. A Literature review

The spatial development – the formation of economic activities within regions and states – has for a long time been one of the most studied economic problems.

Driving forces of spatial development were studied by classical economic thinkers – J Thünen, A Weber and other scientists. Their studies included concepts of space defined as a field of forces, central place theory and potential model of spatial interaction. P Pottier considers the development axes and the transport infrastructure as that which forms single economic space, J Lasuen thinks that economic development requires a diversified business structure and spatial diffusion of innovations. The Soviet scientists N Baransky and N Kolosovsky considered the distribution of economic resources and the formation of territorial-industrial complexes as the basis for the structure of economic space. Meanwhile, the potential is formed as part of the collective economic activity of the population, businesses and authorities.

Modern Russian economists A Granberg [1], P Minakir [2] and others use an integrated approach, combining the both socio-economic and spatial models of development of regions. It can be noted that the “macroeconomic” approach to development is prevalent in contemporary Russia, and one of its disadvantages is differentiating the development of territories, resulting in a delayed development of some areas.

The key functions of rural areas traditionally include agricultural production and food security. The food security of a region has been studied in detail by L I Abalkin [3], V S Balabanov [4] and others. There are currently two main approaches to food security:

- the production approach, which means the independence of states and regions in the production of basic foodstuffs. This approach dominates in Russian studies, and also includes the import substitution strategy;
- the consumption approach, understood as “physical, economic and social accessibility of food” [5], predominant abroad, and used in the policy documents of international organizations.
3. Materials and methods
The methodological basis of this study - the concept of rural settlement development as the most important part of the economic space (including border areas). It is based on the integrated use of economic, social and environmental resources when launching innovation and diversification projects as part of the regional development strategy. In this article, within the framework of the proposed concept, we consider the development model of border rural areas by strengthening economic and social activities, making the rural areas more attractive to people and businesses.

4. Results

4.1. The global mission of rural areas in the innovation economy
In our view, the global mission of rural areas in a modern economy is as follows:

*Rural area - an agricultural resource base.* The mission of countryside as an agricultural production area undoubtedly remains important. On the one hand, some types of production such as dairy farming, beef cattle farming, poultry and egg production, greenhouse vegetable production have long used industrial farming methods and, in principle, can be located in urban areas. On the other hand, the production of grain, fodder, potatoes and most other types of vegetables and fruits requires agricultural land. In terms of agricultural land area, the leaders are China (5.277 million km²), Russia (2.177 million km²) and Kazakhstan (2.169 million km²) [6]. 13% of Russia’s lands are agricultural. This allows Russia to fully provide itself with the necessary food resources and, as in the case of grain, to act as an importer of food.

*Rural area - the cradle of green civilization.* The green growth strategy, combining socio-economic and environmental development, is currently the main concept of world development. In Russia this concept is included in the development strategies, in Kazakhstan - in the “Green Bridge” initiative, a bridge between the Asia-Pacific and European regions [2]. The green economy involves the use of renewable energy sources, application of the best technologies, recycling, resource conservation, as well as other mechanisms. It is the rural areas, including those with a frontier position, where people are closer to nature as their habitat and economic environment, that are the world's model territories for the formation of a green civilisation.

*Rural area - is a source of cohesion of the economic space based on diversified models of the municipal economy.* Rural areas, together with human activities on them, ensure the full use of a state's economic space. In most regions, the municipalities belonging to rural as well as border areas include not only agricultural land, but also forestry and other land. Thus, rural border areas can have different economic specialisation and ideally - a multi-sectoral economic model.

4.2. Possible incentives to increase the attractiveness of rural areas
The decreasing attractiveness of rural border areas for the population is a serious problem. Two groups can be distinguished among its causes:

- **Economic reasons** include the low quality of labour, living environment and income of the population, the decline in economic activity of business, the lack of jobs.
- **Social reasons** include the inability to realize human (labour, intellectual and social) potential, social degradation in the context of depopulation. In this study we have shown that the implementation of certain programmes and projects can serve as compensation for the inconvenience of living in rural border areas. This can help increase the social and economic attractiveness of the rural areas and the return of specialists.
4.3. The economic rationale behind the need for state support for rural development

Rural development makes it possible to solve the problems of food security, economic cohesion of a territory, social and environmental development. The opportunity cost model makes it possible to estimate the costs in the absence of state support for rural areas.

The authors identify two groups of such costs:

- **Economic and ecological costs.** This group includes the opportunity costs of unused land resources, the costs of restoring the fertility of farmland, the costs of mitigation of natural disasters on abandoned land (fires, etc.), and others.
- **Structural costs.** These are the costs of relocation, retraining for urbanized people to provide them with jobs, costs of development of transport, additional communal and social infrastructure, costs of housing construction in growing cities and others.

These costs are spread across different levels of government, businesses and communities, but collectively they are very high. This requires an effective policy of state support for the development of rural border areas.

| Rural infrastructure development | Development of economic integration | Development of the business environment in rural settlements |
|----------------------------------|------------------------------------|----------------------------------------------------------|
| - infrastructure development programmes; | - promoting vertical integration, including through the formation of trade and production companies; | - innovative development of agricultural production; |
| - programmes for the use of economic, social and environmental resources; | - encouraging horizontal integration within the framework of production and consumer cooperation; | - manufacturing of organic products; |
| - programmes for the formation of a regional network of consolidated cluster development; | - encouraging the development of branches of industrial companies in the region; | - development of agrotourism; |
| - programmes for stimulating remigration; | - encouraging the development of outsourcing to entrepreneurs in rural settlements. | - development of sports tourism, including national tourism; |
| - formation of a register of territorial brands, etc. | | - development of historical and archaeological tourism; |

4.4. A model for the development of economic, social and environmental activities in rural areas

The model for the development of rural areas is presented in Figure 1. It implies the launching of innovation and diversification projects within the framework of the regional rural development strategy. It is based on the formation of a network of growth centres throughout a region.

4.5. Ways of implementing a model for the development of economic activity in rural areas

The main mechanisms for the development of economic activity in rural areas of the republic are presented in Table 1.

The implementation of these mechanisms will contribute to the growth of economic and social activity; and from the perspective of public and municipal administration – to the reduction of excessive disparities in fiscal capacity and the reduction of subsidies to municipalities.
5. Discussion
In this section we consider the implementation of a model for the development of economic, social and environmental activities in rural border areas. The Republic of Buryatia is located on the periphery of the Far Eastern Federal District of Russia. The average population density in the Republic of Buryatia is 2.8 people per square kilometre, with a rural population density of 1.15 people per square kilometre. The global urbanisation trend has taken on a threatening character for Buryatia. Trends in the region's spatial development show that the population is “washed out” from the rural border areas.

The main objective of the economic development of rural border areas is to ensure a steady increase in the production and quality of agricultural products, making them more affordable and competitive on domestic and foreign markets; increasing the prestige of the rural producer and creating new jobs in rural areas [2].

![Diagram of the model for the development of economic, social and environmental activities in rural border areas](image_url)

**Figure 1.** A model for the development of economic, social and environmental activities in rural border areas.

Achieving this goal requires the formation of green economy and a new mindset in society, based on an awareness of the importance of preserving and improving the natural environment, and ensuring high standards of ecological well-being in the Baikal region.
Taking into account the geo-economic position of the republic, this goal can be achieved, first of all, by using and increasing the natural and human potential with the maximum use of the ecological advantages of its territory.

The development of economic activity in the rural areas of the republic implies the use of not only the main type of activity peculiar to the areas with favourable conditions for food production. It is also the use of other potentials, in particular - the development of primary sector, especially mining industry; the development of forestry and wood processing industries; the development of transport and infrastructure services and other activities.

The specific nature of the region predetermines special attention to the tourism business. The following steps are considered - giving national status to the Baikal tourist trail (with its further integration into an international tourist trail, through cross-border cooperation with Mongolia), formation of a register of regional tourist trails (as components of the “My Small Motherland” project using traditional ecological, historical and religious areas of interest), and formation of new tourist routes and zones.

6. Conclusion
The proposed approach to the development of rural areas, based on the stimulation of economic, social and environmental activity, contributes to making rural areas more attractive to the population and businesses. The implementation of this approach is only possible with the joint efforts of the state, local authorities, population and businesses, and their willingness to reconcile their interests and development goals.

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