

# Chapter 35

## Scenarios for Regional Development in the Altai Krai and Long-Term Trends



A. M. Nikulin, O. Ya. Vinogradskaya, A. M. Sergienko, A. A. Kurakin,  
D. Dirin, S. Lentz and A. Wust

**Abstract** This study detects and describes a specific set of possible alternatives to local rural development, as exemplified in Altai Krai's Kulunda steppe that can be implemented in a number of so-called analytical scenarios that the authors substantiate. The first scenario, which involves the natural deterioration of the settlement milieu of Kulunda steppe communities, has already begun and, in the authors' opinion, is being aided by the state's inarticulate agrarian policy and the nature of the agricultural market. However, under certain conditions, the authors concede that it might be displaced by a second scenario, which leads to a transformation of Altai Krai's Kulunda steppe into an area with high-tech farming and processing enclaves that dominate the backward rural district, which is distinguished by unsustainable, inert and intermittent development that allows for only fragmentary modernization.

---

A. M. Nikulin (✉) · A. A. Kurakin  
The Russian Presidential Academy of National Economy and Public Administration,  
Centre for Agrarian Studies, Vernadskogo Prospect, 82, 119571 Moscow, Russian Federation  
e-mail: [harmina@yandex.ru](mailto:harmina@yandex.ru)

A. A. Kurakin  
National Research University Higher School of Economics, Myasnitskaya Street 20, 101000  
Moscow, Russian Federation

O. Ya. Vinogradskaya  
Institute of Agrarian Problems - Russian Academy of Sciences (IAGPRAN), Moskovskaya Street  
94, 410012 Saratov, Russian Federation

Rural Research Department, The Russian Presidential Academy of National Economy and Public  
Administration, Vernadskogo Prospect, 82, 119571 Moscow, Russian Federation

A. M. Sergienko  
Institute of Economics and the Organisation of Industrial Production, Siberian Branch of Russian  
Academy of Sciences, Prospect Academic Lawrentieva 17, 630090 Novosibirsk, Russian  
Federation

D. Dirin  
Faculty of Geography, Altai State University, Lenin Prospect, 61, 656049 Barnaul, Russian  
Federation

S. Lentz · A. Wust  
Leibniz Institute for Regional Geography (IfL), Schongauerstraße 9,  
04328 Leipzig, Germany

The authors believe that the third scenario—the overall sustainable socio-economic development of this area based on a policy of ‘manageable contraction’ and ‘diversified development’ would be the most desirable.

**Keywords** Agricultural market · Agricultural policy · Economic diversification · High-tech farming · Modernization · Rural development · Socio-economic development

### 35.1 Scenarios for Regional Development in the Altai Krai

The territories of the Kulunda steppe in the Altai Krai are defined not only by their unique natural climatic conditions that enable a large range of agrarian products, but also by the wealth of their social capital, accumulated from various migration waves that have formed the actual settlement since the eighteenth century. Thus, this area is currently inhabited by the descendants of migrant peasants, who moved here from the Central European part of former Russia after the Emancipation Reform of 1861 and the Stolypin agrarian reform of 1906–1910. It is also the home of migrants, who came to this region following the experiments in intensive virgin land farming conducted by the Soviet government. One can expect such a socio-economic mixture having an effect on local or regional attitudes, as the communities repeatedly had to cope with the introduction of new regimes of rural production, technologies and national as well as societal frameworks. As research has shown, the population as a whole is positively preset about technical innovation and acquisition of new skills. There is no noticeable distance-dependent gradient of innovation from the centre Barnaul to the geographical margins of the region. Even in regions remote from the district centre, sometimes up to 500 km away, the locals are active Internet users, enjoy the latest technical developments and make use of state-of-the-art technologies in their economic activity.

Given the wealth of both natural and socio-economic potential, the future development of rural territories of the Kulunda steppe may take different directions that are not always obvious. Some trends in this development have been presented in previous chapters. The basic findings of the interdisciplinary research are

- a long-term trend to degrade the potential of the natural environment, especially soils, through inadequate technologies of agricultural production;
- a position of the regional agrarian production system which is still coined by the struggle against the consequences of undocking from the national economic system and at the same time increasing dependencies in national interrelations;
- migration flows of especially young people, who leave the rural areas for obtaining professional of higher education but do not return, even if they had planned to do so, due to a lack of perspectives for adequate professional opportunities and the low standards of local infrastructures;

- the long-term trend to reduce the number of employees in agriculture due to the pressure to increase productivity and further development of technology.

This sub-chapter translates and extrapolates these framing conditions into three scenarios of regional development, taking into consideration possibly discouraging as well as encouraging configurations, in order to inspire experts as well as a broader public to discuss on a desirable future of their region.

## 35.2 Scenario 1: Uncontrolled Contraction of the Settlement Milieu in Rural Communities

Socio-economic research carried out in the ‘Kulunda’ project showed that a significant number of respondents living in the territory of the Kulunda steppe believe that many of the small- and medium-sized rural communities in this area have no future. They express both concern and a gloomy conviction in the lack of prospects for such communities. They back such perception with examples of Kulunda population dwindling, if not disappearing altogether (‘small villages here will die out’, ‘villages have no future’ and ‘you open a newspaper these days and all you see is people selling their houses’).

R.: Mikhailovka will soon be a village of pensioners. It’s all very sad [...] Our People are, after all, our wealth. Who would stay in the village with neither a school, nor a kindergarten? No-one, that’s who! The village is the capillaries that feed all of Russia. (Altai Krai, Mikhailovsky district, village of Mikhailovskoe, local resident, August, 2013)

The villagers’ pessimistic outlook ranges from extremely to moderately discouraging. Their perceptions of the problem contain more or less severely the following elements: the regional emigration of young people because of a lack of adequate labour, the crumbling of infrastructures (mainly education and culture) and the breakdown of what one might call local communities.

It should be noted that local residents according to their perception of the actual processes consider an unabated contraction of the settlement milieu, quite likely to occur. Furthermore, they see not only people leaving the area and whole villages disappearing, but that something worse will happen: the ‘capillaries that feed’ other regions will decompose. Here, in our understanding, respondents refer to what can be described as ‘milieu’: a medium, which represents statement for the fundamental functioning of a society and the key processes currently unfolding in these regions.

The specific concept of the milieu, we apply here, was developed by the historian, philosopher and one of the founders of the French structuralism school, Michel Foucault, in the late 1970s. Milieu, then, is the medium of action and the element in which action circulates. It is, therefore, the problem of circulation and causality that is at stake (Foucault 2007, 2021).

In other words, any kind of social environment is not an independent element of a system. It is the medium, which ensures a specific way of ‘circulation’ of cause-and-effect links focused through it. According to Foucault, the milieu becomes a field

of intervention in which the only actor with any influence is the population and not the totality of any legal subjects or the many individuals subservient to a particular discipline. By ‘population’, he means a multiplicity of individuals who fundamentally and essentially only exist biologically bound to the materiality within which they live. ‘I mean a multiplicity of individuals who fundamentally and essentially only exist biologically bound to the materiality within which they live’ (Foucault 2007, p. 21). Therefore, according to Foucault, the only purpose of this milieu is the unification of a whole range of individually caused events, population groups and surrounding quasi-natural phenomena.

A sequential comparison of maps from Soviet times, showing administrative and economic classification and sizes of settlements and infrastructural facilities (e.g. irrigation systems), with today’s situation, as shown in satellite images (cf. Chaps. 1 and 2), gives insight to the spatial consequences of such complex processes like economic and social ‘shrinking’. Many indicators stand for the startling degradation and deterioration of the rural Kulunda landscape: the increasingly sparse and fragmentary nature of the forest belts neglected and partly ruined of irrigation systems and especially the substantial reduction in the number of small rural communities. Respondents from Tabunsky and Mikhailovsky regions, for example, have predicted the final disappearance of their settlements in the next 15 years or so.

R.: We’re left with one bus to the regional centre per day, and the inter-district bus commute covers 23 populated areas, apart from the Naumovka village. We called for proposals from passenger carriers but received none because the route is unprofitable. (Altai Krai, Uglovsky district, village of XX, chairman of the committee for the economy and property relations of the district administration, September, 2015)

Most respondents assume that the rural settlement milieu in the Kulunda steppe will not disappear but the situation in the rural locality will deteriorate through the unpredictable nature of the socio-economic environment. Many farmers and municipal officials among our respondents emphasized that they neither see a coherent agricultural policy from the government nor predictable signs for development from the market. In these conditions, they stressed, the drift to other regions and cities will continue, mostly by the active and able-bodied rural population from Kulunda. This conforms to the findings from studies on the development of income in Kulunda. In the ranking for average wages, the area has the lowest position. Even taking into account the influence of the social policy, the redistributive processes in the socio-economic sphere, new chances of the economy developing in the agrarian districts linked to the policy of import substitution and the stimulating effect of innovations, planning a living is at risk for many young people, especially families who want to stay in the region.

As a result, Kulunda will shrink in an unpredictable and chaotic manner in terms of both the population and agricultural output.

R.: The population works on their own household plots. They keep cattle, milk cows, sell milk and the young animals are butchered for beef. There are many pensioners, and even those who are not can ask a much simpler question: how do they live? Some of the young people go north to work in rotations [i.e. long term shifts in oil and gas industries]. We have

those. And the rest? (Altai Krai, Mikhailovsky district, village of Nikolaevka, assistant head of a farming business, September, 2015)

R.: Many young people, of course, leave. I don't see any recent school-leavers working in agriculture. Among those of the earlier years, there are some youngsters aged 30–35. They are the ones who could not continue their education after leaving school for whatever reason, and so stayed on here. But they don't have any prospects here [...] Three years ago they even closed the Altai State University campus here in Mikhailovka [...] (Altai Krai, Mikhailovsky district, village of Nikolaevka, local resident, September, 2015)

What respondents describe here is the central position of migration processes for regional development. The decision of young people to leave the region is crucial insofar as they are the only ones who have emotional roots and a feeling of 'home' connected with the Kulunda steppe.

There is, of course, a historical perspective on processes of societal and economic transformation, which found this scenario as a kind of historical counter-development to the intensive in-migration of large numbers of people and enterprises into the Kulunda steppe in the late 1960s. While the state-run economy could afford to fund such experiments society and politics today, consider the 'shrinking' of the region a quasi-natural process. It is the consequence of the radical system change with the disintegration of agrarian production units in the region and the disconnection of the region from the national production system. Migration then is the result among the population, especially if among young people a discourse becomes self-evident and dominant, that for them there will be no alternative to emigration. There is no halt to this decline of the cultural and social landscape, which will experience very harsh deterioration for the next decades until the system will have reached a new low-level equilibrium of production, infrastructure and population density.

### **35.3 Scenario 2: Transforming the Rural Locality Through Economic Development**

Scenario 2 points out that the development of scenario 1 might unfold less dramatically if regional policy and rural society succeed in creating grass-root and small-scale economy in the non-agrarian or in the agro-oriented sector. Respondents, including representatives of the district and municipal authorities, business and ordinary residents, forecast a low-key and slow development of rural territories in the Kulunda steppe in the near future. To this goal, a general idea is to mitigate and stop decay with the help of a structural transformation, mainly diversification, starting with small-scale business, which is based on local and trans-local demand for goods and services. One origin for such a vision is the socio-economic development strategy of the Altai Krai as conceptualized in the regional Action Plan for 2025. Some fundamental impulses for a sustained turnaround should stem from socially oriented non-commercial organizations (hereinafter SONCO). They are considered equipped with 'significant potential [...] for the active use of the resources of civil society in solving the problems of the Altai Krai community' (cf. Action Plan 2015, p. 61).

Such actions are intended to ‘improve the institutional and infrastructural conditions’ and the milieu for the development of the SONCO sector in order to increase the momentum of the socio-economic development of the Altai Krai’ (ibidem: 62), which then should foster further enhancements for conventional small- and medium-scale business. Such further development is defined by many federal, regional and local economic initiatives intended to modernize agrarian manufacturing and create new employment possibilities. As a part of the measures to create conditions for stable economic growth, the Strategy for socio-economic development of the Altai Krai by 2025 envisions the share of small business production increasing. Its contribution to the general volume of gross regional product should grow from 17.5% (2014) to 20% in 2017, and up to 30% in 2025 (see: Action plan 2015, p. 70).

Respondents sometimes doubted the efficiency of such, especially supra-regional programmes, memorizing that, with the launch of national projects, e.g. they did have to become involved in dairy farming or support farmers new to the business and private household plots, or create their own personal business initiatives such as new farming enterprises. However, most of these undertakings, in the opinion of the respondents, did not have the desired effect, as earmarked funds were often wasted and local changes and reforms were not completed. For instance, in national agricultural projects programmes, substantial resources were allocated to create large livestock complexes both in the Altai Krai and the Kulunda steppe. To this day, many of these complexes have not delivered the expected results and some have gone out of business. Farming enterprises and household farming plots, with one or two exceptions, have not delivered steady results either, remaining at their previous level or even scaling down.

Part of this low-key development could be the touristic sector (see box Dirin et al.: Opportunities for Economic Diversification...). How high hoping vision may be: the transport and touristic infrastructure within the region is weak and there is no experience in regional competition with a traditional touristic region like the neighbouring Altai Mountains. The problem of possibly contradicting touristic use (touristic protection vs. touristic exploitation of natural resources) has to be taken into account.

Other respondents attributed unstable development not to systematic but to fragmentary modernization of rural Kulunda. Their observations are that only very large and successful agrarian enterprises, which are few and far between in Kulunda, can afford to buy expensive hardware and state-of-the-art equipment. This trend continuing they, despite the generally depressing background, foresee a scenario of fragmentary modernization. Spatially, they materialize in island-like territories, where hi-tech agrarian and processing industries emerge.

In other words, the decline of public infrastructure and the constantly increasing productivity of highly professional farming are two reactions on either side of the same coin in this process. However, it is not given, that economic progress will lead to a quantitatively increasing demand for labour, with a remarkably positive impact onto the settlement system. It is very likely that the demand for other, new and higher qualified workforce in agriculture will rise. As some of the necessary structural precondition for further automatization in farming is very good in the

Kulunda area, for the future, one can imagine a very sparsely populated agro-steppe landscape to develop, with huge high-tech farms that get along with a minimum of employees.

Examples from the regional development paradigm of ‘growth poles’ show that enterprises, which themselves have risen under the paradigm of constant rationalization and automatization are not likely to create regional overspill effects in terms of a constant demand for the further human workforce. Thus, the effects of such an evolutionary path would not mitigate the existing type of settlement system and its infrastructure. The potential for a positive impact on the existing cultural and economic landscape is low. This type of regional economic specialization would rather accelerate the decay of the actual settlement system and as such cannot be considered ‘sustainable’ from the social perspective.

### **Box Opportunities for Economic Diversification: Recreation and Tourism**

*Dirin D.A., Krupochkin E. P., Rygalov E. V.*

Tourism and recreation represent one opportunity for economic diversification and improvement of public social services. These sectors are characterized by rapid capital turnover and a significant multiplier effect. Although tourism and recreation are not a traditional specialization for the Kulunda steppe, this area has some potential for its development in the region.

1. ***Significant and Diverse Tourism and Recreation Resources.*** The primary potential for the development of the tourism and recreation sector lies in natural, cultural and historical features and conditions that define interest in visiting the area for travel or recreation. The resource potential for the development of tourism and recreation in the Kulunda steppe is seen in several aspects.
  - The climate is characterized by Siberia’s highest solar radiation and a high number of sunny days per year. This provides good opportunities for climate therapy.
  - The area has several hundred large lakes, which are ideal for a beach vacation and the development of water sports and activities. It has both fresh and salt water bodies, many of which have reserves of therapeutic muds. Salt water and salt also have a therapeutic effect.
  - Some areas have preserved unique natural landscapes, which can be the basis for the development of eco- and science tourism. They include relic pine forests and wetlands that are part of the global routes of migratory birds. The rich bio resources of this area define its high potential for the development of hunting and fishing tourism.
  - The area’s ethno-cultural areas and specific cultural ranges of Russian, German, Ukrainian and Kazakh populations are the basis for cultural, educational and ethnographic tourism.

2. ***An advantageous economic and geographic position and infrastructure development.*** Kulunda's geographic location and existing transport infrastructure can serve as a base for the development of tourism and recreation. There are rail and air connections with the densely populated districts of Altai Krai, Novosibirsk Region and East Kazakhstan. Within a 400-km radius of the centre of Kulunda steppe are about 4.5 million people and the cities of Slavgorod, Yarovoye, Rubtsovsk, Kamen-na-Obi, Barnaul, Novoaltaisk, Novosibirsk, Iskitim, Berdsk, Pavlodar, Semei, Ust-Kamenogorsk and others.
3. ***Positive social milieu.*** Kulunda's social milieu, with its political stability, low crime rate and tolerance of outsiders, promotes the development of tourism. Common attitude towards the development of tourism and the readiness to work in this business is very positive among the inhabitants of villages in the Kulunda steppe.

In an evaluation of Kulunda steppes touristic potential, eight potential clusters with three major specializations could be identified (Fig. 35.1).

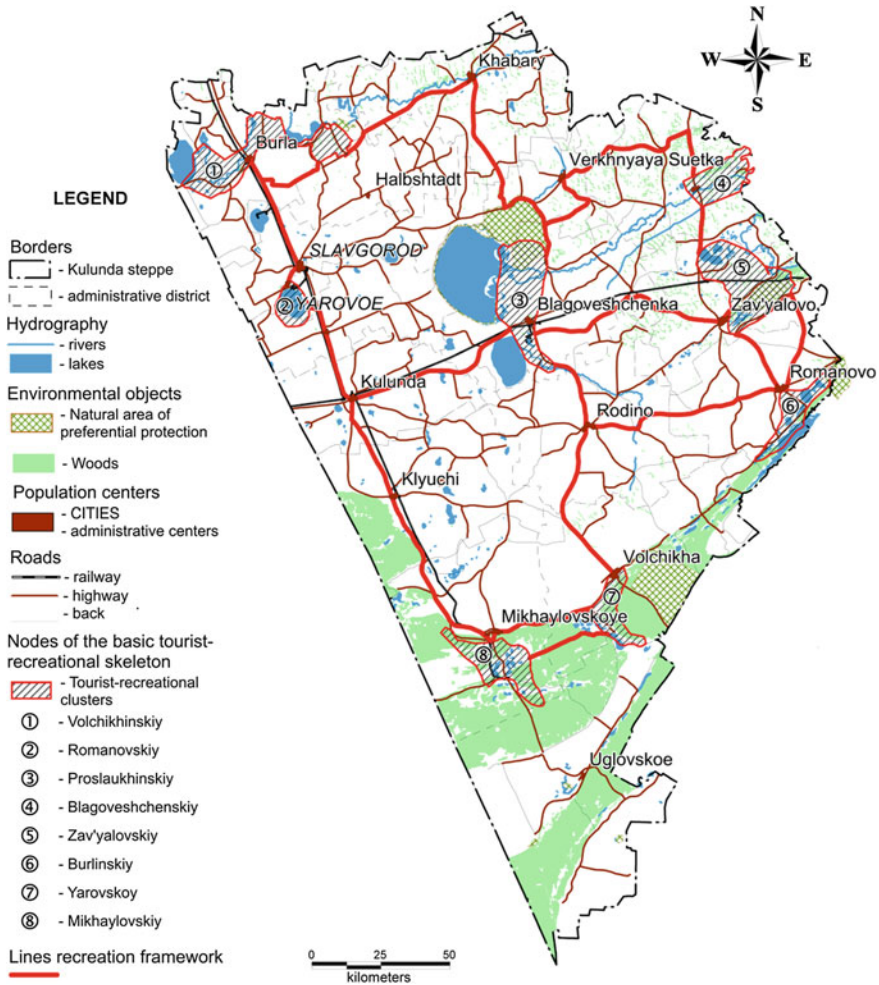
### 35.4 Scenario 3: Sustainable Socio-Economic Development of Territories

Among the wide spectrum of answers to our question about the future of the Kulunda area, and among the opinions expressed freely in group discussions or dialogues, a third evolutionary line can be identified. Remarkably, experts from the Altai Krai's administration as well as local experts, officers as well as entrepreneurs, and inhabitants of the villages formulate visions, which complement each other about the management of the current decline and allow for a diversified development of the region.

R.: We are currently adopting programmes for the sustainable development of rural territories. Certain units are defined within it, for example the social sphere, the communal sphere, and cultural sphere in some extent. These programmes must be implemented in the village. But these spheres will not be needed if the rural locality is depopulated, and that's why first and foremost measures must be taken to improve employment in the village. If there is no work, then there won't be anyone to use these systems, including communal amenities, healthcare facilities, and schools. Employment is one of the most urgent problems in the district. (Altai Krai, Uglovsky district, village of XX, chairman of the committee for the economy and property relations of the district administration, September, 2015)

R.: We are implementing programmes for sustainable social development of the village and the sustainable development of rural territories. 6 or 7 young doctors have received support under these programmes over the past few years. They come from Rubtsovsk or Barnaul because they get a million as relocation expenses. He receives an apartment for five years, or buys one with that million, and after five years he can move somewhere else or stay here.





**Fig. 35.1** Exoskeleton of the regional tourism and recreation system of the Kulunda steppe. *Source* Dirin et al. (2014)

(Altai Krai, Uglovsky district, village of XX, deputy chairman of the committee for agrarian issues and environmental protection of the district administration, September, 2015)

The strong in-migration in order to cultivate new land and to contribute to the national wealth remains in the collective sense of self among many inhabitants of the Kulunda steppe, even today. The change in the economic paradigm in the late 1980s and early 1990s and the definition of new development priorities put the most achievements of the past decades at stake. Most rural territories, however, retain some inner strength, which allows them to preserve some collective vitality, despite the experience of young people drifting to the cities, infrastructure collapsing and

mono-specialization of big businesses, setting free workforce. However, the situation began to change for the worse after the recession of 2008.

Nonetheless, Kulunda respondents stress the will of workforce, which has been set free, to stay in the region and to engage in a local business. They estimate such behaviour a social resource to be employed for a diversified development of Kulunda.

Diversified development is usually understood as the expansion of various spheres of socio-economic activity associated with efforts aimed at a more balanced and varied coexistence of agricultural sectors, including not only the monocultures of the recent decades (wheat and sunflower) but also fodder crops that facilitate the development of local livestock husbandry. In addition, the development of modern dairy farming, poultry farming and sheep farming is seen as viable in the long term. Finally, there is great potential in orienting modern agriculture towards the production of good-quality wholefood. The workforce that is freed from agricultural production could be reassigned to those traditional local industrial sectors such as forestry and timber industries. It could also shift to the sphere of recreational services and tourism, as well as the development of the local social and transport infrastructure, which would contribute to the greater integration of rural Kulunda with other regions of the Russian Federation and former Soviet states, such as Kazakhstan. In addition, the implementation of the sustainable diversified development scenario in the rural territory of Kulunda is possible primarily in the context of a productive dialogue and collaboration between the basic actors of this process: the local authorities, business and broad population.

Kulunda is clearly an agricultural region and its fundamental agrarian focus is predetermined for the next decades. At the same time, this region would gain significantly from a modernization of the quite extensive agrarian and industrial legacy of the Soviet period. On the other hand, opening up new opportunities to develop the Kulunda countryside would be the cultural 'greening' of the pine forests, salt water lakes and parts of the virgin steppes. Initial steps in this direction have been taken with the establishment of comfortable recreation camps, increasingly built in Kulunda's places of natural beauty: on the borders of its forests, steppes and lakes (cf. box Dirin/Krypochkin/Rigalov: 'Diversification possibilities...' in this chapter).

Opportunities for a frequently spontaneous and informal professional reorientation of the Kulunda population are expanding. Those who do not move to large cities and rich regions try to learn new, occasionally rare, vocational skills for the Kulunda steppe. An example is the development of professional competences among local entrepreneurs and wageworkers. The steady development of the service industry in the form of cafés and tourist leisure facilities in the Kulunda steppe in recent years, which validates the importance of casual employment and economy, is hard to grasp in the course of sociological research even through methods of participant observation.

Another example is the foundation for diversified development of the Kulunda steppe territory. It is tied to the forestry industry, for example, which has recently become a factor in the integration of new technological changes, affecting primarily processes associated with the cultivation of economically valuable species of trees. An example of this is the commissioning in 2012 of a unique selective seed farm

in the village of Bobrovka in Pervomaysky district for the cultivation of ball-rooted planting stock. This technology reduces the cultivation term of nursery plants to from 24 to 12 months.

## 35.5 Conclusion

The interdisciplinary research project showed that Kulunda steppe in the Altai Krai now is a peculiar laboratory of search of possible ways to sustainable development of rural communities in a zone of droughty and risky agriculture. The area comprises a wide variety of practices of rural existence—from depression and stagnation to growth of social-economic and technical innovative activity. From the actual trends, one can derive scenarios for future regional development, positive as well as negative. In our opinion, the main obstacle to rural innovative development is dissociation and inconsistency of actions of the major institutional factors responsible for the social stability of territories of this or that region. As a consequence, local communities, households and the farmer enterprises often excluded from decision-making processes in the social and economic life of municipalities and the region, or participate in it only formally. We consider the development of measures that support the initiatives of local groups and communities and connect them with innovative solutions and technologies crucial to promote positive development of the Kulunda zone of Altai Krai.

## References

- Dirin DA, Krupochkin EP, Golyadkina EI (2014) Metodika kompleksnoi otsenki turistko-rekreatsiionnogo potentsiala regiona (Methodology for Comprehensive Evaluation of the Tourism and Recreation Potential of a Region). *Geografiia i prirodopol'zovanie Sibiri* 18:64–78 (in Russian)
- Foucault M (2007) *Security, territory, population: lectures at the College de France, 1977–78*. Palgrave Macmillan, New York