The mountain area’s economic capacity as the basis for cross-border cooperation

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Abstract. Organization of economic activities in the framework of cross-border cooperation is accompanied by limiting effects. These effects are expressed in periodic or sustained ecosystem digression. In turn, this has a significant impact on dependent communities, including by multiplying these impacts in socio-natural complexes. Achieving a critical level of digression varies for integrable regions (countries). The authors note the need for a systematic approach and innovative solutions in the formation of common cross-border markets in the context of modern turbulence of global economic processes. At the same time, it is necessary to take into account certain requirements of sustainable development, both of individual regions and their industries and enterprises that provide integration.

1. Introduction

Transformation of global socio-economic interrelations requires scientific substantiation of environmental acceptability and economic efficiency in the formation of new economic alliances. As a rule, logic and previous experience underlie such alliances. Cooperation between the regions of the Greater Altai is based precisely on the historically established mutually beneficial socio-economic relationships. At the same time, there are (including observable empirically) restrictions on the organization of economic activities in mountainous areas. For a range of environmental management parameters, mountain ecosystems are vulnerable in a complex of socio-natural relationships. The organization of economic activities is accompanied by limiting effects, expressed in periodic or sustainable digression of ecosystems, which affects dependent communities and has a multiplicative effect. Achieving a critical level of sustainable digression varies for integrable regions (countries).

At the same time, the formation of common markets and participation of enterprises from different countries in the overall technological development requires, on the one hand, the process of synchronization of significant environmental, economic, and technological elements of the integrated countries’ systems. On the other hand, the formation of common markets and participation of enterprises from different countries in the overall technological development requires creating conditions for sustainable development of (socio-ecological-economic) integrable countries in the medium and long term.
2. Materials and Methods
Cross-border cooperation in mountainous regions (for example, the region of the Great Altai through the Russia-Mongolia line) requires careful consideration of possible consequences in organizing economic activities, since such activities are accompanied by impacts on fragile natural complexes.

When organizing economic activity, the key factor is the means of production. First of all, land resources are such means of production. For the territories under consideration, transhumance is traditional. More than that, this is the most promising and related to strategic areas. This determines the basic nature of land use (pastures and hayfields). Therefore, when doing business in such territories, the non-trivial task of organizing economic cooperation arises in such a way as to ensure sustainability and inexhaustibility of land resources, the means of production.

Analyzing the available data on pasture loading [1; 2], we should emphasize a destructive effect of unregulated exploitation of land resources [3; 4; 5; 6; 7; 8]. Digression of ecosystems leads to a decrease in competitiveness, damage, and other negative effects. Sustainable digression affects the nature of economic activity and certain parameters in the dependent socio-economic system [Mountains of the World], which requires a differentiated approach and, as a result, load regulation on vulnerable elements of socio-natural complexes [9; 10; 11; 12].

At the same time, the accumulated experience shows that innovative approaches can ensure preservation (and in some cases increase) of the territory’s capacity. For example, formation of the so-called ecological frameworks [10; 13; 14] allows to reduce wind and water erosion, to increase the productivity of pastures and hayfields [15; 16]. Such a cultivation of landscapes requires a careful study of the long ecological cycles in the territory’s development, and the implementation of such projects should be fully justified.

3. Results
Thus, regulating loads on pastures (territory capacity) is the basis for organizing efficient economic activities and for ensuring environmental and socio-economic security (and, consequently, sustainability) in vulnerable cross-border regions. A successful and effective solution of this task is possible only within the framework of a system approach that takes into account integration features of the territories being included and participating in interregional cooperation.

During our study on the territory’s capacity for the purpose of producing valuable insights on cross-border cooperation, the following results were obtained.

1. Of course, limiting a region in using a vital resource requires the formation of a system for redistributing funds to compensate for damages associated with the inability to increase competitiveness because of resource depletion. However, current trends indicate the possibility of stopping risks of reduced competitiveness by improving product quality (the so-called “environmental brands”) and entering relevant solvent segments of consumer demand [17].

2. Historical experience shows that in the organization of traditional land use, the territorial economic capacity was taken into account (for example, the system of winter and summer pastures in distant pasture). Therefore, the scientific substantiation of the permissible load on specific ecosystems of mountainous territories and the introduction into practice of the principles of traditional environmental management make it possible to stop environmental and socio-economic risks in the organization of economic activities in the framework of cross-border cooperation.

3. An innovative approach allows to increase the territory’s capacity through the use of scientific and technical developments (for example, [18]). The introduction of anti-erosion technologies [19; 20], including in combination with the development of horticulture can help preserve (restore and increase) the territory’s economic capacity.

4. Of course, investment in innovation implies a return on these investments. This reduces competitiveness (by increasing costs of goods and / or services). The solution of such a task is in preserving the sustainability of a socio-natural complex which is possible under the condition of developing and implementing (1) a system for regulating the level of exploitation and (2) a
system for redistributing resources, ensuring the preservation of the living standard of people employed in relevant industries.

Thus, on the one hand, the economic capacity of the territory is a limiting factor. However, on the other hand, historical experience and modern developments allow us to speak about the fundamental possibility of solving such a problem.

4. Discussion
Land resources are the main means of production for the studied territories (regions of the Great Altai, in particular, Western Mongolia and Gorny Altai). The economic capacity of these territories has objective limitations (primarily, environmental). The excess of such economic capacity is expressed in periodic and / or steady digression of the ecosystem. This leads to a decrease in the productivity of the means of production.

- The significance and role of economic capacity is a poorly developed topic in terms of providing a systematic understanding of the value of territory’s capacity in the context of cross-border cooperation.
- Land resources, which are the main means of production for the (distant) livestock industry, need to justify the volume and nature of their operation. This volume and nature of land resources exploitation (in particular, pastures and hayfields) should ensure sustainability of the socio-natural complex in the medium and long term.

When developing program documents (territorial planning schemes, joint ventures, industry holdings, etc.), there is a problem of ensuring environmental safety for sustainable development. Restrictions (primarily, environmental) ensure sustainable development of the socio-natural complex. However, these restrictions entail a decline in competitiveness and a slowdown in economic growth. Consequently, to compensate for such effects, the formation of sustainable development mechanisms should include the introduction of a system for the redistribution of resources that ensure the preservation (maintenance) of the peoples’ living standard.

5. Conclusion
In the context of global turbulence of economic processes, configurations of cross-border cooperation vary in different regions. Historical economic relationships remain between different regions. Despite the temporary weakening of such interconnections, their potential is sufficient for the formation of sustainable socio-natural complexes, making possible to check whether environmental safety is ensured. To solve this problem, the territorial economic capacity should be considered when developing cross-border projects (territorial planning schemes, joint ventures, and other program documents).

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