A Transboundary Environmental and Tourism Cluster in Western Altai: Recreational and Geographic Substantiation

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Abstract. Active development of domestic and international tourism in Russian regions necessitates the creation of tourist clusters. A tourist cluster is a purposeful concentration of tourist and recreational resources, interconnected enterprises, organizations, and facilities providing infrastructure and services to meet the needs of domestic and foreign tourists. Tourist clusters are of particular importance since they attract specially protected natural areas [SPNA] to tourism. Tourist clusters are often formed in the border areas. One of the examples is a project for transboundary nature conservation and the creation of a tourist cluster in Western Altai, which includes the territories of the East Kazakhstan region and the Altai Krai. The study aims to provide a recreational and geographical substantiation and identify the prerequisites for creating transboundary nature conservation and tourist area. The project is based on biodiversity, the presence of other natural resources (comfortable climatic, geomorphological, water, etc.), little-changed landscapes, the successful functioning of protected areas of different categories (both from Russia and Kazakhstan), the presence of objects of tourist interest, attractions, and other prerequisites for the formation of an international nature conservation and tourism cluster. Using SWOT analysis, the authors analyze the prospects for forming a transboundary nature conservation and tourist cluster in Western Altai. The analysis allows us to highlight strong and weak points and to identify possible opportunities and risks. The projected cluster is assessed from the standpoint of environmental protection. The authors assessed the natural and tourist potential of the territory based on such criteria as transport accessibility, development of the territory, recreational infrastructure, anthropogenic impact, etc. The results of the conducted recreational and geographical analysis allow us to justify the design and draw conclusions about the significant potential for forming a transboundary nature conservation and tourist cluster in the Western Altai transboundary area of Russia and Kazakhstan.

Keywords: Tourism · Ecotourism · Nature conservation and tourist cluster · Specially protected natural area · Transboundary territory · Western Altai · Altai Krai · East Kazakhstan Region

1. Introduction

Tourism plays an important role in the socio-economic system of regions, which determines the formation of regional and territorial tourist and recreational complexes and systems, as well as the emergence of new forms of tourist and recreational activities. The cluster approach to tourism has its history. Nevertheless, it remains a relevant form of organizing complementary functioning, which allows introducing innovative elements into the structure, infrastructure, tourist locations, attractions,
and management. The primary mission of any tourism cluster is to create a competitive tourist site that includes all cluster elements. When implementing the cluster approach to the development of tourism, infrastructure facilities and specific types of tourism are established as dominant structures and objects of tourist interest, to which tourist routes and tourist flows are attracted [2].

Tourist clusters are specialized in different ways within a particular region and can develop in several ways. Some of them later disintegrate, and others continue to grow. In increased competition, tourist clusters tend to merge, organize complementary functioning, and interact with each other. The tourist cluster has such features as the type of geographical framework, geographical boundaries, and structure [3].

Innovations in the cluster approach in tourism are (1) the inclusion of specially protected natural areas [SPNA] in tourism activities, (2) the formation of nature conservation and tourism clusters, (3) the involvement of border areas of neighboring states in the tourism sector, and (4) the formation of international-border and cross-border clusters. Near-border and cross-border tourism clusters are organized to enhance inbound tourism. These clusters are territorial entities consisting of two or more neighboring or closely spaced countries (or regions of these countries) that have a mutual desire to develop international tourism, create a single product, and implement tourist exchange [1].

Environmental activities and ecological imperatives are among the priority areas of international cooperation, which is directly reflected in the development of networks of protected areas in bordering countries. One of the examples is the creation of the “Great Altai” Transboundary Biosphere Reserve [TBR] based on the Katunsky State Nature Biosphere Reserve (the Altai Republic, Russia) and the Katon-Karagai State National Natural Park (the East Kazakhstan Region, Kazakhstan). One of the strategies in the reserve is to develop regulated eco-cultural tourism to improve the well-being of local communities and preserve natural and cultural heritage. From the standpoint of new forms of the spatial organization of tourist and recreational activities, the “Great Altai” TBR should be considered a transboundary nature conservation and tourist cluster [6].

The prerequisites and possibilities for organizing a transboundary nature conservation and tourist cluster using the experience of creating the “Great Altai” TBR are available in the Russian-Kazakh border area of Western Altai (the Altai Krai and the East Kazakhstan Region).

2. Materials and Methods
The planned transboundary nature conservation and tourism cluster [TNCTC] of Western Altai is located in the Altai Krai and East Kazakhstan. In the Altai Krai, it is located in the basins of the Charysh and Alei Rivers and includes parts of the Kolyvan, Baschelak, Korgonsky, Koksuisky, and the Tigiretsky range. In East Kazakhstan, the TNCTC occupies the right bank of the Irtysy in the interfluve of the Uba and Narym Rivers. It includes parts of the Ubinsky, Stanovoy, and Chernovy ridges, and Samanushinsky belok.

The TNCTC of Western Altai includes the following SPNA:
- From the Russian Federation (the Altai Krai) – the state natural reserve “Tigireksky,” state natural reserves of regional significance “Charyshsky,” “Baschelaksky,” “Cascade of waterfalls on the Shinok river,” “Chinetinsky,” “Lifyandsky,” and “Tretyakovsky” (planned);
- From the Republic of Kazakhstan (the East Kazakhstan Region) – West Altai State Natural Reserve [5].

Landscape analysis and medium-scale mapping were carried out for the projected TNCTC. These analyses allowed to reveal a significant typological and species diversity of natural complexes, the similarity of geosystems of the topological dimension of the Russian and Kazakh parts, a wide range of dominant, typical, and unique landscapes, which serves as the basis for joint conservation of nature and the organization of ecological and educational tourism, including cross-border tourism. The selected territory has more than 1,700 species of plants and more than 260 species of animals, many of which are listed in the Red Data Books of the Altai Krai, the Russian Federation, and the Republic of Kazakhstan.
To assess the TNCTC of Western Altai from the standpoint of environmental protection, we used such criteria for the creation of protected areas as the representation, uniqueness, standards, relict, dimension, the presence of rare and (or) endangered species of flora and fauna, the presence of sites with the greatest species and landscape diversity, and social-ecological significance [5].

To assess the natural and tourist potential of the TNCTC, we developed and applied a methodology for assessing the main resources demanded in tourism (geological and geomorphological, aquatic, plant, glaciological, recreational, commercial, landscape diversity and attractiveness, historical and cultural attractions, and the development of the territory and transport infrastructure) [4, 5].

During the research, we used SWOT analysis, one of the widespread methods that evaluate complex internal and external factors influencing the current situation and its development. It is a necessary element of research and a mandatory preliminary stage in planning and design. The data obtained from the situational SWOT analysis serve as the basic element for assessing whether the territory is endowed with internal forces and resources to realize existing opportunities, counter threats, and analyze which internal deficiencies require priority elimination.

3. Results

The Russian-Kazakh border of Western Altai is a territory with the resources necessary to preserve the landscape and biological diversity and develop various types of tourism, including transboundary, ecological, and educational tourism in protected areas and adjacent territories.

The purpose of creating a TNCTC in Western Altai is to organize and implement nature conservation and tourism activities, balancing the ecological imperative and acceptable loads of tourist and recreational impact. Within the projected TNCTC, there are seven protected areas. Two of them have the status of state nature reserves, and five are state nature reserves of regional significance.

The obtained results of the assessment of natural and tourist resources show that most of the assessment criteria are favorable for the development of ecological and educational tourist activities in the study area. The results of the situational SWOT analysis (strengths, weaknesses, opportunities, and threats) are the main factors contributing to and hindering the design of the TNCTC in Western Altai.

The strengths of the natural resource potential of the territory include the following factors and conditions:

- Reference, unique, and relict landscapes marked with the similarity of their types;
- The presence of areas with the largest distribution areas of rare, endangered, endemic, and relict species of flora and fauna;
- Unique objects: SPNA, natural monuments, historical, cultural, and archaeological objects, which are of interest in geographical, geological, and historical aspects;
- Developed ecological and educational excursions and tourist routes;
- National and cultural identity of the population, interesting traditions, and culture of the living peoples, which are of additional tourist interest.

The above factors create the basis for the organization of the TNCTC in Western Altai. The weaknesses include negative factors hindering effective environmental protection and rational use of the tourism opportunities presented in the territory. The weaknesses are as follows:

- The lack of a unified system for the conservation of biological and landscape diversity of the transboundary territory;
- Insufficient development of transport, information, and communication infrastructure;
- Existing border areas with forest management (timber harvesting).

The factors associated with the external environment are divided into two groups: (1) opportunities and (2) threats. Opportunities to improve the efficiency of the nature conservation and tourism potential of the territory include:

- The creation and development of joint environmental projects aimed at preserving the landscape and biological diversity and increasing the species of flora and fauna of the area;
The systematization and further development of routes for ecological and educational tourism as a tool for increasing the efficiency of the existing tourist and recreational potential;

The development of transport, roadside, and auxiliary infrastructure;

The attraction of investments for scientific research and excursions, the creation of guest houses and tourist centers, and the acquisition of the necessary special equipment.

The threat of excessive strengthening of the resource function (logging in the Kazakh territory) is the main threat determining the risk of unfavorable factors that can prevent creating a transboundary nature conservation and tourist area and create restrictions for the effective use of the existing nature conservation and tourism potential. This threat can lead to a lack of demand for natural objects of potential environmental and tourist value.

4. Discussion

Based on the analysis of the internal and external environment, it was revealed that the most important factors are:

- An advantageous geographical position of the territory for organizing a transboundary nature conservation and tourist cluster of Western Altai to “continuously preserve” unified geosystems regardless of political and administrative boundaries;

- Unique natural resources – biological and landscape diversity of the territory, natural phenomena, and historical and cultural objects, which are the basis for developing ecological tourism.

A significant proportion of the studied area is highly vulnerable to anthropogenic impacts because it is represented by protected areas, which predetermines the need to develop sparing types of economic activities to which the tourism sector belongs.

In Western Altai, there are conditions for developing almost all types of tourism and recreation, namely:

- Ecological, scientific, and educational – speleotourism and familiarization with landscapes, natural monuments, archeology, cultural, historical, and other objects;

- Active and sports – water rafting, skiing, cycling, speleotourism, sailing (on large lakes), and rock climbing;

- Recreational and wellness – treatment, fishing, licensed hunting, and weekend rest;

- Religious and pilgrimage combined with recreation – visiting “holy places”;

- Rural – living in rural guest estates, visiting maral farms, nurseries, apiaries, etc.

5. Conclusion

The TNCTC of the Western Altai has a high nature conservation potential, making it possible to organize transboundary environmental protection activities. The obtained results of the assessment of natural and tourist resources show that, according to most criteria, the territory is favorable for developing ecological and educational tourism.

The TNCTC allows for the following areas of environmental and recreational activities:

- The organization of special scientific and environmental monitoring studies in protected and adjacent areas, the development of international and transboundary cooperation between protected areas;

- Sustainable development and use of the recreational, environmental, and educational potential of protected areas and adjacent territories;

- The development of ecological and educational tourism in protected areas of transboundary regions [5].

Planning environmentally-oriented cross-border educational tourism, taking into account the geo-ecological and socio-economic features and limitations. The zoning of the TNCTC as the basis of the model of tourist and recreational nature management for the studied area.
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