

Investment Appeal of the Recreational Potential of the Region

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Abstract. The article deals with the issue of environmental and economic assessment of natural and recreational potential of Kuzbass. The purpose of the research is to study the trends in the development of the regional recreational potential, as well as to develop the methodological bases for creation of resort and recreational areas to improve the health of the population and increase the investment appeal of Kemerovo region. The constraints to improve the investment, environmental and economic performance of regional resorts are identified. The main result of the research is the development of the project to improve the stability of the socio-economic system of the region, on the basis of the mitigation of environmental and economic risks and the systematic development of recreational infrastructure. The practical significance of the study consists of the recommendations for regional and federal authorities concerning the development of socio-economic plans and forecasts, including the provision of a rationale for the status of priority development territories.

Introduction

Historically Kuzbass is positioned as the industrially developed region of the country, the potential of which is represented by fuel and energy industries, including the extraction and processing of minerals, mainly coal, electricity generation, metallurgy, chemical industry and other basic industries. However, the investment appeal of the region declined in recent years, owing to the negative socio-economic and environmental factors. The region is experiencing high anthropogenic impacts, which generates considerable environmental and economic risks and reduces profitability due to the irrational use of nature [1, 2, 3]. The solution to this problem may be related to several areas of activity:

- development of a comprehensive program for the development of natural resources,
- development of ecological and economic risk management strategies,
- search for new environmentally friendly activities.

In this situation the search for reserves, which include recreational potential, which is not less important than the investment appeal, seems urgent [4]. The most important recreational resource of Kemerovo region is the ski resort Sheregesh, located in Tashtagol area and well-known not only in Russia but also abroad. In addition, the Kuzbass has significant reserves of medicinal mud, peat, clay, mineral water springs, forests and medicinal herbs. The development and widespread use of such resources in the course of study of the environmental conditions of the area allows using these balneal factors to create the resort and recreation areas for the purpose of the improvement of the health of population and the increase of the investment appeal of the region. [5]



Material and methods

The object of the study is the recreational infrastructure of Kemerovo region. The subject of the research is the factors, conditions and constraints that affect the efficiency of the regional recreational system. The study is based on an analysis of domestic and foreign literature, including primary data, on the issues of investment and ecological-economic substantiation of recreational areas. The particular attention is paid to the differentiation of positive effects of the target realization of the recreational potential of Kemerovo region. The elements of the system analysis and the results obtained by specialists in the management of protected areas and recreational systems are used in the work.

Results and Discussion

Recreational resources are diversified components of the environment: climate, terrain, surface and underground waters, parks, forest parks. In turn, the natural recreational resources are set of physical, biological and energy-informational elements and forces of nature, which are used in the process of restoration and development of physical and spiritual powers of man, his ability to work and health. Most of natural resources have recreational and tourist potential, but the extent of its usage varies and depends on the demand for the recreation and the specialty of the region. The rational use of recreational resources determines the security of natural features, which allow using them for the purpose of recreation, tourism and treatment [6, 7].

The specially protected natural areas designed to preserve the typical and unique natural landscapes, flora and fauna diversity, to protect natural and cultural heritage, play a huge role in the resource recreational potential. They are fully or partially withdrawn from economic use, have special protection, and on the adjacent land plots and water areas the protected zones or districts with regulated regime of economic activity can be established [8, 9]. Many specially protected natural areas are the objects of national heritage, for example, in Kemerovo region – they are the state nature reserve "Kuznetsky Alatau"; Shor National Park; natural monument "Lime Island"; museum-reserve "Tomsk Pisanitsa"; Kuzbass Botanical Garden (Department of Ecology of Plant Resources of Human Ecology Institute of the Russian Academy of Sciences); state natural reserves; mass recreation, sport and tourism areas; green areas of cities and settlements; territories with natural medical factors (Borisov, Tersinka); protected zones of history and culture monuments.

The total area of specially protected natural areas (SPNA) of Kemerovo region is more than 15% of its entire territory, which is one of the highest rates in Siberia. The SPNA system allows saving not only the habitat of animals and plants, but also of human, helping to maintain the ecological balance of the biosphere as a whole, ensuring the safety of biological diversity and the restoration of natural systems. There are 13 wildlife reserves of regional importance with a total area of over 500 thousand hectares in the region according to statistical studies as of 31.12.2015.

The medicinal plants are of great importance in the structure of plant resources used by humans [10]. More than a third part of the extensive list of drugs currently used in medical practice for prevention and treatment are the drugs, the composition of which includes the plant-based ingredients. Their role is especially great in the treatment of cardiovascular diseases, nerve, kidney and liver diseases and some other common diseases (Minaeva, Zhanaeva 1983, Krylov and others, 1989; Nekratova and others, 1989; Kazarinova and others, 1991).

The floristic composition of Kemerovo region vegetation is very diverse: not less than a half of 3380 species described in the twelve volumes of "Flora of Western Siberia" by P.N. Krylov and L.P. Sergievskaya grows on the territory of Kuzbass; and about 450 species of wild and cultivated shrubs and herbaceous plants are used in scientific and folk medicine. The medicinal plants, the exploitation reserve of which is not less than 500 kg of air-dried raw materials have the practical importance. Table 1 shows the differentiation of medicinal plants depending on their exploitable reserve volume.

Table 1 - Grouping of medicinal plants according to their exploitable reserve volume

Group	exploitable reserve volume, tons
First (1)	more than 1000
Second (2)	500 - 1000
Third (3)	100 - 500
Forth (4)	50 - 100
Fifths (5)	10 - 50
Sixth (6)	1 - 10
Seventh (7)	less than 1

The analysis shows that the raw material of the species within 1-4 groups is suitable for industrial use to meet the needs of Russia. In turn, the fifth, sixth and seventh groups can be used to provide Western Siberia, the Kemerovo region and the regional network of pharmacies respectively with medicinal plants.

The most important recreational resource of the region are the natural mud, which include natural formations variable in their genesis, including water, minerals and organic substances, which are finely divided homogeneous plastic mass with certain thermal and other physical and chemical properties. In different countries these "mud-like" substances are historically used in heated state for the medical procedures and have different local names. For the purpose of uniformity and the designation of medicinal mud the Committee of the International Society of medical hydrology proposed in 1938 the common name "peloid" (from the Greek "pelos"), which includes different kinds of mud: peat, sapropel, lake, mixed or other. In the early 60-ies a new genetic classification of therapeutic muds was developed (Ivanov, V.V. Malakhov A.M., 1963), according to which they are divided in the 3 separate groups according to their genesis (peat, silt, pseudovolcanic), types and subtypes, having different chemical composition and physical properties.

In the Kemerovo region the siliceous sapropel of lake Berchikul are recommended for the balneal development. In the region there are also peat mud deposits. On the territory of Kuzbass the explored peat deposits are located in 6 areas with total reserves of peat within 57 million tons. The experience in the use of peat in balneal practice shows that the peat treatment is as effective as other natural mud. This type of mud treatment has its advantages: peat has higher thermal properties, adsorption capacity of absorbing pathogenic microorganisms; the presence of specific microflora contributes to the accumulation of biologically active substances. Therefore, the study of the microbiological composition of peat used both in native and in perforated form is prospective.

Within Kemerovo region three deposits of mineral waters are explored, which are operated at the present time - Tersinskoe in the 1957-68 with reserves of 172 m³ / day; Borisovskoye in 1977, with reserves of 42 m³ / day; Berezovoyarskoe in 1998-2000 with reserves of 138 m³ / day. In addition, in 2000, Barzasskoye mineral water show with a maximum capacity of the core intersection of 70 m³ / day was revealed. In 2004 in Barzas area the first phase of work was completed, but since 2005 due to difficult economic situation the financing of works was suspended [11, 12, 13].

The considered recreational resources determine the broad resort capabilities of Kemerovo region, in particular, today Sheregesh and Tanai have the status of the resort areas in the region. Sheregesh (Mountain Zelyonaya ("Green")), located in the south of Kemerovo Region - is one of the most furnished Western Siberia resorts. Another resort is Tanai - young ski resort in the northwest part of the region.

The main disadvantage of these resorts is their remoteness, which requires the establishment of more eco-friendly resort and recreational areas to meet the basic conditions required for such areas (environmental, transport infrastructure, beautiful landscapes, favorable climate features, the presence of stocks of natural therapeutic factors).

Under the unfavorable environmental conditions, the sufficiently high level of morbidity, mortality and low life expectancy, the creation of the area answering the purpose of resort and consisting of a set of ecological, balneal and climatic characteristics is relevant and timely in Kemerovo region

The territory of Salair ridge, located in the center of the Kemerovo region, including good access roads, housing and utilities infrastructure to meet the demand for food and human resources, as well as the low industrialization, meets the considered requirements. The biodiversity studies were carried out, and the most significant factors were considered to study the possibility of using the territory Salair Ridge as a resort area.

The aesthetic factors that determine the attractiveness of the rest in the resort and recreational areas are of great importance, including the diversification of recreational activities from the point of view of the possibility of organizing mass sports and swimming, fishing and other activities.

The social and public importance of creating the resort area near Salair ridge is that the part of the population of Kuzbass will repair the health within the region limits, minimizing the transportation costs and using its own balneal factors (mineral water, clay, mud), which will increase the recreational opportunities of Kemerovo region.

In the study area there are some sanatory facilities, which are the possible basis for the further development of resorts, including sanatorium "Forest Lake", sanatorium "Kuzbass Pearl", ski complex "Gold Mountain", sanatorium "Magistral", sanatorium "Salair Silver".

The practical value of the existing infrastructure is the ability to build a network of sanatoriums and resorts in the Salair ridge area with a view to health care, restorative treatment and rehabilitation of the population of Kemerovo region and the surrounding regions. Another important socio-economic aspect of this process is the employment of the part of population of Guryevsk and Belovo areas, which is important taking into account the low employment in the sectors of economy [14].

Rich recreational resources of Kemerovo region require the economic evacuation for their efficient use, as shown in table 2.

Table 2 - Differentiation of positive effects from the achievement of the recreational potential of Kemerovo region

Evident effects	Implicit effects
The weakening or elimination of the negative effect of single-industry towns	Increase of investment and innovation appeal of the region
Additional demand for goods and services, including those produced in the region	Improvement of regional infrastructure (roads, transport facilities, life support systems).
The increase in tax deductions from the tourist services	Improvement of the image of the region, including at the expense of environmental "green" goodwill
Minimizing the cost of tourism, including those environmental spent from the personal savings of citizens	
Foreign tourist service substitution	

Table 2 shows that the tourism effect in terms of additional demand for goods and services is of great importance. This tourism feature generates a new form of consumer demand supported by "external" tourists for various goods and services, including, most importantly, the local production.

In modern conditions of the complex geopolitical and economic situation, the most important factor is savings of cost, planned to be spent in the process of consumption of recreational services. In particular, the significant difference in transport costs (up to 10 times or more) determines the priority of regional recreational services. At the same time there is the process of the substitution of foreign recreational services, which is also motivated by not only economic, but also geopolitical component. Thereat, the complex international situation may cause a multiplier effect, when the refusal of foreign recreational services will significantly increase domestic market segment, regional tourism and other components of recreational resources [15].

If we consider the implicit effects of the development of the recreational potential of Kemerovo region, the most important factor is the increase of the investment appeal of the region and avoiding

"one-industry investment dependence" when the determining factor of investing is associated only with the development of coal mining and other related sectors of economy [16, 17].

Assessment of the adequacy of regulatory and procedural framework and strategic documents for the development of tourism and recreation activities in Kemerovo region has shown that the regulatory support of the industry meets the modern requirements. The main problem is the lack of regional vision and tourism development strategy, the implementation of which is necessary for the efficient development of tourism and recreation cluster of Kemerovo region.

Conclusions.

The study of investment appeal of the region's recreational potential has allowed the following conclusions:

1. the necessity of maintaining and developing the specially protected natural areas as the basis of the recreational potential of the Kemerovo Region is proved;
2. the factors and conditions that characterize the efficient functioning and development of the recreational system of Kemerovo Region are determined;
3. the analysis of recreational resources of Kemerovo Region is made;
4. the ecological and economic assessment of the Salair ridge territory with a view to the possibility of creating a resort zone is made;
5. the economic assessment of existing recreational resources with the differentiation of revealed positive effects is performed.

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