

The Project of Information System of Baikal Natural Territory as a Factor of Tourism Development

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Abstract

The purpose of this study is the rationale for the development of the information system of the Baikal natural territory. The region, with a unique natural resource – the Lake Baikal, lacks such infrastructure as an information system, which would reflect a complete and necessary information about the Baikal natural territory as a whole. At present, representatives of tourism businesses often face growing number of tourists who want to choose a suitable area for rest and book accommodation online, through interactive maps when planning accommodation, food, entertainment. The methodological basis of the study consists of provisions of the systemic and situational approach and system analysis, scientific methods: the ascent from the general to the particular, the unity of logical and historical, analysis and synthesis of economic and statistical methods. The study applies the methods of institutional analysis, information modeling methods and approaches used in the design of databases, knowledge bases and information systems. The pilot study proved the feasibility of the development of the information system of the Baikal natural territory, specified the main information resources in the region and highlighted the main problems currently existing in data provision of the territory.

Keywords: tourism development, natural territory, information system, information resources, Baikal brand, Baikal

1. Introduction

Lake Baikal is a unique and fragile ecosystem, which must be protected and preserved. In connection with the assignment of the status of 'World Heritage Site', the concept of the Baikal natural territory (BNT) and its ecological zones were legally approved in 2006. Baikal territory has its natural, social and cultural potential. Rich recreational (Evstropeva, 2013) and ethno-recreational (Tulokhonov, 2009) resources contribute to the development of tourism in the region. Recreational activities are recognized as an alternative to other types of farming as the main resource development is the conservation of nature. Tourism development enables objects of natural heritage in economic values BNT. Since developing transport links, communications, construction, new jobs.

As a subject of national and international tourist market, BNT now offers a variety of hiking trails in protected areas (of Baikal and Trans-Baikal national parks), camping holiday on the shores of Lake Baikal, Car Tours, boat tours, ethno-tours, mountain ski vacation, event tourism (Ryashchenko et al., 2008). It is noted that the main factors preventing the development of tourism in the region are limited accessibility, lack of qualified personnel and hotels, seasonality (Abalakov & Pankeeva, 2011). Furthermore the enumeration should include the lack of complete and current information about the Baikal natural territory on the Internet.

Let us define what belongs to BNT. The Baikal natural territory includes Lake Baikal, the adjacent water protection zone, its catchment area within the borders of the Russian Federation, the protected areas adjacent to Lake Baikal, and the band width of up to 200 kilometers, adjacent to the lake to the west and north-west of it. BNT is located within the three subjects of the Russian Federation: the Republic of Buryatia, the Irkutsk Region and Trans-Baikal Territory. Directly adjacent to the coast of Lake Baikal 12 Protected Areas (PAs) - including three reserves, two national parks, six nature reserves. In addition to them in the Baikal natural territory, there are located 23 protected areas of different species protection, and more than 400 monuments of nature (see old.rgo.ru).

Due to the location in the three regions of the Russian Federation on a fairly large area with multi-level administrative division, at the moment there is no single information space of the Baikal natural territory. In our opinion, the relevance of the problem of creating an integrated information system of the Baikal natural territory is evident. Existing information on the Baikal natural territory, accumulated in Russia and abroad, in the ministries and departments of the Russian Federation in the Republic of Buryatia, the Irkutsk region, the Trans-Baikal region, research institutes, social

organizations, institutions of education and culture and the Internet, fragmented and unstructured. Departmental and other barriers also contribute to the formation of a unified information system of Lake Baikal. The incompleteness of information sources, as well as various data formats they limit the search for information, reduced quality of information flows. The lack of available information is reflected in the investment and tourist attractiveness of the Baikal natural territory.

In order to integrate international and domestic information resources of Lake Baikal, it is necessary to create a complete information system of the Baikal natural territory. At the moment, there are many information resources in one way or another related to Lake Baikal, these include:

- information and reference resources on the nature of the lake and places of interest for tourists: Baikal.ru, Baikal.info, fanatbaikala.ru, baikalfund.ru, irkipedia.ru, old.rgo.ru, etc.;
- system of booking in hotels and tourist centers of the lake: the international (e.g. booking.com, oktogo.ru, ostrovok.r, etc.), and regional systems (e.g. baikalov.ru, turbazy.baikalinfo.ru, baikalika.ru, etc.);
- corporate website with a business on Lake Baikal: grandbaikal.ru, baikallaguna.ru, baikaltengeri.ru, etc.;
- Administrative resources: egov-buryatia.ru, minpriroda-rb.ru, pribaikal.ru.

These administrative resources of the Irkutsk region and the Republic of Buryatia Baikal is considered largely only within its territory. For example, the site minpriroda-rb.ru section of the Baikal natural territory 'Zoning of Baikal natural territory' can be seen on the atlas of areas relating to the area BNT Irkutsk Region, the Republic of Buryatia, Trans-Baikal Territory. The tabs 'water', 'Forest resources', 'mineral resources', 'Specially-Protected Areas', 'information on the objects of wildlife and hunting and fishing resources', etc.; the information only on the territory of the relevant to the Republic of Buryatia. On the official website of the Irkutsk region irkobl.ru in the Ministry of Natural Resources of the Irkutsk Region information on the Baikal natural territory only in the tab 'State ecological examination of project documentation for construction, reconstruction', which is expected to carry on the Baikal natural territory.

Thus, there is a need for a single source of information for areas outside the Baikal natural territory, which will comprehensively assess the situation as the environmental and socio-economic. In this resource should include administrative controls, business entities (tourism-related), relevant information on BNT, etc.

2. The Development of the Tourism Industry in the BNT

Baikal natural territory actively develops and becomes a kind of attraction area not only scientists, but many holidaymakers. Tourism is one of the priority directions of development of the Irkutsk region and the Republic of Buryatia. Every year the number of tourists rested in Baikal is increased by 10%. In 2014 on the territory of the lake rested on different estimates of 1.3 million. 1.5 million. People. Of these, about 9% are foreign tourists, in the first six months of 2014 64.5 thousand foreign tourists visited the Irkutsk region, and this is 89.1% more than the same period in 2013 (Polockaya, 2014). Given the current surge of interest in the region (including from abroad), the increase in the number of incoming tourists, an increase in funding from public and private sources, tourism and other infrastructure in the region, in the future we should expect continued growth of the tourism market.

Growing interest in information resources, providing reliable and complete information about the attractions of the region's historic, religious and architectural character of the entertainment possibilities on-site recreation options suitable location, as well as on-line booking. Today, all that is associated with Baikal, a genuine interest not only in our country but also abroad. Relatively well-preserved nature of the lake, a rapidly developing infrastructure - hotels, roads, proximity to transport interchanges - suggest that in future the flow of tourists on the shores of Lake Baikal will only increase. It should also be noted that the area of Lake Baikal - a place of dialogue of civilizations Buddhist and Christian, so you need enough depth coverage of the history, culture, economy, reflected most interesting publications on the Baikal natural territory (science, art, folklore, religious, etc.).

Current research Tourism Baikal natural territory faced with a lack of reliable statistics on tourism flows and directions. Especially little information about the development of tourism in remote areas - the sector is almost not covered by major tour operators and the high cost and complexity of logistics restrict access by the research community. Meanwhile, independent and adventure tourism are gaining popularity among tourists organize their own tourist destinations. Create an information resource that is possible interaction between representatives of the tourist business and the tourists themselves, opens new possibilities for analysis and monitoring of tourism at the same time contributing to its development.

For the majority of tourists visiting the lake is limited to a visit to Listvyanka or Olkhon. While having more information about interesting places, possible routes, types of recreation on Lake Baikal they could visit other areas of the

unique lake, which certainly would affect the development of tourism and its accompanying activities. In particular, having just before a description of Irkutsk and Listvyanka, tourists pass by the Ethnographic Museum Taltsy are unaware of its existence.

In addition, due to the absence of such a tourist information in the region is almost not developed a system of leasing cars, but in western countries it is one of the main ways to travel. This segment of tourists prefer independent travel organization, with the help of maps interaktivnyh planning accommodation, food, entertainment and the like. For example, in Lake Tahoe (annual rests about one million tourists) personal and rented cars are the main means of transport arriving tourists. Require additional market research in order to calculate the number of tourists, which would increase the expense of the service on the lake, however, given their popularity overseas, you can be confident in its success. Therefore, such a 'playground' where information would be of a particular type of service is required if the tourist business in the field wants to increase the flow of tourists in the region and looking for the capabilities of its positioning in the tourist market.

To regulate the flow of tourist authorities, as well as to select the destinations tourists themselves updated information about placements presented to a limited extent. For example, in Kurumkansky area of mineral hot springs are a place of traditional rest and treatment of local and residents of neighboring areas: from 367 visitors base Kuchiger 281 people came from Buryatia, 66 - from the Irkutsk region, 19 - from other regions of Russia and one - from Poland (data recreation). In 2009 in the area were five recreation centers and a hotel, but the internet was introduced, only one guest yard, appeared later. In scientific literature devoted to the study of tourism, the area has not been submitted. Lack of information is felt not only in remote areas: in Irkutsk according to official figures the number of hotels - 80 in the city of Ulan-Ude -20, while the online booking system booking.com offers 169 accommodation places in Irkutsk and 92 variants in Ulan-Ude. Thus, the study of tourism development lag behind the process of tourism development, yet do not use modern accounting system and monitoring of tourist flows (Kuklina & Kuklina, 2014).

In the schemes and programs of socio-economic development, it is usually assumed that the development of tourism will preserve the unique nature, and promote economic and social development of BNT. The development of tourism, in turn, are intended to contribute to the rich recreational resources and ethno-recreational. It is noted that limited access to transportation, seasonality, the lack of qualified personnel and hotels are the main obstacles to the development of tourism. An example of the Scandinavian countries shows that with the appropriate transport infrastructure and climatic limitations become irrelevant (Lorentzen, 2012). However, even in the remote rural areas of Western Europe take for granted is the availability of sanitation, hot water and washing machines. According to the Swedish researcher Hans Rosling (2010), even the most consistent fighters with household waste is not willing to give up washing machines, despite the problems they cause.

At the moment, there is no interactive map BNT, which includes interesting tourist destinations, recreation, etc. Interactive maps and services are now very much in demand and widely used. They allow you to find the necessary territory, see photos or text associated with this place. It is important as a small scale with the designation of States and regional located a certain city, the most popular for personal use are large-scale maps of settlements with the designation of the location of streets, shops, attractions, etc.

When planning your tourist or business trip, you need a clear plan to find a place to stay and how to get there. Interactive map of the city needed to find places to eat, shelter and attractions of this place. Excursions can also be scheduled on the card, which will be a detailed description of the places and their images. At the moment, there is active promotion of historical monuments and museums through interactive maps. Tourists in the city can take advantage of the system 2GIS, if that interests the place is out of town, and the majority of incoming tourists interested in Baikal, there difficulties with logistics: what transport to get there, how much will fare, what other interesting places you can visit along the way.

Therefore, an information resource dedicated to BNT should include an interactive map, which must reflect the necessary information for the users of tourism infrastructure facilities (a restaurant, accommodations: hotels, hostels, guest houses, tourist services bicycles, boats, etc.), interesting tourist excursion facilities, transport connections and the types of vehicles info-centers, government buildings, historical, cultural and natural sites, protected areas, hiking trails, mountain-skiing complexes and others. Tourists will be able to leave their comments about a particular object, book services, and tourism providers to post their offers for tourists, edit and update them. Creating an effective system that provides online interaction potential tourists with the local community with the help of planning and booking travel is the cheapest way to increase tourism and boost local employment. The role of our project, in this case - to provide a more detailed geographic information bases, taking into account all the elements that connect consumers and service providers.

3. Information System of the Baikal Natural Territory

Development of information system of the Baikal natural will include the following steps:

- Formation of the concept of information interaction of all stakeholders in the rational use of natural resources of the Baikal natural territory.
- Determination of the structural elements of the information system to reflect the latest information on the Baikal natural territory.
- Identify the key factors influencing the social, ecological and economic development of the Baikal natural territory and the development of indicators to assess the effectiveness of innovations.
- Testing methodology for assessing the relationship between the requirements of the consumers of tourism services and opportunities firms providing these services (with the help of the pilot survey and interviews with companies and consumers of services).
- Analysis of existing methods of communication between consumers and travel services firm providing data services to identify ways to improve communication between the tourists and other tourist services.

In the future, with the launch of the system, it is planned to monitor and analyze the existing methods of communication between consumers and travel service companies that provide these services, taking into account the developed information system, to identify ways to improve communication between the tourists and other tourist services. For this will be the analysis of the demand for the service, location, reviews, the dynamics of visits, requests from representatives of tourist services, sales dynamics. It is also assumed development and testing methodology for assessing the relationship between the requirements of the consumers of tourism services and opportunities firms providing these services (with the help of the pilot survey and interviews with companies and consumers of services, data analysis, website).

The main result of the project is a tourist information system, which includes an interactive map of tourism infrastructure in the Baikal region, a system of tourist services, customized, taking into account the specific needs and characteristics of the region, local communities, tourists and tourist industry and relevant information to tourists.

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