Tourism development in the Baikal Natural Area (analysis and economic assessment)

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Abstract. In 1999, Lake Baikal was included in the UNESCO World Heritage List. To implement the requirements of the international status of the lake in Russia, a number of legislative acts have been adopted that significantly changed the socio-economic living conditions of the local population in the Baikal Natural Area (BNA): numerous types of zoning have been introduced, limiting the possibilities of conducting the economic activities, and a stake has been placed on the development of the tourism. The aim of the article is to assess the impact of tourism over the life of the BNA from the perspective of the theory of sustainable development. In the paper: 1) modern socio-economic living conditions of the population over the BNA were analyzed; 2) an economic analysis of the existing tourist flows were conducted; 3) areas of conflict of interests of the tourist business, local population, authorities of different levels and investors were identified. The results presented in the article are based on the field studies conducted in the summer of 2018 in a number of regions of Buryatia (15 interviews were taken with tourism leaders, heads of settlements, eco-activists and local residents and 45 interviews with tourists). It is shown that the policy of limiting the economic activity in the BNA and the stake on mass tourism lead to the degradation of the Baikal nature and do not solve the problems of the financial self-sufficiency of the territory.

1 Introduction

Lake Baikal is the deepest lake in the world. In 1999, the UNESCO Convention "On the Protection of the World Cultural and Natural Heritage" included Lake Baikal in the UNESCO World Heritage List, which imposed certain obligations on the Russian Federation to preserve the lake. To implement the requirements of the international status of the lake in Russia, a number of legislative acts have been adopted, which significantly changed the socio-economic living conditions of the local population. Numerous types of zoning imposed by the directives limited the possibilities of conducting the economic activities in the territory and created a conflictual confrontation between the local residents and the authorities. From the point of view of the development of the Baikal Natural Area (BNA), the authorities have relied on tourism. Despite the lack of the necessary tourist infrastructure for mass recreation in the region, an active advertising campaign has begun in

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the country, depicting the delights of recreation at Lake Baikal. This has led to an increase in the flow of Russian and foreign tourists. Mass tourism has exacerbated the degradation of the fragile ecosystems of Lake Baikal, but has not led to an increase in the living standards of the local population. As a result, even in the pearl of Lake Baikal - Olkhon, half of the population (49%) would like to change their place of residence (Shekhovtsova (2013), p.7).

The aim of the article is to assess the impact of tourism over the life of the BNA from the perspective of sustainable development. For this, the following tasks have been solved in the paper: 1) modern socio-economic living conditions of the population over the BNA were analyzed; 2) an economic analysis of the existing tourist flows were conducted; 3) areas of conflict of interests of the tourist business, local population, authorities of different levels and investors were identified. The results presented in this article were based on the field studies carried out from July 11 to 17, 2018 in Ulan-Ude, in the Baikal, Barguzinsky, Tarbagataisky districts of Buryatia, as well as on Olkhon Island.

2 Socio-economic conditions of life in the Baikal Natural Area

In 1999, Lake Baikal became a World Natural Heritage Site (WNHS). Based on the requirements of the international status of the lake, which assume a unified management system and a unified legal framework for the WNHS, a federal law No. 94-FZ "On the protection of Lake Baikal" was adopted in 1999. 3 ecological zones were identified in BNA (Ch.1, Art.2, Cl.2.): a) the central ecological zone (CEZ) b) the buffer ecological zone and c) the ecological zone of atmospheric influence. The territory of the central ecological zone (CEZ) includes Lake Baikal with the islands, a water protection zone adjacent to Lake Baikal, as well as specially protected natural areas adjacent to Lake Baikal. CEZ practically coincided with the territory of Lake Baikal WNHS.

In 2001, the Government of the Russian Federation issued Resolution No. 643 "The List of Activities Prohibited in the Central Ecological Zone of the Baikal Natural Area". A detailed analysis of this document is presented in the research paper by Academician A. Tulokhonov. In particular, he writes that: "this act prohibits dressing and dyeing of fur, tanning and dressing of leather. Therefore, a local resident, having shot a squirrel or a seal on a legal basis, must leave the Central zone and dress and paint his hat there" (Tulokhonov, 2018). The greatest difficulties are caused by the prohibition of the construction of light, food, flour and cereals industries in the coastal settlements. The main conclusion made by Academician A. Tulokhonov is that "the forbidden mechanism of preserving the natural environment, as opposed to the local population, is the least effective one" (Tulokhonov, 2018) That is, the list of the prohibited activities itself does not correspond to the needs of the life support of people now living on the banks of the lake.

3 Tourist flows in Buryatia: the analysis and the economic assessment

In Soviet times, Lake Baikal was a popular holiday destination. There were many tourist centers of local enterprises, and hiking tourism was developing. However, due to specific environmental restrictions, the lake has never been considered an all-Russian health resort. Moreover, it was emphasized that it is impossible to build large hotels, sanatoriums, rest houses on Lake Baikal, since this can cause irreparable harm to the nature. In the last two decades, these rules have been forgotten. A course was set to promote a tourism on Lake Baikal, which, according to the authorities' plan, was to provide an income for the local population, which fell due to the imposed restrictions for the economic activities.

The population is disappointed with the tourism project: during the operation of the Baikal Harbor project, only 15 (!) jobs were created. However, the PR around the Baikal Gate and Baikal Harbor projects gave impetus to wild tourism on Lake Baikal. For the period of 2010–2014, there was an almost twofold increase in the flow of tourists to Lake Baikal. According to the Ministry of Natural Resources of the Russian Federation, in 2015, the Irkutsk region and the Republic of Buryatia were visited by 2,401.5 thousand officially registered tourists, including the number of tourists in the Irkutsk region amounted to more than 1.4 million people, and in the Republic of Buryatia - almost 1 million people (State report (2016)). "Baikal - a great lake of a great country" program, developed by the experts of the Analytical Center under the government, sets the task of turning Baikal into a world-class resort and bringing the flow of tourists to 5 million people. The strategy for the development of domestic and inbound tourism in the Republic of Buryatia for the period up to 2035 assumes an increase in the number of tourists accommodated in collective accommodation facilities (CAF) (sanatoriums, boarding houses, hotels, etc.) to 1.2 million people, including foreign tourists up to 300 thousand people (Development Strategy (2019)).

The number of tourists staying in Buryatia in CFA is much less. In 2017, the number of such tourists amounted to only 408 thousand people, of which 87% are Russian citizens, and 13% are foreigners (Information on the activity (2018)). The largest number of tourists stayed in Ulan-Ude hotels (81% of foreign tourists and 45% of Russian). Official income from domestic and inbound tourism amounted to 1.6 billion rubles (about 7% of the income received in Buryatia). The average bill of an organized tourist is 2157 rubles/day.

The main object of interest of tourists in Buryatia (more than half of all the excursions) is the Ivolginsky Datsan with the imperishable body of the outstanding Buddhist ascetic of the 20th century, the Khambo Lama Dashi-Dorzholtgelov, located there. Pribaikalsky (the main territory of the "Baikal Harbor"), Kabansky (Kultushnaya recreation and tourism zone) and Tunkinsky (Arshan resort) regions hold the first place in the number of the tourists on the coast of Lake Baikal.

The majority of the foreign tourists visiting Buryatia are Mongols (45%), Chinese (29%), Europeans from the EU (7%), and Koreans from South Korea (6%). Most Russian tourists come to Lake Baikal for personal reasons (84% come on vacation, 10% - for treatment, 1.1% - on pilgrimage tours), business and professional trips make up 16.2% of all visits to Buryatia (this figure is 6.5% for foreign tourists). The majority of foreigners come to rest (70%), the share of pilgrims among the foreign tourists is higher than among the Russian ones and amounts to 4.7% of all the foreign tourists who visited Baikal in an organized manner.

The estimates of the economic benefits from the flow of unorganized tourists were carried out using the method of the transport and travel costs. The method of transportation and travel costs determines the willingness to pay for environmental goods located in a certain place, based on information about the time and money spent visiting that place (Pearce etc (2002)). As a rule, the value of a recreational facility is determined by the number of visitors per year as a function of visitor income, price and a number of socio-economic characteristics. The method is based on the surveys and interviews to find out the costs that people who make the trip to rest and travel have made to determine the value of the place.

The interviews conducted by the authors in Buryatia in the summer of 2018 make it possible to apply the method of transportation and travel costs as a method of detecting the preferences. The main purpose of the survey of the tourists (45 people were interviewed) was the information necessary to assess the value of the territory by the method of the transport and travel costs. Tourists were asked about the duration of the tour to Lake Baikal, the budget of the trip, income of the family and money that the tourist is hypothetically

ready to spend at certain intervals to preserve Lake Baikal (the so-called “willingness to pay”). The interviews with the tourists showed the significant differences in costs depending on the type of the transport: car or plane (among the interviewed tourists, there were no tourists who arrived by train). Expenses of the tourists visiting BNA using the motor vehicles averaged 15 thousand rubles for a family of 2 people (expenses for gasoline in the amount of 3-4 thousand rubles and living expenses). Basically, this is the population of cities in the nearest regions, the Irkutsk region and the Republic of Buryatia, as well as Mongolia. Tourists visiting the BNA using an airplane spent funds in the range of 60-100 thousand rubles (purchase price of the tour, including the cost of flights, accommodation, travel).

The frequency of visits to the BNA depends on where the tourists reside. Some tourists from nearby regions indicate the number of visits more than 100 times and 200 times, which indicates regular trips. Tourists visiting the BNA by plane indicated the number of trips in the range from 1 to 7, with a predominance of 1-2 times. The length of stay at the BNA also depends on the distance of the trip. The interviews showed that tourists from nearby regions indicate the duration of their stay on the coast from 2 to 7 days, with a predominance of 2 to 4 days. Tourists from the remote regions indicate the duration in the range from 3 to 14 days, with a predominance of 7 days, that is, tourists arriving by plane plan longer trips.

If we assume that unorganized tourists spend half the money per day than organized ones, then the shadow income from unorganized tourism exceeds the income from organized tourism and amounts to at least 2 billion rubles. The income from the tourist business, both legal and illegal (3.6 billion rubles), is not enough to replace the loss of income from economic activities at the BNA. These funds are enough only to receive a monthly income in the amount of the minimum subsistence level (for Buryatia in 2018 - 10,858 rubles) for residents of only one Baltic region of Buryatia (such an increase for the entire population of Buryatia does not exceed 300 rubles per month).

Thus, we state that the flow of tourists to Buryatia is about 1 million people, of which only 40% stay in CAF and get into the official reporting, and the overwhelming majority (about 600 thousand people) are the unorganized tourists. At least the second budget of the tourism industry is in the shade. However, even the aggregate income from the tourism is not able to “feed” the population on the BNA.

4 Impact of tourism over the livelihoods of the population of Buryatia: interests of the state, local population and business

In the summer of 2018, within the framework of this study, more than 15 interviews were taken with tourism leaders (2), leaders of Zabaikalsky National Park (1), representatives of the tourist industry (2), heads of the settlements (3), representatives of public environmental organizations (2), local residents (5) regarding the problems of BNA, factors of degradation and the necessary measures for the development of BNA. The purpose of the survey is to develop the strategies for the sustainable ecologically balanced development in the study area.

The authors used the informal interviewing technique described in (Dolgopyatova (2008), Yadov (2007)). The purpose of the interviews was to assess the impact of the tourism on over the livelihoods of the population of Buryatia; identification of the interests of the state, local population and investors in this area. During the interview, both pre-formulated questions and topics that emerged during the conversation were discussed. The duration of the conversation with the heads of the districts, the heads of the tourism and the national park ranged from an hour to two hours, with the rest of the interviewed categories - the conversation lasted about half an hour.

Below are the main issues that were most often pointed out by interviewees:

1. Lack of land for the development of the settlements. According to the municipal leaders, the local population is ready to live on the shores of Lake Baikal, however, due to the introduced environmental restrictions, the main problem of the population is the impossibility of building, due to the fact that a significant part of the BNA is the lands of the State Forest Fund of Russia (protective forests of the 1st category). It is not possible to expand the boundaries of the municipalities by transferring the land to another category. As a result, all municipalities have the problems with providing the land plots for large families, people on the waiting list, disabled people and state employees (teachers, doctors).

2. Waste disposal. Waste collection and disposal is a serious problem for the local authorities. The law on Lake Baikal does not allow the creation of landfills on the coastal territory, and it has to be transported over a distance of 80-100 km. Waste from tourists is collected by the volunteers and schoolchildren, and the costs of waste collection are borne by the local population.

3. Low level of communal infrastructure. There is no centralized water supply in the coastal zone. Water comes from the artesian wells or is bought from a water carrier (30 kopecks per bucket). The sewage treatment plants built within the framework of the Baikal Harbor project do not work (in the Pribaikalsky District, waste is transported to the old treatment plant in Goryachinsk). Removing a septic tank is quite expensive (1200 rubles per car, which corresponds to the prices in the Moscow region). The lack of toilets for tourists on the shore, as well as the construction of the comfortable toilets with a large influx of tourists, is equally destructive for Baikal. Tourism development projects are facing the constraints associated with the availability of tourism infrastructure. In particular, in the village of Uldurga, nomad games began to be held regularly, where the teams compete for the right to call themselves as the horse wranglers (in fact, this is a recreation of the "Daagadellen" ancient nomad ritual). In 2018, about 1000 people came to see the holiday, while only 1 toilet was functioning.

4. Fleet enlargement. On Lake Baikal, the growth of the tourist flow has led to the fact that everything that can sail is used to serve the tourists. In the absence of berth treatment facilities, fecal and bilge waters from ships are discharged into Baikal.

5. Labor market. Fish and fish-breeding factories, sawmills, sanatoriums and rest houses that functioned during the Soviet period have been closed. On the remaining ones, people are delayed in wages. The most scarce are the state funded jobs that provide at least a small, but guaranteed salary. Unemployed people are not registered because the unemployment benefits do not cover the travel costs to the employment agency. People stopped considering work as a priority and switched to real life. This is possible because there is still the forest and fish in the area. Under these conditions, the population demonstrates the "non-obligation to comply" with the strict laws adopted in Moscow and limiting the economic activity.

6. Tourists. The population is dissatisfied with the massive influx of tourists, but forced to somehow survive, builds guest houses and accepts them. This conclusion is also confirmed by a number of studies (Ivaschenko (2018), Sidorova (2017), Shekhovtsova (2013), Tulokhonov (2009)).

During the expedition, all interviewees were asked to additionally evaluate on a 5-point scale (1 - the most important, 5 - the least important): a) the main problems at the BNA; b) the factors of degradation of the BNA and c) directions of development of the territory. The problems of the BNA, factors of its degradation and options for solving the problems in the questionnaires were formulated by the authors a priori on the basis of studying the scientific literature and the publicistic writing in open sources. Next, the number of ratings 1 and 2 was estimated for each group of the answers. The final results are shown in Tables 1-3.

Table 1. Assessment of the main problems of the BNA in different groups of the stakeholders

	Main problems				
	Water contami nation	Littering .	Excess of the recreatio nal load	Reduct ion of forests	Lake fluctuatio ns
Tourism business/officials	2	1		2	-
Local population	1	2		1	-
Local government		1	2	1	-
Tourists		2		1	-

Table 2. Assessment of the main degradation factors of the BNA in different groups of the stakeholders

	Degradation factors				
	Disadvantages of management			Noncomplia nce with rules SPNR	Mass tourism
	federal government	regional government	local governmen t		
Tourism business/officials	1				1
Local population	1	1	2	2	
Local government		1			
Tourists		1	2		

Table 3. Assessment of the main development measures of the BNA in different groups of the stakeholders

	What to be done?				
	Increase the areas SPNR	Limit the tourism	Increase financing of nature protection	Raise money from the foreign funds	Limit the foreign business
Tourism business/officials			1		
Local population			1		1
Local government		1	1		
Tourists	2		1	2	

A number of conclusions follow from the Tables 1-3:

1. All groups consider the main problems of the BNA to be deforestation and littering. Tourist business leaders see mass (unorganized) tourism as the most important cause of environmental degradation on the BNA. Some topics that are actively discussed in the scientific literature (for example, the problems of fluctuation of Lake Baikal, in particular the currently observed shallowing of Lake Baikal), were not noted by the surveyed groups as important ones.

2. The main blame for the degradation of the lake, according to most groups, lies with the regional officials and federal authorities, which are pursuing inadequate environmental and economic policies.

3. The local population does not see any benefit in foreign tourists, since they do not receive any benefits therefrom, and they believe that the reasons for the degradation of the territory are non-compliance by tourists with the rules of behavior in the SPNR.

4. The locals oppose the foreign business (for the most part, these are sawmills and hotels, often registered in the name of the dummies);

5. The unanimous opinion of all interviewed groups is the need to increase funding for environmental protection activities. The local authorities are in solidarity with this, which currently does not have the infrastructure for servicing mass tourist flows and does not have the financial resources for its development.

Thus, all interviewees noted that the policy of limiting the economic activity in the BNA and the stake on mass tourism lead to the degradation of the Baikal nature and do not solve the problems of financial self-sufficiency of the territory. Today, tourism is the most powerful negative factor affecting the Lake Baikal and its coastal zone.

The implementation of the global environmental goals in the form of severe restrictions for the economic activities on the shores of Lake Baikal has put the population in a position where they have to solve exclusively momentary problems of survival (often in a barbaric way at the expense of the natural resources). The stake on mass tourism in the BNA is inevitably associated with an increase in the load over the territory, which, as the already occurring negative changes show, cannot be compensated by the natural mechanisms. In this situation, even the presence of a kind do gooder investor, who will provide the local people with “the honorable right to wash the socks for the tourists” (Shodorova (2016)), does not save the situation. Therefore, in the case of Lake Baikal, we should talk about tourism services with high added value and reorientation towards more environmentally friendly types of tourism. From this point of view, ecological tourism, nature tourism, rural (event) tourism, and hiking are promising ones.

Buryatia has all the conditions for the development of such a tourism. This is largely facilitated by the cultural environment of the Buryats, which is based on the traditions of their ancestors, developed in conditions of life closely interconnected with nature. One can positively evaluate “U Semeiskikh” projects - the trips to the Old Believer villages, the “100 unique villages of Buryatia” project, which includes the so-called “shaman tours”, “Great Baikal Trail” project. In our opinion, business tours (organization and holding of the conferences, forums, holidays, rallies, seminars, exhibitions) can also be promising.

5 Conclusions

So, the obligations assumed by the Russian Federation to the world community to preserve Lake Baikal pose a difficult task for the country's leadership to organize the life on the BNA. The sustainable development of the BNA requires the solution of two interdependent tasks: preserving the lake ecosystem and ensuring a decent life for the local population. With regret, it can be stated that current administrative decisions of the federal center are made without understanding the peculiarities of the local life and without taking into account the opinion of the local population, which in many respects forms an anti-sustainable development trend. The adopted and implemented concept of the BNA development, based solely on mass tourism, not only does not provide normal living conditions for the population, but in the foreseeable future will lead to irreversible changes in the Baikal ecosystem.

Returning to the title of the article, we can formulate the general conclusion of the study: the massive tourist flow should certainly be stopped, and environmentally friendly

tourism with high added value should be developed, or, in other words, the elite tourism in the broad sense of the word.

6 Acknowledgment

This research has been funded by the Russian Foundation for Fundamental Research, project No. 17-29-05078 "Impact of socio-economic processes on ecosystems, ecological and economic value of the Baikal natural territory"

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