

Ecotourism practices meeting the sustainability principles: case of the Republic of Karelia

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Abstract. Ecotourism seems to be the one that naturally meets the criteria of sustainable tourism. However, the way it is practiced in some cases may substantially divert from the lines of sustainable development. The paper investigates the correspondence of ecotourism practices to sustainable development criteria in the case of the Republic of Karelia. The aim of the study is to reveal failures and provide research data to elaborate policy recommendations for enhancing ecotourism sustainability. Ecotourism practices in the region were analyzed and classified into three forms: unorganized (independent) tourism, organized active tourism, and ecotours in protected areas. The sample of this study comprised 3 specially protected natural areas in the Republic of Karelia and 9 natural areas without 'protected area' status which are popular among tourists. This study employs content analysis method, comparing the feedback reviews about nature destinations in the Republic of Karelia provided by tourists in Yandex.Maps social network. Feedback of tourists was analyzed according to 4 criteria: cleanliness, peace, beautiful landscape and tourist infrastructure. Based on the ratio of positive and negative reviews, conclusions are drawn about the area's compliance with each criterion. The results show that only ecotours in protected areas fully meets all the criteria of responsible and sustainable tourism in the region studied. Policy incentives should be aimed at encouraging ecotourists and service providers to meet the principles of sustainable tourism.

1 Introduction

Ecotourism is a type of tourism focused on visiting virgin or little-disturbed by anthropogenic impact natural areas. Sustainable ecotourism should draw attention to protecting natural resources as well as the environment. Most international tourism organizations include sustainable development goals in their declarations and aims [1, 2]. Sustainable tourism certificates acknowledge sustainability practices of hotels as well as

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destinations [3-5]. Perception of “sustainability”, “sustainable tourism” and “ecological tourism” can differ across different cultures and generations [1, 6-8].

Ecotourism seems to be a comprehensive area that ensures the interrelation of tourism, nature conservation and culture and one of the priority directions of ecological investment [9-12]. The preservation of the natural environment is one of the global principles of sustainable tourism development [6].

The significant difference between ecological tourism and other types of tourism - is a more rational and careful use of natural resources, as well as cultural and historical attractions, which allows to avoid or minimize the negative consequences of tourist activities. The goals of ecotourism are preservation and protection of the environment; improvement of the economic and cultural well-being of the local population; expansion and enrichment of the tourist experience; profitability of the tourism business as well as economic feasibility.

Ecotourism is a type of tourism, focused on visiting natural zones and a responsible way of traveling. So it doesn't violate the balance in the environment, but contributes to its protection and improves the well-being of local residents. Its cornerstone seems to be a place of travel itself, i.e. natural resources that are not only able to satisfy the needs of the tourist as well as contribute to his / her recovery and recreation, but also an object of special protection. Therefore, the tourism industry in such places should take into account the environmental component of this place as a priority task, not only its potential value as a tourist object. Marion, J. L., & Reid, S. E. [11] revealed that special educational programs can effectively alter visitor knowledge as well as behavior in the natural protected areas.

It can be argued that, according to its definition and mandatory criteria, theoretically ecotourism is one of the most consistent with the principles of sustainable development. At the same time, in the practice of tourism activities all the criteria of responsible ecotourism are not always observed, especially in terms of minimizing the anthropogenic impact on the environment. In this case, ecotourism remains ecological in its form – since it is carried out in the natural environment – but not in the framework of its content – in case if a responsible attitude towards the environment is ignored.

The Republic of Karelia has unique landscapes as well as natural resources for ecological tourism development. The territory of Karelia is rich in forests, lakes and rivers, which appear to be a natural base for ecological tourism. The forest fund occupies 148,000 sq. km or 85% of the territory of Karelia. There are 27 thousand rivers and 60 thousand lakes of various size in Karelia. According to these parameters, the Republic of Karelia seems to be a unique region not only in Russia, but also in the world.

In the Russian Federation conservation of the natural environment is institutionalized through the regime of specially protected natural areas. There are 8 federal protected natural areas as well as 146 areas with regional status in Karelia. Federal protected natural areal in Karelia include 3 nature reserves (one of which the Republic of Karelia “shares” with the neighboring Murmansk Region), 4 national parks (one of which is partly located in the Arkhangelsk Region), and 2 state zoological sanctuaries. Regional natural protected areas include 3 natural recreational areas, 33 sanctuaries, 1 nature park, 109 natural monuments (64 marsh, 19 botanical, 11 geological, 9 hydrological, 5 landscape). All natural protected areas are managed by specially created state enterprises that have the authority to organize permitted recreational activities in the territory under their jurisdiction.

Ecotourism in Karelia is carried out in the following forms:

Unorganized (independent) tourism. It is carried out in the form of car or water trips, less often - hiking and cycling. A car trip usually involves moving from the place of permanent residence to the destination by car and staying for several days on the shore of a

lake in an unorganized tent camp. A water trip is usually carried out on small watercraft on a river suitable for rafting, with stops at spontaneous natural sites.

Organized active tourism. It is carried out mainly in the form of one-day or multi-day rafting trips on rivers with stops for overnight stays and rest both at spontaneous and specially organized sites. Tour organizers can be private companies as well as individual entrepreneurs.

Ecotours in protected areas. They are carried out in the form of tourists staying in an organized tent camp or forest lodge (cottage) on the territory of a protected area, optionally supplemented by hiking along the ecological trails of the protected area. Direct organization and/or supervision of recreational activities within the framework of the tour is carried out by the governing body of the protected area.

2 Methods

This study is based on content analysis method, comparing the feedback of tourists about nature destinations of the Republic of Karelia on the platform Yandex.maps.

The increasing presence of social media in the tourism industry allow to investigate user-generated content for better understanding tourist experience and planning tourist destination development [7, 9, 10, 13]. As noted by Kredens, C., & Vogt, C. A. [9] a user-generated content analysis in tourism research can be used at wildlife tourism attractions in order to evaluate the strength of tourists' connection to wildlife and its conservation.

The content analysis is implemented in tourism research for learning environmental indicators with positive impacts on the tourism destination management [3]. Hassan, T. H. and others [4] used content analysis to identify the specific sustainability and visitor experience problems that persist across Egypt's major cultural tourist sites. Zhang, W., & Fukami, S. [14] used quantitative content analysis to explore the content of codes of conduct for ecotourism in Japan.

There are strict requirements for the content analysis method:

- objectivity, i.e. the analysis must be determined by clear and precise rules;
- systematicity, i.e. the analyzed information must be ordered and integrated into categories;
- measurability, i.e. the frequency of occurrence of any significant element must be calculated.

The sample of this study comprised 3 specially protected natural areas in the Republic of Karelia and 9 natural areas without 'protected' status which are popular among tourists. Only those areas were selected that provide places for a tent or other facilities for overnight stay in the natural environment. All of them are open for visiting and have 35 and more user reviews at Yandex.Maps. Yandex.Maps was selected as a reference source since it is the social media that provides the most extensive coverage of natural places of tourist interest in the Republic of Karelia with the largest number of user reviews.

Feedback of tourists was analyzed according to 4 criteria:

- cleanliness (absence of garbage in the area)
- peace / solitude / tranquility / lack of people
- beautiful landscape
- tourist infrastructure (toilets, picnic spots, information, etc)

For every area, user reviews were analyzed along these criteria. The shares of positive, negative and neutral reviews were calculated for each area and criterion. Under neutral reviews, we assume those reviews that do not mention certain criteria for an area. Based on the ratio of positive and negative reviews, conclusions are drawn about the area's compliance with each criterion. Having reviews calculated, the comparison of the areas is made.

3 Results

The shares of positive, negative and neutral reviews calculated for each selected area and criterion are presented in Table 1.

Table 1. Tourist reviews for natural areas, shares of positive/neutral/negative reviews, %.

Area	Cleanliness	Peace / solitude	Beautiful landscape	Tourist infrastructure
<i>Non-'protected' areas</i>				
Impilahti beach	17.1 / 75.6 / 7.3	9.8 / 68.3 / 22	39 / 61 / 0	0 / 97.6 / 2.4
Kurkijoki beach	12.9 / 80.6 / 6.5	6.5 / 87.1 / 6.5	19.4 / 80.6 / 0	19.4 / 61.3 / 19.4
Koinonsaari beach	21.2 / 70.2 / 8.7	5.8 / 81.7 / 12.5	38.5 / 60.6 / 1	1.9 / 90.4 / 7.7
Karmalanjarvi lake	16 / 73.9 / 10.1	2.5 / 90.8 / 6.7	3.4 / 96.6 / 0	0 / 84.9 / 15.1
Kaalamo beach	11.4 / 85.7 / 2.9	14.7 / 79.4 / 5.9	40 / 60 / 0	0 / 97.1 / 2,9
Vidlica beach	13.5 / 79.2 / 7.3	8 / 90.5 / 1.5	33.5 / 66.5 / 0	0.4 / 97.4 / 2.2
Syamozero beach	21 / 63.8 / 15.2	7.6 / 88.6 / 3.8	21 / 79 / 0	0 / 97.1 / 2.9
Essoila beach	12.5 / 60.4 / 27.1	4.2 / 83.3 / 12.5	14.6 / 85.4 / 0	0 / 97.9 / 2.1
Derevyanka beach	22.9 / 71.4 / 5.7	11.4 / 88.6 / 0	25.7 / 74.3 / 0	0 / 85.7 / 14.3
<i>Protected areas</i>				
Paanajarvi	34.4 / 64.4 / 1.2	41.4 / 58.6 / 0	56 / 44 / 0	45 / 53.8 / 1.2
Besov Nos	41.2 / 56.7 / 2.1	15.3 / 82.6 / 2.1	29.7 / 70.3 / 0	39.6 / 59.4 / 1.0
Vodlozero	26.2 / 70 / 3.8	36.7 / 61.4 / 1.9	34.3 / 65.7 / 0	21 / 77.1 / 1.9

As can be seen from the table, the natural value of both protected and non-protected areas expressed by the “Beautiful landscape” parameter is assessed by tourists exclusively positively. Only 1% of reviews for one area are negative for this parameter. The average share of positive reviews mentioning “Beautiful landscape” is slightly higher for protected areas than that for non-protected areas.

“Cleanliness” parameter appears to be a two-fold one. Tourists in their feedback devote pureness of water and pureness of land. Most of them appreciate the cleanliness of Karelian lakes and rivers, but notice the dirtiness of their shores as well as lots of garbage. In their opinion, not lack of infrastructure causes the problem of garbage but people who visit these places and leave the rubbish. Non-protected areas cleanliness gained 11.4-22.9 % share of positive mentions and 2.9-27.1 % share of negative ones. Protected areas cleanliness is assessed more positively: 26.2-41.2 % of reviews are positive and only 1.2-3.8 % are negative.

“Peace / solitude” parameter gained mixed mentions in reviews for non-protected areas with negative and positive ones nearly balancing. Tourists tend to oversee this parameter in their reviews for non-protected areas as 68.3-90.8 % of reviews do not mention it. For protected areas, “Peace / solitude” is mentioned more intensively and these mentions are overwhelmingly positive.

Most non-protected areas received no at all positive reviews in the part of “Tourist infrastructure”. Only one non-protected area gained equal numbers of positive and negative mentions of infrastructure, while the others were assessed negatively. In contrast, protected areas gained overwhelmingly positive mentions of tourist infrastructure.

4 Discussion

Of all the forms of ecotourism in Karelia, only one fully meets all the criteria of responsible ecotourism – ecotours in protected areas. It can be argued that only within the framework of protected areas is a systematic activity organized to minimize anthropogenic impact on the environment and preserve natural heritage, in general, and within the framework of tourist and recreational activities, in particular. The operator of income from the organization of tourist services on the territory of protected areas are the governing bodies of protected areas; thus, ecotourism contributes to the economic base of the functioning of protected areas, including the activities to preserve the natural environment. Protected areas attract service providers from among local small businesses to organize tours to their territory – mainly for transportation; that is, ecotourism in protected areas helps support economic activity in local communities. Protected areas conduct educational and informational activities among arriving tourists by organizing exhibits, placing information stands, distributing educational materials, as well as organizing accompanied excursions, that is, they help enrich the cultural experience of tourists (Table 2).

Table 2. Forms of ecological tourism in the Republic of Karelia.

Forms of ecological tourism	Criteria of ecological tourism		
	Preservation and protection of the environment	Enriching the cultural experience of tourists	Supporting local business/community
Unorganized (independent) tourism	<i>Negative impact</i>	<i>Weak</i>	<i>Absent</i>
Organized active tourism	<i>Absent or has negative impact</i>	<i>Weak</i>	<i>Weak</i>
Ecotours in protected areas	<i>Positive impact</i>	<i>Positive impact</i>	<i>Positive impact</i>

Independent ecotourism, as it is predominantly implemented in Karelia, meets the criteria of responsible ecotourism less than all other forms of ecotourism (Table EcoKar_1). Spontaneous campsites in the natural environment are not equipped with infrastructure, which, combined with the predominantly low ecological culture of independent tourists, leads to a strong negative anthropogenic impact on the environment - pollution of campsites and water bodies with household waste, destruction of vegetation and soil cover, unauthorized lighting of fires with a high risk of fire. With independent ecotourism, the effect of enriching the tourist's cultural experience is rather weakly expressed; this effect is expressed only in contemplation of the natural landscape. Independent ecotourists, as a rule, do not use the services of local businesses, with the exception of a few cases of purchasing food in local non-chain retail stores; that is, support to local businesses or the community from their part is practically absent. Regulation of independent ecotourism in Karelia is poorly developed and is carried out only in the form of sporadic measures to prevent fire hazard situations.

Organized active ecotourism carried out in Karelia by private tourism enterprises (outside protected areas) poorly meets the criteria of responsible ecotourism (Table EcoKar_1). Preservation and protection of the environment within the organized tours is not controlled by supervisory authorities and depends on the environmental culture of the personnel of the enterprise organizing the tour. Efforts to enrich the cultural experience of tourists within such tours, as a rule, are not included in the job responsibilities of the instructors guiding the group and depend on their personal enthusiasm. To organize active ecotours, service providers from among local small businesses can be involved - although not always - as a rule, for transportation; that is, support for local businesses is very limited.

Specialized regulation of organized active ecotourism is carried out by the Ministry of Emergency Situations to ensure the physical safety of tourist groups; some supervision is also carried out by the environmental prosecutor's office. Non-specific regulation of the activities of enterprises organizing active ecotours is carried out by Rospotrebnadzor and other bodies supervising the activities of commercial enterprises in general.

Thus, in the Republic of Karelia, tourist services that best meet the criteria of responsible ecotourism are provided by protected areas. At the same time, protected areas account for the smallest share of ecotourists visiting Karelia. In general, quantitative assessments in the sphere of ecotourism in Karelia are significantly complicated due to the absence of appropriate statistical data. Nevertheless, according to estimates by experts interviewed, the distribution of the flow of tourists by forms of ecotourism can be approximately estimated as follows: independent ecotourism - 40-60%, organized active ecotourism outside protected areas - 35-50%, ecotours in protected areas - 5-15%. The limited share of protected areas, despite the high quality of their tourist offer, is explained by the low transport accessibility of the territory of protected areas, as well as the limited capacity of tourist infrastructure in the territory of protected areas, primarily in terms of accommodation.

5 Conclusions

The prospects for the development of ecotourism in Karelia are connected, in our opinion, with the elimination of infrastructural restrictions for the expansion of tourist activities in protected areas with strict observance of the norms and principles of preserving the natural heritage. At the same time, it is obvious that the protected area regime cannot be extended to all tourist-attractive natural areas of Karelia, therefore other forms of ecotourism should also be developed; at the same time, one of the key development goals should be bringing tourist activities into line with the criteria of responsible and sustainable ecotourism. The method of regulation for achieving this goal is seen not as prohibitive measures, but as encouraging and informational and educational ones; for example, informational and financial support for travel agencies implementing voluntary environmental monitoring.

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