Ecological tourism as a factor of sustainable development of the Western Arctic

© Eduard B. GRUSHENKO, researcher
E-mail: grushenko.eduard@mail.ru
Luzin Institute for Economic Studies of the Kola Science Centre of RAS, Murmansk, Russia

Abstract. The article is based on the expert assessment of ecological tourism as the priority and competitive type of recreational nature management in the Western Arctic. The theoretical provisions are developed and the importance of the tourism industry in the sustainable development of the Russian Arctic is determined based on the analysis of problems and prospects of the modern development of ecological types of tourism in the regions and centers of tourism. The specificity of tourism is discussed considering the increased interest in the Arctic, the growth of cruise tourism and the increase in the anthropogenic load on the polar landscapes. Proposals are given and priority strategic tasks for the development of Arctic tourism are formulated: minimization of anthropogenic impact on the environment and preservation of the cultural and natural heritage of the Arctic, increasing the availability of Arctic territories for tourists. Development of competition in the field of transport, simplification of logistics, the combination of sea cruises with air travel to reduce the cost of travel for those wishing to visit the unique high-latitude Arctic territories and increase the tourist flow. Due to the predominance of expensive types of tourism in the Arctic, support for low-cost and high-income tourism destinations is needed. Innovative investment projects in the field of the Arctic tourism based on clusters could attract tourists and additional investments in infrastructure modernization.

Keywords: Western Arctic, Arctic tourism, high-latitude archipelagos, tourism, eco-tourism, sustainable development, the national park “Russian Arctic”, the Murmansk region.

Introduction

Considering generally accepted theoretical definitions, ecotourism is a form of sustainable tourism focused on relatively untouched natural areas. The challenges facing environmental tourism are quite consistent with the objectives of the sustainable development [1, Lukichev A.B., pp. 3–6].

The attractiveness of the Arctic and global warming in high latitudes opens up great prospects for the eco-tourism development. The main attractions are the Arctic Islands, incl. the Franz Josef Land and Novaya Zemlya in the Western sector of the Russian Arctic. Currently, the Arctic Islands with a high level of natural preservation have become attractive for tourists. The coasts of the Western Arctic archipelagos, their unique natural landscapes and cultural and historical sites are very promising for the Arctic sea cruises.

The vast majority of tourist attractions are natural objects: glaciers, fjords, rocks, coastal cliffs, waterfalls, bird markets, rookeries of marine animals, etc. The growth of anthropogenic impact on the Arctic landscapes and their vulnerability necessitate the scientific support of programs aimed at the Arctic tourism development and include the assessment of the sustainability of landscapes and the implementation of measures for their protection.
The tourism industry has consistently called for an effective “mechanism” for the transformation of natural sites into meaningful memorable experience for travelers and tourists [2, Binkhorst E., Dekker T.D.].

Ecological tourism in the Arctic orients tourists to communicate with nature and not just nature but its primeval beauty. So, the most suitable areas for ecological tourism are those with a special environmental status and, above all, the national parks. National parks, incl. the NP “Russian Arctic” — an example of a specially protected natural area, are the most promising form of management of natural resources and environmental protection. They have all the necessary conditions for both working out methods of preserving natural and cultural heritage and for the development of limited tourism and its classic environmental direction.

In 2016, the scientific reference edition “Arctic tourism in Russia” [3, Arctic tourism...] was published by the NArFU publishing house. For the first time, the book presents systematically analyzed aspects of resource potential, attractiveness, opportunities and challenges of ecological, cruise, international and other types of the Arctic in Russia. In the first part of the book [3, Arctic tourism..., pp. 6–117], the basic concepts of tourist attractiveness of the Arctic Islands, resource potential, prospects, opportunities and threats of the Arctic tourism, the tourist rating of the areas of the Russian Arctic and the challenges ecological tourism are presented. The challenges and prospects of the Arctic tourism were also in a focus of the whole section called “Arctic tourism in Russia” of the “Arctic and North” journal (electronic scientific journal of NArFU) No. 23 for 2016. It includes articles by well-known researchers: D.V. Sevastyanov, Yu.F. Lukin, V.S. Kuznetsov, and N.M. Byzova.

**The theoretical concept and the value of ecological tourism for the sustainable development of the Western sector of the Russian Arctic**

Now, the tourism industry is one of the most important sectors of the economy for many countries and communities around the world. In the Arctic, considering its remoteness and seasonality as well as the historical predominance of intensive exploitation of natural resources, the tourism industry shows a significant increase in the number of tourists and the share of revenues [4, Usenyuk S., Gostyaeva M.].

However, in Russia, which owns almost 2/3 of the Arctic, the development of the Arctic tourism is a new direction in the state strategic planning, research and commercial activities [5, Kharlampeva N.K.].

Integrated development of the Arctic zone of the Russian Federation should also be aimed at stimulating tourism activities. It is one of the priority areas of social and economic activities, due to the high natural and cultural potential of the Russian Arctic and the multiplicative effect of the tourism industry. The Arctic tourism is a strategic direction for the sustainable development of the North of Russia. Also, it can become a significant factor for the protection of the unique natural and cultural heritage and an important driver of the economic development of the Russian Arctic, as the demand for it is growing worldwide today.
In the Development Strategy of the Arctic zone of the Russian Federation until 2020, the most important issues are: “the Arctic tourism development and expansion of environmentally safe types of tourist activity in the Arctic, improvement of legal and regulatory support in the field of tourism, creation of a system of its financial support based on the principles of public-private partnership, promotion of regional tourism clusters, and promotion of the Arctic tourism on the national and international levels”1.

Even in case of the weak development of tourism infrastructure in the polar latitudes of Russia, we observe a steady increase in interest in traveling to the Arctic. The increase in the number of foreign tourists in the Western sector of the Arctic is associated with research and scientific expeditions visiting the difficult-to-access areas with unique nature.

Global warming and melting of sea ice have made the Arctic waters more and more open for cruise ships and navigation in summer. Not only the mainland, but the islands of the high-latitude areas have become more accessible.

It should be noted that the problems of tourism development in the Russian Arctic are due to the high cost of transport services, the lack of appropriate infrastructure, institutional restrictions on passing (border and customs control), and high living costs do not allow to rely on the mass high-latitude Arctic tourism in the near future [3, p. 96].

It should be noted that tourism in the Arctic has its own regional specificity, associated with special natural and climatic conditions and the need to ensure reliable safety of tourists staying there. In addition, for the Arctic specially protected natural areas (protected areas), the issue of accessibility is very important, as well as sea or air travels to the high-latitude Arctic for tourists plays an important role. All this complicates the work of tourist companies and does not contribute to their economic efficiency.

In general, it could be noted that all the tourist companies operating in the Arctic are interested in a minimal impact on the environment caused by the population in the Arctic. So, the nature remained in a natural state favorable for animals and birds [6, Kuznetsov V.S., p. 42–57].

The development of measures aimed at increasing the attractiveness of the high-latitude Western Arctic archipelagos for the development of tourism should be based on the peculiarities of the geographical location of these territories. First of all, it is necessary to consider the inaccessibility of the territory, the island’s maritime location, severe climatic conditions and pronounced seasonality, which do not allow to speak about the year-round visits. The remoteness of the territory from major transport hubs and the priority of sea transport to reach the islands determine the high costs of sea cruises, which prevail in the Arctic tourism.

Also, the cost of sea cruises depends on the tour operator, the class of the vessel, the comfort of the cabins and the duration of the trip. These factors objectively hinder the availability of

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1 Strategiya razvitiya Arkticheskoy zony Rossiyskoj Federacii i obespecheniya nacionalnoj bezopasnosti na period do 2020 goda. [Strategy for the development of the Arctic zone of the Russian Federation and national security for the period until 2020]. URL: https://minec.gov-murman.ru/activities/strat_plan/arkticzone/ (Accessed: 21 August 2017) [In Russian].
the Arctic tourism for many social groups in Russia. The cost of the Arctic tours for Russians is also high due to the devaluation of the ruble. Nevertheless, we positively assess the existing opportunities for the development of the Arctic tourism in the Russian Arctic. Also, it should be emphasized that the opportunities of the existing resource potential of protected areas are not fully used.

The most urgent problem is the consideration of the optimal capacity of protected areas to take tourists from the standpoint of ecology. It is very important not to harm nature, not to destroy unique natural and cultural objects, considering not always high level of ecological education and culture of some part of tourists. Therefore, the administrations of protected areas reasonably introduce all sorts of restrictions and regulate the number and activities of tourists and pilgrims. Special attention should be paid to visiting the impact areas, the Arctic “hot spots”, ensuring the safety and health of all tourists. The balance of economy and environment in the Arctic is no less important than in other areas [7, Lukin Yu.F., pp. 116–122].

Travel to the Arctic should be available to tourists with different levels of income. It is necessary to develop competition in logistics and transport services to improve transport accessibility and to reduce travel costs.

One of the promising directions of economic diversification in small settlements of the Western Arctic is tourism. However, only mass tourism could give a multiplier effect and become a driver for the development of small business. Innovative investment projects in the Arctic tourism should attract tourists to the region, and this, as it is known, will attract additional investment in infrastructure modernization and sustainable development of the Western Arctic.

The peculiarity of tourism in the Western Arctic is tourist activities associated with the predominance of the niche types of tourism (sea cruises, mountain ski tourism), aimed attracting tourists with high income. Despite the fact that niche tourism is an expensive type, its contribution to the economy of the subjects of the Arctic zone of the Russian Federation is not more than 1% due to the transport remoteness, low investment activity of regions, and low profitability of some types of tourism. As a result, the long-term strategic tourism activities in the Western Arctic will support cost-effective and profitable types of tourism, e.g., event and eco-tourism [8, Leonidov E.G., pp. 206–211].

**Areas and tourist centers of the Western Arctic**

The territory of the Western Arctic includes the entire Murmansk region, The non-German Autonomous region, the Northern regions of the Arkhangelsk Oblast and the Republic of Karelia, adjacent to the White sea, high-latitude Arctic archipelagos of the Arctic ocean (the Barents sea region). One of the key areas for the development of Arctic tourism is the Primorsky district of the Arkhangelsk Oblast—the largest administrative region of Russia, including such popular tourism centers as the archipelago of the land of Fran-CA-Joseph, Solovki, Small Karelians, the national Park "Onezhskoe Pomorie". If the high-latitude summer Arctic tourism is more focused on foreign
tourists, the "mainland" part of the Western Arctic is attractive mainly for the Russian citizens [9, E. Grushenko, p. 508].

In the territories of the Western Arctic, a comprehensive program of conservation and development of unique nature, landscape, historical and cultural territories and natural monuments is being implemented on the basis of the new specially protected areas and sustainable development of existing ones involved in ecological tourism. The remote Pomor settlements arereviving with the development of event tourism (Ribera, Kuzreka, and Umba), new ecological routes to the remote objects appear (the Lapland reserve, Seidozero, village Umba, the Museum-reserve “Ko-ozerskie Petroglyphs”, and the Pasvik reserve). On the White Sea coast, along with the diving and rural tourism, ecological “water tourism” is gaining popularity: observation of marine animals (Kandalaksha, national Park “Onezhskoe Pomorie”, Karelian Nilmoguba, Pomor Letnyaya Zolotitsa, and Beluga Cape on Solovki) [10, Grushenko E., pp. 69–70].

To regulate uncontrolled tourist flow, sustainable development of ecological tourism and preservation of the unique natural heritage, new protected areas (Nature Park on Sredniy and Ribachiy peninsulas and National Park “Hibina”) are organized.

The main promising centers of the Arctic tourism in the high latitudes are the archipelago of Svalbard and the National Park “Russian Arctic”, organized on the archipelago of Franz Josef Land (FJL) and Novaya Zemlya. The archipelagos of Svalbard and Franz Josef Land may become the growth points of the Russian Arctic tourism as a geopolitical factor in the strengthening of Russia's presence in the Western Arctic.

Currently, the National Park “Russian Arctic”, established in 2009, includes the Northern part of the Novaya Zemlya archipelago and the Federal nature reserve “Franz Josef Land”. It is the northernmost and the largest marine protected area in the Arctic with 85% of the archipelagoes covered by glaciers. In 2016, the territory of the NP “Russian Arctic” was expanded by 7.4 million hectares. The expansion was due to the Federal reserve “Franz Josef Land” with an area of 1.6 million hectares and the area of internal sea waters and the territorial sea of Russia with an area of 5.8 million hectares. Thus, the NP “Russian Arctic” has become the largest in Russia: its area is 8.8 million hectares2. It is also the largest land national park and marine nature reserve in Russia. The expansion of the Park has contributed to the conservation of the Arctic rare species of animals and birds listed in the Red Book of Russia and the world, as well as their habitats.

In the park, the largest in the Northern hemisphere bird markets, walrus rookeries, home to polar bears, bowhead whale and seals are found. The park is created to preserve the unique nature of the Arctic. The main type of the tourist delivery is sea cruises, which are one of the strategic objectives of the national park.

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2 Sajt nacional'nogo parka «Russkaya Arktika». O parke. Territoriya. [The site of the national park “Russian Arctic”. About the park. Territory]. URL: http://www.rus-arc.ru/ru/AboutPark/Territory/ (Accessed: 12 september 2017) [In Russian].
In connection with the creation of the national park, icebreaking cruises to the North pole are carried out from Murmansk mainly through the FJL with a visit to the Novaya Zemlya. In the summer 2015, 11 cruises were completed in the NP “Russian Arctic”. Among them — 7 cruises to the North pole on the nuclear icebreaker “50 let Pobediy” (it is the hallmark of the Arctic tourism, as it is an exclusive Russian tourist product) with a visit to the FJL. One of these cruises to the “top of the planet” had almost 100% Chinese tourists. In 2015, the total tourist flow to the NP “Russian Arctic” amounted to 1,225 people, which is a record in the entire history of cruises to the area. In 2015, a sea border checkpoint for foreign tourists was opened in the FJL archipelago in a test mode. It made it possible to simplify border customs procedures and shorten the route of cruise flights on the transit route from Spitzbergen to FJL for three days without visiting Murmansk or Arkhangelsk. In 2015, the Rosturizm and Poseidon Expedition companies organized the first three expedition cruises for foreign tourists (500 people) with a visit to Svalbard and FJL. The cost of the cruise is from $ 7,000 to $ 14,000.

In 2017, the territory of the NP “Russian Arctic” was visited by 1,142 tourists. The growth compared to 2016 was 20% (Table 1). This year, cruise ships following three routes entered the Russian Arctic: 6 — from Murmansk to the North Pole on the nuclear icebreaker “50 let Pobediy”; 3 — on the ship “Sea Spirit” on the route Spitsbergen — Franz Josef Land. Two flights aboard the “Akademik Shokalskiy” vessel were made along the Northern Sea Route (Murmansk — Anadyr).

The national composition of passengers is as follows: 26% are Chinese tourists, 17% are German. Russians tourists — only 6%. There were also two cruises with tourists from France. The cost of participation in the cruise on the nuclear icebreaker “50 let Pobediy” is from $ 27,000 to $ 40,000; an average of about 120 passengers aboard and almost always full occupancy of the ship.

The Arctic cruises mainly take place around the FJL archipelago, the northern part of Novaya Zemlya is less visited. Tourists visiting the bird markets and watching the Arctic animals on the rock Rubini, in the Bay of Tikhaya, on the islands of Champa and Rudolph. Landings from a ship are usually made on special rubber motor boats of the “Zodiac” type or with the help of a helicopter. A lot of impressions from travelers leaves landing on Heiss Island, surrounded by floating icebergs and ice. White bears around, and huge walruses lie on the ice floes — real polar exotic.

It should be noted that a great attention is paid to the careful attitude to the nature of the Arctic when organizing landings of tourists to the islands. The preservation of the unique landscape and historical-cultural heritage of the national park is one of the most important issues for

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3 “Atomflot” dostavit na Severnyj polyus kitajskih turistov. [“Atomflot” will deliver Chinese tourists to the North Pole.] URL: http://www.mvestnik.ru/shwpgn.asp?pid=2015071012 (Accessed: 20 January 2017). [In Russian]
4 Sajt nacional’nogo parka «Russkaya Arktika». Turizm. Statistika. [The site of the national park “Russian Arctic”. Tourism. Statistics]. URL: http://www.rus-arc.ru/tourism/Statistics/ (Accessed: 20 September 2017) [In Russian]
5 Glava nacparka «Russkaya Arktika» o turizme i letayuschih pingvinov. [The head of the national park “Russian Arctic” about tourism and flying penguins] URL: https://lenta.ru/articles/2017/07/06/arctica/ (Accessed: 20 September 2017). [In Russian]
6 Sajt informacionnogo agentstva Arktika-Info. Novosti. [The site of the news agency Arctic-Info. News] URL: http://www.arctic-info.ru/news/tourism/ (Accessed: 20 September 2017) [In Russian]
the organizers of ice-breaking cruises. The guests of the national park took part in the garbage collection in the Tikhaya Bay (Hooker Island), which is now completely cleared of man-made garbage. Each tourist gives the national park around 50 euros income\(^7\). It is invested in environmental projects and infrastructure development. “Russian Arctic” is the main operator of a large-scale federal program of cleaning the Arctic from waste left from the active economic, scientific and military activities of the USSR in these territories.

Table 1

| Year | 2014 | 2015 | 2016 | 2017 |
|------|------|------|------|------|
| No. of cruises | 6    | 11   | 9    | 12   |
| No. of tourists | 738  | 1,225| 954  | 1,142|

Simplification of logistics, e.g., the use of aviation, will make it cheaper to travel to a national park and to increase tourist flows. The creation of the multifunctional Arctic complexes with helipads in the “Russian Arctic”, which can be visited by tourists and scientists, can significantly reduce the price of tours. Thus, in the northernmost border control post in the world — on Alexandra Island, FJL — defense infrastructure objects are being created, incl. a military airfield, which in the future can be used for organizing aviation drills. A program of stationary stay of tourists on the island of Alexandra, designed for 3–5 days, is being developed.

Specialists of the national park are counting on the further growth of the Polar tourism. The creation of a permanent border crossing point, the organization of ecological paths, museum expositions, mini-hotels, viewing platforms and visitor centers in the NP “Russian Arctic” will help to increase cruise ship calls, sustainable development of ecological tourism and the growth of tourist flow up to 5–7 thousand people per year. In the foreseeable future, the number of tourists visiting the NP “Russian Arctic” could reach 40–50 thousand people a year. The Spitsbergen archipelago annually receives about 76 thousand tourists, about 30% of them are also ready to visit the neighboring Russian protected areas: Novaya Zemlya and FJL\(^9\). They are almost untouched by human territories with unique natural landscape.

Until recently, there had been no tourist infrastructure on the Arctic islands. However, soon there will be four strongholds in the national park, which will include visiting centers (three for FJL and one at Novaya Zemlya) and other environmentally friendly infrastructure facilities. It is planned to build observation platforms, tourist ecological paths, information boards and mini-hotels.

In the national park “Russian Arctic”, the first ecological route to the Bay of Tikhaya, Hooker Island, FJL archipelago. The ecological rout will help to preserve the fragile ecosystem of the bay. An exposition of the northernmost museum in the world — the open-air museum “Living Hist-

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\(^7\) Ibid.

\(^8\) Sajt nacional'nogo parka «Russkaya Arktika». Turizm. Statistika. [The site of the national park “Russian Arctic”. Tourism. Statistics]. URL: http://www.rus-arc.ru/ru/Tourism/Statistics/ (Accessed: 20 September 2017) [In Russian].

\(^9\) Sajt informacionnogo agentstva Arktika-Info. Novosti. [The site of the news agency Arctic-Info. News] URL: http://www.arctic-info.ru/news/tourism/ (Accessed: 20 September 2017) [In Russian].
tory of the Arctic”, established on the basis of the former polar station, will appear along the route. The creation of an interactive exposition of the new visitor center is connected with the plans of the national park to expand the range of tourist services in Tikhaya Bay. In recent years, the level and the list of services has increased significantly. A network of landscaped routes appeared there, as well as tourist navigation, the most northerly mail in the world, and a souvenir shop. The need for a visitor center has matured due to the fact that about 110 people are landing at the same time.10

The priority type of tourism in the Murmansk region, included in the Arctic zone of the Russian Federation, is ecological tourism. The main areas with high potential for the development of ecotourism are Khibiny, Lovozero tundra, Pechenga, Terek and Kandalaksha districts. Eco-tourism is advisable to be developed in the protected areas to regulate and account the flow of tourists. In 2016, the protected areas of the Murmansk region, the federal (reserves) and regional significance (reserves and nature park) were visited by more than 20 thousand tourists. The natural park “Peninsula Rybachiy and Sredniy” was visited by 16 thousand tourists who had an electronic registration for visiting the park.11

Currently, due to problems with the coordination of the park boundaries between regional and federal departments, creating of the Khibiny national nature park is being delayed. The creation of the national park adjacent to the territory of the tourist cluster with the same name in Kirovsk is provided by the “Concept of development of specially protected natural areas of federal significance” adopted by the Government of the Russian Federation. The Lovozero area will not be included in the national park. According to environmental experts, the ecosystems of the Lovozero Mountains as part of the now existing regional reserve “Seydyavr” or the proposed new ethnological protected area will be maintained much better than in the federal national park.

The increasing unorganized flow of tourists has a negative impact on the local cultural and natural landscape. Most of the Sami have a negative attitude towards unorganized visits to the Lovozero and especially to Seydozero. The way out of this situation is seen in the creation of an ethnic and ecological protected territory in the Lovozersky District, the status of which combines the solution of nature-conservation and cultural-ethnic problems. The creation of an ethnic and ecological reserve in the Lovozersky District suggests the development of tourism if it develops under the control of the Sami community and does not cause significant damage to nature, but, on the contrary, serves educational and educational purposes. The organization of such a territory in the Murmansk region and the attempt to revive the traditional environmental activities of the Sámi can serve as a “model” of integration of the traditional lifestyle of the indigenous people and the modern market economy [11, Vorobyevskaya E.L., Sedova N.B., pp. 343–349].

10 Oficial’nyj turisticheskij portal Arhangelskoi oblasti. [Official tourist portal of the Arkhangelsk Oblast]. URL: http://www.pomorland.travel/news/v_arktike_v_blizhayshie_dva_goda_budet_sozdan_vizit_tsentr/ [Accessed: 20 September 2017] [In Russian].
11 Oficial’nyj turisticheskij portal Muranskoi oblasti. [Official tourist portal of the Murmansk region]. URL: http://murmantourism.ru/ [Accessed: 09 September 2017] [In Russian].
The organization of a national footpath could be an innovative direction in the development of ecological tourism in the Extreme North. National trails are mass pedestrian routes that have become very popular all over the world, except for Russia. It can be proposed to organize such a trail on the territory of the Khibiny and Lovozero. The national footpath should be extended, equipped, accessible to all segments of the population and free to visit. The trail should be laid by experienced tourists along unpaved paths calling at the most beautiful and interesting places in the region.

**Conclusion**

In conclusion, it should be noted that the intended role of the tourism sector in the preservation of the cultural and natural heritage of the Arctic territories makes it possible to consider the Arctic tourism as an innovation, formed among the regional and sectoral innovation systems of the territories themselves. Global warming, an increase of the Arctic waters in the summer frees up the northern seas for cruise navigation, which predetermines wide opportunities for the development of marine and ecological tourism.

The primary strategic objectives for the sustainable development of the Arctic tourism in the Western Arctic should be:

- increasing the availability of the unique Arctic areas for tourists with different income levels;
- organization of regional tourist and recreational clusters on the basis of modernization of transport and tourist infrastructure;
- creation of a special cruise fleet and coastal tourist infrastructure (to increase the stay of tourists on land);
- attracting investment in the tourism industry of the Arctic in the form of a public-private partnership;
- strategy of global promotion of the tourist potential of the Russian Arctic;
- development of competition in the field of transport, simplification of logistics;
- minimizing the human impact on the natural environment of the Arctic;
- preservation of cultural and natural heritage sites of the Arctic — the most important indicator of the presence and activity of Russia in the Arctic, the issue of national security [10, Grushenko E.B., pp. 75–76].

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