SUSTAINABLE TOURISM AS A DRIVING FORCE IN REGIONAL DEVELOPMENT OF REMOTE REGIONS IN SIBERIA: AN INTEGRATED OPERATIONAL FRAMEWORK

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Abstract: Regional development based on sustainable tourism is one of the options of developing remote regions, which are usually disadvantaged due to their distance, but can have a certain competitive advantage based on their remoteness. The present paper offers in-depth analysis of the tourism potential in selected remote regions of Russia, the Altai Mountains and Lake Baikal with the aim to explore the specific features of their sustainable tourism development and to propose an integrated operational framework for sustainable tourism and regional development usable for similar regions across the world. The proposed integrated operational framework helps to achieve a tricky balance between economic resurrection of remote areas and environment conservation, which is possible only with the proper co-integration of tourists with the community, and local economic development with the environment. It presents a set of drivers and their mutual relations to achieve the successful sustainable tourism development in remote regions in Russia and across the world. The present research results contribute to a knowledge bank that could serve as a useful guide for academics and policymakers involved with sustainable development, geography or environmentally sensitive tourism.

Keywords: sustainable tourism, regional development, participatory approach, integrated operational framework

Introduction

Sustainable development as a targeted, long-term, complex and synergy process affects all aspects of our lives, including cultural, social, economic, environmental and institutional ones, at local, regional and global levels. All actions supporting sustainable development contribute to the quality of satisfying biological, material, spiritual and social needs and at the same time reduce negative interventions that endanger, destroy, or damage the conditions necessary for life. The idea of sustainable development is the core of Agenda 2030, consisting of 17 development goals that sets out a global framework to end extreme poverty, fight inequality and injustice, and fix climate change until 2030 (UN 2015). Agenda 2030 covers also the issue of sustainable...
tourism (especially in Goals 8, 12, and 14) (Colglazier 2015). Sustainable tourism is crucial particularly in environmentally sensitive and remote regions.

Remote or peripheral regions are defined as disadvantaged locations that are either distant from population or economic centres or isolated geographically, economically, and politically (Husky, Morehouse 1992; Husky 2006). They have traditionally relied on the extraction of natural resources by industries such as mining, agriculture, fishing, or forestry. In some remote regions where little or no prior market economy existed, tourism has been employed increasingly by state and regional government agencies as a tool for successful regional development or revitalisation (Laws, Scott 2003; Hall 2007; Moscardo 2005; Müller, Jansson 2007; Nelson, McKinnon 2004; Schmallegger, Carson 2010). In this case, the purpose of tourism development includes the provision of sustainable economic activity and the reduction of the pressure of tourist visitation on established destinations (Middleton, Hawkins 1998; Laws, Scott 2003). Both purposes fit in with the objects of our research—environmentally sensitive remote regions of Siberia.

The existing literature on tourism related to remote regions focuses on the role of tourism as a potential driver of economic growth (Müller, Jansson 2007; Hall 2013); employment, management issues or entrepreneurship (Keller 1987; Brouder 2013; Dinis, Krakover 2016; Salvatore et al. 2018 and others). A few authors research the pathway of tourism development in remote regions (Todes, Turok 2018; Rogerson 2019) and the reasons why successful tourism development in remote regions is such a complex and challenging process. During the last years, while reflecting the new global challenges, the operational framework providing a holistic understanding of the issue in remote areas is developing, and our paper has an ambition to enrich it. Therefore, the present paper aims to explore the specific features of sustainable tourism development in remote regions of Russia such as Lake Baikal and the Altai Mountains, and to propose its integrated operational framework which can be used as a model for similar regions across the world.

A better understanding of the issues of remote regions and the circumstances under which regions can involve communities and ecological awareness into this agenda might prevent mistakes in strategic development that often lead to mass tourism, loss of authenticity or irreversible damage to natural treasures.

The remainder of the paper is organised as follows: the next section explains the issue of sustainable tourism with a focus on participation and ecological awareness. The third section describes the data and methodology used in the paper and research context. The fourth section is devoted to the identification of possibilities and threats of sustainable tourism development in Siberia and to case studies on remote regions—Olkhon Island and the Altai Mountains. The fifth section identifies the integrated operational framework for sustainable regional tourism development based on the experience of Siberian remote regions. The last section concludes the most important research results and identifies the policy recommendations and future challenges for research.

**Sustainable tourism as an integrated component of regional development**

Sustainable tourism development is an approach that aims at reducing the tensions and frictions created by the complex interactions between the tourism industry, tourists, the environment and the host communities in order to maintain long-term capacity and the quality of human and natural resources (Bramwell, Lane 1993). Sustainable tourism development has the ability to orchestrate the overall development of tourist destinations by an increase in employment, local or regional economies and well-being (Gajdošík et al. 2017). It is a long-integrated process with wider economic, social and environmental policy considerations within an overall sustainable development framework maximising economic, environmental, social and cultural environment benefits (WTO 1998; Hall 2008; Kahle-Piasecki 2013). Several authors (inter alia Bosak 2016; Simpson 2008; Edgell 2006) argue that it is a community-based activity that relies on long-term planning and a balanced action between traditional financial goals and environmental-social aims. Sustainable tourism develops the relationship between tourists, host communities, businesses, attractions and the environment,
and protects and enhances tourism for future generations (OECD 2018; Swarbrooke 1999). It is also concerned about how to reduce the negative effects of tourism activities on the environment (e.g. mass tourism), society and the economy so that ecological sustainability, economic feasibility and social equality can be achieved (Pan et al. 2018).

Based on the approaches of Agyeiwaah, McKercher and Suntikul (2017), Mai and Smith (2015) Lee and Hsieh (2016), Pedersen (1991) and Ross and Wall (1999), sustainable tourism generally links the main drivers—stakeholders with the special position in a local community, a sensitive approach to the environment, business-economy and policy-governance—with the aim to fulfil the main functions of the area, namely to protect natural areas, to produce revenues, to educate, to support high quality of tourism and local participation. The participation of local stakeholders and their ecological awareness is an integrated part of the sustainable tourism concept. Local stakeholders’ participation is useful in all stages of destination during strategic planning and consequently it helps decision-makers to maintain traditional lifestyles and respect community values (Murphy 1985; Wild 1994; Cater 1994; Calzada 2019). In other words, sustainable tourism embodies the main principles of community-based tourism (CBT). (Luccetti, Font 2013). It generates benefits for residents in the developing world by allowing tourists to visit these communities and learn about their local environment, their culture, habits and natural or cultural heritage. It is a form of enterprise-based strategy for biodiversity conservation, integrated conservation and development projects (Kiss 2004), which subsequently contributes to the reduction of rural poverty on a sustainable basis. Stakeholders, both on the side of demand and supply, must understand and follow the sustainable tourism principles, because it helps to save authentic tourism destinations for future generations (Albornoz-Mendoza, Mainar-Causapé 2019).

The crucial factor in CBT is a quality co-management of the tourist destination. (Plummer, Fennell 2009; Fuldauer et al. 2019; Carson, Hartz-Karp 2005; Alipour, Arefipour 2020). Therefore, the quality of human capital (inter alia Murphy 1985; Pedersen 1991; Wild 1994; Cater 1994; Ross, Wall 1999) represented by the destination managers, citizens, local entrepreneurs, and NGOs and their co-governance of the territory is an important precondition to be successful. Consequently, the implementation of developing activities is the result of consensus on efficient utilisation of local resources, especially those with the unique value (e.g. natural heritage); it is what links this approach directly with the community-based natural resources management (CBNRM). It aims to reconcile natural resources conservation objectives and local development efforts (Fabricius 2004; Western, Wright 1994; Brondizio, Tourneau 2016; Delgado-Serrano et al. 2017).

Sustainable tourism is essential in environmental sensitive remote regions and rural areas. These locations can be disadvantaged for many reasons—economically because of their distance from centres of wealth, their limited local markets and their economic leakage; geographically and politically as their localisation is far from the economic centre or political power (Gottmann 1980; Brown, Hall 2000; Nash, Martin 2003; Chaperton, Bramwell 2012). They have developed specific livelihood and development strategies to deal with disturbances by creating and enforcing customary natural resources management practices and institutions based on their own culture (Ostrom 1990; Colding et al. 2003; Gómez-Baggethun et al. 2012). Moreover, the tourism strategy should refer to the remoteness of the environmental sensitive region as a source of competitive advantage in the tourist market in the form of an original experience of reaching peripheral areas and stay in relatively unchanged and unsplotted nature (Brown, Hall 2000; Müller, Jansson 2007).

We assume that the successful development of sustainable tourism in remote regions requires the empowerment of community members through local participation and the control of tourism decision-making, employment and education opportunities, increased entrepreneurial activities and diversification of the local economy by local people (Zeppel 2006) while protecting the natural environment, biodiversity, local culture and habits to keep them for future generations (WTO & UNEP 2005). It can set the remote region’s trajectory on a new path towards sustainable tourism and regional development.
Data and methodology

Research problem

Russia, the largest country in the world, faces many challenges such as economic transformation, climate change, regional disparities and striking regional differences in living conditions. Because of a great variability in natural, economic, environmental, and social conditions across the country, there is also an intriguing issue of spatial justice between Russian regions (for more information on the spatial justice concept, see, e.g. Soja 2010). While urban agglomerations such as Moscow or St. Petersburg have attracted most of the country’s human and financial resources as well as tourists’ attention, other regions in the remote parts of Russia suffer from economic stagnation and a population decline. In this paper, we have focused on Siberia and the Far East, the region that constitutes almost 77% of Russia and spreads out over the area of 13 million km² (Ministry of Natural Resources and Environment of the Russian Federation 2015). Apart from the great mineral wealth, this region has many natural treasures, unique forest ecosystems and the potential for the development of tourism, which is vastly underrated. Insufficient infrastructure and sometimes extreme natural and weather conditions are obstacles on one hand, but on the other, they contribute to the almost untouched natural environment and unique scenery. We have focused on two remote regions consisting of two administrative units each, as depicted in Figure 1.

Both remote regions were chosen due to the localisation of unique tourist attractions of international importance. They belong to the top tourist destinations in Russia and can be found on the UNESCO World Heritage List. The first region is related to the Altai Mountains, located in the area where the boundaries of Russia, China, Mongolia and Kazakhstan converge together. The Altai Mountains are located in two regions (marked by green stars), namely, the Altai Republic and the Altai Krai. The second region is located around

Fig. 1. Remote regions of Russia containing the Altai Mountains and Lake Baikal.
Source: http://www.maps-of-europe.net/maps/maps-of-russia/administrative-map-of-russia.jpg.
Lake Baikal, which extends into two regions (marked by blue stars)—the Irkutsk region and the Republic of Buryatia. Both regions are precisely described in the following sections of the paper.

Development of tourism in the selected regions, and also generally in Siberia, requires the preservation of natural wealth, protection of the natural environment and conservation of the authenticity of this region. Maintaining the existing volumes of greenhouse gases absorption requires preservation of intact forest landscapes and intensive exploitation of secondary forests. Moreover, the conservation of large areas of natural forest eco-systems is an important contribution of the Russian Federation to meeting the requirements of the Convention on Biological Diversity tasks (Kokorin, Lugovaia 2018) and the Sustainable Development Goals. This notwithstanding, the legal protection of intact forests remains insufficient in Siberia. Only 5.4% of their total area is located within the boundaries of federal specially protected natural areas (SPNAs) (Karpachevski et al. 2015). Every year, the area of intact forests in Russia is reduced by 1.6 million hectares on average due to fires, woodcutting and mineral extraction (WWF Russia 2015). According to WWF experts, so-called ‘ribbon pineries’ of the Altai Mountains, relict ribbon-like pine forests that have no analogues either in Russia or in the world, are under the threat of extinction, too. These natural complexes, which are categorised as a unique type of valuable forests, are now leased out for wood harvesting. Selective logging in ribbon pineries is done for pure commercial reasons and has nothing to do with maintaining their value. To save ribbon pineries in the Altai Mountains, a wide range of actions should be taken. Protected forest areas of special value should be defined and put under the regime of SPNAs of regional importance, according to the acting legislation (WWF Russia 2019).

Anyone attempting to estimate Siberia’s sustainable tourism capacity, including the Altai Mountains and Lake Baikal, should take into account not only its vast territory and uncountable resources but also some of its specific characteristics, i.e., high vulnerability of northern eco-systems, extreme climate conditions yielding highly seasonal character of the tourist product, insufficiently developed infrastructure, relatively small market capacity, and, as a consequence, low interest of tourist agencies in the development and sales of the tourist product.

Visiting SPNAs is commonly viewed as a true classic of ecotourism. Travels to numerous areas of pristine land and less-distorted eco-systems on the territory of the Russian Federation that currently don’t have the SPNA status also should be subject to our analysis, including so-called ‘rural’ tourism. Today, SPNAs cover less than 14% of Russia’s terrestrial area and 2.4% of its aquatic area, which is below the 2020 targets of 17% and 10% respectively, recommended by the Convention on Biological Diversity (WWF Russia 2019).

In 2018, the number of tourist paths and routes (including ecological paths and routes in protected areas) in 166 State Natural Reserves covering 57.9 million hectares reached 1,436, which is 2.6 times higher than in the year 2001. During the same period, the number of visitors of tourist paths and routes grew 6.3 times, reaching 3.8 million persons (Rosstat 2019). Unfortunately, the acting legislation does not put any constraint on the development of tourist industry on the territory of national parks (while only educational tourism is allowed on the territories of natural reserves). Because of that, unsafe forms of tourism are blooming in national parks under the slogan of sustainable tourism development, i.e., game hunting, recreational activities on a beach, or outdoor picnics. The idea of sustainable tourism seems to contradict the practices of large-scale construction of dwelling facilities and the development of skiing resorts. A startling example is the construction of the Manzherok All-Seasonal Skiing Complex in the Altai Mountains, in the proximity of Lake Manzherok, a certified natural monument.

Mass recreational activities that cause severe damage to natural ecosystems also have nothing to do with sustainable tourism. Unfortunately, such activities are also common in Lake Baikal, for example in Pribaikalski (Cis-Baikal) National Park, on the island of Olkhon in particular (Ryabtsev 2016).

As described in this section, despite the uniqueness and natural value of selected regions of the Altai Mountains and Lake Baikal, tourist and regional development in these regions do not always go hand in hand with sustainable
This leads us to an intriguing question if there are any examples of sustainable tourism development in selected regions, and if so, what the key preconditions of successful sustainable tourism development in the selected remote regions are.

**Data collection and methods**

To cover the broad topic comprehensively, exploratory research with qualitative and quantitative elements is undertaken. It is based on a consistent literature review and in-depth analysis of secondary and primary data.

To present and analyse the current state of the art in tourism development in Russia with special attention given to remote regions in Siberia, we use the secondary data from the strategic documents of the Russian Federation on the environmental policy and implementation of the principles of sustainable development; travel, tourism and hospitality, as well as data gathered from the official Russian websites such as stati-sta.com; https://www.ceicdata.com/en/country/russia; the statistical data of Rosstat and the Global Database for the Russian Federation. We have to point out that the availability of official data in Russia on tourism is relatively poor and postponed, and there are no statistics on specific types of tourism.

To explore the specifics of sustainable tourism development as a part of regional policy in remote regions of Russia, the original primary data were gained by the authors during the stay for the research in Siberia for the common 7FP research project FOLPSEC. Qualitative data were collected by structured and unstructured interviews with main local entrepreneurs, destination managers and inhabitants of the Altai Mountains and at Olkhon Island in Lake Baikal during June 2013. The main purpose of the interviews was to identify and analyse the local production systems of tourism in both regions, so the questions were oriented towards the forms and ways of cooperation between key stakeholders in the regions, the strengths and weaknesses of the regional development and its specifics given the remoteness. In the Altai Mountains there were six structured interviews: two owners of local rural hotels, two providers of tourism services (excursions) and two owners of restaurants. In Olkhon Island, structured interviews were conducted with the manager of Nikita’s Homestead, the main tourist base; one person in the neighbourhood that provides additional accommodation for tourists as well as food supply and also an employee of the information centre; and with three persons who worked as tourist guides on the island. During each research stay of 14 days, we met a lot of local inhabitants that were also very useful sources of information on the specifics of tourism and sustainable development in the researched regions.

The qualitative research is based on a case-study approach. It allows in-depth, multi-faceted explorations of the issue in their real-life settings (Crowe et al. 2011). We have conducted two case studies reflecting two regions under the investigation—the Altai Mountains and Lake Baikal. Each case study deals with searching for an original approach of community participation on sustainable tourism and regional development in a remote region. For the purpose of our paper, the case studies present the testing of the implementation of a sustainable tourism strategy based on efficient natural resources management and the preservation of the unique natural environment for future generations as well as community engagement and participation. They explore different trajectories of sustainable regional development based on tourism in the remote regions of Olkhon Island and the Altai Mountains, the destinations that require a high level of natural environment protection, and present them as examples of good practices. The implemented models of the community participation processed in two case studies create a solid base for the constellation of an integrated operational framework for sustainable tourism and regional development.

**Specific features of sustainable regional development based on tourism in remote regions of Siberia**

In the following two sub-sections we analyse the situation of building sustainable and ecologically aware tourism destinations in remote regions of Russia that involves two treasures of Siberia, the Altai Mountains and Lake Baikal.

Amongst the specific features of sustainable tourism development in the selected remote regions of Russia, one that stands out is the
remoteness itself since the awareness that a drive to a nearest city may take five to six hours dominates local living habits and existing business patterns. The underdevelopment of the transport network and infrastructure, together with pronounced seasonality of the tourist services naturally impedes the tourists’ flow and prevents the problem of ‘over-tourism’ allowing inhabitants to offer exclusive custom-made tourism products. Also, the paper deals with unique slightly damaged objects of nature which have been included in the UNESCO World Heritage List. Finally, on the territories of the regions discussed, one may still find evidence of the influence of shamanism, an ancient system of thought that views objects of nature as being actively involved in social relations. With respect to objects of nature, terms of kinship are used; the natural environment is vested in psychological features and requires a special approach. A shamanistic belief system, which revolves around the worship of nature, advises that the life of a human community depends on a harmony in relationship between human beings and nature. A system of taboos on visiting certain locations, of mandatory rituals with respect to landscape sites and other objects of nature effectively counters consumerism and negligence with respect to the environment at all levels of livelihoods (for more information see Dorzhigushaeva, Zhanaev 2019).

Currently, well-known Siberian shamanism schools in Buryatia and Altay combine old traditions with new interpretations of spiritual experience. According to Zhukovskaya (2018), the new generation of shamans, who are mostly university-educated individuals with experience in different professions, tackles the problem of re-establishing the connection between people and the environment, and search for new spiritual and ritual practices with the aim to restore the damages inflicted upon the Nature. One can say that shamans, scientists and professional ecologists are united today in the business of protecting the environment, natural landscapes and objects of culture. Note that the inflow of tourists attracted partly by the growing interest in shamanism, in turn, promotes and strengthens the commitment to preserve natural and cultural heritage (including shamanistic practices) among the local population.

**Trajectory of the sustainable tourism development in the Altai Mountains**

The share of the Altai Mountains is less than 1% in all selected tourism indicators in the Russian tourism sector (Table 1). To get the wider picture about the Altai Mountains, Table 1 offers the basic indicators about the population, total area, density of population and its structure.

The Altai Mountains in Russia are located in the total area of  261,700 km\(^2\) with an estimated population of around 220,000 at the end of the year 2019 (with a large share of the rural population that varies from 45% in Altay Kray to 72.4% in the Republic of Altai). Table 2 offers in-depth analysis of tourism indicators in the Altai Mountains.

A distinctive feature of the Altai Mountains is the presence of a rural population and the lower share of cities in the area. It explains to a large extent the low share of the Altai Mountains in Russian tourism. By respecting the structure of the region and its natural uniqueness and value, rural tourism seems to have a great potential for development.

Many rural municipalities all over the world, including Russia, have turned to tourism in order to stimulate new regional development (Eimermann et al. 2019; Almstedt et al. 2014). Any kind of substantive pastime of tourists in a rural area can qualify for rural tourism, including cultural, event-related, agrarian tourism, etc. The key criterion is the contribution of a given activity to the sustainable development of a rural area (economic, ecological, social, and cultural). Rural

| Population estimate at end of 2019; in thousands | Density of population | Urban population | Rural population |
|-----------------------------------------------|-----------------------|------------------|-----------------|
| 169,100                                       | 13.7/km\(^2\)         | 56.9%            | 43.1%           |
| 92,600                                        | 2.4/km\(^2\)          | 29.3%            | 70.7%           |

Source: Federal State Statistics Service. Regions of Russia. Socio-economic indicators, 2020. https://gks.ru/bgd/regl/b20_14p/Main.htm (accessed: 7 March 2021).
tourism constitutes a negligible part of Russian tourism, about 1.5–2.0%. Siberia and the Far East are considered promising territories for its development, as well as regions of the Central Federal District, because of the well-developed infrastructure in this part of the country (Government of the RF 2015). A specific feature of rural tourism on the territory of Russia in general and the Altai Mountains in particular is that, as a rule, this kind of pastime does not imply participation in agrarian work. The main attractions offered by ‘green’ rural houses are pristine landscapes which are not touched by industrial activities, ecologically clean and healthy foodstuffs, horseback riding, traditional saunas, visiting apiaries and participating in honey and wild mushroom hunting, berry-picking and medicine herbs harvesting. As tourist attractions, rural countryside farmsteads are of some interest only to niche tourist business; as dwelling facilities, they almost exclusively attract only individual tourists because of their small sleepover capacity. Rural ‘green’ houses are tiny hotels capable of providing shelter to no more than 10 guests at a time. Major tourist bureaus do not cooperate with such small-scale dwelling facilities. In turn, their owners also have little interest in large-scale tourist business. As a rule, they find their clients ‘through the grapevine’ winning about one or two hundred regular customers after several years of work. This number is enough to ensure full occupancy of a guesthouse over the full tourist season (Arkharova 2019).

In many regions of Russia, SPNAs serve as catalysts of rural tourism development, organizing local people, providing incentives for startups and assisting them in this new activity. For SPNAs, the development of rural tourism is an effective tool of preserving natural and cultural legacies in partnership with local communities and authorities. It is a method (1) to support a traditional way of living in surrounding territory, (2) to keep the local population in villages, (3) to protect villages from transforming into dacha settlements, or (4) from outright disappearance. SPNA managers devote a lot of attention to preserving villages and cultural landscapes related to them because they consider it their cultural mission. One of the key tasks of SPNAs is the development of educational tourism. SPNAs’ guests are interested not only in ecological routes and ecologically enlightening programmes but also in live communication with locals, immersion in folk culture, interactive folklore programmes, local food and handicrafts, etc. Altogether, it forms a unique and competitive tourist product. SPNAs’ specialists have recognised this and quite often do not hesitate to play the role of tourist agents.
thus promoting tourist products offered by local villagers as part of the complex offer to their guests. Sometimes they provide help to the locals in creating such products.

Helping locals to promote their tourist services, the governing body of an SPNA tackles an important problem of improving the living standards of neighbouring villages and, hence, avoiding conflict situations regarding the use of protected natural resources, reducing poaching, illegal picking of wild berries and herbs, fishing in prohibited places, etc. Receiving additional income from rural tourism, locals gradually get used to avoiding economic activities prohibited or limited on the territory of an SPNA or in its buffer zone.

The case study of building rural green houses in the Republic of Altai

The first ten guesthouses appeared in the Republic of Altai in 1997. Then, their numbers grew, and the area of activities expanded. In 2017, 614 rural ‘green’ houses were officially registered on the territory of Altai (Altai Republic Ministry of economic development and property relations 2019).

Starting approximately in 2004, a specialisation appeared within the business. The owners of green houses focused on housing tourists, while the inhabitants of remote areas took care of providing other services such as white-water rafting, horseback riding, hiking, cultural programmes, master classes, etc. It is worth noting that the number of new tourist facilities has grown sharply since 2010, after the region obtained a stable internet connection.

Projects by non-commercial and environment-protecting organisations have significantly influenced the involvement of Altai’s population in this activity. For example, the WWF and Citi Foundation program started in 2010 with the task of creating various sources of income, substituting illegal hunting, unlawful picking of herbs and berries and woodcutting. With the support of this program, in five years, more than 174 inhabitants of remote districts of the Republic of Altai were able to organise their own legal businesses in the area of ecological and rural tourism. 1,120 people took educational courses and seminars in folk handcrafts and the foundation of business. 187 new jobs were created in the region; 48 new tourist attractions were built (Trofimova 2017). Figure 2 shows the structure of activities in the Altai Mountains.

Local authorities support rural tourism by subsidising the building and reconstruction of rural guesthouses, building gas and water supply facilities, providing plumbing and electricity connections. The subsidies are distributed through a competitive process (Government of the Altai Krai 2017). On the one hand, the development of rural tourism in the Altai Mountains has positive effects on the locality, especially economic ones. However, the authors’ own experience shows that there is a great danger of losing the exceptional values of the Altai area because of non-coordinated development of commercial activities in tourism and low impact on sustainability. It is demonstrated by the case of a ski resort in Manzherok, or by paid tourist tours to Karakolskie Lakes by old off-road cars and many tourist attractions on the Katun river. Even the fact that the area of the Altai Mountains have many unique and interesting places for tourists, slowly developing hard infrastructure (especially waste management and water supply) threatens the sustainability of the territory. As depicted in Figure 3, the above-mentioned activities have the potential to create a sustainable tourism destination focused on rural tourism based on the chain of rural green houses with a well-developed network of cooperating subjects providing a wide spectrum of tourism services. The additional value of this process is its educational dimension, participation of the local community and the building of ecological awareness.

The outlined structure of activities in tourism in the Altai Mountains refers to the simultaneous
operating of community-based tourism (CBT) and community-based natural resources management (CBNRM).

**Trajectory of sustainable tourism development potential in the area of Lake Baikal**

Table 1 reveals that in the Russian tourism sector the share of the two areas Lake Baikal is located in is just slightly over 1% in all indicators. When we consider the total area of these two regions (Table 4), the share in the overall Russian tourism sector is very low. Table 3 offers the basic indicators on the distribution of the population, its density and structure.

The Irkutsk region is the fifth largest region in the Russian Federation. The capital city Irkutsk is an important transport hub located at the crossroads between the Trans-Siberian and Ulan-Ude railway. With its low-density population estimated at almost 3.38 million at the end of 2019 and concentrated mostly in urban areas, the Baikal region offers rich opportunities for tourism development. Table 4 shows the selected tourism indicators.

Table 4 depicts the potential of tourism development in both regions surrounding Lake Baikal. The uniqueness of the lake, as described below, offers an enormous opportunity for tourism development, growth of jobs and well-being of local people following the principles of sustainable tourism and regional development. The following case study presents a good example of building a sustainable tourism destination with an impact on sustainable regional development.

**Case study of community-based tourism destination on Olkhon Island in Baikal Lake**

Olkhon Island is located inside Lake Baikal, which is situated in south-east Siberia in the Russian Federation, and has been on the UNESCO World Heritage List since 1995. Lake Baikal is the oldest (25 million years) and the deepest (around 1,640 m) lake in the world. It contains 20% of the world’s total freshwater reserves. Known as the ‘Galapagos of Russia’, its age and isolation have produced one of the world richest and most...
unusual freshwater ecosystems, which is of exceptional value to evolutionary science (Dabaeva et al. 2016). Indisputably, Lake Baikal is unique and belongs to the treasures of this planet that need to be protected and preserved for future generations.

Olkhon is the largest island inside Lake Baikal, the only one inhabited, with an area of 730 km², and the fourth largest lake-bound island in the world. The island is 72 km long and 15 km wide with a population of around 1,500 people, mostly aboriginal inhabitants—Buryats. Due to the increasing number of tourists from all over the world, tourism has become an important part of the local economy in Olkhon (Borseková et al. 2018).

The case study describes building a CBT destination on Olkhon Island with the dominant subject of Nikita’s Homestead. It is a tourist base providing accommodation, meals, and other services. Nikita’s Homestead cooperates with 18 subjects in the neighbourhood, which provide additional accommodation for tourists, and 22 local households that are food suppliers (milk, fish, meat, vegetables). Suppliers initiate this cooperation and offer their services. According to the owners of Nikita’s Homestead, the cooperation with local suppliers helps them to meet the demands of tourists more efficiently and local suppliers are thankful for the opportunity to work and to have a stable income at least during the summer season. During the peak season (July, August) Nikita’s Homestead has 70 employees, while in the rest of the year there will be 12 permanent employees. The facility provides a tourist information office, a local museum and cooperates with two bike rentals. It is noteworthy that Nikita’s Homestead plays an important role in strengthening the ecological awareness of local citizens and tourists. In 2001, with the initiation of the owners of Nikita’s Homestead, the Olkhon children’s organisation ‘Berkut – A New Baikal Generation’ was established. As part of the organisation’s New Generation initiative, several artistic and environmental projects were implemented. Organised clean-ups on the island have been taking place for many years now. In 2004, a grant Clean Olkhon was awarded.
The project focused on clearing up the rubbish dumps surrounding the village of Khuzhir (the capital village of the island). A significant number of local people got involved with this project. They took part in the litter pick on the island, while also helping to organise games, competitions, and hiking trips, all with the goal of drawing attention to the wider problem of waste management on the island. Later, the group New Generation became a partner of the Clean Baikal initiative, a project that was successful in installing litterbins across the island. On the ferry that connects Olkhon with the mainland, a ridgepole was installed where the winners of the children’s poster competition ‘We want to live in a clear environment’ had their works exhibited, the aim being to draw tourists’ attention to the problem of garbage collection in remote areas. The project succeeded in removing the rubbish dumps, while a separate collection of waste glass was also successfully organised. The project was developed and supported by the local administration. Until these days, the cooperation in environmental activities persists in the form of organised clean-up operations on the island. By considering the enormous importance of Lake Baikal as the biggest reservoir of drinking water in the world, these activities related to CBNRM are essential. The above-mentioned activities resulted in creating community-based tourism destination on Olkhon Island inside Lake Baikal, as depicted in Figure 3.

It is noteworthy that the owners of Nikita’s Homestead highlighted the level and importance of cooperation with community. All their business activities are based on building harmonious relationships between partners in their team, including guests and locals. Much emphasis is placed on the sustainability of tourism, ecological awareness and respecting the roots and culture of this unique place with the aim to keep it unaffected for future generations. In the modern era of mass tourism development, we should consider this tourism co-management system as a sustainable and ecologically-aware approach in building the tourism destination of the future. Besides, the above-described case study brings an evidence that community-based tourism development on Olkhon Island in Lake Baikal is supported by community-based natural resources management.

Proposal of an Integrated operational framework for sustainable tourism and regional development

The previous section provides interesting examples of sustainable tourism development with significant community participation in selected remote regions. This section tackles the question what the key preconditions of successful sustainable tourism development in the selected remote regions are.

The first important precondition is the strategic approach to the sustainable tourism development of the remote region, which directly links all the inevitable elements that create an operational framework for its implementation. The role of tourism increases significantly also by the fact that these regions are the territories of national parks or in other words, equipped with the valuable environmental potential. Therefore, any harmful industries and actions cannot be localised here. Thus, the second precondition is an exceptional environment (including nature, culture, traditions, habits, authenticity, etc.) as part of the internal spatial potential.

The third precondition—a common goal of sustainable tourism—is having stakeholders’ support for tourism development (Ross, Wall 1999; Wilson et al. 2001; Kiss 2004). The research showed that it is the most important precondition for the development in remote regions. In both cases, the sustainable tourism development includes a lot of various stakeholders, especially from internal but also from the external environment. The community involvement in the position of a supply side, managers and policy makers of the territory, as well as the engagement of local citizens regulate the development process so that it becomes efficient, and results in enhanced
economic, social and environmental outcomes (see, e.g. Vaňová et al. 2010). It corresponds to the recognition of the 12th aim of Agenda 2030, which is ‘sustainable consumption and production’ (OECD 2018). However, most of the studies are based on destination interpretation (inter alia, Murphy 2013; Mowforth, Munt 2008; Simpson 2008) and less contribution is made to integrated development or ‘demand aspects of tourists’ with a participatory approach to sustainable tourism development, which is crucial in remote regions. This fourth precondition helps to preserve the originality of the regions and reflects the needs of stakeholders at the same time. The last precondition is the ability to find a consensus between demand and supply considering the challenges of the external environment and the principles of sustainability. All the defined preconditions of the common framework are presented in Figure 4.

The proposed operational framework integrates four main preconditions for sustainable tourism in remote regions as was described above. The demand side is represented by tourists and the market, whereas the supply side is represented by the community and environment. Subsequently, the operational framework integrates relationships between the internal and external environment and their elements. The proposed operational framework outlines additional interfaces. CBT creates an interface between demand and supply or between tourists and the community. CBNRM can be understood as an interface between the community and the internal environment. Besides, CBT and CBRNM can operate simultaneously as depicted case studies from the Altai Mountains and Lake Baikal.

The need to follow sustainable development goals and Agenda 2030 together with market needs represents the external environment. The interface between all the above-mentioned components shapes the achievement of sustainable tourism and regional development. The added value of this framework is the highlighted role of community participation and its involvement in tourism activities in order to increase their benefits from tourism development that might lead to sustainable production and consumption as part of regional development. It initiates stakeholders for better livelihood as well as economic, social and environmental benefits.

Conclusion

The aim of the paper was to explore the specifics of sustainable tourism development in remote regions of Russia, in Lake Baikal and the Altai Mountains, and to propose its integrated operational framework as an inspiration for similar regions.

Using interviews and in-depth case studies, the present paper has investigated the role of community-based ecotourism as a potential catalyst for regional sustainable development. The paper was oriented towards searching economic and cultural impacts of tourism development in Lake Baikal and Altai Mountains regions to describe the real world of ecotourism in remote regions of Russia.

Research results revealed the great potential for tourism development in the Altai Mountains and Lake Baikal, which is currently not fully exploited. Case studies highlighting the specifics of sustainable tourism development in Siberia might serve as good examples of the sustainable regional development focused on tourism by respecting
unique natural conditions that deserve a high level of protection. Sustainable tourism based on a participatory approach and ecological awareness helps to solve socio-economic problems and push the regional economy towards a sustainable development path. In the tourism destinations of high natural value, recreation and tourism may be considered as economically justified, socially founded and environmentally friendly activities, being an alternative to the industrial development of the territory.

To preserve ecological integrity and provide a sustainable long-run supply of a competitive tourist product, the development of tourism in environmentally vulnerable areas and in natural heritage zones should be subject to several constraints. Thus, although CBT is often viewed as an efficient approach to the preservation of natural heritage without compromising socio-economic development, the growing numbers of visitors do present a danger to pristine environments. The lesson learned from the presented case studies of the remote regions of Russia is that CBT and CBRNM should operate simultaneously. Taking this into account, tourism activities on nature reserve areas should be confined to the limits of the environment assimilation capacities. The estimation of an allowable recreational burden should become a mandatory pre-requisite for the development of any place. Legal mechanisms should be put together to facilitate better collaboration between local stakeholders, administrations and travel agencies, as well as to promote professional education in the tourist industry and increasing an environmental awareness of the population in general. In other words, to achieve the effective functioning of the integrated operational framework for sustainable tourism and regional development, the conceptual support in the area of sustainable development goals at national level is needed.

Based on the desk research and findings of the case studies, we have proposed an integrated operational framework for sustainable regional tourism development based on the experience of Siberian remote regions. It reflects the important challenges of today and tomorrow associated with the 2030 Agenda, mainly the impacts of climate change, increasing demand on ecological awareness, community participation and maintaining the sustainability of natural sources exploitation. The proposed integrated operational framework for sustainable tourism and regional development helps to achieve a tricky balance between economic resurrection of remote areas and environmental conservation, which is impossible without proper co-integration of tourists with the community, and local economic development with the protection of the environment. The present paper and its research results contribute to a knowledge bank that could serve as useful guide for academic and policy makers involved with sustainable development, geography, or environmentally sensitive tourism.

Our research unravelled some challenging future issues suitable for investigation. They are closely associated mainly with global problems, e.g. the negative impact of climate change on the potential of remote regions and its exploitation in tourism; the recovery from COVID-19 and the consequences of the pandemic for the peripheries or mass integration of modern technologies in all areas of life that can destroy the originality and added value of remoteness in regions if it is used as a competitive advantage on the tourism market.

Acknowledgments

The paper is a partial output of VEGA project 1/0213/20 Smart Governance in Local Municipalities, VEGA project 1/0380/20: Innovative approaches to the development of small and medium-sized cities, 7FP research project FOLPSEC

Disclosure statement

No potential conflict of interest was reported by the authors.

References

Agyeiwaah E., Mckercher B., Suntikul W., 2017. Identifying core indicators of sustainable tourism: A path forward? Tourism Management Perspectives 24: 26–33.
Albornoz-Mendoza L., Mainar-Causapé A.J., 2019. Analysis of the social and environmental economic sustainability in the territory of Yucatan (Mexico). Papers in Regional Science 98(2): 1215–1238.
Alipour H., Arefipour T., 2020. Rethinking potentials of Co-management for sustainable common pool resources (CPR) and tourism: The case of a Mediterranean island. Ocean and Coastal Management 183(2020): 1–14.
Kokorin A., Lugovaya D., 2018. CO2 absorption by Russia’s forests in the context of the Paris agreement. Ustoichivoie Lesopol'zovanie (Sustainable Forestry) 2(54): 13–18.

Laws E., Scott N., 2003. Developing new tourism services: Dinosaurs, a new drive tourism resource for remote regions? Journal of Vacation Marketing 9(4): 368–380.

Lee T.H., Hsieh H.P., 2016. Indicators of sustainable tourism: A case study from a Taiwan’s wetland. Ecological Indicators 67: 779–787.

Mai T., Smith C., 2015. Addressing the threats to tourism sustainability using systems thinking: A case study of Cat Ba Island, Vietnam. Journal of Sustainable Tourism 23(10): 1504–1528.

Middleton V., Hawkins R., 1998. Sustainable tourism, a marketing perspective. Butterworth-Heinemann, Oxford.

Moscardo G., 2005. Peripheral tourism development: Challenges, issues and success factors. Tourism Recreation Research 30(1): 27–43.

Muller D.K., Jansson B., 2007. The difficult business of making pleasure whereabouts prosperous: Perspectives on space, place and environment. In: Muller D.K., Jansson B. (eds), Tourism in peripheries: Perspectives from the far north and south. CABI International Oxfordshire: 3–18.

Murphy P.E., 2013. Tourism: A community approach. Routledge, London and New York.

Murphy P.E., 1985. Tourism: A community approach. Methuen, New York.

Nash R., Martin A., 2003. Tourism in peripheral areas—The challenges for Northeast Scotland. International Journal of Tourism Research 5(3): 161–181.

Nelson K., McKinnon R., 2004. The peripheries of British Columbia: Patterns of migration and economic structure, 1976–2002. Canadian Journal of Regional Science 27(3): 353–386.

OECD, 2018. OECD Tourism Trends and Policies 2018, OECD Publishing, Paris.

Ostrom E., 1990. Governing the commons: The evolution of institutions for collective action. Cambridge University Press, Cambridge.

Pan S.Y., Gao M., Kim H., Shah K.J., Pei S.L., Chiang P.C., 2018. Advances and challenges in sustainable tourism toward a green economy. Science of the Total Environment 635: 452–469.

Pedersen A., 2001. Issues, problems, and lessons learned from ecotourism planning projects. In: Kusler J. (ed.), Ecotourism and resources conservation. Selected paper from the 2nd International Symposium: Ecotourism and Resource Conservation, Omnipress: Madison: 61–74.

Plummer R., Fennell D.A., 2009. Managing protected areas for sustainable tourism: Prospects for adaptive co-management. Journal of Sustainable Tourism 17(2): 149–168.

Rogerson C.M., 2019. Peripheral tourism trajectories: Evidence from the King Sabata Dalindyebo municipality, South Africa. Geojournal of Tourism and Geosites 26(3): 974–992.

Rosstat, (2019). National inventory of anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol in 1990–2017. Moscow.

Ross S., Wall G., 1999. Ecotourism: Towards congruence between theory and practice. Tourism Management 20(1): 123–132.

Ryabtsev V., 2016. Suggestions on tackling critical issues of Baikal natural heritage areas, including reforestation of illegal logging areas in Irkutsk region. Report to the All-Russia Popular Front Irkutsk forum.

Salvatore R., Chiodo E., Fantini A., 2018. Tourism transition in peripheral rural areas: Theories, issues and strategies. Annals of Tourism Research 68: 41–51.

Scharlacke D., Carson D., 2010. Is tourism just another staple? A new perspective on tourism in remote regions. Current Issues in Tourism 13(3): 201–221.

Simpson M.C., 2008. Community benefit tourism initiatives—A conceptual oxymoron? Tourism Management 29(1): 1–18.

Soja E.W., 2010. Seeking spatial justice. Minneapolis: University of Minnesota Press.

Swarbrooke J., 1999. Sustainable tourism management. CABI: Wallingford.

Todes A., Turok I., 2018. Spatial inequalities and policies in South Africa: Place-based or people-centred? Progress in Planning 123: 1–31.

Trofinova N., 2017. The Altaians abandon poaching for ecotourism development. Online: wwf.ru/resources/news/Altai/zhiteli-respubliki-Altai-poluchat-legalnyuuy-alternativu-zarabotku-za-schet-brakonerstva-/ (accessed: 5 January 2020).

United Nations, 2015. Agenda 2030. https://sdgs.un.org/ (goals. 2. 9. 2019).

Varfolova A., Borsekova K., Foret M., 2010. Importance of partnerships and cooperation for territorial development. Regulation and Best Practices in Public and Nonprofit Marketing: 279–285, Bucharest: Editura Economica.

Western D., Wright R.M. (eds), 1994. Natural connections: Perspectives in community-based conservation. Island Press, Washington, DC.

Wild C., 1994. Issues in ecotourism. In: Cooper C.P., Lockwood A. (eds), Progress in tourism, recreation, and hospitality management: vol. 6, Wiley, Chichester: 12–21.

Wilson S., Forsemaier D.R., Forsemaier J., Van Es J.C., 2001. Factors for success in rural tourism development. Journal of Travel research 40(2): 132–138.

World Trade Organization, 1998. Guide for local authorities on developing sustainable tourism. Online: http://www.world-tourism.org (accessed: 2 June 2019).

WTO, UNEP, 2005. Making tourism more sustainable: A guide for policy makers.

WWF Russia Position on Planting Woods, 2015. Ustoichivoie Lesopol’zovanie (Sustainable Forestry) 3(43): 21–22.

WWF has singled out five world’s oldest forests, which might be lost in the near future. Online: wwf.ru/resources/news/lesa/wwf-vydelil-5-drevneyshikh-lesov-kotorye-mnyomozhet-poteryat/ (accessed: 2 June 2019).

WWF Our ecology project-compiled-with-legislation-and-constitution-related. Online: wwf.ru/resources/news/bioraznobrazie/natsproekt-ekologiya-sostavlen-s-narusheni-zakonodatelstva-i-constititusi-/ (accessed: 2 June 2019).

Zeppelin H., 2006. Indigenous ecotourism: Sustainable development and management. CABI.

Zhuksnovskjan N.L., 2018. Male and female shamans of Buryatia: Their mystical experiences and the author’s field research. Part Two Russian Federation Oriental Studies 40(6): 15–22. DOI 10.22162/2619-0990-2018-40-6-15-21.