

Possibilities of ecotourism development in the Biosphere Reserve Poľana

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Abstract

Biosphere reserves are internationally recognized as model areas for the practical application of interdisciplinary knowledge to understand and maintain the relationship between man and nature and to coordinate change, including conflict prevention and biodiversity protection. Their role is even strengthened by the Agenda 2030, which declares the importance of the relationship between man and nature, including biodiversity protection. They are also a unique selling point because of their special value declared by the title world natural heritage of UNESCO.

Although the biosphere reserves include also the protected areas, the greater part of it is suitable for environmentally friendly activities. To the recommended ones belong the activities within ecotourism and rural tourism. These concepts in tourism development provide an opportunity to balance the number of tourists visiting the country, preservation of nature and the well-being of the local population. At the same time, it is based on the participatory governance of all relevant actors, mainly local community, tourists, entrepreneurs, public administration bodies to look for the optimal way of protection and sustainable tourism development for the next generations.

The aim of the paper is to identify the possibilities for the development of ecotourism in the Poľana biosphere reserve in the Slovak Republic based on the deep analysis of the territory and good practices of the foreign biosphere reserves. We suppose that the development of ecotourism can contribute not only to solving the socio-economic problems of the territory, but also to the transition of the regional economy to the path of sustainable development. It is based on the exploitation of all resources with target to balance the socio-economic activities satisfying the needs of stakeholders and uniqueness of the nature and its biodiversity, as well as cultural specifics of the territory.

The paper presents partial results of the project APVV-20-0108 Implementation of Agenda 2030 through biosphere reserves in the Slovak Republic.

Keywords

Biosphere reserves, ecotourism, sustainable development.

JEL classification:

L83, Q56, Z32

Introduction

The current global challenges and changes highlight the necessity to be smart in drawing limited resources not only in development activities but also in everyday life. Preserving the biodiversity and its uniqueness is also one of the Sustainable Development Goals in Agenda 2030, which is interconnected with other 16 aims. Agenda 2030 is an internationally recognised action plan on how to shift the world onto a sustainable and resilient path which integrates people, plants and prosperity (UN, 2022). To fulfil the aims of Agenda 2030 the preference is given to all economic, social and environmental activities which are sustainable, environmentally friendly and inclusive based on the strong partnership of actors from different sectors. Biosphere reserves belong to places

where this approach can be fully implemented. They are model territories based on the harmony of human and nature, and that is why social and economic development in this area must be properly managed and in accordance with the principles of sustainable development (Vitálišová, Vavrúšová, 2023, UNESCO 2017). In the paper, we pay attention to the development of biosphere reserve on the principles of ecotourism as a suitable way how to preserve the uniqueness of the territory but also strengthen its development function.

Ecotourism as a term appeared for the first time in 80s of 20th century reflecting the increasing interest in tourism development in natural areas. By Fennel (1999) and Bramwell, Lane (1993) it is a form of resource-based tourism oriented on the conservation and management of nature and cultural heritage enhancing the environmentally friendly activities with low impact and locally oriented, building awareness about nature and culture based on the unique experience. The development of the territory is based on cooperation and partnership with stakeholders, mainly local community, tourists, entrepreneurs, public administration bodies to look for the optimal way of maintaining and appreciation of the local resources with respect of their unique value.

Ecotourism is a suitable form of tourism for areas of natural protection. Even considering that not the whole territory of the biosphere reserve belongs to natural protection, ecotourism provides the tailored mix of activities that help to protect environment as well as maintain the well-being of the local people. The paper presents ecotourism as a part of the sustainable tourism development. The principles of sustainable development can be fully implemented in the case of biosphere reserves. It is declared by the Man and Biosphere programme, which is directly linked to the Agenda 2030 and is facilitated by the participatory governance in biosphere reserves to ensure acceptable and sustainable outcomes. (UNESCO, 2017).

By UNWTO (2002) the core of ecotourism is to provide the experience and to educate tourists in nature and cultural values. The experience is usually more authentic, original, organized individually or in small groups. The providers of services come from the territory, so they know it very well. All activities are implemented with respect to the natural and sociocultural environment. The locality benefits from the territory in a form of alternative employment, income opportunities for the local community, increasing awareness and promotion of the locality leading to better protection and maintenance of the natural and cultural heritage by responsible authorities.

The object of our research is the Poľana biosphere reserve. The aim of the paper is to identify the possibilities for the development of ecotourism in the Poľana biosphere reserve in the Slovak Republic based on the deep analysis of the territory and good practices of the foreign biosphere reserves.

The paper includes three main chapters. The first chapter defines ecotourism as a potential path of socioeconomic development in biosphere reserves based on the theoretical review. The second part characterized the methodology used. Subsequently, the paper presents the research results in a form of case study dealing with the Slovak biosphere reserve Poľana and its potential for ecotourism activities. In the last part of the paper, we formulate also some potential paths of its development in line with the principles of ecotourism.

The paper is an output of the project APVV-20-0108 Implementation of Agenda 2030 through biosphere reserves in the Slovak Republic.

1. Biosphere reserve as an object of ecotourism

The biosphere reserve is an internationally recognized territory within the framework of the UNESCO Man and the Biosphere (MAB) programme, consisting of terrestrial, marine, and coastal ecosystems and their combination. It is an area that is created primarily for the purpose of strengthening sustainable development and supporting local solutions to global challenges, through connecting and preserving biodiversity with its sustainable use and development. (UNESCO, 2022).

According to the UNESCO Technical guidelines for biosphere reserves (2021) the biosphere reserve is a tool to advance the well-being of human and nature; it is not merely a title or a synonym for nature conservation. It must be representative of their biogeographic region and of significant for biodiversity. It means that the territory has an outstanding value based on its biodiversity which is presented in the core area of biosphere

reserve. The development of biosphere reserve is based on a participatory approach, so the local community and the environment should benefit from the status of biosphere reserve.

Each biosphere reserve consists of three zones. The first zone is a core zone, protected by legislation because of unique natural values, with the preference to preserve biodiversity and monitor little disturbed ecosystems. From the ecotourism point of view, the buffer and transition zones are important. The buffer zone where research and uses compatible ecological protection are allowed. It promotes a biological link that acts as a natural corridor between the nuclear zone and the transition zone. The third is a transition zone or zone of cooperation where sustainable resource use is practised by the local entities with the aim of supporting the socio-economic development. These activities also include ecotourism initiatives (Fabriciusová, Slávik, 2010; Vitálišová, Vaňová, Rojíková, 2022). They can partially contribute to all three function of biosphere reserves – conserving biodiversity and cultural diversity; sustainable economic development and logistic support (UNESCO, 2022).

Currently, UNESCO (2022) has recognised 738 biosphere reserves in 134 countries, including 22 transboundary sites all over the world, which are united in the world network of biosphere reserves.

Based on the research of the Canadian Commission for UNESCO, MAB National Committee Canada (2002) the ecotourism can be a suitable activity in the biosphere reserve, but its practical realization has to be responsible and ecologically conscious. For ecotourism, each zone of biosphere reserve provides different possibilities of development. The core area is a source of unique experience because of the untouched fauna and flora, the other two zones take advantage of it and complete the offer of the territory by other relevant tourism services. The ecotourism activities in biosphere reserve require a high level of knowledge and preparation from both leaders and participants, that will give the ecotourists the emotional and inspirational stimulus that biosphere reserves can provide, and develop increased understanding and perspective so that they will take henceforth an active personal responsibility toward the natural environment.

From the biosphere reserve point of view, the ecotourism promotes and fosters environmentally conscious behaviour of visitors. It does not interfere negatively with the environment. The unique selling point of the ecotourism product is based on the exceptional value of nature and culture within the territory. Additional services are only a complementary part of the product. The experience as a result of ecotourism is authentic, in the real environment, biocentric, which means that it accepts the environment without possibilities of modification. It assumes that the visitors will be educated and their expectation will be associated with new knowledge or appreciation (Butler, 1990).

Ecotourism activities in the biosphere reserve minimize physical, social, behavioural and psychological impacts on the destination and its community (OECD, 2018; Swarbrooke, 1999). To the specifics of ecotourism, also belong establishing the financial flows that contribute to maintaining the natural and cultural heritage as well as the financial support for local people and local businesses in the territory, which is why it can be seen as an enterprise-based strategy for biodiversity conservation, integrated conservation, and development projects (Kiss, 2004). It strengthens economic vitality (e. g. new services, new products, and innovations), development of infrastructure, and the construction of institutions on the ecological principle and new skills of local community within the territory (International Ecotourism Society, 2022). Furthermore, one of the key principles in ecotourism is the participation of stakeholders as well as in community-based tourism (CBT) (Luccetti, Font, 2013). Participation of local stakeholders and their ecological awareness is an integrated part of sustainable ecotourism concept (Vitálišová, Borseková, Blam, 2021). Moreover, to make ecotourism activities attractive, they take advantage of the unique nature, culture, atmosphere, people, habits, and their interactions. However, they have to respect the local community, its identity, and values.

The development of ecotourism is a long-term integrated planning process with wider economic, social, and environmental policy considerations within an overall sustainable development framework (WTO, 1998; Hall, 2008; Kahle-Piasecki, 2013). Sustainable tourism development tries to find balance in activities taking into account the traditional financial, social, and environmental aspects. By Bosak, 2016; Simpson, 2008; Edgell, 2006; Diamantis, 2018, to the main actors of sustainable ecotourism development belong tourists, local

community, public administration authorities, service providers, tourist agencies, non-governmental organizations, various ecologically oriented groups, etc.

The offer of ecotourism activities in the territory as Poľana includes especially the various forms of education activities such as hiking and walking in nature with observation of fauna and flora; rural and cultural tourism activities, tours to the remains of the volcano, climbing, cycling, bird-watching rafting, kayaking, photo tourism, camping, self-improvement travel, in winter cross-country skiing, etc. (Kiper, 2013; CBI Ministry of Foreign Affairs, 2020).

2. Methodology

The aim of the paper is to identify the possibilities of ecotourism development in Poľana biosphere reserve in the Slovak Republic based on the deep analysis of the territory as well as good practices of the foreign biosphere reserves.

The main source of data are personal interviews with the manager of the Poľana biosphere reserve and local stakeholders (agricultural producers, state company Forests Slovakia, local mayors and entrepreneurs). These data are supplemented by statistical data on the tourism collected by the Slovak Statistical Office and the official information published on the websites of the Poľana biosphere reserve, municipalities belonging to the territory of the biosphere reserve and other relevant stakeholders. All information collected was used to assess the potential of the biosphere reserve territory for the development of ecotourism activities. To make data easily readable, we use the presentation in graphs and tables. Based on the results of the analysis and examples of foreign best practices, we formulate recommendations on how to strengthen the tourism development in the biosphere reserve.

3. Potential for the development of ecotourism in the Poľana biosphere reserve, in the Slovak Republic

In the Slovak Republic, there are four biosphere reserves. The object of our research – the Poľana biosphere reserve was declared as the second in the Slovak Republic. The Poľana biosphere reserve is located in central Slovakia. The Poľana Mt., recognized as a protected area in 1981 and 1990 it became also a member of the world network of the UNESCO Biosphere Reserves. The biosphere reserve is managed by the Protected Landscape Area Poľana headed by Ing. Vladimíra Fabriciusová, PhD. (director of The Protected Landscape Area Poľana). The location of Poľana in the Slovak Republic is presented in the Figure 1.

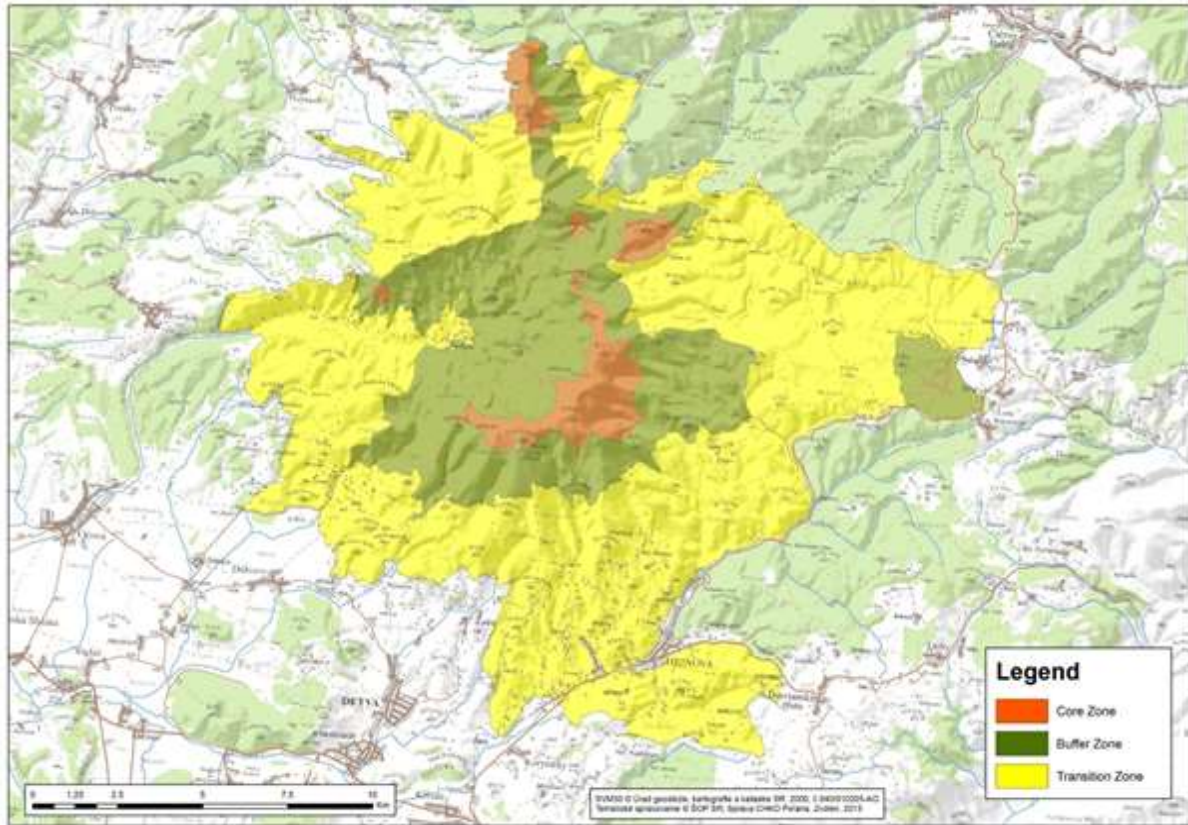
Figure 1: Location of the Poľana biosphere reserve



Source: <http://www.sodbtn.sk/obce>, cit. 3.2.2023

This large part of the biosphere reserve is created by a mountain landscape with a diverse topography, reflecting a complex geologic history of volcanic activity, faulting, and erosion. This territory with an area of 24,158.23 ha includes the core zone of 1,333 ha; the buffer zone of 7,930 ha; and the transition zone of 11,097 ha. The boundaries of the Poľana biosphere reserve reflect the natural borders of the mountain range. The territory of the Poľana biosphere reserve overlaps with four Central Slovak districts: Banská Bystrica, Zvolen, Brezno and Detva. It includes 13 cadastral territories - municipalities Detva, Dúbravy, Hriňová in Detva district; municipality Očová as part of the Zvolen district; municipalities Hrochoť, Ľubietová, Poniky, Povrazník as part of the Banská Bystrica district and Čierny Balog, Hronec, Sihla, Strelníky, Valaská in the Brezno district (Urban, 2016). The composition of the Poľana biosphere reserve by zones illustrates Figure 2.

Figure 2: Poľana biosphere reserve by zones



Source: State nature protection of the Slovak Republic.

The core zone of biosphere reserves consists of six scattered territories that are not regulated, just preserved, and aimed at research. The buffer zone is primarily focused on forest management and agriculture to preserve unique fauna and flora. In the transition zone, all economic activities are realised in line with the interests of nature protections.

This biosphere reserve has great potential for ecotourism. Poľana is one of the greatest former European volcanoes (approximately 2500 m above sea level) and it is the highest volcanic mountain range in Slovakia. The highest altitude is 1458 m above sea level; the lowest one is 460 m above sea level (Špulerová, Piscová, Matušicová, 2023). The volcanic origin and the resulting geomorphological structure caused the creation of a unique wealth of surface shapes, e.g. rock walls, lava flows, boulders, rock places, stone seas, rock towers, waterfalls. Many of them were the reason for declaring specially protected parts of nature. The main attractions of the territory represent numerous rock formations such as Veporské skalky, Melichova skala, Kalamárka, Jánošíkova skala or a 15 metres tall waterfall in the valley Bystré.

Diverse forests (from oak forest to spruce forests) cover 85 % of the biosphere reserve territory and more than 86 % of the area is in the hands of the company Forests Slovakia (Et al., 2014). Even the professional management and care of economic forests is realized, the composition of forest biotopes has changed with the preference for fast growing trees and overgrowth at the expense of meadows.

The territory is characterized by a common occurrence of both thermophilous and mountain plant species (Unesco, 2020). Typical features of the territory are many alpine meadows known as poľany, which gave the name to the mountain range Poľana. There can be found more than 1220 species of higher plants, 80 of them protected or threatened. The exceptional value of the fauna is closely connected to the unique flora. In the locality, from the Carpathian endemic species live here beetles, butterflies, reptiles, birds, as well as large predators including wolf (*Canis lupus*), Eurasian brown bear (*Ursus arctos arctos*) and lynx (*Lynx lynx*). Some

of them are strictly protected, some are endangered. The avifauna is exceptionally rich. There are 174 species of birds in the area. Taking into account the occurrence of endangered and rare bird species, the Poľana has been recognised as the Important Bird Area of Slovakia.

The landscape of the biosphere reserve is unique, exceptional, and perfect for ecotourism. There are mosaics of small-block strip plowing, alternating with meadows and pastures on former fields, spanned by borders, in places overgrown with willows, brambles, and wild cherries. The area is typical of the agricultural activities realised by the traditional way (e. g. mowing with a hand scythe, sheep grazing). From the ethnological point of view, traditional settlements were made from wood and constructed in specific composition – house, haylofts, potato cellars, farm buildings. The unrepeatable character of the landscape is formed by the wooden painted crosses and preserved folk art traditions. It is closely connected with the specific folklore, traditions and habits of local community. This is also reflected in the characteristic form of settlements called “lazy”, the scattered settlements alone or in small groups in extravillan with agricultural and animal production for their own purposes (Beňušková, 2017). At the territory of biosphere reserves there are only three settlements, one recreation centre, several farm- and forest houses.

Currently, the area of biosphere reserve is characteristic of relatively low density of inhabitants, and it belongs to the least urbanised areas in Slovakia (1.96 inhabitants/km²) (Fabriciusová, Slamová, Jančura, 2015). The average age of the local community is relatively high, most of them are retired. Due to the lack of more advanced work possibilities, people commute to cities, usually the seats of districts. Today, 3,900 inhabitants live permanently in the Transition zone. The phenomenon of the last years is the withdrawal of young people from the territory due to better job opportunities especially in the western part of Slovakia.

Another demonstration of unique culture is reflected in the local costumes “kroj”, folklore groups, and traditions. Dances and songs from the territory are performed at the festival, which has been organized since 1966. The international festival of folklore and traditional folk culture – Folklore Festival Poľana is one of the most successful events in Slovakia. At festivals, people also like to return to their national roots through costumes that express their pride and love for this region. The history and culture are also reflected in the museums located in different parts of Poľana, e. g. in Očová in a form of craft yard, Podpolianske museum in Detva, House of Arts Arteska in Detva, Forestry OpenAir Museum Vydrovo etc.

The agriculture in Poľana is represented mainly by self-employed farmers, engaged in both plant and animal production. Most agricultural land is permanent grassland used for cattle breeding by self-employed farmers as well as agricultural cooperatives. However, the traditional agricultural practices disappeared due to inhabitants' withdrawal (Action plan of biosphere reserve Poľana, 2014; Fabriciusová, Slamová, Jančura, 2015). Because of this trend, the share of grass land in the territory has decreased twice during the last 50 years which is reflected also in increasing number of endangered spaces in fauna and flora (Gallayová, 2008).

Poľana as a “hiking destination” is promoted by various thematically oriented web portals that specify the suitable routes. Many educational trails and locations are also suitable for ecotourism (chkopolana.sopsr.sk). The educational trail Kyslinky – Poľana – Kyslinky is 11 km long and passes through protected areas such as the National Nature Reserve Zádná Poľana, Nature Reserve pod Dudáš and National Natural Monument Vodopád Bystré. There is a 1 km long route in the Kalamárka Nature Reserve Educational Site. The Boky educational trail (Zvolen district) is 5.1 km long. The Mičinské travertine educational site (Banská Bystrica district) is surrounded by travertine mounds. The educational trail through the Slatina valley (Zvolen district) is 6.5 km long. The Pustý hrad educational trail (Zvolen district) is 6.4 km long. Educational trail of The Forestry open-air museum in Vydrov (Brezno district) is 3.3 km long. Near the open-air museum is the National Nature Reserve Dobročský prales. Educational location Kráľická tiesňava – Kráľický waterfall (Banská Bystrica district) it is situated in the Natural Monument Kráľická tiesňava. The educational trail to the Harmanecka cave (Banská Bystrica district) is 1.3 km long, it passes through the Harmanecka cave National Natural Monument. The educational trail to the National Nature Reserve Dobročský prales passes through the protective zone of the protected area. Many of them are suitable also as bike routes. There are a few places that are very popular for rock climbing (e. g. Kalamárka).

For hunters, there are some hunting grounds for red deer and large beasts and for fans of fishing, the local springs are very popular for types of salmon-trout fishes, which are characteristic of high level of water purity.

The challenges of the further development in the territory require new ways of further preservation of the unique values of the territory as well as its sustainability. One of the possible solutions could be the development of ecotourism initiatives. The development of ecotourism could contribute to solving the problems with the weak and unattractive job offers; agricultural land management, raising awareness of the territory, reducing unemployment through newly created places in new services offered to visitors, improving the skills of local people within the offered services, or increasing their standard of living.

As first steps, it is necessary to construct or reconstruct the tourism infrastructure. Because the borders of the biosphere reserve are natural and statistical data are available only for administrative units, we combine the data collected from municipalities and districts. But the data of the districts map the situation only partially, because the biosphere reserve does not cover them all.

The accessibility of the territory, mainly the cities, is relatively good by car, bus or train. The problem is the frequency of connections to the villages as well as to the starting points for tourists which should be fostered or realised during season by the shuttle bus.

Even the biosphere reserve offers a very varied offer within ecotourism based on the unique features of the territory, for tourists it is important to have the necessary services, e. g. accommodation, food options, and availability of information as well as access to and across the territory. The statistical data presented in Table 1 and 2 show the number of accommodation facilities in the municipalities and districts that are included at least partially in the biosphere reserves. The official number of accommodation facilities in municipalities belonging to the biosphere reserve is relatively low, but it is possible to identify many of private owners of apartments and cottages that offer them for renting without official registration.

Table 1: Number of accommodation facilities in municipalities in the Poľana biosphere reserve

District	Municipality	2018	2019	2020	2021
Banská Bystrica	Hrochoť	0	0	0	0
Banská Bystrica	Ľubietová	3	3	3	3
Banská Bystrica	Poniky	0	0	0	0
Detva	Detva	7	7	9	7
Detva	Hriňová	4	6	6	5
Brezno	Čierny Balog	6	8	7	9
Total		20	24	25	24

Source: Slovak Statistical Office, 2023.

The number of accommodation facilities in the districts that belong partially to the biosphere reserve is around 300 containing cca 12 000 beds.

Table 2: Accommodation facilities and their average price in the districts which partially cover the Poľana biosphere reserve

Year	2018	2019	2020	2021	2022 (to 31. 9.)
Number of accommodation facilities					
District of Banská Bystrica	122	144	130	134	150
District of Brezno	93	97	93	107	111
District of Detva	27	28	26	28	29
District of Zvolen	54	51	47	46	43
Total:	296	320	296	315	333

Total number of available bed places (including camping grounds)					
District of Banská Bystrica	4 178	4 980	4 487	4 241	7 409
District of Brezno	3 875	4 166	3 898	4 298	4 004
District of Detva	1 128	1 162	888	866	872
District of Zvolen	2 936	2 831	2 953	2 883	2 587
Total:	12 117	13 139	12 226	12 288	14 872
Average price for accommodation services (EUR)					
District of Banská Bystrica	24,2	25,5	26,30	21,5	28,2
District of Brezno	34	31,5		41,1	32
District of Detva	22,9	29,3		34,20	35,60
District of Zvolen	24,1	24,5		23,2	29,1
Average price in total:	26,30	27,70	26,30	30,00	31,23

Source: Slovak Statistical Office, 2023.

As we can see in Table 2, the lowest number of accommodation facilities is in the Detva district, the largest part of which belong to the biosphere reserve, but the average price is the highest. The orientation should be paid to look for alternative way of accommodations which are not so costly, is possible to establish also in the nature and are more in line with ecotourism principles, e. g. building camping places with the basic infrastructures or renting rural houses or rooms by residents.

The territory of Poľana is very famous for many local handmade crafts products as well as food products from milk, pork and beef meat, honey and bakery products. Local producers are marked with the regional mark Podpoľanie which is a guarantee of original production and quality. By this label, also a few restaurants are awarded in Detva and Kriváň.

Visitors can find information about the territory in a few info centers – directly in the territory of biosphere reserve in Hriňová, others in the district cities (Zvolen, Detva, Banská Bystrica, Brezno). In smaller municipalities, the tasks of info centres are usually realised by the municipal authority, that is why also their accessibility is during working hours from 8 a.m. to 4 p. m. The possibilities of ecotourism as well as their promotion are mainly supported by the employees of the Protected Landscape Area Poľana through many events for the public and educational events for children and young people. There is no specific portal geared towards the promotion of Poľana as a “tourism destination” and the recognition of the title “biosphere reserve” is relatively low by residents as well as by tourists. Representatives from the Protected Landscape Area Poľana are very important coordinators of cooperation among local stakeholders. They implement the participative management approach in the development of biosphere reserve based on regular meetings and projects with representatives of local municipalities, entrepreneurs, NGOs and citizens.

To sum up the potential for the development of ecotourism in the Poľana biosphere reserve, the weaknesses and strengths are the following:

Strengths	Weaknesses
fauna and flora of the territory culture, cultural identity, architecture, typical settlements educational trails local craft products local food products partnership within the territory, strong support of the employees of the Protected Landscape Area Poľana partnership within the local stakeholders localities for hunting and fishing	weak promotion of the territory weak awareness about the territory accessibility within the territory less eco-friendly accommodation premises forest management oriented on the profit lack of farmers using traditional way of land management withdrawal of young people from the territory and alienation of the population

Conclusion

The paper presents the Poľana biosphere reserve characterised by unique features of fauna and flora as a suitable object for ecotourism activities. Based on statistical data and conducted interviews with local stakeholders, we identified the weaknesses of the territory that could be solved by the development of ecotourism. The territory of Poľana fights with a few challenges such as withdrawal of young people, alienation of the population, loss of interest in traditional farming, etc. That is why the development of activities which are friendly to the unique nature, but also create the opportunities for locals to find new job, increase their revenues and their living standards, should be very welcomed. On the other hand, the ecotourism strategy can be implemented in the territory only with the acceptance of the local people, who value the protected area. Therefore, the participative governance of biosphere reserves is a key precondition for effective planning and development of biosphere reserves (Reed, Price, 2020). It is confirmed also by case studies from abroad, e. g. in Monviso Transboundary Biosphere Reserve in Italy (Mondino, Beery, 2019).

Even the territory has great potential, if it is not adequately promoted, no visitors come there to spend their holidays. The employees of the Protected Landscape Area Poľana perform promotional activities more or less as voluntary ones, which is reflected in the scope of activities. The educational promotion activities are also in the hands of the Protected Landscape Area Poľana in a form of workshops, conferences, special lessons for children at very high professional level. The promotion of the biosphere reserve as “ecotourism destination” should be done more systematically in cooperation and partnership with other local stakeholders, municipalities and Central Slovakia destination management organization. The inspiration in improving the awareness and information delivering can be a network of info points in the Julian Alps biosphere reserve. The premises of the centres are used for various educational activities, workshops, local community activities. They include also a souvenir and gift shop with local products. During the summer, tourists can buy here a Bohinj Card that includes free transport by bus (regular services throughout Bohinj throughout the card validity and organized services in high season in hop-on and hop-off buses, free taxi, train; parking; boat ride on Lake Bohinj) as well as free entrance tickets to various cultural attractions as churches, museums and other discounts. All discounts are provided with the aim of eliminating the carbon footprint and supporting public transport modes; to promote local producers and local cultural heritage.

The development of ecotourism should support local producers, especially in crafts and food products. The situation in agriculture in Poľana is complicated. There is a lot of agricultural land, but there are not enough skilled workers or regular sales. The solution can be cooperation between local farmers, restaurants and schools. An inspiring example comes from France, from the Luberon Lure Biosphere Reserve in a project 'From the Farm to Your Canteen'. The project is geared towards the support of local producers and the consumption of local products within the territory of biosphere reserve, as well as the support of healthy lifestyle. From 2009, in local school cafeterias in 30 municipalities in biosphere reserve, the meals are prepared from local resources (meat, vegetables, fruits, etc.)

Moreover, close to the territory of Poľana, there are at least 2 high schools that deliver the study programmes in agriculture (Banská Bystrica, Rimavská Sobota) and based on the principles of dual education the students could be trained by self-employed farmers and agricultural cooperatives (Unesco, 2023).

Another opportunity for the residents is to offer accommodation for the tourists. With ecotourism alternative forms of accommodation are associated as camping places with tents or caravans. The territory of Poľana is specific by scattered settlements consisting of a few distant buildings. Due to the decline in agricultural production, many of them are no longer used. They could be reconstructed to the plain accommodation premises with some unique features or experience, such as sleeping on hay or sleeping “off” without electricity and mobile connections etc. Similar tourism infrastructure is developed in Altai, in Russia in a form of camp consisting of small cottages with common toilets and bathrooms for hiking tourists. In combination with local food products, it can bring the unique and original experience for potential visitors.

The research results revealed the great potential for the development of ecotourism in the Poľana biosphere reserve. The territory can offer a lot of unique subproducts and experience, but the priority is the

support of the development by the residents, stakeholders, municipalities, which co-create the product of the territory.

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References

- Beňušková, Z. (2017). Poľana Biosphere Reserve and its expansion in 2016. *Studia Etnologiczne i Antropologiczne*, 17, 58-69. ISSN 1506-5790
- Bosak, K. (2016). Tourism, Development, and Sustainability. In: McCool, S. F., & Bosak, K. (2016). Reframing Sustainable Tourism. *Environmental Challenges and Solutions*, 2. Springer: Dordrecht.
- Bramwell, B., & Lane, B. (1993). Sustainable tourism: An evolving global approach. *Journal of sustainable tourism*, 1(1), 1-5.
- Bridgewater, P. B. (2002). Biosphere reserves: Special places for people and nature. *Environmental Science & Policy*, 5(1), 9-12. Doi: [https://doi.org/10.1016/S1462-9011\(02\)00018-7](https://doi.org/10.1016/S1462-9011(02)00018-7)
- Butler, J. (1990). *A Protected Areas Vision for Canada*. Ottawa: Canadian Environmental Advisory Council.
- Canadian Commission for UNESCO, & MAB National Committee Canada (2002). *Ecotourism and sustainable development in biosphere reserves: experiences and prospects; workshop summary report*. Quebec City, Canada, May 24-25, 2002: Programme and meeting document. URL: <https://unesdoc.unesco.org/ark:/48223/pf0000127757>
- CBI Ministry of Foreign Affairs (2020). *The European market potential for nature and ecotourism*. URL: <https://www.cbi.eu/market-information/tourism/nature-tourism/nature-eco-tourism/market-potential>
- Das, M., & Chatterjee, B. (2015). Ecotourism: A panacea or a predicament? *Tourism Management Perspectives*, 14, 3-16. Doi: <https://doi.org/10.1016/j.tmp.2015.01.002>
- Diamantis, D. (2018). Stakeholder ecotourism management: exchanges, coordination's and adaptations. *Journal of Ecotourism*, 17(3), 203-205. Doi: <https://doi.org/10.1080/14724049.2018.1502122>
- Edgell, P. (2006). Religion and Family in a Changing Society. *Princeton Studies in Cultural Sociology*. Princeton University Press.
- Et. al. (2014). *Action Plan of the Poľana Biosphere Reserve*. URL: https://chkopolana.sopsr.sk/wp-content/uploads/2020/05/AkcnyPlan_BRPolana_2014.pdf
- Fabriciusová, V., & Slávik, D. (2010). 20 years of the UNESCO Man and Biosphere Programme in the Poľana Protected Landscape Area. *Proceedings, Biosphere Reserves in Slovakia*, 8, 11-14. Zvolen: Publishing house of the Technical University of Zvolen.
- Fabriciusová, V., Slamová, M., & Jančura, P. (2015). Protection of Landscape Values in an Innovative Management Approach of the Polana Biosphere Reserve. *UNISCAPE En-Route*, 1(1), 27-32. ISSN 2281-3195
- Fennell, D. A. (1999). *Ecotourism: An Introduction*. London: Routledge Publication.
- Fennell, D. (2008). *Ecotourism, Third edition*. London and New York: Routledge.
- Gallayová, Z. (2008). *Landscape-ecological analysis and use of permanent grasslands in the Protected Landscape Area - BR Poľana*. Zvolen: Technical University in Zvolen, FEE KAE.
- Hall, C. M. (2008). *Tourism planning: Policies, processes and relationships*. England: Pearson Education.
- International Ecotourism Society (2022). *What is ecotourism?*. URL: <https://ecotourism.org/what-is-ecotourism/>
- Kahle-Piasecki, L. (2013). Business in Costa Rica: Trends and Issues. *Journal of Applied Business and Economics*, 15(2), 39. URL: http://www.na-businesspress.com/JABE/Kahle-PiaseckiL_Web15_2_.pdf

- Kiper, T. (2013). Role of Ecotourism in Sustainable Development. *Journal of Geoscience and Environment Protection*, 10(4). Doi: <https://doi.org/10.5772/55749>
- Kiss, A. (2004). Is community-based ecotourism a good use of biodiversity conservation funds? *Trends in Ecology and Evolution*, 19(5), 232-237. Doi: <https://doi.org/10.1016/j.tree.2004.03.010>
- Lepeška, T. (2012). Biosphere reserves as models of integrated watershed management. *Conference paper, Biosphere reserves in Slovakia IX*. Stakčín.
- Lucchetti, V. G., & Font, X. (2013). Community based tourism: Critical success factors. *ICRT occasional paper*, 27, 1-20.
- Mondino, E., & Beery, T. (2019). Ecotourism as a learning tool for sustainable development. The case of Monviso Transboundary Biosphere Reserve, Italy. *Journal of Ecotourism*, 18(2), 107-121. Doi: <https://doi.org/10.1080/14724049.2018.1462371>
- OECD (2018). *OECD Tourism Trends and Policies*. Paris: OECD Publishing. Doi: <https://doi.org/10.1787/tour-2018-en>
- Reed, M. G., & Price, M. F. (2020). *UNESCO Biosphere Reserves Supporting Biocultural Diversity, Sustainability and Society*. London and New York: Routledge.
- Simpson, M. C. (2008). Community Benefit Tourism Initiatives-A conceptual oxymoron?. *Tourism management*, 29(1), 1-18. Doi: <https://doi.org/10.1016/j.tourman.2007.06.005>
- Špulerová, J., Piscová, V. & Matušicová, R. (2023) The Contribution of Scientists to the Research in Biosphere Reserves in Slovakia. *Land*, 12 (3), 537, doi. <https://doi.org/10.3390/land12030537>
- Vitálišová, K., Borseková, K., & Blam, I. (2021). Sustainable Tourism as a Driving Force in Regional Development of Remote Regions in Siberia: An Integrated Operational Framework. *Quaestiones Geographicae*, 40(2), 93-108. Doi: <https://doi.org/10.2478/quageo-2021-0016>
- Swarbrooke, J. (1999). *Sustainable tourism management*. UK: CAB International. Doi: <https://doi.org/10.1079/9780851993140.0000>
- UN (2022). *Transforming our world: the 2030 Agenda for Sustainable Development*. URL: <https://sdgs.un.org/2030agenda>
- UNESCO (2020). *Polana Biosphere Reserve, Slovakia*. URL: <https://en.unesco.org/biosphere/eu-na/polana>
- UNESCO (2021). *Technical guidelines for biosphere reserves of UNESCO*. URL: https://en.unesco.org/sites/default/files/tgbr_en.pdf
- UNESCO (2021). *Biosphere reserves*. URL: <https://en.unesco.org/biosphere/about>
- UNESCO (2023). *Man and the Biosphere (MAB) Programme, Good practices*. URL: <https://en.unesco.org/mab/strategy/goodpractices>
- UNWTO (2002). *Ecotourism and Protected areas*. Spain: The World Tourism Organization. URL: <https://www.unwto.org/sustainable-development/ecotourism-and-protected-areas>
- Urban, P. (2016). History Nature Protection in Poľana MTS. (Central Slovakia) – 2. part (from 1990 until present). *Quaestiones rerum naturalium*, 3(1), 42-123.
- Vitálišová, K., Miňová, L., & Vaňová, A. (2021). Current problematic issues of biosphere reserves in Slovak Republic. *Journal of Economics and Social Research*, 22(2), 51-66. Doi: <https://doi.org/10.24040/eas.2021.22.2.51-66>
- Vitálišová, K., Vaňová, A., & Rojčiková, D. (2022). *Marketing as a management tool of biosphere reserves to achieve goals of Agenda 2030*. In: Casais, B., & Soares, A. M. (eds). *Uniting Marketing Efforts for the Common Good: a challenge for four sectors*. Springer (in print).

Vitálišová, K., & Vavrůšová, M. (2023). Ecotourism and promotion as a key to development of biosphere reserves. *Responsibility and Sustainability, Socioeconomic, political and legal issues*, 8(1), 32-41. Doi: <https://doi.org/10.5281/zenodo.7544102>

World Trade Organization (1998). *Guide for Local Authorities on Developing Sustainable Tourism*. URL: <http://www.world-tourism.org>.